U.S. DEPARTMENT OF COMMERCE
Office of Inspector General

Office of the Secretary

Top Management Challenges Facing the Department of Commerce

Final Report OIG-11-015
December 20, 2010

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Office of Audit and Evaluation

UNITED STATES DEPARTMENT OF COMMERCE
The Inspector General
Washington, D.C. 20230

December 20, 2010

MEMORANDUM FOR THE SECRETARY

Todd J. Zinser

FROM: Todd J. Zinser

SUBJECT: Top Management Challenges Facing the Department

Enclosed is our report on the Department of Commerce's top management challenges for fiscal year (FY) 2011. The Office of Inspector General (OIG) is required by statute to annually report the top management challenges facing the Department of Commerce.[1] The purpose of the report is to identify what we consider, from our oversight perspective, the most significant management and performance issues facing Commerce in the coming fiscal year.

In this year's report, we describe eight challenges, several of which are longstanding concerns. They include strengthening Department-wide information security, managing the cost and technical performance of the National Oceanic and Atmospheric Administration's (NOAA's) environmental satellite acquisition programs, and reducing patent application backlogs. At the same time, the Department must address new concerns, such as overseeing the rapid disbursement of billions of dollars to stimulate the economy as a result of the American Recovery and Reinvestment Act. These challenges may require the Department or its operating units to invest in new technologies or substantially change such areas as procedures, program activities, or organizational culture. We are performing an ongoing body of work and planning additional efforts to help the Department effectively manage these and other emerging issues.

Commerce has been proactive in its efforts to address several challenges we have identified in previous years. For example, we recognize your commitment to your office's restructuring initiatives, which include establishing new leadership positions for performance management and program evaluation. Additionally, the comprehensive review your office is performing of Department-wide acquisition processes will be instrumental in determining ways to strengthen and improve the quality of Commerce's acquisitions.

The Department also plays a pivotal role in the President's priorities of national economic growth and job creation. For the upcoming fiscal year, the Department plans to spend about $9 billion on a wide range of programs and initiatives to meet these objectives. We note your recent meeting with the career leadership of the Department, during which you outlined your

[1] 31 U.S.C. § 3516(d).

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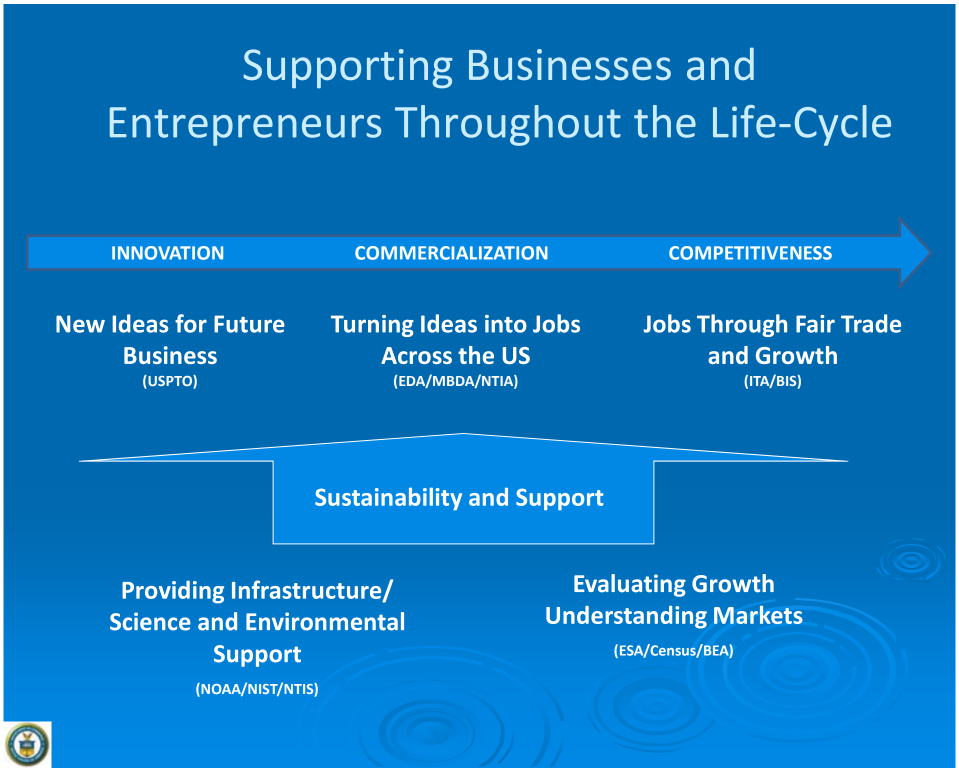
strategic priorities and management expectations for the year ahead in promoting "Supporting Businesses and Entrepreneurs Throughout the Life-Cycle."



These strategic priorities were also presented as part of a model that is intended to move away from the view of the Commerce Department as a "holding company of disparate bureaus" to a more integrated Department that leverages the strengths of its various operating units to achieve the goals you have outlined. Our management challenges report underscores this vision and the emphasis you have placed on the need for strong and integrated departmental management.

We appreciate the support you have demonstrated for strong oversight of Department programs and operations, and look forward to working with you and the Secretarial Officers in the coming year on the management challenges facing the Department. We welcome the opportunity to discuss these challenges and any comments you might have. Please feel free to contact me at (202) 482-4661.

