Testimony of

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U.S. Department of Commerce

before a hearing of the

Committee on Appropriations
Subcommittee on Commerce, Justice, Science, and Related Agencies
U.S. Senate

The Department of Commerce's Fiscal Year 2015 Budget Request

April 10, 2014

Chairwoman Mikulski, Ranking Member Shelby, and Members of the Subcommittee:

I appreciate the opportunity to provide testimony today as you consider upcoming appropriations for the Department of Commerce. The President's fiscal year (FY) 2015 budget requests $12.2 billion for the Department, including $3.4 billion for U.S. Patent and Trademark Office (USPTO) user-fee financing. The Department plays a pivotal role in implementing the President's initiatives for economic recovery and job creation—and, like other federal agencies, faces significant challenges in the upcoming year.

We addressed these areas in our recent *Top Management Challenges* (*TMC*) report,[1] which we prepare annually as required by the Reports Consolidation Act of 2000.[2] Our *TMC* reports in depth what we consider, from our oversight perspective, to be the most significant management and performance challenges facing the Department:

Challenge 1. Strengthen Commerce infrastructure to support the nation's economic growth

Challenge 2. Strengthen oversight of National Oceanic and Atmospheric Administration (NOAA) programs to mitigate potential satellite coverage gaps, address control weaknesses in accounting for satellites, and enhance fisheries management

Challenge 3. Continue enhancing cybersecurity and management of information technology investments

Challenge 4. Exercise strong project management controls over 2020 Census planning to contain costs

Challenge 5. Continue to foster a culture of management accountability to ensure responsible spending

Today I will summarize several challenges facing the Department, based on recent and ongoing audits, evaluations, and investigations. Recently, the Secretary and Departmental leadership published a strategic plan for fiscal years (FYs) 2014–2018. We consider the plan a significant achievement in establishing a framework for the diverse missions of the Department and its organizational units. The plan established 5 strategic goals: **trade and investment**, **innovation**, **data**, **environment**, and **operational excellence**. Much of our work addresses the goal of "operational excellence," which will be the focus of our testimony.

Addressing Issues with National Oceanic and Atmospheric Administration (NOAA) Weather Satellite Programs

The Department must actively manage risks associated with the acquisition and development of the next generation of NOAA environmental satellites, as they are its largest investments at more than 20 percent of its $8.8 billion budget request. The Joint Polar Satellite System (JPSS) program's challenge is to keep JPSS-1 development on track to meet its second quarter

[1] U.S. Department of Commerce Office of Inspector General, November 25, 2013. *Top Management Challenges Facing the Department of Commerce*, OIG-14-002. Washington, DC: DOC OIG.

[2] 31 U.S.C. § 3516(d).

FY 2017 launch schedule—while taking steps to mitigate a potential data gap in the afternoon polar orbit, as well as implementing NOAA's Independent Review Team recommendations to make the constellation more robust. The Department must also ensure that the Geostationary Operational Environmental Satellite-R Series (GOES-R) program continues to meet requirements within its long-standing cost and schedule baselines for a launch readiness date of October 2015 for the first satellite.

Of note, NOAA has improved its communication with stakeholders, as well as the efficacy of satellite program leadership and staffing, and developed a comprehensive polar satellite data gap mitigation plan.

Mitigating Potential JPSS Coverage Gaps

In its FY 2015 budget submission, NOAA requested $916.3 million for its JPSS program, reporting that the $95 million increase from the prior year would not change the program's life-cycle cost of $11.3 billion through FY 2025. The first JPSS-developed satellite (JPSS-1) is scheduled for launch no later than the second quarter of FY 2017.

The JPSS program must successfully execute to cost, schedule, and performance baselines established August 1, 2013. The program must also ensure that flight and ground schedules are fully integrated for the JPSS-1 mission. NOAA leadership must also ensure the program is able to effectively manage ongoing development while responding to concerns about the robustness of program development activities (e.g., the need for spare parts for JPSS-1 and -2 instruments and spacecraft) and the need for further gap mitigation.

NOAA has begun to mitigate potential degradation to weather forecasting capabilities during polar-orbit data coverage gaps through the use of supplemental funding it received as part of the Disaster Relief Appropriations Act, 2013. NOAA should ensure that its gap mitigation plan is executed before the November 2016 design-life end of Suomi National Polar-orbiting Partnership (NPP), a risk-reduction satellite launched in October 2011.

Consistent with our September 2012 JPSS audit report,[3] we continue to project a potential 10–16-month gap between Suomi NPP's end of design life and when JPSS-1 satellite data become available for operational use. NOAA's medium-range weather forecasting (3–7 days) could be degraded during the period of time JPSS data are unavailable, but NOAA must do more research using past and current weather events to determine the extent to which forecasts may be affected.

In March 2014, we learned that the JPSS program had revised its projections for a coverage gap between Suomi NPP and JPSS-1. During 2013, the program analyzed the expected reliability of Suomi NPP and concluded that the potential gap had narrowed to 3 months or less. It also determined that, should Suomi NPP have an early failure, data or imagery loss would be partially mitigated by data provided by legacy satellites. Regardless of NOAA's revised gap projection, in the long term those legacy satellites can no longer be expected to function,

[3] DOC OIG, September 27, 2012. *Audit of the Joint Polar Satellite System: Continuing Progress in Establishing Capabilities, Schedules, and Costs Is Needed*, OIG-12-038-A. Washington, DC: DOC OIG.

leaving the JPSS constellation as the sole provider of key data from the afternoon polar orbit. This reinforces the need to make the constellation more robust, as recommended by NOAA's independent review team.

Managing GOES-R Program Issues with Launch Readiness and System Development

With four satellites (the -R, -S, -T, and -U series), the GOES-R program is estimated to cost $10.8 billion over the course of its life cycle. GOES-R, with scope and importance comparable to JPSS, has experienced development and budgetary challenges that could delay the launch readiness date of its first satellite from the first to the second quarter of FY 2016.

The GOES-R program must continue to manage its ground system, instrument, and spacecraft development to meet requirements within its long-standing cost and schedule baselines—and successfully complete the integration and test phase. In addition, the program must effectively manage activities between flight and ground projects in a compressed development schedule environment.

In our 2013 GOES-R audit report,[4] we found that schedule slips and a potential reduction in testing activities have raised concerns about the satellite's readiness to launch. Funding stability in FY 2014 and beyond is the program's top risk; an appropriation amount below the FY 2015 requested level may delay launch. For these reasons, one of our recommendations was that NOAA implement a comprehensive plan to mitigate the risk of potential launch delays and communicate to users (e.g., in the National Weather Service and Department of Defense) and other stakeholders (e.g., the Administration, Congress) the changes that may be necessary to maintain GOES-R's launch readiness date of 2015.

In a March 2014 memorandum[5] to the NOAA Administrator, we shared our initial audit observations on the GOES-R core ground system development and made critical observations about the performance of NOAA and its contractor. We observed (1) poor planning assumptions, (2) inability to execute the first re-plan, and (3) inadequate transparency about progress. Further, we found that NOAA oversight and GOES-R program management did not sufficiently address problems with the first re-plan that could now lead to increased costs—and NOAA may have to launch a satellite without all of the core ground system capabilities implemented. Based on previous performance we believe that, without leadership's attention, the core ground system may not meet minimum requirements for launch in October 2015. As a result, we believe that the Under Secretary of Commerce for Oceans and Atmosphere and NOAA Administrator should establish periodic discussions with both Departmental and contractor leadership to ensure the core ground system will meet the October 2015 launch readiness date.

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[4] DOC OIG, April 25, 2013. *Audit of Geostationary Operational Environmental Satellite-R Series: Comprehensive Mitigation Approaches, Strong Systems Engineering, and Cost Controls Are Needed to Reduce Risks of Coverage Gaps*, OIG-13-024-A. Washington, DC: DOC OIG.

[5] DOC OIG, March 6, 2014. *Interim Memo re: Audit of NOAA's Geostationary Operational Environmental Satellite-R Series Core Ground System*, OIG-14-014-M. Washington, DC: DOC OIG.

Ongoing OIG Investigation

In mid-2013, OIG received an anonymous whistleblower tip about a team-building exercise conducted by the GOES-R ground segment project staff that was improperly billed to the government. In our subsequent investigation, we found that 21 government employees and consultants employed by private companies were invited to attend a group lunch at a local restaurant, followed by a daytime showing of *Star Trek: Into Darkness.* Twenty individuals working on the GOES-R ground project attended the lunch and 18 attended the movie; the vast majority of participants mischarged the government for participating in these activities. As a result of our investigation, those participants worked with NOAA to amend their records to claim personal leave for time spent at the lunch and movie. As a result of our investigative activities, approximately $3,500 that was mischarged to the government was returned. OIG suggested that clear written guidance on proper timekeeping be communicated to agency and contractor staff in advance of any similar work group outings. Commendably, one consultant made a self-disclosure that more time was spent at the offsite event than determined by the program office; OIG is currently looking into whether the amount returned is adequate.

For further details, see Appendix A, "Addressing Issues with NOAA Weather Satellite Programs."

Managing the Census Bureau's 2020 Decennial Planning and Other Census Bureau Issues

The 2020 decennial census, though years away, is a massive undertaking that requires extensive planning and testing. For 2020, the Census Bureau plans to design and conduct a high-quality decennial operation that will cost less per household on an inflation-adjusted basis than the 2010 Census. Research and testing for the 2020 Census must be completed early in the decade, to design a census that will meet Congressionally-mandated deadlines and to succeed at the task of counting millions of people and housing units. Recent and ongoing OIG reports on the Census Bureau meeting these challenges concern decennial planning, design decisions, and integration of schedule and budget.

