



Testimony of

The Honorable Todd J. Zinser
Inspector General

U.S. Department of Commerce

before a hearing of the

Committee on Appropriations
Subcommittee on Commerce, Justice, Science, and Related Agencies
U.S. House of Representatives

***Top Management Challenges Facing
the Department of Commerce in FY 2013***

March 5, 2013

Chairman Wolf, Ranking Member Fattah, and Members of the Subcommittee:

I appreciate the opportunity to testify today as you consider upcoming appropriations for the Department of Commerce. The President's fiscal year (FY) 2014 budget has not yet been submitted; for FY 2013, the President requested \$11 billion for the Department, including \$3 billion for 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 financial uncertainties in the upcoming year.

Today I will briefly summarize several challenges facing the Department. These areas are addressed in greater depth in our recent *Top Management Challenges* report, which we prepare annually as required by the Reports Consolidation Act of 2000.¹ Our *Top Management Challenges (TMC)* report identifies what we consider, from our oversight perspective, to be the most significant management and performance challenges facing the Department:

Challenge 1. Stimulate economic growth in key industries, increase exports, and enhance stewardship of marine fisheries

Challenge 2. Increase oversight of resources entrusted by the public and invest for long-term benefits

Challenge 3. Strengthen security and investments in information technology

Challenge 4. Implement framework for acquisition project management and improve contracts oversight

Challenge 5. Reduce risks of cost overruns, schedule delays, and coverage gaps for the National Oceanic and Atmospheric Administration's (NOAA's) satellite programs

The challenges I will highlight today focus on the following areas:

- **NOAA Satellites**—reduce risks of cost overruns, schedule delays, and coverage gaps (challenge 5)
- **2020 Census**—implement design changes to contain life-cycle costs while maintaining enumeration quality (from challenge 2)
- **U.S. Patent and Trademark Office**—reduce the patent backlog, improve processing times, and effectively implement patent reform (from challenge 1)
- **Departmental Operational Controls and Oversight**—strengthen operational controls and oversight under constrained budgets (from challenges 1, 2, 3, and 4)

¹ 31 U.S.C. § 3516(d).

I. NOAA Satellites—Reduce Risks of Cost Overruns, Schedule Delays, and Coverage Gaps

Satellite programs remain the largest investment in the Department, comprising nearly 20 percent of the Department’s budget. The two most prominent programs, 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 2013 budget request. Strong program management and close oversight of these programs are needed to manage risks that, if not mitigated, could lead to cost overruns, schedule delays, and coverage gaps for the critical capabilities these programs will provide. Based on our work with these programs, we have identified four areas for management attention:

- Communicating with stakeholders to define JPSS capabilities, schedule, and cost baselines
- Ensuring adequate leadership and governance structure over JPSS development
- Developing a plan to support NOAA weather forecasting capabilities during coverage gaps
- Reducing program risks associated with GOES-R development

Communicating with Stakeholders to Define JPSS Capabilities, Schedule, and Cost Baselines

In our September 2011 audit report,² we recommended that NOAA develop a mechanism to provide executive and legislative decision makers, on a recurring basis, with complete, objective, and understandable information that illustrates the consequences of limiting satellite observational capabilities. Recently, the Senate Committee on Appropriations expressed frustration with NOAA’s “inability to control procurement costs or articulate reliable funding profiles.”³ This resulted in the Senate Committee losing confidence in NOAA’s ability to manage its portfolio of satellite acquisitions and the Committee considered transitioning these acquisitions entirely to National Aeronautics and Space Administration (NASA).

NOAA’s JPSS program uses 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 2011 budget submission, NOAA reported that the two-satellite JPSS program, running through 2024, would cost \$11.9 billion. Requirements changes and an extended life cycle through 2028 resulted in a December 2011 revised program cost projection of \$14.7 billion. In its FY 2013 budget submission, however, NOAA committed to capping the cost of the program at \$12.9 billion and submitted a nearly flat-line annual FYs 2013–17 budget estimate of approximately \$900 million, plus the cost of climate sensors previously budgeted under a different NOAA program. Although the program has since constructed a cost estimate to support the \$12.9 billion cost cap, its high-level requirements

² U.S. Department of Commerce Office of Inspector General, September 30, 2011. *Audit of the Joint Polar Satellite System: Challenges Must Be Met to Minimize Gaps in Polar Environmental Satellite Data*, OIG-11-034-A. Washington, DC: Department of Commerce OIG.

³ Senate Report 112-158 (discussing Committee rationale for transfer to NASA); Commerce, Justice, Science, and Related Agencies Appropriations Act, 2013, S. 2323, 112th Cong. (2012).

were recently finalized in October 2012. Pending decisions on lower-level requirements, acquisition strategies, and system design—particularly for the ground system and “free-flyer” satellites—could have ramifications for launch schedules and cost:

- The ground segment project recently completed its requirements review 5 months later than planned, in August 2012; it was originally scheduled to precede the program-level review that occurred in May 2012. Program officials have told us that there is a need to move to a more open, adaptable, standardized architecture that will allow the program to save costs by interfacing with international and other partners for mission data.
- There is a significant amount of uncertainty in requirements for free-flyer satellites, which will host search-and-rescue and data collection instruments, separate from the program’s primary satellites. For the free flyers, information security requirements had to be analyzed and ground support options determined. This uncertainty in requirements translates to uncertainty in the program’s life-cycle cost estimate.

During FY 2012, NOAA has made progress in prioritizing high-level JPSS requirements to support its commitment to capping the life-cycle costs at \$12.9 billion. While this approach shows serious management commitment, fitting requirements into a previously authorized budget increases the risk that requirements will be dropped or launches delayed in order to remain within the budget. NOAA needs to revisit the life-cycle cost estimates after finalizing JPSS requirements and work with the Department and Congressional representatives in adjusting its budget estimates.

Ensuring Adequate Leadership and Governance Structure over JPSS Development

More progress defining JPSS capabilities, schedule, and cost may have been possible if not for delays defining the program’s management control plan, which identifies governance structure and key program and NOAA positions. NOAA and NASA finally agreed to a management control plan for JPSS in February 2012, nearly 2 years after the program was started. The agencies are currently revising the management control plan to ensure the NOAA JPSS Director has the necessary authority and responsibility to direct all elements of the program and to ensure that systems engineering is integrated under a single program chief systems engineer.

Further, NOAA and its JPSS program have had key staff in acting, rather than permanently filled, capacities for extended periods of time (see table 1, below). Only the Under Secretary of Commerce for Oceans and Atmosphere and the Assistant Administrator for National Environmental Satellite, Data, and Information Service (NESDIS), positions have been permanently filled since the program’s inception. The Under Secretary recently returned to academia, resulting in a new discontinuity in senior management oversight of the program.