Contents

IT Security

Strengthening Department-Wide Information Security

The Department uses over 300 information technology (IT) systems to fulfill cross-cutting responsibilities in trade, technology, entrepreneurship, economic development, environmental stewardship, and statistical research and analysis. These systems perform functions as varied as processing census and economic data, managing patent and trademark applications, handling atmospheric and meteorological data, and controlling weather satellites. The Department must ensure that these systems maintain the confidentiality, integrity, and availability of information by providing protection from a growing range of malicious attacks. Cyber attacks against the government continue to increase in frequency and level of sophistication, and federal agencies must improve their ability to cope with them. Although the Department of Commerce has put forth extra effort to reinforce its cyber defenses, our ongoing assessment of Commerce's progress toward implementing effective IT security shows there is more to be accomplished.

In the past year, the Department has taken steps toward improving the capabilities of its IT security workforce and developed a long-term strategic plan that should enhance its ability to identify vulnerabilities and detect malicious activities. However, in both agency and contractor systems we continue to find security weaknesses that undermine the Department's ability to defend its systems and information. Our FY 2010 Federal Information Security Management Act (FISMA) audit identified significant issues requiring management attention. Most concerning, system components had high-risk vulnerabilities that were previously unknown due to inadequate policy, procedures, and practices for patch management and vulnerability scanning. These deficiencies increase the risk of serious compromise of information confidentiality, integrity, and availability.

While Commerce Has Plans to Strengthen IT Security, Successful Implementation Is Crucial

In response to an OIG audit of the Department's IT security workforce, completed in September 2009, the Department established a policy, effective for all operating units, requiring mandatory training for those employees with significant IT security responsibilities. The policy identifies specific IT security roles along with yearly minimum training hours and approved modes of training. Encouragingly, the policy also requires professional certifications for those with critical IT security roles. The Department has also implemented a cyber security employee development program designed to assist individuals who have not earned an approved industry professional security certification. In addition, the Department's Office of the Chief Information Officer (CIO) and the Office of Human Resources issued joint memorandums to address performance management and accountability issues identified in our workforce audit. These memorandums provided specific performance requirements to be incorporated in performance plans for individuals holding critical IT security roles within the Department.

Recently, the Department's CIO, along with the CIO Council, developed an IT security strategic plan that includes initiatives for enterprise continuous monitoring and an enterprise security operations center. The enterprise continuous monitoring initiative is intended to standardize common security products and implement a Commerce-wide monitoring architecture that will provide consistent, efficient, and effective common controls and situational awareness for each operating unit and at the Department level. The enterprise security operations center initiative is intended to provide security monitoring to detect cyber attacks, system compromises, policy violations, and other system problems. The initiatives are currently targeted for implementation in FY 2012.

The IT security workforce initiatives and strategic plan for continuous monitoring and security operations center should enhance the Department's ability to secure its systems, but these efforts will require management's continued attention in the years to come. More needs to be done, however, to ensure consistent, effective security controls are in place Department-wide. Under FISMA and Department policy, IT security is a responsibility shared by senior program officials and the CIO. Also, operating units have roles and responsibilities that parallel those at the Department level, with the operating unit head ultimately responsible for the security of the unit's systems. In addition, authorizing officials, who have the authority to oversee an information system's budget and operations, assume the responsibility for operating IT systems at an acceptable level of risk. Thus, management attention at the operating unit level as well as the Department level is crucial to the success of these initiatives.

Significant Weaknesses in IT Security Remain

In our FY 2010 FISMA audit report, we concluded that the Department's information security program and practices have not adequately secured Department systems. The report presents four major findings that require senior management attention.

The vulnerability scans we conducted revealed previously unidentified high-risk vulnerabilities, which increase the risk of a serious breach of IT systems. Weaknesses in contingency preparedness, security plans, and control assessments may also increase the risk that Commerce's systems are not sufficiently protected from cyber attack or other prolonged disruptions. Finally, we found that the Department's process for reporting and tracking security weaknesses is deficient, affecting its ability to monitor operating units' corrective actions and potentially corrupting performance measures. We recommended that the Department revise its information technology security policy by providing specific implementation guidance that will ensure more effective and consistent practices across the Department. Further, increased management attention is required to ensure that the deficiencies identified are addressed Department-wide.

Since FY 2001, Commerce's annual *Performance and Accountability Report* has reported information security as a material weakness,[1] at our recommendation, because of deficiencies in the Department's certification and accreditation (C&A) process. We recently recommended the

[1]A material weakness is a management control deficiency that the agency head determines to be significant enough to be reported outside the agency (i.e., included in the annual Integrity Act report to the President and Congress, Federal Managers' Financial Integrity Act of 1982, Pub. L. No. 97-255 [codified as amended in scattered sections of 31 U.S.C.]).

Department assess its information security program as a significant deficiency[2] instead, based on three factors:

1) a government-wide policy change has increased the emphasis on continuous monitoring and lessened the emphasis on the C&A process;

2) the actions associated with the Department's C&A process improvement strategy have strengthened the security posture of the Department; and

3) our audit findings indicate that IT security control weaknesses are resulting from an insufficient continuous monitoring process.