2020 Census Planning

During our December 2013 evaluation[6] of 2020 Census planning efforts to design a 2020 decennial census that costs less per household than the 2010 Census, we noted significant schedule slippage in the Census Bureau's key research and testing programs. If continued, missed deadlines will translate into an untenable continuation of an already expensive design. According to the Bureau, the cost (in constant dollars) of counting each housing unit in 2010 was $94—and could reach and estimated $148 if the same design is repeated for 2020. Using the same 2010 design, and assuming no changes in the number of housing units over the next 10 years, the 2020 Census would cost more than $19 billion.

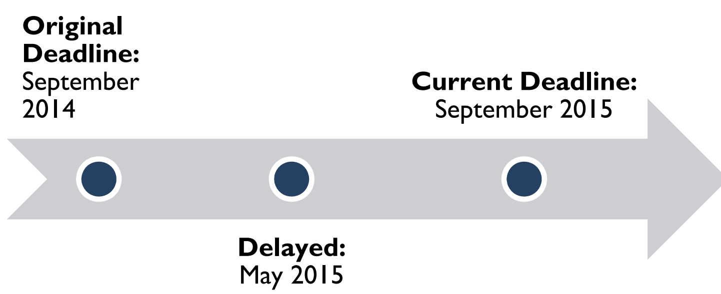
[6] DOC OIG, December 3, 2013. *2020 Census Planning: Research Delays and Program Management Challenges Threaten Design Innovation*, OIG-13-003-A. Washington, DC: DOC OIG.

2020 Census Design

To reduce 2020 Census costs, the Bureau is conducting research that focuses on several design features, such as offering the Internet as a response option, conducting a targeted address canvassing operation, and using administrative records to follow up on cases of nonresponse.

An ongoing challenge we have identified is the lack of an established schedule. The Census Bureau revises baselines (i.e., re-baselines), which can mask delays and give the appearance that schedules are met. For example, major decision points for the 2020 Census have been re-baselined several times, with original deadlines pushed back from September 2014 to September 2015 (see figure 1).

Figure 1. Shifting Deadlines: The 2020 Census Design Decision



Source: OIG analysis of Census Bureau documents

2020 Census Integrated Schedule and Budget

Last decade, OIG recommended that the Census Bureau integrate cost and schedule activities to enable managers to better track the status of available funds, as well as forecast impending underruns and overruns, so that funds can be reallocated promptly. In response, the Bureau planned to incorporate earned value management, a process that combines measures of a project's schedule and cost to forecast performance problems. As of March 2014, the Bureau had not incorporated earned value management into its activity schedules, limiting its ability to make decisions based on objective data.

To effectively manage a program of the size, complexity, and cost of the 2020 Census—and assess the return on investment of research efforts—managers require accurate accounting records. However, we recently found that many Census Bureau staff stated that they are charging their time to projects based on budgeted hours rather than actual hours worked. Inadequate accounting of employees' actual work, as well as inaccurate project costs, hinder the Bureau's ability to assess the return on investment of research efforts. Additionally, these issues affect the Bureau's ability to make informed decisions about how to accomplish budget reductions.

Ongoing OIG Investigation

OIG is currently reviewing allegations of survey data falsification within the Census Bureau's Philadelphia Regional Office. OIG received allegations of data falsification in 2010 related to activities in this region, which were investigated and subsequently returned to the Census Bureau in 2011 for appropriate action.

In late 2013, a whistleblower contacted OIG and provided a related but new complaint, which was also covered in various media outlets. The most recent information we received also contained new allegations that the Philadelphia Regional Office, through the systemic falsification of survey data, attempted to manipulate the unemployment report in advance of the 2012 Presidential election. As a result, we opened a new investigation, which reviewed the allegations from 2010 and also significantly expanded the scope to include new information. We plan to release our public report in 2014.

For further details, see Appendix B, "Managing the Census Bureau's 2020 Decennial Planning and Other Census Bureau Issues."

Enhancing Departmental Cybersecurity

To deal successfully with cyber threats, the Department needs to establish a robust incident response capability, specifically within the Department of Commerce Computer Incident Response Team (DOC CIRT). In addition, the Department must deploy a sustainable implementation of its three enterprise-wide cybersecurity initiatives that are underway to continuously monitor its IT systems, provide cyber security situational awareness, and meet requirements to optimize and standardize its individual external network connections.

While the Department is making progress in these areas, the challenge the Department faces—largely because of its highly fragmented operating environment—is to ensure productive collaboration among all bureaus to effectively improve the Department's cybersecurity posture.

Enhancing the Department's Cyber Incident Detection and Response

The Department needs to establish a robust cyber incident response capability, specifically within DOC CIRT. Furthermore—because DOC CIRT primarily provides incident response services only to bureaus located at the Department's Herbert C. Hoover Building headquarters—ensuring productive collaboration among all bureaus is critical for the Department to effectively respond to a cyber event.

OIG recently conducted an audit of the incident detection and response capabilities of several bureaus within the Department. Our audit complemented work already done by the Department and identified further improvements needed in its incident detection and response practices. Specifically, we tested Department public-facing Web sites by simulating a cyber event consisting of prolonged suspicious network traffic that mimics real-world hacking techniques and cyber attacks. We found that bureaus' actions in response to our suspicious network activities may not stop cyber attacks in a timely manner—and are recommending that the

Department ensure that bureaus follow NIST guidance to take timely action in response to a potential cyber attack.

Implementing Enterprise Cybersecurity Initiatives

We noted, in our FY 2014 *TMC* report, that the Department has three enterprise cybersecurity initiatives underway to address mandates from the Office of Management and Budget (OMB). The Enterprise Cybersecurity Monitoring and Operations (ECMO) and Enterprise Security Oversight Center (ESOC) initiatives support OMB's mandate[7] to continuously monitor security-related information from across the enterprise. The Trusted Internet Connections (TIC) initiative supports the mandate[8] that federal agencies optimize and standardize their individual external network connections, including connections to the Internet. Collectively, these undertakings should significantly improve the Department's cybersecurity posture.

Timely implementation of these initiatives is crucial to the Department's cybersecurity program, particularly in light of the ever-increasing cyber threats facing government systems. The ECMO and ESOC initiatives are critical to maintaining cybersecurity best practices to protect network components, implementing continuous monitoring, and providing timely cyber situational awareness across the Department. Thus, the Department needs to ensure that current efforts for these initiatives move forward as planned and that operating units cooperate and participate to the fullest extent. The Department projects spending, from the FY 2015 working capital fund, $4.2 million for each of the ECMO and ESOC initiatives (for a total of $8.4 million).

Our recent audit of the Department's incident detection and response practices included four bureaus that have complied with the TIC initiative through a Managed Trusted Internet Protocol Services (MTIPS) provider. We found that these bureaus are not realizing the full benefits of incident detection and response capabilities provided by MTIPS. The bureaus are not working with the MTIPS provider to more effectively use MTIPS services to supplement their security operations center capabilities to fill gaps in monitoring coverage during nonbusiness hours. Furthermore, only one bureau is exploring opportunities to leverage MTIPS security services to reduce or eliminate services that are currently handled by the bureau.

Ongoing OIG Work

As part of our annual Federal Information Security Management Act audit work, we are assessing the effectiveness of NOAA's IT security program by determining whether key security measures adequately protect its mission capabilities supported by the National Environmental Satellite, Data, and Information Service (NESDIS) and the National Weather Service (NWS). The assessments focus on NESDIS' Polar-orbiting Operational Environmental Satellites (POES), Geostationary Operational Environmental Satellites (GOES), Joint Polar Satellites System (JPSS),

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[7] Executive Office of the President Office of Management and Budget, April 21, 2010. *FY 2010 Reporting Instructions for the Federal Information Security Management Act and Agency Privacy Management*, Memorandum M-10-15. Washington, DC: OMB, 1.

[8] OMB, November 20, 2007. *Implementation of Trusted Internet Connections (TIC)*, Memorandum M-08-05. Washington, DC: OMB, page 1. Also, *see* OMB, September 17, 2009. *Update on the Trusted Internet Connections Initiative*, Memorandum M-09-32. Washington, DC: OMB, 1.

Environmental Satellite Processing Center (ESPC), Search and Rescue Satellite Aided Tracking (SARSAT), and NWS' Aviation Weather Center (AWC), Space Weather Prediction Center (SWPC), Storm Prediction Center (SPC), National Hurricane Center (NHC), and National Centers for Environmental Prediction (NCEP) Central Operations. We are currently making recommendations to address weaknesses we found during our assessments.

For further details, see Appendix C, "Enhancing Departmental Cybersecurity."

Reducing USPTO Backlogs

Reducing Patent Backlogs

USPTO, as the authority for reviewing and adjudicating all patent and trademark applications, must continue to focus on issues with the time applicants wait before their patent applications or appeals are reviewed. Its longstanding challenge has been to reduce backlogs of new patent applications, Patent Trial and Appeal Board (PTAB) ex parte appeals, and requests for continued examination (RCEs). As it works to reduce its patent backlog and pendency—while meeting the requirements of the 2011 American Invents Act (AIA)—USPTO must ensure that the quality of its patent examination process is not adversely affected and to avoid requiring applicants and the public to file unnecessary and costly challenges to examiners' decisions.