Table I. NOAA JPSS Program Authorities

Position	Status at Program Start (February 2010)	Current Status
Under Secretary of Commerce for Oceans and Atmosphere/ NOAA Administrator	Filled	Acting (February 2013)
Assistant Secretary for Environmental Observation and Prediction/Deputy Administrator	Vacant	Filled (May 2011)
Deputy Under Secretary for Operations	Filled	Acting (January–June 2012); Filled (July 2012–January 2013); Filled (new appointee, January 2013)
Assistant Administrator, NESDIS	Filled	Filled
NESDIS Deputy Assistant Administrator for Systems	Filled	Acting (February 2010–May 2012); Currently vacant
JPSS Director	Acting	Filled (September 2011)

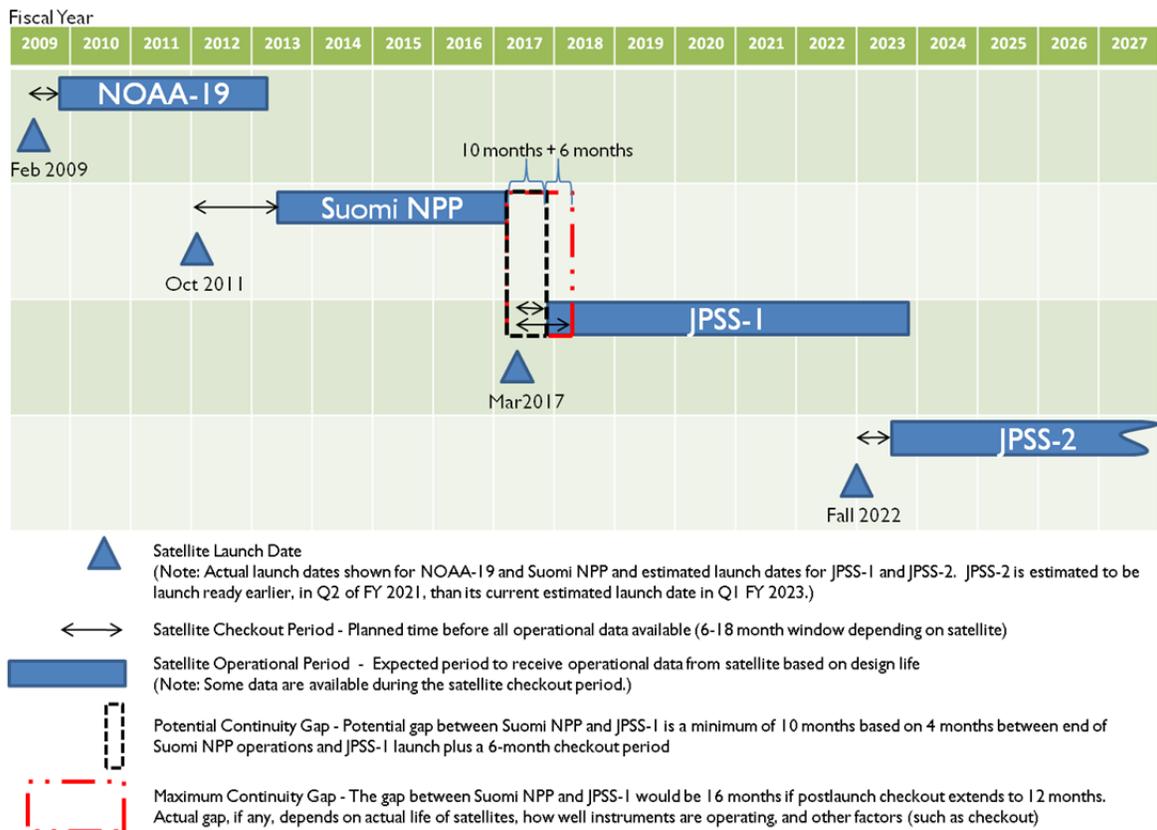
Source: OIG analysis of NOAA information

Qualified officials, who can make timely decisions and take management action, are essential to the success of JPSS development. For example, NOAA’s Deputy Under Secretary for Operations is deemed the final authority for the program’s high-level requirements, schedule, and budget submissions. The former official retired in January 2012 and was not permanently replaced until July 2012. The interim period included the FY 2013 President’s Budget submission and other decisions on high-level requirements. NOAA had additional turnover at this position after a little more than 6 months. The NESDIS Deputy Assistant Administrator for Systems (DAAS) position, which has served as NOAA’s single source of programmatic direction and guidance to NASA for NOAA programs, has been vacant since May 2012; NOAA does not expect to fill the position until summer 2013. Previously, this DAAS position was staffed in an acting capacity. Detailed employees, in acting capacities, occupy several other key positions within NESDIS and the program. NOAA needs to fill open positions overseeing JPSS development and govern the program according to an effective management plan.

Developing a Plan to Support NOAA Weather Forecasting Capabilities During Coverage Gaps

Over the course of the program to date, we have analyzed Suomi National Polar-orbiting Partnership (Suomi NPP, a recently launched, risk-reduction satellite that is flying the first versions of JPSS sensors) and JPSS schedules to assess expected gaps in weather forecast data. Currently, we project a 10–16-month gap between Suomi NPP’s end of design life and when JPSS-1 data become available for operational use (see figure 1, below). NOAA’s medium-range weather forecasting (3–7 days) could be significantly degraded during the period of time JPSS data are unavailable.

Figure I. Potential Continuity Gaps for Polar-Satellite Operational Forecast Data



Source: OIG analysis of JPSS program data

In our September 2011 report, we reported on activities within NOAA to use other sources of data to mitigate gaps and recommended NOAA coordinate efforts from across its line offices to minimize the degradation of weather and climate forecasting. In response, NOAA indicated that it was looking at both foreign and commercial sources of data. More recently, NESDIS developed a gap mitigation plan to minimize JPSS-1 schedule risks and possibly extend Suomi NPP’s lifetime. The plan includes options and strategies whose implementation is contingent upon further prioritization and funding decisions. NOAA has also begun an analysis of alternative sources of data and other ideas for minimizing the degradation of its weather forecasting capabilities in the event a gap in polar satellite data occurs. In the Disaster Relief Appropriations Act of 2013, Congress provided NOAA \$111 million for a weather satellite data mitigation gap reserve fund; NOAA must submit its spending plan to the House and Senate Appropriations Committees in March 2013.

The risk of a near-term gap between NOAA-19 (NOAA’s primary operational polar-orbiting satellite) and Suomi NPP has been largely mitigated and the program formally transferred operations to NOAA in February 2013.

Reducing Program Risks Associated with GOES-R Development

GOES-R is also a NOAA/NASA partnership; however, unlike JPSS, NOAA is managing the acquisition and development of the GOES-R ground system while NASA is directing the flight segment (spacecraft, instruments, launch vehicle and services). The GOES-R series of satellites 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 \$10.9 billion over the course of its life cycle.

Previous efforts to reduce risks and control costs resulted in reductions in the scope of the GOES-R program and deferred the delivery of some capabilities (see table 2, below). An instrument⁴ that would more accurately measure moisture and temperature at different heights in the atmosphere was removed in 2006 because it was technically complex. Two capabilities added in July 2010 were subsequently deferred indefinitely in an effort to control costs:

- Improvements in the frequency and speed at which data products are delivered to users; the program has returned to meeting the original frequency and speed requirements
- Plans to add 31 weather prediction and climate monitoring data products to the existing 34 baseline products

Table 2. GOES-R Capabilities Removed or Deferred

Program Content/Capability	Date	Current Status	Rationale
Hyperspectral Environmental Suite	August 2006	Similar information will be produced using data from another instrument	To reduce program risk (the instrument included unproven technology)
Improvements in the frequency and speed at which data products are delivered to users	September 2011	Returned to original (baseline) requirements	Necessary to meet cost limits
An additional 31 data products used for weather prediction and climate modeling	September 2011	Products are deferred for an undetermined time	Necessary to meet cost limits