Although the IT security strategic plan identifies continuous monitoring as a top priority for improvement, operating units should initiate improvements immediately since this plan is not scheduled for implementation until 2012 and is dependent upon adequate funding.

For more information, view the reports listed below at www.oig.doc.gov:

- Federal Information Security Management Act Audit Identified Significant Issues Requiring Management Attention (OIG-11-012-A, November 15, 2010)

- Respondent Data Safeguards in the Decennial Response Integration System (DRIS) (OAE-19888, September 2010)

- Top Management Challenges Facing the Department of Commerce (OIG-19884, January 2010)

- FY 2009 FISMA Assessment of the Environmental Satellite Processing Center (OAE-19730, January 2010) [abstract only]

- FY 2009 FISMA Assessment of the Enterprise UNIX Services System (OAE-19729, November 2009)

- FY 2009 FISMA Assessment of the Patent Cooperation Treaty Search Recordation System (OAE-19731, November 2009)

- FY 2009 FISMA Assessment of the Field Data Collection Automation System (OAE-19728, November 2009)

[2] A significant deficiency is a deficiency, or a combination of deficiencies, that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

NOAA Environmental Satellite Programs

Effectively Managing the Development and Acquisition of NOAA's Environmental Satellite Programs

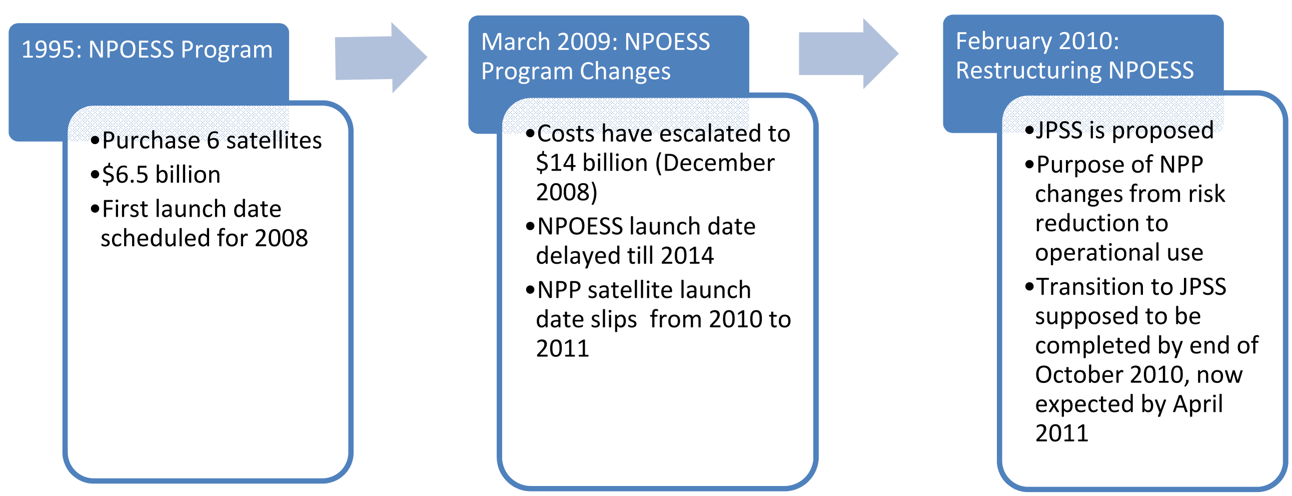
NOAA is modernizing its environmental monitoring capabilities, in part by spending nearly $20 billion on two critical satellite systems: the Joint Polar Satellite System (JPSS) and the Geostationary Operational Environmental Satellite-R Series (GOES-R). These systems are designed to provide data that will monitor Earth's environments, support the nation's economy, and protect lives and property from environmental disasters.

JPSS' predecessor program, the National Polar-Orbiting Operational Environmental Satellite System (NPOESS), and GOES-R have histories of cost overruns, schedule delays, and reduced performance capabilities. They require close oversight to minimize further disruption to the programs and prevent any gaps in satellite coverage. Such gaps could compromise the United States' ability to forecast weather and monitor climate, which would have serious consequences for the safety and security of the nation.

JPSS Background

The NPOESS program, which was initiated in 1995, suffered significant setbacks that affected its budgets, costs, and launch dates; the launch date of the NPOESS Preparatory Project (NPP) satellite, a National Aeronautics and Space Administration (NASA)-led risk reduction effort to test NPOESS' new instruments in flight, was also delayed (figure 1). As a result of a February 1, 2010, decision to significantly restructure the NPOESS program, JPSS was established as NOAA's component of the national polar environmental satellite capability, and NPP will now be used operationally to maintain continuity of climate and weather forecast data between NOAA's current polar-orbiting operational environmental satellite and the first JPSS satellite.

Figure 1. NPOESS/JPSS Timeline



Source: OIG

Further Delays Preventing Successful Transition from NPOESS to JPSS Must Be Minimized to Reduce Risk of Gaps in Polar Environmental Data

The transition to the restructured program was expected to be completed by the end of FY 2010. However, due to delays in transition activities—including the transfer of satellite instruments and ground system to the JPSS program—the Department of Defense, NASA, and NOAA (the three agencies that were partners for the NPOESS program) had agreed to the goal of completing the transfer of all property required by JPSS by the end of the first quarter of FY 2011. While the ground system and some of the instruments have been transferred, there is an increasing likelihood that the remaining instrument property transfers will not be completed by the end of December 2010 due to ongoing contract negotiations. Nevertheless, all remaining transition activities are planned to be completed by April 2011. Additional delays could result in slipping the launch readiness dates of NPP and the first JPSS satellite.