Since we issued the FY 2014 *TMC* report in November 2013, the new application backlog has increased to 604,700 (as of February 2014). The patent appeals backlog—which we reported on in our 2012 audit[9]—has begun to slowly decrease and, as of November 2013, stands at approximately 25,000, still almost twice the size of the backlog in October 2010.

However, USPTO's backlog for requests for continued examination (RCE) has experienced the most variability, growing from 17,800 applications in October 2009 to approximately 78,000 in September 2013, an increase of more than 340 percent. As a consequence, during the same period, the average waiting time between filing an RCE and receiving an initial decision has grown from 2.1 to 7.8 months. From the beginning of the fiscal year until February 2014, the RCE pendency has decreased to 6.9 months, but the RCE backlog still hovers near 80,000. (For further details on backlogs and pendency over the last 5 full fiscal years, see table 1, next page. Pendency statistics as of February 2014 may reflect month-to-month variations; as a result, we cannot determine an overall trend for FY 2014.)

[9] DOC OIG, August 10, 2012. *USPTO's Other Backlog: Past Problems and Risks Ahead for the Board of Patent Appeals and Interferences*, OIG-12-032-A. Washington, DC: DOC OIG.

Table 1. New Application, Appeal, and RCE Backlogs and Pendency[a]

FY	Patent Application Backlog	Traditional Patent Pendency (Months)[b]	PTAB Ex Parte Appeal Backlog	PTAB Ex Parte Appeal Pendency (Months)[c]	RCE Backlog	RCE First-Action Pendency (Months)[d]
2013	584,998	29.1	25,308	26	78,272	7.8
2012	608,283	32.4	26,484	23	95,200	5.9
2011	669,625	33.7	23,963	17	63,487	4.0
2010	708,535	35.3	17,754	12	40,939	2.4
2009	718,835	34.6	12,489	7.7	14,620	2.0

Source: USPTO
[a] Green arrow indicates period of sustained decreasing backlog; red arrows indicate period of sustained increasing backlog or pendency.
[b] Average number of months between an application's filing and its disposal.
[c] Average number of months between PTAB assigning an appeal number and its making a decision.
[d] Average number of months between the filing of an RCE and the examiner's initial decision.

The goal of AIA is to allow USPTO to process patent applications faster, reduce the patent backlog, increase patent quality through expedited patent challenges, and improve examiner recruitment and retention. AIA includes fundamental revisions to patent laws and USPTO practices, such as moving to a "first inventor to file" patent process to align the U.S. system with others worldwide, granting the agency authority to set and retain fees to ensure it has sufficient resources for its operations, and establishing satellite offices. The law also introduced new avenues for the public to challenge granted patents and replace previous options deemed inefficient. In September 2013, OIG issued a report[10] on the status of USPTO's efforts to implement the provisions of AIA and found that most were successfully implemented. As of March 26, 2014—more than 2 years since AIA's enactment—USPTO successfully implemented 29 of the 35 provisions they were responsible for on-time; 4 are not yet due, and 2 are overdue.

Ongoing OIG Work

Modernizing IT and managing high-risk contracts at USPTO. As part of our FY 2014 work plan, we are auditing USPTO's IT modernization projects. Our audit objectives are to

- Assess the impact of IT contract termination decisions made as a result of the $110 million IT budget reduction, as well as the appropriateness of project funding in the reduced budget environment.

[10] DOC OIG, September 30, 2013. *USPTO Successfully Implemented Most Provisions of the America Invents Act, but Several Challenges Remain*, OIG-13-032-A. Washington, DC: DOC OIG.

- Review the progress USPTO has made in implementing the recommendations from OIG's FY 2011 Patent End-to-End (PE2E) audit[11]—specifically, the technical progress it has achieved to date, its use of the Agile methodology, and its plans for future PE2E development.
- Assess the project management and technical progress USPTO has made in its development and implementation of the Trademark Next Generation project, including its use of the Agile methodology.

Examining USPTO use of high-risk contracts. We have also initiated an audit of USPTO's management of T&M/LH contracts, which constitute high risk to the government.[12] In FY 2013, USPTO obligated approximately $572 million on contracts for goods and services; our objective is to determine whether its T&M/LH contracts are properly awarded and administered.

Ongoing OIG Investigation

We are looking into the work activities of paralegals in USPTO's Patent Trial and Appeals Board (PTAB), many of whom were brought on board in anticipation of the hiring of additional administrative law judges. In 2008, USPTO had planned to significantly increase the number of judges in PTAB, in order to help reduce the backlog of appeals being reviewed by the Board. According to USPTO, due to budget reasons, judges were not hired according to plan; in 2013, OIG received a whistleblower complaint alleging that paralegals were not being assigned an adequate workload to occupy a full-time schedule. We referred this matter to USPTO management, which conducted an administrative inquiry and found that—over the 4.5 years from October 2008 to May 2013—approximately $4 million dollars was billed to nonproduction time. After completion of USPTO's inquiry, we subsequently initiated a follow-up analysis and expect to release a public report this later in 2014.

For further details, see Appendix D, "Reducing USPTO Backlogs and Other USPTO Issues."

Managing the Department's Finances, Contracts, Grants, and Operations

Department-Wide Oversight

Challenges to the Department's operational excellence include controls over budgetary resources, procurement, and overall financial management. Departmental leadership is addressing a number of related issues, including (A) the management of appropriated funds, (B) the Department's and bureaus' unliquidated obligations, (C) funds spent on conferences, (D)

[11] DOC OIG, September 29, 2011. *Patent End-to-End Planning and Oversight Need to Be Strengthened to Reduce Development Risk*, OIG-11-033-A. Washington, DC: DOC OIG.

[12] This audit is part of our risk-based oversight strategy developed to help the Department address management challenges in its acquisition function; for more on high-risk contracts, *see* "*Incurring risk from the use of high-risk contracts*" in the "Managing the Department's Finances, Contracts, Grants, and Operations" section of this testimony.

funds spent on premium class travel, (E) modernizing the enterprise financial management system, (F) the Department's working capital fund, and (G) other obligations, including contracts and grants.

A. Addressing the unauthorized reprogramming of funds. In response to hotline complaints about mismanagement of appropriated funds within NOAA's National Weather Service (NWS) in 2010 and 2011, the Department conducted a review that highlighted mismanagement of budgetary resources throughout NWS. The Department found significant management, leadership, budget, and financial control problems at NWS. Following the release of the report on its review, the Department identified specific actions for correcting the conditions that led to the report's findings. The Department also reported related Antideficiency Act violations.

In our September 2013 review[13] of these actions, we found that the Department and NOAA have taken steps to address the findings identified in the Department's internal inquiry and completed many action items, but that additional work was needed to complete several key action plan items to ensure proper stewardship of funds and compliance with laws and regulations. Although several actions needed to be finalized or added, the Department has made progress in addressing most of the original action items related to these budget issues. In addition to its existing action plan items, we specifically recommended that the Department document an analysis of NOAA's financial management leadership that addresses improper past practices and how the current leadership team can provide effective financial management direction. Continued Departmental leadership attention is essential to ensuring a culture of transparency, accountability, and effective oversight.

B. Monitoring the Department's obligation balances. Our June 2013 report[14] on the Department's controls over the management and closeout of obligation balances as of December 31, 2011, found inconsistent policies and processes, as well as inadequate monitoring activities. Specifically, we found original obligation balances that could not be verified, accounting records that did not accurately reflect Department obligations, bureaus that did not know the status of its obligations, and improperly liquidated contract obligations.

As a result of our work, we estimated that the amount of unliquidated obligation balances that the Department needed to deobligate was $159 million as of December 31, 2011. The Department did not have adequate internal controls, policies, and procedures to ensure that bureau obligations were adequately monitored and deobligated when appropriate. To address these challenges, the Department's financial management and acquisitions units agreed to (1) issue joint final guidance on monitoring open obligations to their respective communities and (2) include routine obligation monitoring as a discussion topic during annual finance and acquisition training sessions. The guidance has not yet been finalized.

[13] DOC OIG, September 13, 2013. *Status of Departmental Actions to Correct National Weather Service Mismanagement of Funds*, OIG-13-029-I. Washington, DC: DOC OIG.

[14] DOC OIG, June 20, 2013. *Monitoring of Department's Obligation Balances Needs Strengthening*, OIG-13-026-A. Washington, DC: DOC OIG.

C. Overseeing conference spending. Since FY 2012, the Department has developed and updated conference-related guidelines. These guidelines pertain to events that either require Office of the Secretary pre-approval or entail the Department or one of its bureaus to represent itself publicly as a host or co-host. The Department must continue to be transparent and responsive in its efforts to avoid conference mismanagement or missteps similar to those resulting in our recent audit report covering conferences hosted by NIST's Manufacturing Extension Partnership (MEP) program.

In response to a Congressional request, we audited NIST-MEP conference spending to develop a reasonable cost estimate of the 2012 NIST-MEP annual conference held in Orlando and determine the legitimacy and reasonableness of travel costs for major conferences in FYs 2011 and 2012.[15] OIG found that, for conferences held in FYs 2011 and 2012, NIST-MEP lacked adequate controls over much of its conference spending. We concluded that a NIST-MEP event planner retained concessions and benefits that could have been used to reduce the FY 2012 conference's $1.1 million cost—$700,000 of which was spent by NIST-MEP. We recommended that NIST-MEP make a determination on the recovery of $148,000 that its event planner collected for sponsorship fees and more than $88,000 that the planner retained for both registration fees and a concession refund. Similarly, an evening reception, paid for with funds raised through the sale of sponsorships at the same conference, was held in lieu of reducing the overall cost. Further, NIST-MEP agreed to room rates for government attendees that exceeded allowable maximum conference lodging rates in order to standardize rates for government and nongovernment attendees, essentially subsidizing lodging costs to nongovernment attendees.