Source: *OIG analysis of NOAA information*

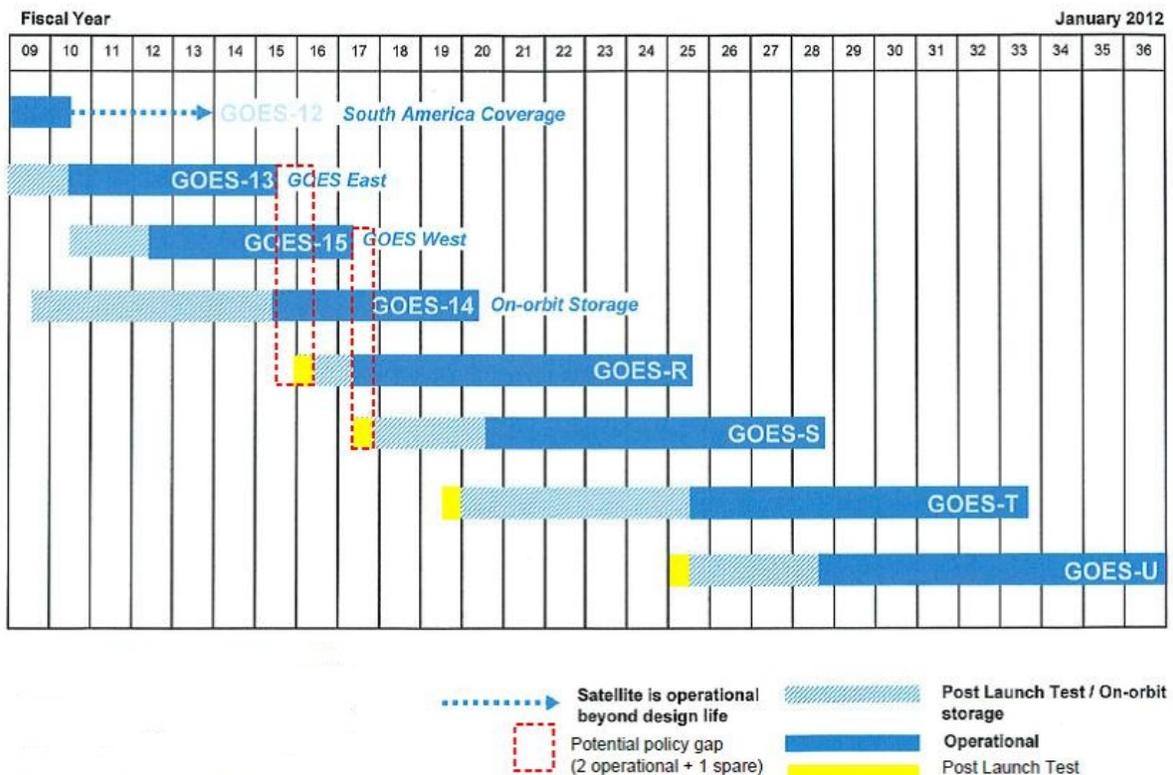
The GOES-R program recently held a key technical milestone review in August 2012. Subsequently, the program downgraded, from green to yellow, its assessment of schedule and technical development because of various issues with the spacecraft and instruments and the need to aggressively manage dependencies with the ground project’s development. The ground segment’s schedule has become more incremental—which will increase schedule flexibility, as well as better align the delivery schedule for GOES-R spacecraft, instruments, and documentation. Despite progress made, there is less than a 50 percent chance the GOES-R satellite will be launched on schedule, in October 2015, based on the program’s own models used to assess GOES-R development. Also, the program has identified increased risk in flight

⁴ The Hyperspectral Environmental Suite measures temperature and moisture in the atmosphere with improved accuracy.

segment development that could hinder its ability to launch on schedule. NOAA must implement solid program management and system engineering principles to control costs, keep schedules on track, and maintain required technical performance.

The program’s standing review board also warned at an August 2012 technical review that should the program’s request in the President’s FY 2013 budget submission (an increase of nearly \$200 million, or 30 percent, from FY 2012) not be realized, a launch delay is nearly certain, which could significantly limit NOAA’s capability of providing short-range severe weather warning. 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 (see figure 2, below). As we reported last year, NOAA may not be able to meet its policy of having an on-orbit spare even without a GOES-R launch delay, because of retirement of current GOES series satellites. A launch delay beyond October 2015 increases the risk that just one geostationary imager will be on orbit, a scenario in which NOAA’s capability to visualize and track severe weather events would be severely limited. NOAA needs to adequately communicate to decision makers its justification for the significant funding increase for FY 2013, citing such reasons as to order items that require long manufacturing lead times or to hire qualified engineers and technicians.

Figure 2. Continuity of Geostationary Operational Satellites



Source: OIG, adapted from NOAA geostationary satellite schedules

II. 2020 Census—Implement Design Changes to Contain Life-Cycle Costs While Maintaining Enumeration Quality

Because of the long planning cycles for the decennial census, one of the biggest challenges the Census Bureau faces is maintaining leadership with a consistent vision. Currently, the Bureau is approaching the 7-month mark without a permanent director, increasing the likelihood that it might fall back on old ways and institutional habits. The Bureau has vowed to contain the costs of the 2020 decennial census to an amount close the average cost per home of the 2010 decennial census—a life-cycle cost of no more than \$18 billion. To achieve cost savings, the Bureau is exploring new and innovative design alternatives based on evidence from its research and testing operations. However, the Bureau may be seeing signs of delays due to budget reductions and schedule slippage in its 2010 decennial census evaluation program and the 2020 decennial research and testing program. Schedule delays could impede the Bureau’s preliminary 2020 decennial design decision scheduled for September 2014. We have identified the following issues requiring senior management attention.

Maintaining Leadership Continuity and Departmental Oversight

Leadership continuity is essential to maintain momentum as planning progresses for the 2020 decennial census. The Presidential Appointment Efficiency and Streamlining Act of 2011 (Public Law 112–166), signed into law on August 10, 2012, specifies a fixed 5-year term for the Census Bureau director, which represents progress toward ensuring the leadership continuity required to direct the 2020 decennial life cycle. The Bureau does not have a confirmed director which adds risk to the Bureau’s management of critical issues (e.g., budget, operational design, and questionnaire content). Absent stable, committed leadership, any organization tends to revert to its embedded culture. Reverting to historical practices and limited design changes experienced in recent decennials will result in unsupportable cost growth for the next decennial. To coordinate ongoing activities leading to a cost-effective FY 2014 design decision, the appointment of a new director must be a priority.

Departmental oversight also should play a key role: early in the decennial census development process, oversight can reveal whether the Census Bureau has considered all reasonable project alternatives or whether it is assuming too much risk. In this way, the Department can work with the Bureau to address problems before unnecessary costs accumulate. For example, one difference this decade is the Department’s early attention to decennial planning efforts. Recently, the Commerce Information Technology Review Board examined decennial IT planning efforts and requested additional information from the Bureau. It is critical that Departmental management continues close oversight to help ensure decennial cost containment and quality.

Refining the American Community Survey and Multiple Response Options

The American Community Survey (ACS) infrastructure allows for the creation and testing of enterprise-wide solutions to obstacles that the Census Bureau faces in all of its survey and decennial operations. In our final 2010 Census report to Congress,⁵ we suggested that the

⁵DOC OIG, June 27, 2011. *Census 2010: Final Report to Congress*, OIG-11-030-I. Washington, DC: DOC OIG.

Bureau use the ACS to explore areas such as questionnaire content and design, multiple response options (such as the Internet), use of administrative records, and targeted field data collection procedures and methodologies. The Bureau's preliminary 2020 decennial cost estimates were based on the assumption that the ACS program would continue. With Congress debating the elimination of funding for this survey, management needs to factor into 2020 decennial planning efforts the significant uncertainty this would create.