JPSS Ground System Development Must Be Completed on Time to Support October 2011 NPP and 2015 JPSS Satellite 1 Launch Readiness Dates

While all of the instruments required for NPP have been integrated onto the satellite and both are undergoing environmental testing, the ground system's maturity level is not where it should be at this point in the development schedule. During the development of the ground system, some issues were uncovered that must be fixed in order to meet near-term program milestones. Other issues must be resolved by the October 25, 2011, launch readiness date.

NOAA, with NASA as its acquisition agent, will continue to develop instruments for JPSS satellites 1 and 2 for its component of the polar environmental satellite capability. The JPSS management structure will be similar to GOES-R, in which NOAA manages the overall program with assistance from NASA. This management approach should leverage independent review team assessments, as is being done for GOES-R. Defense continues to evaluate the best approach for maintaining the continuity of its polar satellites. It is critical that NOAA and Defense implement their satellite programs on schedule to reduce the risk of gaps in coverage.

GOES-R Background

The GOES-R system is intended to offer an uninterrupted flow of high-quality data for short-range weather forecasting and warning, and to provide climate research data through 2028. Working with NASA, NOAA is responsible for managing the entire program and for acquiring the ground segment, which is used to control satellite operations and to generate and distribute instrument data products.

Cost increases, capability reductions, and project delays have historically plagued the GOES-R program. The projected cost has increased from $6.2 billion to $7.7 billion; a major satellite sensor was removed from the program; the number of satellites to be purchased was reduced from four to two;[3] and the launch readiness dates for the first two satellites have slipped by 6 months, to October 2015 and February 2017.

[3] An option for two additional satellites is included in the contract. These would be designated GOES-T and GOES-U during their development.

GOES-R Program Must Be Proactively Managed to Prevent Further Schedule Slips and Cost Growth

According to November 2010 program documentation, since the revision to the launch schedule in August 2009 the overall program acquisition has remained within budget and on time. However, during two program reviews, independent review teams identified areas of concern that have to be proactively managed. Accordingly, the GOES-R Program Office must address the teams' concerns, including

- obtaining and maintaining adequate contractor staffing for spacecraft development,
- reviewing the spacecraft design's applicability to the GOES-R mission,
- ensuring adequate end-to-end testing for program components (instruments, spacecraft, and ground), and
- verifying satellite operational facility readiness.

Any further delays in the satellite's launch readiness will increase NOAA's risk of not meeting its program requirements.

For more information, view the reports listed below at www.oig.doc.gov:

- IG Testimony before the Subcommittee on Commerce, Justice, Science, and Related Agencies, Committee on Appropriations, United States Senate (March 4, 2010)
- Top Management Challenges Facing the Department of Commerce (OIG-19884, January 2010)
- Semiannual Reports to Congress (March 2008 – September 2010)
- Top Management Challenges Facing the Department of Commerce (OIG-19384, November 2008)
- Successful Oversight of GOES-R Requires Adherence to Accepted Satellite Acquisition Practices (OSE-18291, November 2007)
- Poor Management Oversight and Ineffective Incentives Leave NPOESS Program Well Over Budget and Behind Schedule (OIG-17794, May 2006)

The following review is in progress:

- Audit of Adequacy of JPSS Development Activities

Acquisitions and Contracts

Managing Acquisition and Contract Operations More Effectively to Obtain Quality Goods and Services at Reasonable Prices and on Schedule

In FY 2009, the Department of Commerce spent approximately $3 billion to acquire a wide range of goods and services to support mission-critical programs such as the 2010 decennial census, satellite acquisitions, intellectual property protection, broadband technology opportunities, management of coastal and ocean resources, information technology, and construction and facilities management. However, we have identified significant risks and vulnerabilities in Commerce's acquisition management structure that may threaten the integrity of these, and other, operations.

Acquisition management is not just the act of awarding a contract; it is an entire process that begins with identifying a mission need and developing a comprehensive strategy to fulfill that need through a thoughtful, balanced approach that considers cost, schedule, and performance. The Department needs more comprehensive acquisition guidance and oversight, as well as an acquisition management infrastructure that allows it to oversee effectively the complex, large-dollar procurements that are critically important to achieving its mission.

The Department Does Not Have Robust Oversight Processes for Major System Acquisitions

The Department lacks cohesive policies and procedures for program management and oversight of major systems acquisitions. This weakness has contributed to critical major acquisitions—such as the decennial's handheld computers and the NPOESS and GOES-R programs—experiencing significant cost overruns and developmental delays; it also leaves the Department without adequate visibility into progress on and risks to major system acquisitions, which can result in costly delays while correcting problems.