D. Overseeing premium travel spending. We recently examined FY 2012 information on the Department's total premium-class travel approved for flight time in excess of 14 hours, as well as for medical disability, which totaled nearly $1.4 million. The difference in cost between premium and coach fares for travel due to flight time in excess of 14 hours was approximately $540,000, while the cost difference due to medical disability was approximately $475,000. With the serious fiscal challenges requiring federal Departments to operate as efficiently as possible, we advised the Department to (1) collect, analyze, and report data on premium-class travel on a periodic basis to the Office of Commerce Services and (2) examine ways to reduce premium travel costs. Additional OIG work in this area of the Department's operations will focus on premium-class travel, specifically on the effectiveness of controls over approving exceptions to premium-class travel restrictions.

E. Updating the enterprise financial management system. The financial control problems at NWS highlight the Department's need to implement stricter control over funds Department-wide. A lack of centralized data systems poses reporting and oversight challenges to the Department, such as effectively reporting financial data and monitoring financial activity across its bureaus.

The Department and most of its bureaus use a financial system developed with aging technology and augmented with in-house software that is increasingly difficult to maintain. This system currently addresses core financial accounting, financial management, grants management,

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[15] DOC OIG, February 21, 2014. *Manufacturing Extension Partnership Incurred Avoidable Conference Costs*, OIG-14-013-A. Washington, DC: DOC OIG.

acquisition management, and property management. However, limitations such as high support costs and a lack of system integration and lack of centralized reporting capability impede the Department's ability to oversee and manage Department-wide financial activities.

The Department plans to replace these legacy systems—collectively known as the Commerce Business System (CBS)—with Business Application Solutions (BAS), a commercially available system, by FY 2018. The Department requested nearly $40 million to support BAS implementation activities in FY 2015. While the Department has provided OIG with regular updates on the status of this modernization project, significant challenges remain because (1) the implementation schedule is aggressive; (2) the Census Bureau must be successfully converted prior to the 2020 decennial; (3) BAS will be hosted by a shared-service provider; (4) separate component systems will need to interface with BAS; and (5) adequate funding is needed.

F. Managing the working capital fund. On March 28, 2014, we issued a draft report covering billing control issues related to the Office of the Secretary's working capital fund (WCF). This fund provides 62 services throughout the Department valued at nearly $150 million annually. Our audit addressed issues on whether the Office of the Secretary's Financial Management Directorate charged customers using the correct billing rates and in accordance with Departmental guidelines. For 10 of the projects reviewed, we found that the Office of the Secretary Financial Management Directorate did not use current billing rates and/or the service providers did not have accurate supporting documentation for amounts charged to the customers. This problem was most noteworthy within the Office of General Counsel. Consequently, the customers receiving services from these projects were not billed correctly. We recommended that the Department require a process for all WCF service providers to capture and retain supporting documentation that accurately reflects the level of services provided to customers, and that the Office General Counsel develop an automated process to track attorney time, by customer and services provided. We provided the Department with our draft results and will issue our final report later in 2014.

G. Administering high-risk contracts and grant awards. In FY 2013, the Department obligated about $2.3 billion for goods and services that include satellite acquisitions, intellectual property protection, broadband technology opportunities, management of coastal and ocean resources, information technology, and construction and facilities management. Although the Department's spending requirements for goods and services have not diminished, available funding resources likely will remain uncertain. For this reason, the Department must maintain the workforce needed to carry out robust and thorough oversight of contracts to help program management achieve goals, avoid significant overcharges, and curb wasteful spending.[16] Continuing to address high-risk contracts and maintaining a qualified acquisition workforce will enable better management of the Department's day-to-day spending.

OIG also provides oversight of the Department's management of more than 70 programs authorized to award grants or cooperative agreements. Each program has its own rules,

[16] The President has acknowledged contract oversight as a federal government-wide priority; *see* The White House, Office of the Press Secretary, March 4, 2009, *Memorandum for the Heads of Executive Departments and Agencies: Government Contracting*.

regulations, and eligibility requirements. In addition, OIG provides oversight to the National Telecommunications and Information Administration's management of the Department's most significant grant-awarding initiative over the last 5 years, the Broadband Technology Opportunities Program (BTOP). Of the Department's grants programs, BTOP entails the most challenging awardee spending issues.

Incurring risk from the use of high-risk contracts. In July 2009, the Office of Management and Budget's (OMB's) Office of Federal Procurement Policy issued contracting guidance to chief acquisition officers and senior procurement executives. The guidance—stating that time and materials/labor hour (T&M/LH) contracts, cost-reimbursement contracts, and noncompetitive contracting pose special risks of overspending—directed agencies to reduce by at least 10 percent the use of high-risk contracting authorities for new contract actions. For FY 2013, the Department reported that it exceeded its goals in reducing the dollar amount of high-risk contracts, and it continues to track its goal based on OMB's 2009 guidance. However, our audit results indicate that a critical challenge remains in the use of high-risk contracts.

In a report issued in November 2013,[17] we reported weaknesses in the awarding and administering of T&M/LH contracts. We found that Departmental contracting officers did not award T&M/LH contract actions in accordance with the requirements of the Federal Acquisition Regulation and the *Commerce Acquisition Manual*. T&M/LH contracts are considered high-risk because the contractor's profit is tied to the number of hours worked. We also noted that contract actions in our sample were incorrectly coded in the Federal Procurement Data System (FPDS).

The Department's challenge is to better monitor and evaluate its T&M/LH contracts through the acquisition review board and investment review board processes, which are used to manage the Department's major acquisitions of goods and services. A further challenge it faces is to improve the processes for entering accurate and complete data in FPDS. Effective implementation of the Department's measures will be crucial to ensuring that the Department properly awards, administers, and reports high-risk T&M/LH contracts.

Tightening controls over use of federal funds by award recipients. Grant oversight requires that recipients of awards meeting certain dollar thresholds submit either a Circular A-133 single audit report or a program-specific audit report. For the period January 1, 2011–December 31, 2013, these programs issued approximately 4,166 awards amounting to $3.8 billion. We review an average of 350 finding reports a year; of those, about 8 percent will have significant procedural or internal control findings. These types of awards pose particular oversight challenges for the Department. OIG continues to review these audit reports to identify trends in findings across bureau programs, as well as to monitor whether findings are resolved in a timely manner. Twice annually, we provide the Department an analysis of our review's results and post it on our Web site.

Table 2 presents averages of the single audit and program-specific audit reports that OIG reviewed during the period January 1, 2011–December 31, 2013, the number of material

[17] DOC OIG, November 8, 2013. *The Department's Awarding and Administering of Time-and-Materials and Labor-Hours Contracts Needs Improvements*, OIG-14-001-A. Washington, DC: OIG.

findings, and amounts of questioned costs and funds to be put to better use reported. We have noted a problematic indicator in the Economic Development Administration's (EDA's) revolving loan fund program, NTIA's BTOP, and the National Institute of Standards and Technology's (NIST's) Advanced Technology/Technology Innovation Program. It is important that all Departmental program and grants management offices review these findings and implement internal controls to address the root causes of the findings, which may require program or grant operations changes in order to improve grant recipients' compliance with laws and regulations.

Table 2. Analysis, by Bureau, of OIG-Reviewed Single Audit Reports: Annual Average (from January 1, 2011, Through December 31, 2013)[a]

Bureau	Reports Reviewed	Reports with Material Findings[b]	Material Findings	Questioned Costs[c]	Funds Put to Better Use[d]
EDA	103	8	23	1,288	1,990
NOAA	45	4	14	2,277	0
NTIA	52	6	22	2,363	0
NIST	78	11	25	1,057	96
Other[e]	72	0	0	0	0
TOTAL	**350**	**29**	**84**	**6,985**	**2,086**

Source: OIG

[a] The table does not include less significant procedural or internal control findings, the resolution of which OIG does not monitor; [b] *material findings* are those with questioned costs greater than or equal to $10,000 and/or significant nonfinancial findings; [c] *questioned costs*, shown here in thousands of dollars, are subject to change during the audit resolution/appeal process; [d] *funds to be put to better use*, shown here in thousands of dollars, are subject to change during the audit resolution/appeal processes; [e] *other* includes the International Trade Administration (ITA), the Minority Business Development Agency (MBDA), and *multiple*, which are single audit reviewed programs from more than one bureau.

To improve controls over award recipients' use of federal funds, bureaus need to review these single audit and program-specific audit reports and take action on the report findings.

Ongoing OIG investigation into NOAA grants. As a result of a whistleblower's disclosures to OIG, we are currently looking into grants issued by NOAA to nine National Estuarine Research Reserve System (NERRS) facilities for approximately $1 million. In January 2013, Congress appropriated $7 million to NOAA "to repair and replace ocean observing and coastal monitoring assets damaged by Hurricane Sandy." The whistleblower, whose identity is being protected by OIG, alleged that a NERRS facility applied for and was awarded grant funds even though their equipment was not damaged by Hurricane Sandy, as required under the law. Our public report will be released in 2014.