In January of this year, the Census Bureau implemented an ACS Internet response option. Although the survey's response rate is about the same as it was a year ago, the Bureau collected more than 50 percent of the initial responses via the Internet, versus mail or telephone. Early 2020 decennial research and testing operations have not used the ACS, although there are plans to integrate testing mid-decade. The Bureau should seek opportunities to use the ACS in decennial operations as testing progresses to the development of production systems. Using this approach, the Bureau can minimize its reliance on creating single-use systems that must operate flawlessly in a decennial production environment. Instead, it could build systems over many developmental cycles (e.g., the ACS) during the decade.

Facilitating the Ability to Use Administrative Records

Currently, one of the focal points of 2020 decennial census research and testing agenda is using administrative records to improve the address list and reduce the number of visits to housing units that do not return the questionnaire. The Census Bureau's use of these records could potentially save billions of dollars over the life cycle of the next decennial. However, obtaining access to these records can be difficult because relevant statutes governing other federal agencies do not compel them to provide their records to the Bureau. In addition, as we recently reported,⁶ although tribal, state, county, and local governments share address information with the Bureau, Title 13 forbids the Bureau from reciprocating with those partners and federal agencies—with a few, very narrow, exceptions, such as the once-a-decade address-updating known as the Local Update of Census Addresses program. According to the Bureau, it is trying to identify opportunities that will provide detailed feedback to local governments throughout the decade for address list improvements. However, to facilitate a wide-ranging use of administrative records—key to containing 2020 decennial costs—management needs to seek Congressional guidance.

Completing 2020 Decennial Census Research and Testing

During FYs 2012–14, key Census Bureau research and testing occurs to support early design decision-making in FY 2014. As a result of a reduction in its budget request for FY 2012, the Bureau canceled 20 of 109 studies to measure its performance in the 2010 decennial census, and four evaluations remain outstanding. We are currently reviewing the implementation status of the Bureau's 2020 decennial research and testing program, including the extent of implementation, time frames for completion, milestones, and deliverables. We are concerned about the Bureau's ability to deliver the required results to make an informed preliminary design decision by September 2014. If this necessary research is not completed on time the

⁶DOC OIG, May 10, 2012. *High-Quality Maps and Accurate Addresses Are Needed to Achieve Census 2020 Cost-Saving Goals*, OIG-12-024-I. Washington, DC: DOC OIG.

Bureau may determine, as it has in the past, that the risks are too high to implement significant design changes—and revert to a familiar mailout–mailback, pencil-and-paper questionnaire without major cost-saving improvements. The Department, OIG, the Government Accountability Office, and Congress should pay particular attention to the Bureau’s progress over the next year. Decisions made during the next two years will set the course for how well the 2020 decennial count is performed and how much it will ultimately cost.

III. U.S. Patent and Trademark Office—Reduce the Patent Backlog, Improve Processing Times, and Effectively Implement Patent Reform

The U.S. Patent and Trademark Office (USPTO) fosters innovation and protects inventors’ intellectual property rights by registering trademarks and granting patents, which support \$5 trillion of the U.S. economy. Long waits for application decisions could adversely affect innovation, economic development, and job growth—inhibiting, for example, U.S. companies from exporting until they procure the appropriate patents for their products. Further challenges to economic growth arise as USPTO meets the challenges of implementing new legislation and the requirements of its general patent processing operations.

Addressing Backlogs

Over the past decade, the patent backlog has almost doubled, and the completion of patent reviews takes almost 3 years. Initially, the Under Secretary of Commerce for Intellectual Property set forth the goals of reducing the backlog of applications awaiting examiner action to a 10-month inventory (approximately 329,500 applications as of March 2012⁷) through decreasing the total processing time for patent applications to 10 months for the first office action by FY 2014 and 20 months total by FY 2015. (See figure 3, below, for pendency rates over the last 3 fiscal years of patent applications, appeals, and requests for continued examination, or RCEs.) USPTO later postponed these target dates to FYs 2015 and FY 2016, then to FYs 2016 and FY 2017 respectively.⁸ To reduce the long waits for patent application decisions, it is imperative that USPTO increase its efforts to address these challenges.

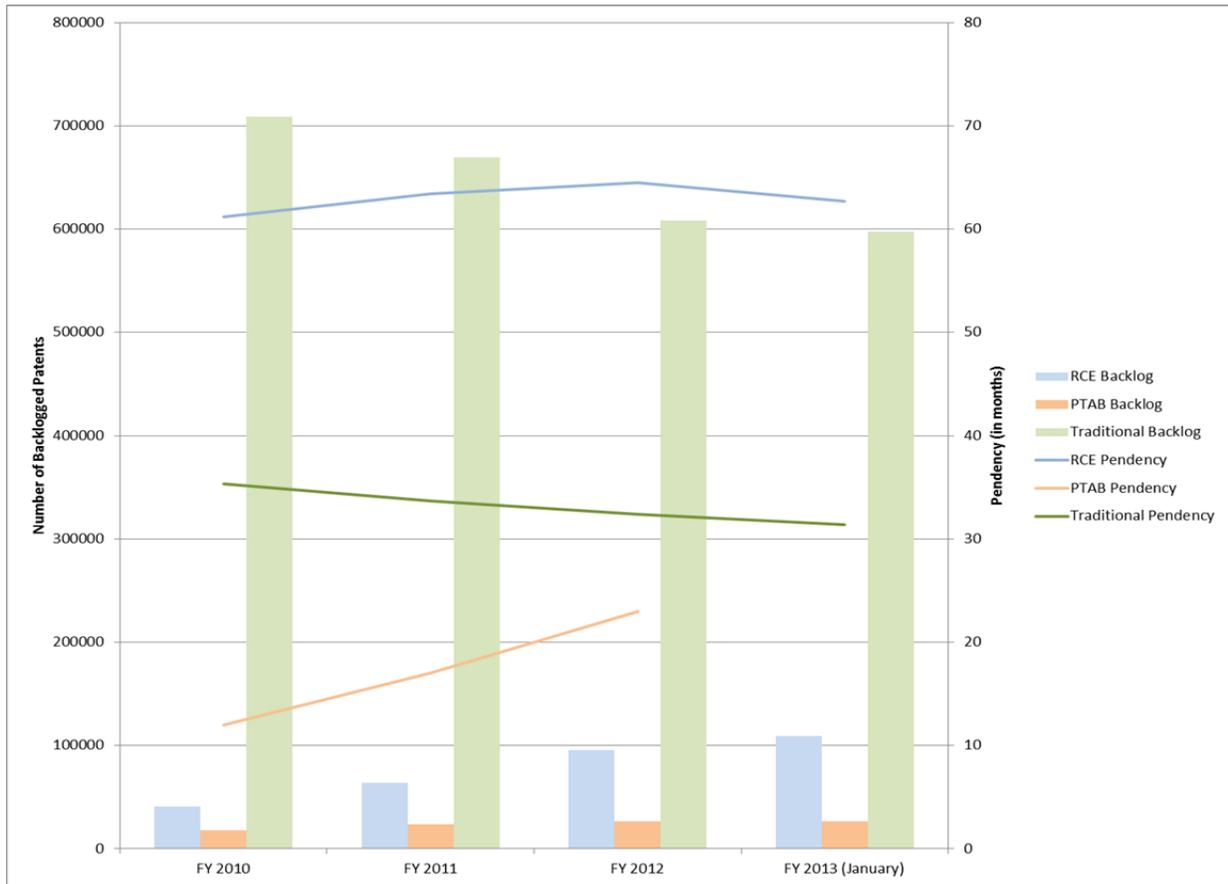
USPTO also has the challenge of reducing a second backlog: *ex parte*⁹ appeals for rejected patent applications. As the number of patent examiners has grown, the number of new *ex parte* appeals has grown significantly. Although it is difficult to estimate the exact increase in the number of new appeals before FY 2010 because of inaccuracies in the appeal data, new *ex parte* appeals have averaged nearly 12,800 annually between FY 2010 and FY 2012. The time it takes an appellant to receive a decision on an *ex parte* appeal has doubled in the past 2 years.