While the Department failed to meet a 2008 deadline to develop a major systems acquisition policy, it has begun to address its approach for overseeing such acquisitions. In response to a June 18, 2010, memorandum from the Secretary, the Department is currently conducting a comprehensive review of its acquisition processes, and expects to issue the survey results and any recommendations by April 2011. Additionally, the Department has reorganized the Office of the Secretary to better manage risk in high-priority programs. As part of these efforts, the Department and its operating units must continue to develop effective policies and processes for planning, managing, and overseeing major system acquisitions.

Developing and Retaining a Highly Qualified Acquisition Workforce to Support the Department's Mission Is a Major Concern

Since 2007, Commerce's acquisition spending has increased by 41 percent, contract actions by 15 percent, and contract modification actions by 67 percent. However, the Department faces a very high turnover rate in the acquisition workforce due to attrition and those eligible to retire.[4] As experienced acquisition professionals leave the Department, and with nearly half of the acquisition personnel expected to retire within the next decade, the Department must implement a strategy to keep its workforce at the needed size and skill levels to support its mission.

The Census Bureau Has Not Successfully Managed Award-Fee Contracting Processes to Achieve Acquisition Objectives

The Census Bureau has paid contractors millions of dollars in contract award fees that were not sufficiently designed or administered as required by regulations. For example, we reported that the Field Data Collection Automation (FDCA) contract's award fees were excessive and not supported by technical assessments of the contractor's performance. In response to our report on the approximately $596 million FDCA contract, Census modified the contract to include fixed-price arrangements, eliminated the original award-fee structure and replaced it with one that contains both cost- and technical-incentive fees, and discontinued the practice of rolling unearned fees over into future award periods.

We have also audited the award-fee payment structures for the Decennial Response Integration System (DRIS) contract and found that these structures provided little incentive for the contractor to fully achieve specific performance objectives; also, the contract allowed the contractor to earn fees of up to $48 million of the available $65 million, even if performance fell below acceptable standards. In order to ensure that its award-fee contracts are designed and administered appropriately, Census needs to thoroughly train its acquisition workforce on how best to structure and administer its use of award-fee contracts for different projects.

The Department Has Not Done Enough to Ensure Suspended or Debarred Contractors Do Not Obtain Government Contracts or Assistance Agreements

Federal regulations prohibit parties (i.e., firms or individuals) that lack satisfactory records of integrity and business ethics from receiving contracts and assistance agreements from the government. However, although the Department has suspension and debarment policies and procedures in place,[5] it is reluctant to apply them to parties that have committed contract fraud against it. For example, the two most recent suspension/debarment referrals OIG has sent the Department have not been acted upon promptly. Commerce needs to strengthen its policies, procedures, and internal controls so that those parties that have committed fraud are referred to a suspension and debarment official for appropriate action.

A More Efficient, Effective, and Accountable Acquisition Function Is Needed

While the Department has begun to identify opportunities to strategically strengthen and improve the quality of its acquisition functions, this area has many inherent risks and requires continued attention and improvement. Commerce's executive leadership needs to ensure the Office of Acquisition Management has the authority needed to perform effectively.

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[4] Twenty-four percent of the current workforce is eligible to retire. The attrition rates for the GS-1102 contracting series and the GS-1105 purchasing series are 14 and 11 percent, respectively.

[5] Suspension and debarment policy for the Department's acquisitions is codified in the Commerce Acquisition Regulations at 48 CFR Subpart 1309.4.

Further, the Department needs to improve its policies and processes for making real property acquisition decisions, as with NOAA's inadequate support for its decisions to lease the Port of Newport, Oregon, to house NOAA's Marine Operations Center-Pacific. For example, our review of this case revealed that NOAA limited its options without a documented analysis based on a preference for a consolidated facility, and it did not, in our view, adequately consider the use of existing federal facilities. The weaknesses highlighted by the Marine Operations Center-Pacific acquisition demonstrate the importance of effective capital planning and investment processes, and underscore the need to make certain these processes are coherent, rigorous, and implemented as intended.

For more information, view the reports listed below at www.oig.doc.gov:

- Letter to Senator Cantwell and Senator Snowe regarding the National Oceanic and Atmospheric Administration's decision to award a lease to the Port of Newport, Oregon, for facilities to house Marine Operations Center-Pacific (June 2010)
- Census 2010: Revised Field Data Collection Automation Contract Incorporated OIG Recommendations, But Concerns Remain Over Fee Awarded During Negotiations (CAR-18702, March 2009)
- The National Data Buoy Center Should Improve Data Availability and Contracting Practices (IPE-18585, May 2008)
- Successful Oversight of GOES-R Requires Adherence to Accepted Satellite Acquisition Practices (OSE-18291, November 2007)
- Poor Management Oversight and Ineffective Incentives Leave NPOESS Program Well Over Budget and Behind Schedule (OIG-17794, May 2006)

The following reviews are in progress:

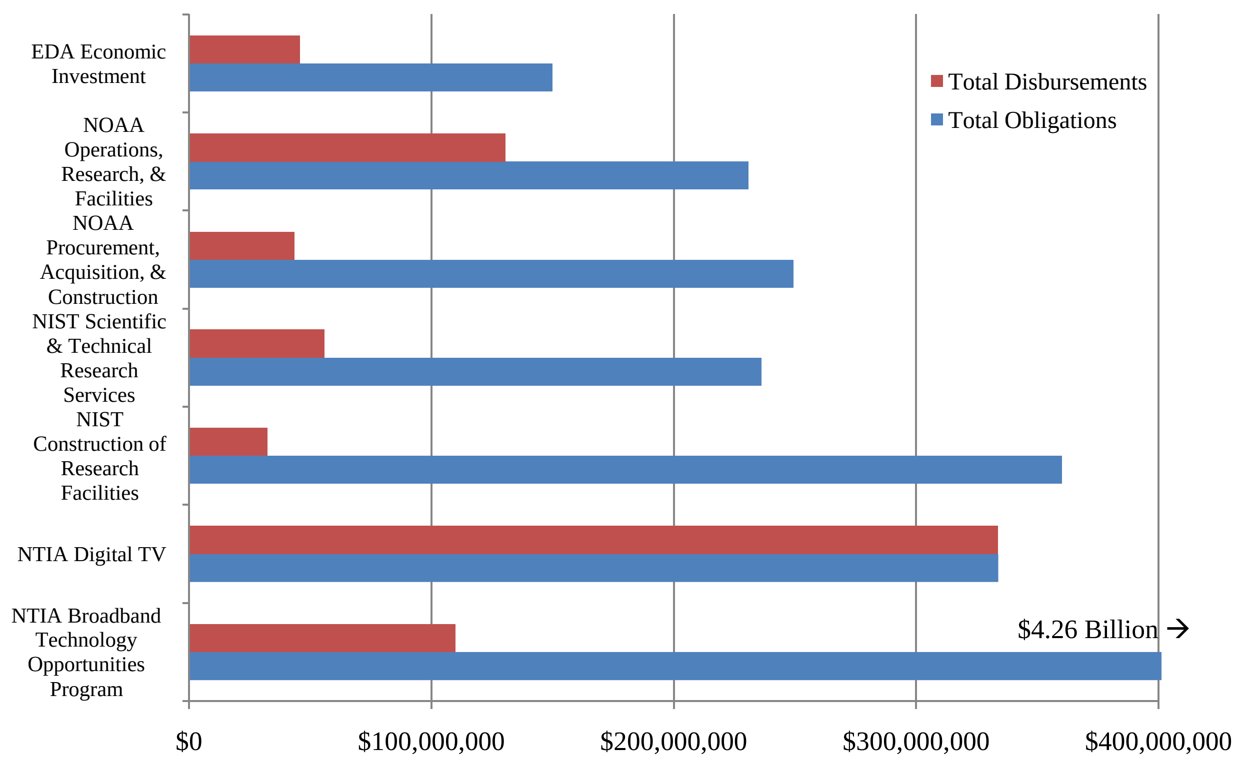
- Department of Commerce's Acquisition Workforce
- Implementation of Department of Commerce's Acquisition Savings Initiatives
- DRIS Contract Modifications and Award-Fee Actions

American Recovery and Reinvestment Act

Enhancing Accountability and Transparency of the American Recovery and Reinvestment Act's Key Technology and Construction Programs

The American Recovery and Reinvestment Act of 2009 is an unprecedented effort to promote economic activity, invest in long-term growth, and implement a high level of transparency and accountability that will allow the public to see how their tax dollars are being spent. The Department received $7.9 billion in Recovery Act funds. Of that amount, approximately $6 billion was obligated in the form of grants or contracts for key technology and construction programs in four of the Department's operating units: the Economic Development Administration (EDA), the National Institute of Standards and Technology (NIST), NOAA, and the National Telecommunications and Information Administration (NTIA). As of October 29, 2010, these operating units have spent about $750 million (or approximately 13 percent of their obligated funds), leaving significant spending yet to be completed (figure 2).

Figure 2. Breakdown of Obligations and Disbursements[a]



[a] Amounts reflect a $240 million rescission from DTV and a $302 million rescission from the Broadband Technologies Opportunities Program (BTOP). The "total obligations" bar for BTOP is not to scale; as of October 29, the total obligation for BTOP was $4.26 billion.

Source: OIG

The Recovery Act also establishes additional reporting requirements that affect both agencies and fund recipients. Recipients need to provide quarterly reports on their grants and contracts activities, including financial information, job creation, and project completion status, and agencies are required to review recipient reports to ensure the completeness and consistency of the data. OIG is reviewing the internal controls and procedures used during the recipient reporting process at the Department and its operating units for the second, third, and fourth Recovery Act reporting periods. Our review will determine whether the information available to the American public reflects the use and impact of Recovery Act funds.

Broadband Expansion Program Creates New Challenges in Program Management

Of the riskier Recovery Act programs being managed by the Department's operating units, the largest is NTIA's BTOP. Between December 2009 and September 2010, BTOP awarded 233 grants, totaling $3.9 billion, to expand broadband Internet access across the nation. Monitoring the largest and most diverse grant program NTIA has ever overseen will present significant challenges. For example, the grant awards went to a diverse group of recipients, including public companies, for-profits, nonprofits, cooperative associations, and tribal entities. Also, conditions surrounding the awards vary widely in terms of recipients' experience administering federal awards; the size of the awards; and the need to satisfy special award conditions such as environmental assessments, which take up to 6 months to complete.