Agency Oversight

Managing Broadband Technology Opportunities Program (BTOP) award closeouts. With approximately $3.9 billion in grant awards, the Recovery Act-funded BTOP represents the Department's largest grant program over the last 5 years. Of the Department's grants programs, BTOP entails the most challenging awardee spending issues.

As of March 17, 2014, about 15 percent of BTOP funds remain to be disbursed—and only 21 of 224 projects had been closed, with another 174 in the closeout process and 29 (representing about $900 million in awards) remaining active. Some of these awards have been extended to September 30, 2015. Management must remain committed to monitoring BTOP recipient compliance with grant award terms and achievement of intended benefits as the program nears completion.

Addressing concerns with BTOP grants' closeout process. The audit closeout process[18] calls for particular attention. OIG's December 20, 2013, report[19] identified that BTOP's award closeout process (a) is taking longer than expected, particularly with infrastructure projects and (b) could be improved by strengthening closeout policies and procedures and ensuring the consistent implementation of those policies and procedures in place. NTIA and the grants offices (NOAA and NIST) supporting NTIA in the implementation of BTOP have taken or are in the process of taking to strengthen the closeout process.

Answering Congressional questions about a BTOP awardee. Recently completed and ongoing audit work has indicated the need for continued management attention to awards that remain open and significant issues that they entail. On May 9, 2013, we received a request from the House to review a $100.6 million grant that BTOP awarded to EAGLE-Net Alliance (ENA). In responding to questions relating to the grant in a January 23, 2014, letter, our review found that the revised project will involve additional miles of constructed and leased fiber, with some of the completed fiber being laid in proximity to existing fiber. In addition, we found that two-thirds of the grant funds had been spent before NTIA addressed problems that led to suspension of the award in December 2012. Further, ENA faces challenges that include the project's ability to fully achieve the award's intended results (e.g., connections will be achieved with only 131 of 223 intended community institutions) and continued internal control issues.

Examining issues with BTOP equipment acquisitions. Previous OIG oversight identified BTOP equipment (e.g., fiber, base tower stations, switches, microwave radio equipment) as a concern. As a result, we initiated a review with objectives to determine whether NTIA has the personnel and processes in place to monitor grantees' equipment acquisitions and assess whether grantees have appropriately acquired, tested and implemented the most effective equipment. As part of this review, we performed site visits of six recipients of BTOP awards for deploying broadband. On March 24, 2014, we issued a draft report to NTIA that credits the agency with establishing processes to monitor recipient's implementation of awards—but identifies

[18] This process entails the award recipient and the grants office ensuring that project activity is complete and the award recipient has met all the requirements under applicable laws, regulations, OMB circulars, and award terms and conditions.

[19] DOC OIG, December 20, 2013. *Closeout Procedures for the Broadband Technology Opportunities Program Need Strengthening*, OIG-14-010-A. Washington, DC: OIG.

weaknesses in grantee acquisition and implementation of equipment and recommends steps to improve NTIA's oversight controls.

Supporting International Trade Administration (ITA) export programs under a new organizational structure. Promotion of U.S. exports is a critical mission of the Department. For FY 2015, the Department has requested $497 million to support export promotion and regulation. ITA's U.S. and Foreign Commercial Service, within the Global Markets business unit, provides a broad range of services and counseling to U.S. exporters; other ITA business units—such as Enforcement and Compliance, as well as Industry and Analysis—enforce trade agreements and protect domestic industries such as manufacturing and textiles.

ITA's challenge is to complete its internal reorganization. Effective October 1, 2013, the Department consolidated ITA's four existing business units into three to eliminate overlapping functions and streamline operations. ITA states that the functional realignment will consolidate regional expertise, strengthen industry expertise and strategic partnerships, and consolidate trade agreement compliance and trade law enforcement. In February 2014, we initiated an audit of ITA's consolidation to evaluate its progress, assess whether any cost savings have been realized, and identify any remaining challenges to this effort.

Reforming Bureau of Industry and Security (BIS) export control. The United States' export control system is distributed among several different licensing and enforcement agencies. Within the Department of Commerce, the Bureau of Industry and Security (BIS) administers and enforces the Export Administration Regulations, which apply to controlled dual-use items and technology. These regulations serve to support and advance the national security, foreign policy, nonproliferation, and short supply interests of the United States. BIS' two primary functions, licensing and enforcement, are handled by Export Administration and Export Enforcement, respectively.

The Export Control Reform (ECR) Initiative, launched in April 2010, is a three-phase effort to streamline the nation's export control system by consolidating the export control efforts of multiple federal agencies. As part of the export control reform, BIS has begun assuming increased licensing and enforcement responsibilities for former munitions items that have moved under Department of Commerce jurisdiction. The challenge for BIS will be to ensure that it has adequate licensing and enforcement resources to handle its new responsibilities.

In May 2013 we initiated an audit in response to a Congressional request and as part of our annual audit plan. Our objectives were to (1) review the adequacy of BIS' program plans and budget requests to address the increased workloads for licensing, outreach, and enforcement activities in FYs 2014 through 2016 and (2) evaluate existing BIS licensing, outreach, and enforcement activities and identify any areas for increased efficiencies. We focused our analysis on areas of BIS most affected by ECR—namely its licensing divisions, outreach office, and enforcement offices (excluding antiboycott compliance).

On March 19, 2014, as a result of our fieldwork—and in response to a whistleblower complaint—we issued a memorandum to the BIS Under Secretary and the Department of Commerce's Chief Information Officer expressing our concerns with BIS' compliance with the Presidential directive to consolidate its export licensing system with the Department of

Defense's U.S. Export Systems (USXPORTS) automation initiative. The Department of Commerce, in response to our memorandum, scheduled a May 1, 2014, Commerce IT Review Board meeting to discuss the status of BIS migration.

Addressing issues with NOAA satellite accounting. Over the past 3 fiscal years, the accounting firm KPMG noted several significant control weaknesses at NOAA related to accounting for satellites. Specifically, KPMG identified that NOAA in FY 2013 incorrectly classified a satellite instrument not operational at year end as completed property. This error resulted in a $125 million adjustment to correct property values originally recorded by NOAA. In addition, NOAA capitalized all costs associated with JPSS without review to ensure that only capitalizable costs are included in construction work-in-progress. Further, KPMG identified that NOAA did not receive and review the supporting documentation for $182.6 million in costs included in intragovernmental payments.

Managing NOAA real property leases. Senate Appropriations Committee Report 113-078, related to the FY 2014 budget, stated that NOAA (a) has a large inventory of real property commercial leases being held over beyond their agreed occupancy and (b) had hundreds of real property leases expiring over the next 4 years that will likely go into holdover, unless NOAA took action. Regarding these issues, we collected information on over 2,500 real property leases from NOAA's inventory valued at over $166 million. As of February 2014, NOAA had 122 properties with nearly $2 million in annual rent in holdover status. This represents a 31 percent reduction from the 177 lease holdovers NOAA reported in August 2012. NOAA must continue to address each of its existing holdover leases—and look ahead to those about to expire to ensure that these numbers do not rise.

Strengthening First Responder Network Authority (FirstNet) to Support Economic Growth

Overseeing the First Responder Network Authority and the Implementation of the Nationwide Public Safety Broadband Network

The Middle Class Tax Relief and Job Creation Act (The Act), signed by the President on February 22, 2012, included language that allocated some existing public safety radio frequency spectrum—along with the "D-Block" spectrum—and authorized $7 billion in funding for the establishment of an interoperable Nationwide Public Safety Broadband Network (NPSBN). To oversee the existing public-safety spectrum and deployment of the NPSBN, the law requires the establishment of an independent authority within NTIA called First Responder Network Authority (FirstNet).

FirstNet faces several challenges as it works toward providing emergency responders with a high-speed network dedicated to public safety. The initial challenge to FirstNet is establishing an organizational structure with strong internal controls. Building an effective organization will be essential to meet the subsequent challenges it faces in establishing the NPSBN. Those include:

Fostering cooperation among various state and local public safety agencies. Committing iterative effort to effective outreach and forging cooperation will be essential to building the

NPSBN and obtaining participation from the public safety personnel the network is designed to serve.

Integrating existing BTOP grants into the NPSBN. FirstNet should use four previously funded BTOP public safety wireless projects[20] as an opportunity to learn about telecommunications network equipment, best practices for NPSBN deployment, and other issues.

Creating a nationwide long-term evolution network. The limited funds available to implement a nationwide network that meets public safety grade standards will make implementation of NPSBN a challenge, particularly in geographic areas that are not profitable for commercial provider operations. To ensure a cost-effective NPSBN implementation, FirstNet must identify existing assets through coordination efforts.

FirstNet held its first meeting in September 2012 and has since made certain key hires; established a headquarters in the Washington, DC, area; and awarded three contracts for technical support and one contract for general program management and acquisition support.

Ongoing FirstNet Oversight

In October 2013, the FirstNet board requested that OIG take over the review of certain allegations concerning the board's procurements and potential conflicts of interest. We initiated an audit in November 2013 with the objectives of assessing (l) the rationale used to support the decision for selecting time and material and sole-source contract types for the three contracts with a total ceiling price of $14,350,000; (2) whether those contracts were fairly awarded and appropriately administered; (3) whether the services purchased under those contracts met industry standards, and were consistent with the needs of the project; and (4) FirstNet's process of reviewing ethics-related matters as they pertain to the board, as well as any associated ethical determinations. We expect to issue our report later in 2014. We are also following up on any specific issues relating to our audit.