⁷ The exact number of applications that would comprise a 10-month inventory will vary based on the size of the patent examiner corps.

⁸ Sources for USPTO target dates for decreasing patent application processing time: USPTO FYs 2010–2015 strategic plan (FYs 2014 and 2015), FY 2013 President’s budget request (FYs 2015 and 2016), and the Department’s response to OIG’s October 2012 draft *TMC* report (FYs 2016 and 2017).

⁹ USPTO uses a Patent Trial and Appeal Board (PTAB) to help ensure that inventors have the opportunity to protest patent examiner decisions. Patent applicants may submit an *ex parte* appeal to the Board of Patent Appeals and Interferences (USPTO’s administrative law body) after any of their claims have been rejected twice by patent examiners.

Figure 3. Patent Backlogs and their Associated Pendency



Source: OIG analysis of USPTO data

Note: PTAB measures for January 2013 or end of first quarter 2013 are not available.

Although USPTO hired additional judges in FY 2012 and enhanced their performance benchmarks, this backlog requires continued management attention.¹⁰

USPTO has made reducing its backlog of unexamined patent applications and patent appeals key performance goals in its 2010–15 strategic plan. It has initiated efforts to reduce both backlogs—which, as of January 2013, stood at 597,579 and 26,474, respectively:

- First, USPTO began a program called Clearing the Oldest Patent Applications (COPA) in February 2011 to reduce patent pendency by eliminating the backlog of all unexamined patent applications filed on or before June 7, 2009. This program began with 233,780 unexamined applications and, as of February 2013, it only had 193—at which point USPTO ended the COPA program. USPTO added more than 1,700 total examiners in FYs 2011 and 2012 to help reduce its patent application backlog. In FY 2010, USPTO began with a backlog of more than 700,000 unexamined applications.

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

They have made significant progress by reducing that backlog to 597,579 unexamined applications in January 2013.

- Second, the Patent Trial and Appeal Board (PTAB) has increased its staff of administrative patent judges from 100 in FY 2011 to 152 in FY 2012 and anticipates having 218 by the end of FY 2013 to help reduce its current backlog of 26,474 ex parte appeals.¹¹ My office reviewed PTAB's backlog and operations and issued an audit report on August 10, 2012, indicating that PTAB's staffing did not increase as the number of patent examiners increased. As a result, PTAB's backlog has significantly grown over the last 2 years. Our report made recommendations to improve PTAB operations.

USPTO faces a third backlog of requests for continued examination (RCEs). The American Inventors Protection Act of 1999 allowed applicants to request continued examination of a patent application for a fee after USPTO had provided its final decision. Over the last 2 years, the annual RCE backlog has more than doubled: from more than 48,000 in October 2010 to more than 109,000 in January 2013.

Although a new examiner count system implemented in February 2010 aimed to reduce the number of RCEs, new filings have remained fairly steady at around 155,000 per year over the last 3 years. As a result, on December 6, 2012, USPTO published a request for comments in the *Federal Register* to solicit public feedback on the factors that cause applicants to file RCEs. USPTO's deadline for receiving written comments in response to the December 6, 2012, *Federal Register* notice is March 11, 2013.

Implementing Patent Fees and AIA Provisions

In addition, USPTO faces new administrative and operational challenges in implementing the Leahy-Smith America Invents Act (AIA; Pub. L. No. 112-29). This September 2011 law contains many fundamental changes to patent laws and fees, as well as USPTO practices, such as moving the United States to a "first inventor-to-file" system from a "first-to-invent" system. These significant changes required USPTO to issue new regulations. USPTO has successfully met both its September 2012 and March 2013 deadlines to issue new rules required by the AIA. These fundamental changes required significant planning, outreach, and communication with stakeholders.

AIA allowed the USPTO Director to set or adjust any patent or trademark fee to cover the aggregate estimated USPTO costs for patent and trademark processing, services, and materials (including administrative costs). USPTO issued its final rule on setting and adjusting patent fees on January 18, 2013, with implementation scheduled for March 19, 2013. USPTO anticipates its new fees will provide a sufficient amount of aggregate revenue to cover its aggregate costs of operation, implement a sustainable funding model, reduce the current patent backlog, decrease patent application pendency, improve patent quality, and upgrade the office's IT capability. However, USPTO continues to face challenges in effectively developing and implementing technology solutions to support AIA requirements and its general patent processing operations.

¹¹ Before September 16, 2012, the Patent Trial and Appeal Board was known as the Board of Patent Appeals and Interferences.

My office is conducting an audit on the agency’s efforts to implement the provisions of this legislation and anticipates issuing a final report in late FY 2013.

AIA also contains 37 provisions for implementation within 4 years. As of February 19, 2013, we determined that 26 of 37 provisions (70 percent) had been implemented. Of the remaining 10 provisions, some reports are overdue while others have not yet reached their deadlines. Table 3 below summarizes the status of the 37 provisions:

Table 3. Status of AIA Provisions, as of February 19, 2013

Deliverable	Implemented	Overdue	Not Yet Due	Total
Rules	20	0	3	23
Reports	2	3	4	9
Programs	4	0	0	4
Requirement	0	0	1	1
TOTAL	26	3	8	37

Source: OIG analysis of USPTO data

IV. Departmental Operational Controls and Oversight—Strengthen Operational Controls and Oversight Under Constrained Budgets

Since FY 1999, the Department has received unqualified audit opinions on its financial statements. While these results have been successful from a financial reporting perspective, it is not an adequate benchmark for internal controls and management oversight of day-to-day operations, especially in today’s constrained budget environment. As emphasized in our most recent *TMC*, there is a greater risk that management will take shortcuts, loosen internal controls, and deemphasize oversight in order to devote resources to other requirements.

While management has increased Departmental-level oversight in recent years, such as reviewing high-risk IT investments and reducing use of high-risk contracts, more needs to be done. Recent concerns over conference spending and unauthorized reprogramming of funds have highlighted the importance of strong internal controls and the continued need for effective oversight.

Meeting Funds-Control Challenges

Budgetary mismanagement. In June 2012, the Appropriations Subcommittee approved the Department’s \$35.6 million reprogramming request to support NOAA National Weather Service (NWS) operations. An internal inquiry report prepared by the Department highlighted mismanagement of budgetary resources throughout NWS, as well as specific instances where accounting records were manipulated. This highlights the need for increased oversight and transparency.

To its credit, the Department has issued directives requiring immediate and across-the-board corrective actions and expanded management’s review of internal controls (per OMB Circular

A-123¹²) in response to this incident. However, the 6-month-long investigation of this incident and subsequent development and implementation of corrective actions have diverted management away from other critical functions. Departmental management needs to instill an accountability culture with increased transparency, readily available support, and independent validation. We are currently conducting a review of the Department's and NOAA's progress on its actions in response to the internal inquiry report.