Infrastructure projects, which must be substantially complete in 2 years and fully complete in 3 years from the date of award, will pose particular challenges because they are generally the largest awards (five are for more than $100 million each) and usually require environmental assessments before project construction can begin. Additionally, these projects are often comprised of an award recipient and several subrecipients working together to achieve the project's goals. This structure will create additional challenges for the NTIA staff, as they will have to monitor the recipients' compliance with grant terms and conditions and determine how the recipients are managing and monitoring their subrecipients. NTIA also will have to closely watch how its awardees manage the drawdown of federal funds.

In addition to the challenge of overseeing such a diverse portfolio of awards and recipients, there is significant uncertainty over funding to oversee and monitor the awards. Since September 30, 2010, NTIA has been working under special authority from the Office of Management and Budget (OMB) to fund the program's operations. Over the next 6 months, NTIA will need to continue to work with OMB and Congress to address the uncertainty of funding and to implement oversight that provides effective monitoring of the grant awards.

OIG recently issued a report to NTIA on BTOP's post-award processes. NTIA has made significant progress with its post-award operations; however, there are several areas that can be strengthened, such as training and IT program expertise in the BTOP office, documentation and internal controls, and the monitoring of awards and agreements.

Construction Projects Will Require Proactive Oversight

While BTOP is certainly the largest Commerce program funded by the Recovery Act, NIST and NOAA also saw an increase of $1.4 billion in Recovery Act funds for contracts and grants, including a relatively significant funding increase for construction projects. To complete these projects successfully, these agencies will need to overcome the inherent risks associated with construction projects and dedicate construction managers to these projects.

The goal of any federally funded construction project is to achieve the objectives established for the project and to do so on time, within budget, and free from fraud. In addition to the challenges accompanying any acquisition or grant project, construction projects are also at particular risk of anticompetitive practices, substandard workmanship, defective materials, nonperformance, and fraud. These are just some of the potential problems NOAA and NIST grants and procurement officials need to be alert to as they manage the construction programs in their operating units.

Another potential issue lies with the type of contract federal agencies have been asked to use for Recovery Act projects. For grant cooperative agreements and cost-type contracts, an independent auditor, such as an independent public accounting firm, will annually test specific project requirements to ensure compliance with laws and regulations. These tests create a record of accountability throughout the life of the project. However, in order to contain costs under the Recovery Act, OMB has established a clear preference for fixed-price contracts, which are not independently reviewed after they are issued. Fixed-price contracts must have clearly defined requirements; if they do not, change orders could be added later, thereby driving up the government's costs.

For more information, view the reports listed below at http://www.oig.doc.gov/recovery/:

- Broadband Program Faces Uncertain Funding, and NTIA Needs to Strengthen Its Post-Award Operations (OIG-11-005-A, November 4, 2010)
- Review of Recovery Act Contracts and Grants Workforce Staffing and Qualifications at the Department of Commerce (ARR-19900, September 10, 2010)
- NIST and NOAA Monitor Their Recovery Act Programs, but Performance Metrics Need to Measure Outcomes (ARR-19881, May 2010)
- NTIA Must Continue to Improve its Program Management and Pre-Award Process for its Broadband Grants Program (ARR-19842-1, April 2010)
- Top Management Challenges Facing the Department of Commerce (OIG-19884, January 2010)
- More Automated Processing by Commerce Bureaus Would Improve Recovery Act Reporting (ARR-19779, December 2009)
- Commerce Has Implemented Operations to Promote Accurate Recipient Reporting, but Improvements Are Needed (ARR-19847, October 2009)

- Improvements Recommended for Commerce Pre-Award Guidance and NIST and NOAA Processes for Awarding Grants (ARR-19841, October 2009)

- Commerce Experience with Past Relief and Recovery Initiatives Provides Best Practices and Lessons Learned on How to Balance Expediency with Accountability (ARR-19692, May 2009)

- NTIA Should Apply Lessons Learned from Public Safety Interoperable Communications Program to Ensure Sound Management and Timely Execution of $4.7 Billion Broadband Technology Opportunities Program (ARR-19583, March 2009)

- Inspector General's testimony on Recovery Act oversight before Subcommittee on Investigations and Oversight, House Committee on Science and Technology (March 19, 2009)

The following reviews are in progress:

- Review of NIST's Oversight of Recovery Act Construction Grants

- Review of the Effectiveness of NTIA's Monitoring of Broadband Technology Opportunities Program Grant Awards

- Recovery Act Grant Fraud Prevention and Detection Audit

- Review of American Reinvestment and Recovery Act Recipient Reporting Analysis

- Review of 2010 Partnership Program and American Reinvestment and Recovery Act Spending

United States Patent and Trademark Office

Improving USPTO's Patent Processing Times, Reducing Its Pendency and Backlogs, and Mitigating Its Financial Vulnerabilities

The U.S. Patent and Trademark Office (USPTO) faces immense and complex challenges in addressing patent pendency and application backlogs while improving patent quality and building a highly trained and stable workforce. Since 2000, patent pendency has increased from 25 months to over 35 months, and the backlog of unexamined applications has grown from approximately 308,000 to more than 726,000. These large numbers of applications and long waiting periods for patent approval create a significant risk to innovation and economic competitiveness, and ultimately to the United States' position as a world leader in innovation.