The subcommittee should be aware that, since FirstNet is not funded through appropriations, the Department, responding to OIG's request, agreed that OIG would submit a request to FirstNet for oversight funding, which we did in September 2013. While we are yet to receive any funding—and the details of the transfer have not been finalized—we now understand that FirstNet intends to transfer funding sufficient for 3 full-time equivalents to OIG for the balance of FY 2014. Without funding in First Net's authorizing legislation, OIG will be required to make annual requests for funding from FirstNet.

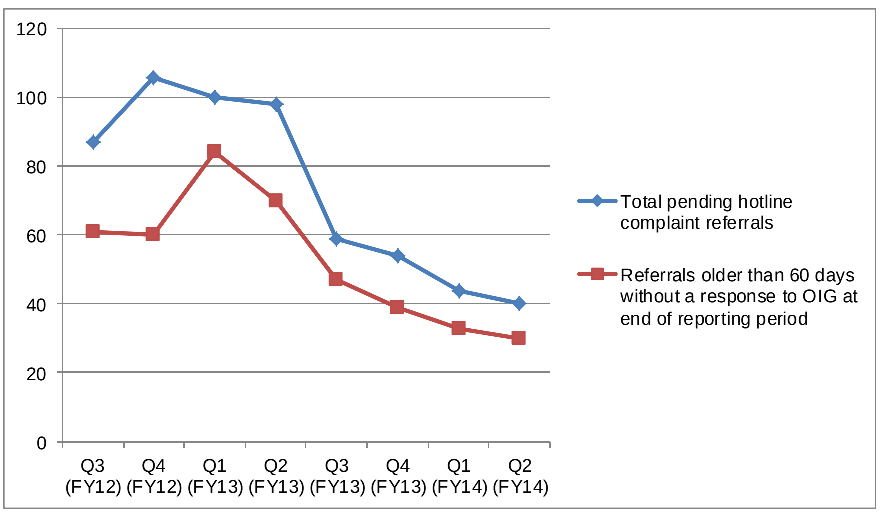
[20] Before the creation of FirstNet, NTIA made approximately $382 million in grant awards to seven public safety projects to deploy public safety wireless broadband networks. On May 11, 2012, NTIA partially suspended these seven public safety projects. Subsequent negotiations were held to determine whether they would be beneficial to FirstNet; as a result, FirstNet established spectrum lease agreements with four of the seven public safety BTOP projects.

Resolving Ethics and Compliance Issues Raised by Whistleblowers

Over the past year, the Department has made progress in dealing with issues raised by whistleblowers over OIG's hotline. In addition to allegations of fraud and serious misconduct which we investigate, OIG often receives complaints from employees and members of the public raising ethics, compliance, or management issues; we provide these complaints to operating unit leadership to address and resolve. This program ensures that information about potential risks received over our hotline is communicated promptly to operating unit management, so that they may quickly address problems. In some cases, OIG asks that operating units respond and summarize their findings, to ensure that management has sufficiently addressed the matter.

In FY 2013, OIG received almost 1,300 contacts over our hotline, of which about 600 were whistleblower complaints related to the Department's programs and operations. Since the beginning of FY 2013, operating units have worked effectively to resolve issues provided to them on OIG hotline complaints, reducing by more than half what had become a major backlog in early FY 2013. As of the end of the second quarter of FY 2014, the Department had only 40 hotline complaints for which OIG was awaiting an initial findings report—compared to 98 pending only 1 year prior (see figure 2).

Figure 2. Complaint Referrals to Bureaus Awaiting Initial Response



Source: OIG data

As a result of the Department and operating units prioritizing and addressing OIG hotline referrals, several issues have been resolved, resulting in better management practices and administrative remedies. In fact, of the hotline referrals resolved in FY 2013, the Department's leadership found about one in four contained issues that were substantiated in their management inquiries. Even in cases where inquiries did not find issues, the process of looking into issues often helps communicate to staff that compliance and ethics issues are taken seriously. Examples of successfully resolved issues from OIG hotline referrals include the following:

- In early FY 2013, OIG referred a whistleblower complaint to NTIA, which confirmed that a BTOP grantee had not paid employees appropriate wages as mandated by the Davis-Bacon Act. NTIA informed the grantee of the issue, and appropriate action was taken to remunerate employees as required by the law.

- In late 2011, OIG received a whistleblower's hotline complaint alleging that a Census Bureau employee was publishing political opinions while on duty. Census looked into the issues and, with additional support from OIG, uncovered evidence demonstrating that the employee had used Twitter to publish political opinions while at work. In 2012, we referred our file to Office of Special Counsel (OSC), which has the authority to look into Hatch Act violations. In February 2014, OSC issued a press release announcing that it had confirmed the allegations, and was concluding its investigation. The employee resigned prior to OSC concluding its case.

- In mid-2013, as the result of a whistleblower tip to OIG's hotline, USPTO confirmed that an employee had been improperly claiming work time and overtime while on vacation in a foreign country. During the course of its inquiry, USPTO discovered that the employee had provided username and password information to a second USPTO employee, who logged into his account and submitted previously-completed work while on leave. This gave management the impression that the employee was working while actually on vacation. Administrative action is pending against both.

While the Office of the Secretary and most operating units have made progress handling OIG hotline complaints, NOAA still faces challenges in this area. Leadership needs to give more timely attention to resolving recommendations made at the conclusion of OIG investigations and its own management reviews. When OIG or management substantiates allegations, we frequently transmit to program management our concluding report—which may be accompanied by recommendations to take appropriate administrative, disciplinary, or other policy actions. Departmental policy requires operating units to respond to OIG within 60 days of receiving our report to inform us of any actions that have been taken or that are planned. Improved coordination among the Department's Office of General Counsel, operating unit leadership, and human resources offices would help ensure that appropriate action is executed in a timely manner.

NOAA, however, currently has five pending OIG investigations that it has yet to take adequate action on, including two cases where senior scientists used government computers to view inappropriate online content. Four of these five investigations were transmitted to NOAA more than 180 days ago, including two that remain older than 1 year without any action. In order for NOAA to comply with Departmental policies and foster a culture of management accountability, leadership must more diligently resolve OIG's investigative recommendations.

Appendix A: Addressing Issues with NOAA Weather Satellite Programs

Managing risks in the acquisition and development of the next generation of environmental satellites is a continuing challenge for the Department. In February 2013, GAO added "Mitigating Gaps in Weather Satellite Data" to its high-risk list.[21] The two most prominent programs,[22] the Joint Polar Satellite System (JPSS) and the Geostationary Operational Environmental Satellite-R Series (GOES-R), together account for one-third of NOAA's FY 2015 budget request. They are also the largest investments in the Department, accounting for more than 20 percent of the Department's $8.8 billion budget proposal.

NOAA's JPSS and GOES-R satellites will provide data and imagery for weather forecasting—including severe-storm tracking and alerting—and the study of climate change—and help lead and sustain the nation during severe weather events. However, because of cost overruns, schedule delays, and the aging of NOAA's current constellation of satellites, NOAA has had to take steps to mitigate potential coverage gaps for these critical assets.

JPSS evolved from a predecessor program fraught with cost overruns and schedule delays. NOAA's JPSS program uses the National Aeronautics and Space Administration (NASA) as its acquisition agent, leveraging that agency's procurement and systems engineering expertise—an arrangement based on previous partnerships between the two agencies. In its FY 2015 budget submission, NOAA requested $916.3 million and reported that the JPSS program, running through 2025, would cost $11.3 billion. The first JPSS-developed satellite (JPSS-1) is scheduled for launch no later than the second quarter of FY 2017. GOES-R, with scope and importance comparable to JPSS, experienced development and budgetary challenges that could delay the launch readiness date of its first satellite from the first to the second quarter of FY 2016. NOAA requested $980.8 million for FY 2015 for the GOES-R series of satellites that will provide uninterrupted short-range severe weather warning and "now-casting" capabilities through 2036. With four satellites (the GOES-R, -S, -T, and -U), the program is estimated to cost $10.8 billion over the course of its life cycle.

JPSS

In November 2013, NOAA's independent review recommended that NOAA's polar satellite launch policy be changed so that two satellite failures must occur in order for a gap in data to be realized. It recommended that NOAA promptly start a "gap filler" mission—likely a smaller satellite with key instruments—to provide additional fault tolerance to the JPSS constellation. Further, it recommended that NOAA immediately procure additional satellites to extend the JPSS constellation beyond JPSS-2, which would protect against future gaps and make current development more robust and efficient by providing needed spare parts and flexibility in fabrication and testing.