Conference spending. In April 2012, we evaluated the Department's quarterly conference reporting process, in which it submitted to OIG costs, its report validation process, and an explanation of ongoing improvements to conference reporting guidance. Our objective was to determine whether the Department had established controls and provided guidance to bureaus for reporting quarterly conference data in the first quarter of FY 2012.

Our review found that the Department established initial operational processes and reporting guidance. However, these processes are still in development and need to become clearly established before the information in its periodic reports is fully reliable. We noted that:

- The bureaus over- and under-reported costs by \$37,000 and \$70,000, respectively, and reported \$280,000 in unsupported costs
- The Department accepted bureaus' conference spending data with only a limited validation of the reported data and planning procedures, which resulted in incorrect reporting for select conferences

The Department has also not been timely in submitting its quarterly conference spending reports to OIG as required; the Department has experienced delays and has not submitted reports on the three previous fiscal quarters.

The Department needs to address these concerns to ensure the reliability of conference data in future submissions. In addition, we are reviewing FYs 2011–12 conference costs associated with the Manufacturing Extension Partnership program, based on a Congressional request.

Addressing Issues of Ethics and Compliance Concerning Departmental Employees

Loosened internal controls and relaxed oversight can increase the misuse of federal funds and lessen public confidence in the government. The following investigative case examples underscore the need for stronger controls and more vigilant oversight to prevent fraud, waste, and abuse within the Department and among its grant recipients and contractors:

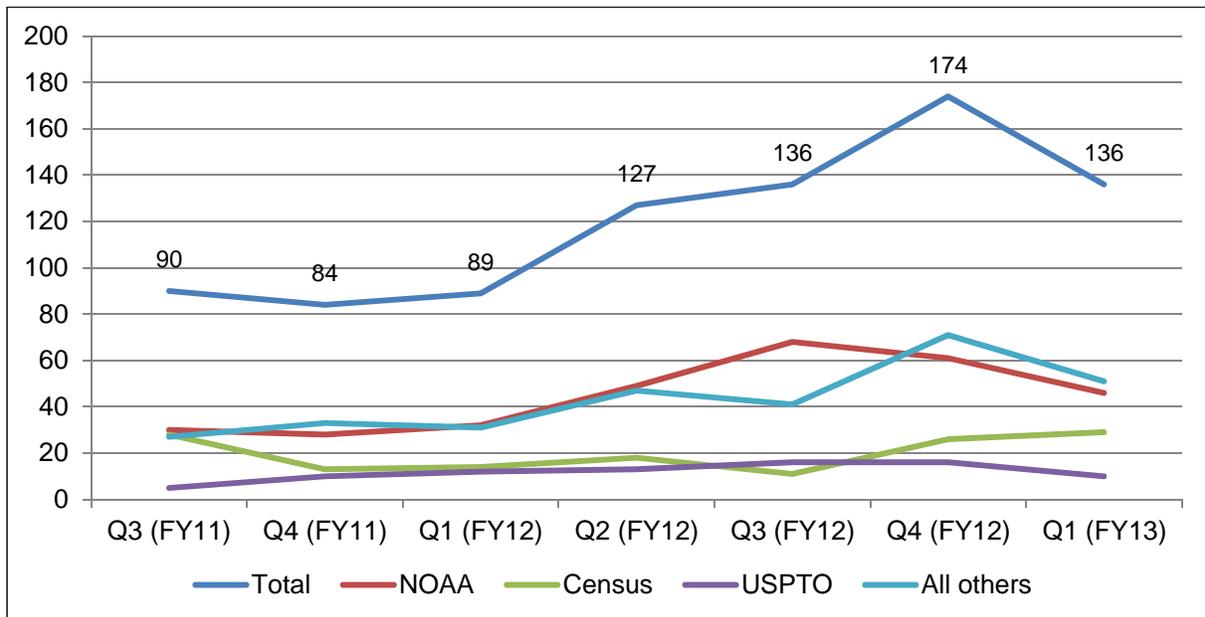
- Former executive directors of a commission that received a NOAA grant misused \$575,000 in grant funds; subsequently, they were indicted—and plead guilty—to charges of theft, bribery, and wire fraud
- A NIST grantee diverted more than \$100,000 from a \$2 million NIST grant to a related company for non-grant-related expenses

¹² Office of Management and Budget, December 21, 2004. *Management's Responsibility for Internal Control*, OMB Circular A-123. Washington, DC: OMB.

- Several recipients of Departmental funds committed price fixing, used defective merchandise, conducted money laundering, and made false statements

Over the past several quarters, complaints made to the OIG hotline have generally increased (see figure 4 below), driven largely by growth in complaints related to NOAA and other smaller bureaus. While some complaints may have been caused by misunderstanding or miscommunication, OIG reviews all complaints with due diligence.

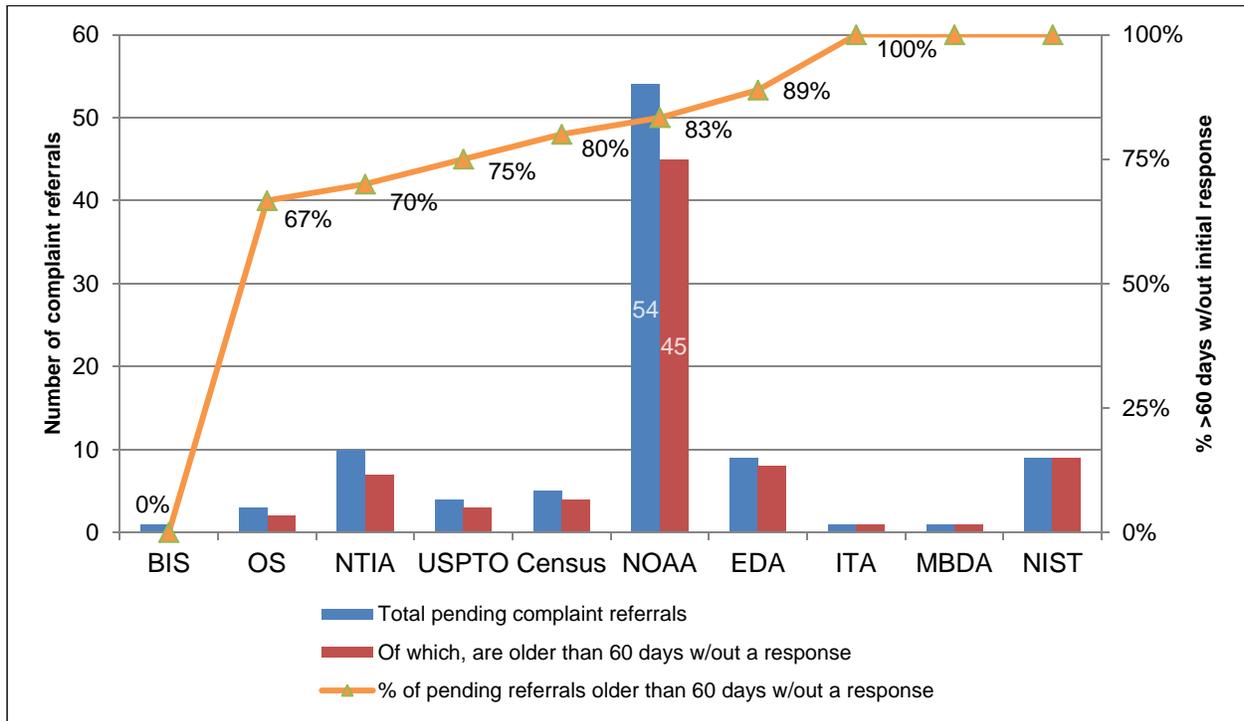
**Figure 4. OIG Hotline Complaint Activity
(Third Quarter FY 2011–First Quarter FY 2013)**



Source: OIG data, January 2013

OIG provides complaints related to mismanagement and minor misconduct to the responsible bureaus for proper handling. However, many cases referred to bureaus for inquiry have not been handled in a timely manner (see figure 5 below). As of February 26, 2013, OIG had 97 cases pending an initial response from bureaus, of which 80 (83 percent) were older than 60 days. Departmental policy requires that bureaus provide OIG with a written response within 60 days of receiving a complaint referral.