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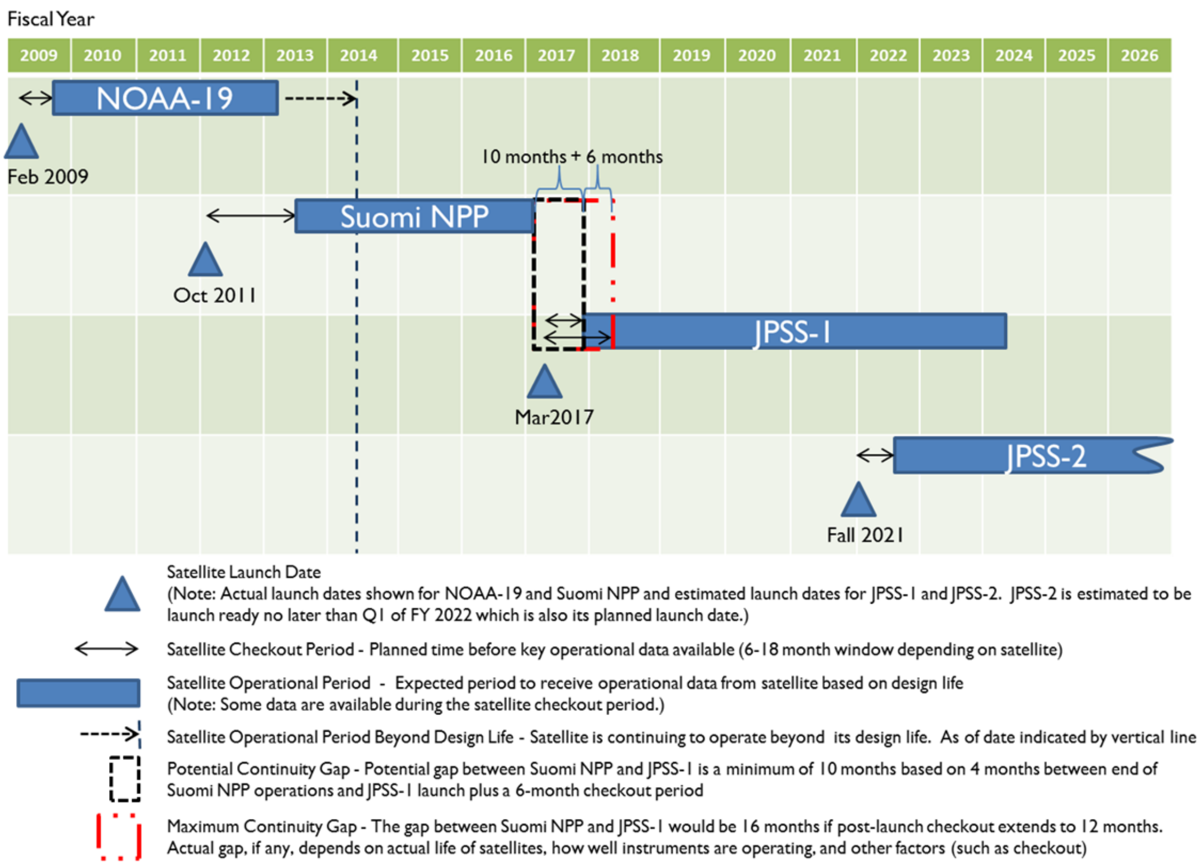
[21] U.S. General Accountability Office, February 2013. *High-Risk Series: An Update*, GAO-13-283. Washington, DC: GAO, 155-160.

[22] Other satellite acquisitions include Jason-3, which will measure sea surface height, and Deep Space Climate Observatory, which will provide advance warnings of solar storms affecting Earth.

NOAA has begun to mitigate potential degradation to weather forecasting capabilities during polar-orbit data coverage gaps through the use of supplemental funding it received as part of the Disaster Relief Appropriations Act, 2013. NOAA should ensure that its gap mitigation plan is executed before the November 2016 design-life end of Suomi National Polar-orbiting Partnership (NPP), a risk-reduction satellite launched in October 2011 that is flying the first versions of JPSS sensors.

Consistent with our September 2012 JPSS audit report,[23] we continue to project a potential 10–16-month gap between Suomi NPP's end of design life and when JPSS-1 satellite data become available for operational use (see figure A-1). NOAA's medium-range weather forecasting (3–7 days) could be degraded during the period of time JPSS data are unavailable.

Figure A-1. NOAA Afternoon-orbit Polar Satellite Constellation with Potential Continuity Gap



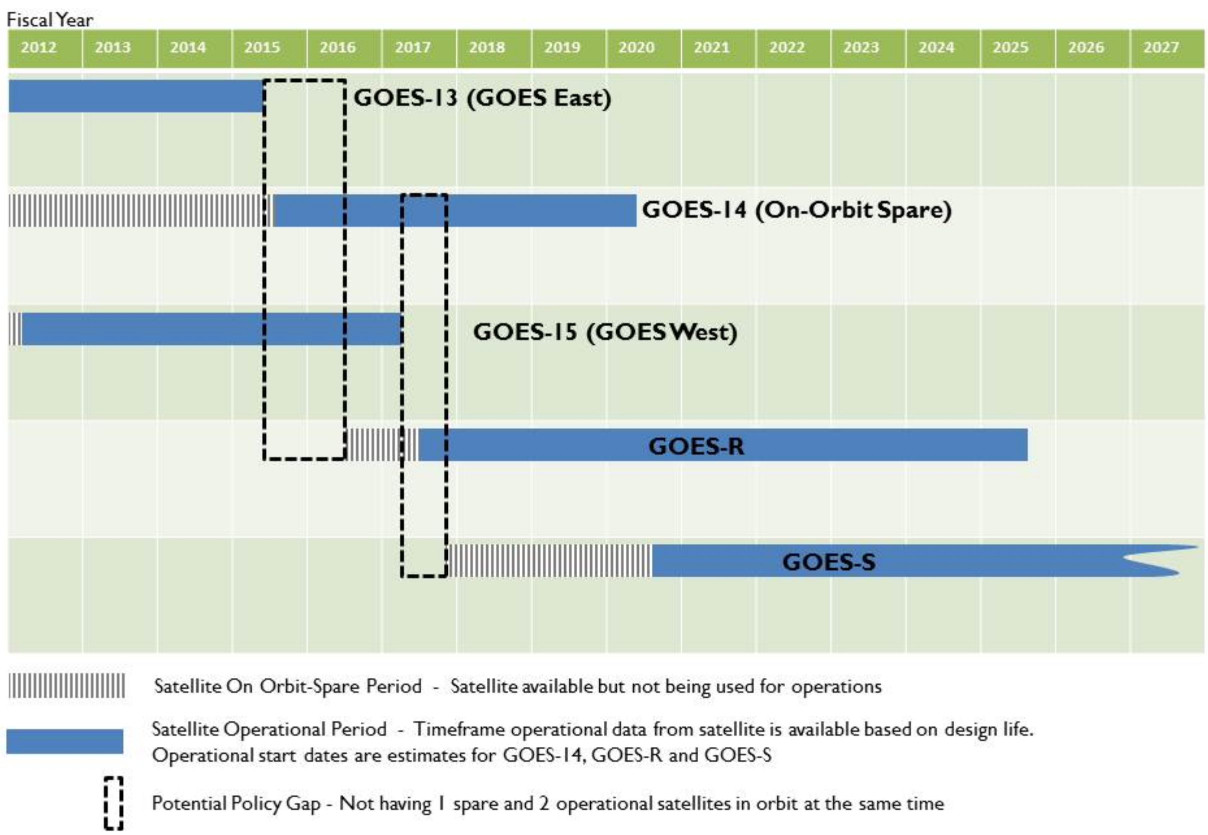
Source: OIG analysis of NOAA data

[23] U.S. Department of Commerce Office of Inspector General, September 27, 2012. *Audit of the Joint Polar Satellite System: Continuing Progress in Establishing Capabilities, Schedules, and Costs Is Needed to Mitigate Data Gaps*, OIG-12-038-A. Washington, DC: Department of Commerce OIG.

GOES-R

NOAA's policy for its geostationary satellites is to have three satellites in orbit—two operational satellites with overlapping coverage and one spare for backup. Currently, GOES-13, GOES-14, and GOES-15 are in orbit (see figure A-2). However, GOES-13 is due to be retired in FY 2015, at which time GOES-14 is projected to become operational. GOES-15 is due to be retired in FY 2017. GOES-R is scheduled to be launched in October 2015, but there is a risk of launch delay. NOAA may not be able to meet its policy of having an on-orbit spare, even without a GOES-R launch delay, based on current GOES satellites' projected retirement dates. Furthermore, a launch delay for GOES-R beyond October 2015 increases the risk that only one geostationary imager will be in orbit—which would severely limit NOAA's capability to visualize and track severe weather events.

Figure A-2. Potential Policy Gaps for Geostationary Operational Satellites



Source: OIG analysis of NOAA data

Appendix B: Managing the Census Bureau's 2020 Decennial Planning

2020 Decennial

Through our ongoing work on the Census Bureau's approach to and progress on planning for 2020 decennial census we have identified three time-sensitive Bureau management priorities:

- Completing timely research for making evidence-based design decisions
- Integrating schedule and budget to provide valid, timely, accurate, and auditable performance information on which to base project management decisions
- Accurately recording costs in the accounting system

Completing timely research for making evidence-based design decisions. To reduce 2020 Census costs, the Bureau is conducting research that focuses on several design features. Conducting research and testing is necessary to implement the changes needed to save the government hundreds of millions of dollars (see table B-1).