Figure 5. OIG Hotline Complaint Referrals Older than 60 Days Without an Initial Response



Source: OIG data, February 2013

To provide effective oversight, the Department must address complaints referred by OIG promptly and work to provide effective internal controls to help prevent issues before they occur. We will continue working with the Department to enhance handling of these complaints.

Strengthening IT Security and Investments

In FY 2012, the Department planned to invest \$2.4 billion in IT. This is about 25 percent of its annual budget, one of the highest percentages devoted to IT among all civilian agencies. The Department and its operating units rely on IT to support major mission activities, such as producing the decennial census; releasing vital economic statistics (e.g., the gross domestic product and consumer spending); granting patents and trademarks; issuing severe weather alerts; and operating weather satellites. However, we have identified major concerns in the Department's IT security posture and fragmented IT governance.

While the Department's Office of the Chief Information Officer (OCIO) has taken steps to strengthen IT governance, we continue to find significant security vulnerabilities in bureau systems that could lead, and already have led, to service disruptions and loss of sensitive information. Four priorities for management attention are:

- Continuing to improve the Department's IT security posture by addressing persistent security weaknesses
- Developing resilient incident response and recovery capabilities with increased monitoring of Internet traffic
- Managing the Department's IT portfolio with enhanced governance structure
- Strengthening oversight of IT investments

Continuing to improve the Department's IT security posture by addressing persistent security weaknesses. In recent years, we have repeatedly identified significant weaknesses in basic security measures protecting IT systems and information, such as high-risk vulnerabilities, deficient patch management, inadequate secure configurations, and ineffective vulnerability scanning. In January 2013, the Department's OCIO started deploying an enterprise-wide solution—the Enterprise Cybersecurity Monitoring and Operations (ECMO). This solution will provide an automated mechanism to address these persistent security weaknesses on information system components, such as workstations and servers. ECMO is funded through yearly working capital fund contributions from all Commerce operating units. When completed, it should provide ongoing awareness of information security vulnerabilities and threats to support risk management decisions for the entire Department, as required by the Office of Management and Budget.

Developing resilient incident response and recovery capabilities with increased monitoring of internet traffic. Later this year, we will issue a report based on our ongoing review of the EDA incident that began in December 2011. Our report will highlight the challenges that the Department faces when responding to a cyber event. To address these challenges, the Department OCIO is conducting an internal review of its Computer Incident Response Team (DOC CIRT) capability to determine whether DOC CIRT's practices and processes are aligned with federal and Departmental policies, standards, and guidelines. In addition, the assessment will identify areas for improvement and focus on strengthening the organizational structure, roles and responsibilities for incident identification, analysis, response, and reporting. This review is scheduled to be completed in March 2013. In addition, OIG is initiating an audit of Department-wide incident handling capabilities.

The Department has made a concerted effort to implement OMB's Trusted Internet Connection (TIC) initiative, which should better monitor cyber threats from the Internet. All operating units, except the Census Bureau, have definite timelines for TIC implementation. Due to the concern over TIC's inspection process, which could allow third parties to access sensitive information that must be protected against disclosure by Title 13 of the United States Code, The Census Bureau has no definite timeline for TIC implementation. In our *TMC* report, we asked the Department to assign a high priority to helping the Bureau resolve its concern about potential violation of Title 13 requirements. So far, no significant progress has been made.

Also, the Department OCIO is currently initiating the Enterprise Security Operations Center, which will support centralized monitoring of the Department's networks in near real-time, 24 hours a day, 7 days a week. Currently, the Department is facing challenges in acquiring funding for FY 2014.

Managing the Department's IT portfolio with enhanced governance structure. We previously attributed the Department's long-standing information security weaknesses to its fragmented CIO governance, which resulted in stovepipes in IT investments and difficulties in fixing persistent security weaknesses. In June 2012, the Acting Secretary issued the "Department IT Portfolio Management Strategy," which expanded the role of the Department's CIO. Previously limited to policymaking and infrastructure maintenance, the Commerce CIO now implements Department-wide IT shared commodity services, approves bureaus' IT investments, and provides at least 25 percent of performance appraisals of individuals responsible for IT commodity services. Under the new strategy, there will be only one CIO per bureau for better accountability.

This new strategy is an important step. However, it is too early to judge its effectiveness for two reasons. First, historically, operating units have functioned independently on IT matters with little Departmental direction. Second, the new strategy focused on increasing the Department CIO's influence on IT shared commodity services such as networks, data centers, and e-mails, which account for only about 25 percent of the Department's total IT investments. Senior management should consider further enhancing the IT governance structure to help ensure the Department's success with major IT investments.

Strengthening oversight of IT investments. The Department's IT review board, led by the CIO and Chief Financial Officer (CFO), reviews major IT investments for status updates and requests for additional spending authority and conducts TechStat reviews, which focus on putting troubled investments back on track. The Department's CIO has taken steps to improve the IT investment review process, such as having operating units submit project information to the CIO's subject matter experts for analysis before the review meeting. In our November 2012 *Top Management Challenges*, we noted that three of six troubled IT investments had remained at high risk for more than 12 months, and about 25 percent of the Department's major IT investments were 30 percent or more behind schedule. The situation has improved since then: as of February 2013, two investments are at high risk. However, the CIO and CFO, in conjunction with operating unit heads, must continue to ensure that program management is more aggressively addressing investments with a history of high risk.

Improving Contracts Oversight

In FY 2012, the Department obligated approximately \$2.4 billion on contracts for goods and services, including satellite acquisitions, intellectual property protection, broadband technology opportunities, management of coastal and ocean resources, IT, and construction and facilities management. Table 4 (below) illustrates the amounts that the Department's operating units have obligated through contracts in recent years.

Table 4. Amounts Obligated by Departmental Operating Units

Commerce Acquisition Office	FY 2010		FY 2011		FY 2012	
	Contract Actions ^a	Amount ^b	Contract Actions	Amount ^b	Contract actions	Amount ^b
NOAA	16,087	\$1,624	14,159	\$1,160	13,939	\$1,204
Census	3,187	1,312	1,849	522	1,957	249
USPTO	1,619	431	2,134	388	2,540	588
NIST	4,992	505	5,224	253	5,792	244
Office of the Secretary	870	53	1,161	44	1,023	64
TOTAL	26,755	\$3,925	24,527	\$2,367	25,251	\$2,349

Source: Department of Commerce Office of Acquisition Management

^a Include contracts, delivery orders, task orders, and contract modifications; ^b in \$ millions.