Table B-1. Costly 2010 Census Operations and 2020 Research Efforts to Address Them

2010 Census Cost and Operation		2020 Research Aimed to Reduce Costs
$2 billion	Enumerating nonresponding households	*Can the number of household visits be reduced by finding an alternative, less costly response option?* *Can existing government records fill in missing information?*
$790 million	Building a one-time-use field data collection automation system	*Can reusable enterprise-wide solutions be built and expanded to meet decennial needs?*
$473 million	Ensuring that labor, systems, and development are in place to process and capture the data for more than 164 million paper questionnaires at three data centers	*Can the number of paper questionnaires be reduced through an Internet response option?* *Can an automated field data collection reduce the paper workload?* *Can the reduced paper workload result in fewer data capture centers?*
$444 million	Having an end-of-decade address and geography updating operation	*Can Census maps and addresses be efficiently updated throughout the decade, with areas experiencing change accurately targeted to reduce the amount of end-of-decade canvassing?*
$330 million	Leasing 494 local and 12 regional Census offices	*Can distance management, training, and automated processes allow the Census Bureau to reduce the number of temporary Census offices?*

Source: OIG analysis of Census Bureau documents

Integrating schedule and budget to provide valid, timely, accurate, and auditable performance information on which to base project management decisions. Last decade, OIG recommended that the Census Bureau integrate cost and schedule. In response, the Bureau planned to incorporate earned value management (EVM), a process that combines measures of a project's schedule and cost to forecast performance problems. As of March 2014, the Bureau had not incorporated EVM into its activity schedules. Because of the Bureau's budget and time constraints, management must be able to recognize at-risk projects by adopting EVM to make sound project management decisions.

Accurately recording costs in the accounting system. To effectively manage a program of the size, complexity, and cost of the 2020 Census—and assess the return on investment of research efforts—managers require accurate accounting records. However, we recently found that many Census Bureau staff stated that they are charging to projects based on budgeted hours rather than actual hours worked. Inadequate accounting for an employee's actual work and level of effort required in accomplishing project goals, as well as inaccurate project costs, hinder the Bureau's ability to assess the return on investment of research efforts. Additionally, these issues affect the Bureau's ability to make informed decisions about how to accomplish budget reductions.

Appendix C: Enhancing Departmental Cybersecurity

Cyber Incident Response

During the past year, the Department has made improvements to incident detection and response capabilities at DOC CIRT. For example, the Department conducted an internal assessment of DOC CIRT policies, procedures, and capabilities. It focused on strengthening DOC CIRT's organizational structure; its roles and responsibilities; and operating unit procedures for incident identification, analysis, response, and reporting. The Department's chief information officer has also (a) taken steps to ensure that all DOC CIRT staff meet Department training and certification requirements and (b) implemented an incident tracking system. In addition, the Department arranged to have the Department of Homeland Security conduct an independent assessment, focusing on incident management capabilities within the Department of Commerce.

Enterprise Cybersecurity Initiatives

Table C-1, below, provides the goal, along with updated implementation status and issues, for each initiative since we issued the FY 2014 *TMC* report:

Table C-1. Department's Enterprise Cybersecurity Initiatives

Enterprise Initiatives	Initiative Goal	Implementation Status	Issues
ECMO	Provide nearly real-time security status, support for patch management, and remediation of software configuration issues for Department-wide system components	• Initial capability has been implemented on more than 32,000 system components (e.g., desktops, laptops, and servers) across HCHB operating units. • Upon full deployment in September 2014, ECMO will support more than 100,000 system components throughout the Department.	Delays in implementation by several bureaus may result in missing the September 2014 deadline.
ESOC	Provide Department-wide security situational awareness to senior Departmental and operating unit managers	Currently in the planning stage, the Department has • Completed detailed assessments of incident handling capabilities in HCHB and NOAA, and a high-level assessment across the Department. • Concluded a technical capabilities study that resulted in an initial and final operating ESOC architecture, along with recommendations for achieving both. • Selected NOAA's Fairmont, WV, facility to house ESOC.	The initiative faces challenges acquiring project resources beyond FY 2015.

Enterprise Initiatives	Initiative Goal	Implementation Status	Issues
TIC	Consolidate Department external network connections and provide better monitoring of cyber threats from the Internet	• All bureaus—except the Bureau of Industry and Security (BIS), the Census Bureau, and NOAA—have acquired a TIC service. • BIS will acquire TIC services by May 2014. • Census has not implemented TIC because of concerns about third-party access to sensitive Title 13[24] data. • NOAA has made progress becoming its own TIC access provider (TICAP) by March 2015. OCIO is encouraging NOAA to meet TICAP requirements sooner.	BIS is working with its selected service provider to resolve technical issues. Census and the Department of Homeland Security have developed an amendment to a Department of Commerce memorandum of understanding to ensure that the confidentiality of Title 13 data is protected.

Source: Department of Commerce

NOAA continues to make progress toward becoming its own TIC provider and the Census Bureau and BIS have made notable progress toward acquiring TIC services. The TIC initiative should significantly reduce the risks associated with external network and Internet connections. Accordingly, the Department has encouraged NOAA to complete its TIC implementation quickly.

[24] Title 13 guarantees the confidentiality of information obtained by the Census Bureau and establishes penalties for disclosing this information.

Appendix D: Reducing USPTO Backlogs

Reducing Patent Application Backlogs

USPTO, as the authority for reviewing and adjudicating all patent and trademark applications, must continue to focus on the challenge of reducing the time applicants wait before their patent applications or appeals are reviewed. The agency's recent efforts to address its application and appeal backlogs and related pendency issues have yielded mixed results. Both the backlog and pendency for patent applications decreased in FY 2013 (see figure D-1a). Between October 2009 and September 2013, the patent backlog decreased from approximately 720,000 unexamined new applications to approximately 585,000. Since we issued the FY 2014 *TMC* report in November 2013, the new application backlog has increased to 604,700 (as of February 2014). The patent appeals backlog—which we reported on in our 2012 audit[25]—has begun to slowly decrease and, as of November 2013, stands at approximately 25,000, still almost twice the size of the backlog in October 2010.

However, USPTO's backlog for requests for continued examination (RCE) has experienced the most variability, growing from 17,800 applications in October 2009 to approximately 78,000 in September 2013 (see figure D-1b), an increase of more than 340 percent. As a consequence, during the same period, the average waiting time between filing an RCE and receiving an initial decision has grown from 2.1 to 7.8 months (see figure D-1b). From the beginning of the fiscal year until February 2014, the RCE pendency has decreased to 6.9 months, but the RCE backlog still hovers near 80,000. By law,[26] USPTO must provide a patent term adjustment[27] for an issued patent when it takes USPTO more than 4 months to issue a preliminary RCE determination.

[25] U.S. Department of Commerce Office of Inspector General, August 10, 2012. *USPTO's Other Backlog: Past Problems and Risks Ahead for the Board of Patent Appeals and Interferences*, OIG-12-032-A. Washington, DC: DOC OIG.

[26] 35 U.S.C. §154(b)(1).

[27] A *patent term adjustment* legally requires USPTO to extend the 20-year patent term because of agency delays, subject to limitations.

Figures D-1a and D-1b. Patent Backlog and Pendency Decreases (a) and RCE Backlog and Pendency Increases (b) Through February 2014

Figure D-1a

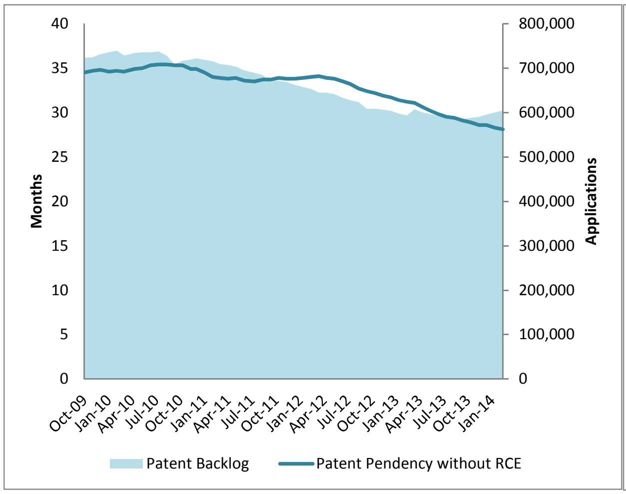
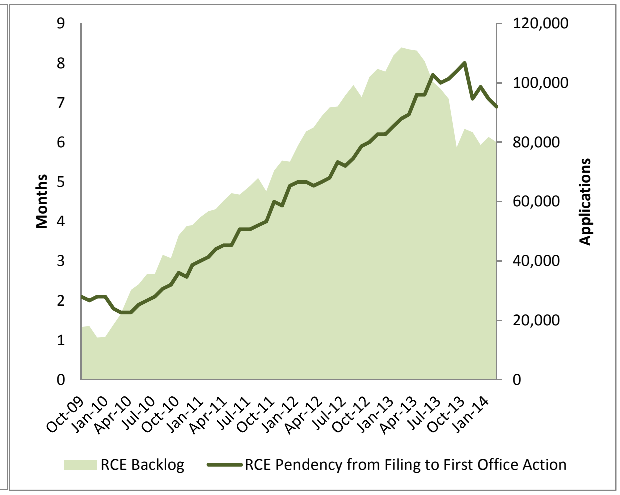


Figure D-1b



Source: USPTO data

To address the substantial increases in the RCE backlog and average waiting time, USPTO (a) initiated outreach efforts to identify why applicants file RCEs and (b) implemented policy changes in April 2013 and October 2013. These policy changes affected the amount of credit examiners received for reviewing RCEs, as well as the docketing procedures. Our current audit, initiated in June 2013, examines the causes for this backlog and assesses USPTO's efforts to remedy it. We anticipate issuing a final report with our findings and recommendations in late spring 2014.

As it works to reduce its patent backlog and pendency (see figure D-1a), USPTO's challenge is to ensure that the quality of its patent examination process is not adversely affected and to avoid requiring applicants and the public to file unnecessary and costly challenges to examiners' decisions.