To maximize the effective use of these funds, the Department needs to strengthen its acquisition and contract management practices. While it has made some progress—such as reorganizing the Office of Acquisition Management to more directly address major acquisition initiatives and implementing an Acquisition Center of Excellence—our audit work continues to find weaknesses in how the Department plans, administers, and oversees its contracts and acquisition programs. We have identified three tasks for management attention:

- Oversee high-risk contracts
- Maintain a sufficient acquisition workforce
- Implement an effective suspension and debarment program

Oversee high-risk contracts. In FY 2011, the Department reported progress in reducing dollar amounts of high-risk contract awards. Despite this progress, overseeing existing high-risk contracts remains a challenge to management. We continue to find weaknesses in the use of cost-plus-award-fee (CPAF) and cost-plus-award-term (CPAT) contracts, which put the Department’s contract dollars at risk. CPAF and CPAT contracts can encourage excellence by providing financial incentives based on performance, but they require effective contract provisions and monitoring to ensure contract dollars are spent wisely and award fees and terms are justified.

In May 2012, we reported that NOAA did not use measurable evaluation criteria or payment structures to motivate exceptional performance. Ultimately, NOAA consistently gave contractors high ratings and substantial award fees and contract extensions, despite lacking adequate support for their actual performance, as measured by evaluation criteria and required by the Office of Management and Budget. Based on our audit, we found that more than \$40 million was paid in award fees or approved for contract extensions without proper justification. While NOAA has recently stated it has updated its policies and taken steps to improve oversight of CPAF and CPAT contracts, effective implementation of its measures will be critical to ensuring it does not pay improper award fees and extend contract terms.

Poor data systems could also undermine the Department’s efforts in managing its high-risk contracts. Our audits have found that Departmental acquisition information reported in the

Federal Procurement Data System–Next Generation (FPDS–NG) is incomplete and inaccurate. For example, in May 2012, we reported that the complete picture of NOAA’s use of CPAF and CPAT contracts was unclear. Data reported in FPDS–NG and NOAA records on the use of CPAF and CPAT contracts were also inaccurate and incomplete.¹³ To continue our focus in areas of high-risk contract practices within the Department, we initiated an audit of the Department’s management of time and material and labor hours contracts and will be reporting on this issue later this year. These contracts are considered high-risk award actions because they offer little or no incentive to contractors to operate efficiently and minimize costs to the government.

Maintain a sufficient acquisition workforce. In a March 2009 memorandum, the President acknowledged that the federal government needs to ensure that it has 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. However, the capacity and the capability of the Department’s acquisition workforce to oversee and manage contracts face major challenges due to high turnover and employee retirement, coupled with a significantly reduced budget, gaps in key competency areas, and expanded workload. Like many federal agencies, the Department is faced with the major challenge of replacing existing talent because of a large number of retirements expected over the next several years. Of the approximately 200 contracting officers and specialists that the Department employs, more than half can retire within 10 years. In addition, 14 percent of them are eligible for immediate retirement. Replacing these employees represents a significant challenge, as many possess unique skills and institutional knowledge that will be difficult to replace.

Implement an effective suspension and debarment program. We previously reported on the challenges facing the Department in ensuring that it contracts with and provides funding assistance only to responsible parties.¹⁴ Since finalizing its first suspension or debarment action in over 15 years, in April 2011, the Department has made progress toward establishing an efficient and durable suspension and debarment program. OIG has referred 10 matters, including five since September 2011, to the Department’s suspending and debarment official (SDO). Based on these referrals, the SDO has taken 48 total actions and declined one referral.

The SDO continues efforts toward establishing a strong program, including:

- Regular attendance at monthly meetings of the Interagency Suspension and Debarment Committee
- Designation of a Suspension and Debarment Coordinator, who serves as a focal point for the program
- Preliminary planning for routine intradepartmental training on suspension and debarment

¹³ NOAA is the largest of all of the Department’s procurement offices, obligating nearly half of the FY 2011 funding.

¹⁴ DOC OIG, October 2011. *Top Management Challenges Facing the Department of Commerce*, OIG-12-003. Washington, DC: DOC OIG.

- Establishment of regular meetings with the Department's Office of General Counsel and OIG's Office of Counsel

However, certain issues present ongoing challenges. Although the SDO's office has begun drafting policy documents to institutionalize processes and procedures regarding the referral, review, and issuance of suspension and debarment matters, the adoption process needs to be finalized. Also, even though the SDO's processing efficiency has increased over the past year, there is room for improvement regarding the prompt review of referrals. In addition, the program lacks a clear delineation of roles and responsibilities in such important areas as revising and adapting draft documents prepared by OIG for possible use in suspension and debarment actions and appropriately following up on actions once taken.

Overseeing Use of Federal Funds Awarded to Grantees

The Department has more than 70 programs authorized to award grants. Between FYs 2009 and 2011, these programs issued almost \$10 billion in American Recovery and Reinvestment Act of 2009 (Recovery Act) and non-Recovery Act awards. Ensuring timely resolution of grant audit findings and corrective actions is an essential aspect of grant oversight. In December 2012, we reported to the Department that there were 12 unresolved audits, including 1 that was past due.

With approximately \$3.8 billion in grant awards, the Recovery Act-funded Broadband Technology Opportunities Program (BTOP) represents the most significant investment of federal funds in the Department. As of December 31, 2012, about 33 percent of BTOP funds remain to be disbursed. As these projects near their required 3-year completion dates (between November 2012 and September 30, 2013), the potential for fraud, waste, and abuse associated with such large-dollar-amount awards will increase as recipient spending increases. Management needs to remain committed to monitoring BTOP recipient compliance with grant award terms and achievement of intended benefits.

Strengthening Spectrum Management and Public Safety

On February 22, 2012, the President signed the Middle Class Tax Relief and Job Creation Act of 2012, which assigned the D-Block spectrum and provided \$7 billion to NTIA to establish an interoperable nationwide Public Safety Broadband Network (PSBN). As required by the legislation, NTIA has established an independent authority called First Responder Network Authority (FirstNet) to be the holder of the existing public safety spectrum and be responsible for the establishment and deployment of the PSBN. It is important for NTIA to take into consideration the lessons learned from earlier public safety network efforts when establishing FirstNet, such as establishing local/state governance structures in compressed timeframes.

Radio frequency spectrum provides an array of wireless communications services critical to the US economy and supports a variety of government functions.¹⁵ In June 2010, the President requested that 500 MHz of spectrum be freed up for commercial sale. The National Telecommunications and Information Administration (NTIA) announced in March 2012, that the federal government intends to repurpose 95 MHz of prime spectrum for commercial use, if

¹⁵ U.S. Government Accountability Office, April 2011. *Spectrum Management*, Washington, DC: GAO, 1

certain challenges are met. However, the \$18 billion price tag to relocate existing federal users could make this cost prohibitive. A July 2012 report by the President’s Council of Advisors on Science and Technology recommended that up to 1000 MHz of federal spectrum be made available for a “shared use spectrum superhighway,”¹⁶ between federal agencies and commercial providers. Recent technology advances make the shared-use architecture feasible in the near future; however, many challenges such as lack of incentive for commercial providers to bid for shared spectrum, revenue generation, and rights of use issues must be addressed to make this effort a possibility. A strong partnership between the federal government (i.e., NTIA and the Federal Communications Commission) and commercial providers will be needed to make this program a reality.

* * *

This concludes my prepared statement, and I will be pleased to respond to any questions you or other Subcommittee members may have.

¹⁶ President’s Council of Advisors on Science and Technology, July 2012. *Realizing the Full Potential of Government-Held Spectrum to Spur Economic Growth*. Washington, DC: President’s Council of Advisors on Science and Technology, 11.