USPTO Plans to Address Its Pendency, Backlog, and Operational Issues

Since assuming office in August 2009, the Under Secretary of Commerce for Intellectual Property (who is also the Director of USPTO) has identified the state of patent pendency and backlog as a critical priority—as has the Secretary. The Under Secretary has set forth goals that include reducing the backlog to 379,000 by FY 2013 and decreasing the total processing time for patent applications to 20 months by FY 2015. USPTO has proposed multiple initiatives to address its challenges and accomplish these goals, including

- increasing the number of patent examiners, especially those with experience in the field of intellectual property;
- revising the system for how patent examiners are given credit for their work;
- and adding options for patent applicants to accelerate USPTO's review of their patent applications.

As USPTO begins to implement these initiatives, it is simultaneously planning to address its outdated IT infrastructure and seeking legislative approval for new financing tools. USPTO currently relies on aging, unstable legacy technology to support its current operations. According to USPTO, its current systems regularly crash, leaving thousands of employees without productive work to do. USPTO plans to redesign and implement end-to-end electronic patent processing so that most applications will be submitted, handled, and prosecuted electronically. In doing so, it faces the risks and challenges inherent in any major IT system change, such as oversight management; cost issues; and ensuring that the new system is delivered on time, meets user needs, and supports USPTO in achieving its strategic goals. The new financing tools USPTO hopes to implement, such as greater authority to set patent fees and establish operating reserves to protect its resources from unforeseen disruptions in revenue, are intended to enhance its ability to respond to changes in the economy and the fluctuating demand for its products and services. While such initiatives may produce a timelier and more effective patent system that supports American innovation and economic success, USPTO's ability to reduce its patent backlog and pendency will also depend on how effectively it can monitor, evaluate, and refine its programs and operational processes.

For more information, view the reports listed below at http://www.oig.doc.gov:

- Stronger Management Controls Needed over the U.S. Patent and Trademark Office's Projection of Patent Fee Collections (OIG-11-014-A, December 14, 2010)
- USPTO's Patent Quality Assurance Process (OIG-11-006-I, November 5, 2010)
- Top Management Challenges Facing the Department of Commerce (OIG-19884, January 2010)

The following review is in progress:

- USPTO Patents End-to-End: Software Engineering (PE2E-SE)

National Oceanic and Atmospheric Administration

Effectively Balancing NOAA's Goals of Protecting the Environment and Supporting the Fishing Industry

Charged with protecting, restoring, and managing the use of living marine and coastal and ocean resources, NOAA invests billions of dollars each year to support an array of programs that require long-term commitments and years of funding before showing their full effect. With its Exclusive Economic Zone of 3.4 million square nautical miles of ocean, the United States manages the largest marine territory of any nation in the world. According to NOAA's 2009-2014 strategic plan, "the value of the ocean economy to the United States is more than $138 billion." NOAA faces difficult challenges in promoting the health of marine resources, especially in the areas of fishery enforcement and environmental restoration while ensuring they sustain the vital economic benefits we derive from them.

Allegations Against NOAA Law Enforcement Spark Reform

NOAA's management of commercial fisheries and its enforcement of fair, transparent, and effective regulations is a critical component of the successful execution of its mission. In FY 2010, we responded to a request from NOAA to investigate allegations of excessive penalties and arbitrary actions by its Office for Law Enforcement and General Counsel for Enforcement and Litigation. In response to our findings, the Secretary of Commerce and the Undersecretary for Oceans and Atmosphere (who is also the NOAA Administrator) announced sweeping reforms to increase the accountability and transparency of, and to strengthen the public's trust in, NOAA's law enforcement agency. The Secretary also announced significant restrictions on the use of the Asset Forfeiture Fund (where fines and penalties assessed against the fishing industry are deposited).

The actions directed by the Secretary and the reforms being implemented by NOAA to promote impartiality in its enforcement processes should help ensure fair and unbiased treatment of fishery cases. NOAA must take positive, equitable action to restore the reputation and soundness of its enforcement program and ensure that corrective actions are applied consistently nationwide. We will continue to devote resources and attention to NOAA's fisheries enforcement to make sure that this important program receives sufficient independent oversight.

Gulf Oil Spill Creates New Challenges for NOAA

In addition to its law enforcement activities, NOAA responds each year to over a thousand natural and human-induced incidents threatening life, property, and marine resources. For example, on April 20, 2010, an explosion on Deepwater Horizon, a semisubmersible mobile offshore oil-drilling well in the Gulf of Mexico, resulted in the largest oil spill in U.S. history. To help recover from a spill of this magnitude, NOAA's monitoring, damage assessment, and restoration activities will continue for years to come.

Because the Deepwater Horizon spill is so large in scope, we anticipate NOAA will need to devote significant resources for an extended period of time towards restoration in the Gulf. As of September 2010, NOAA has dedicated $131.4 million to the spill through reimbursable projects. Since serious threats to wildlife and the fishing community still exist, NOAA's National Marine Fisheries Service must continue to monitor conditions along the coastal areas of Louisiana, Mississippi, Texas, Alabama, and Florida to ensure seafood is safe for consumption. NOAA, as the lead agency for the Natural Resource Damage Assessment process and the nation's lead science agency covering oil spills, will also continue to assess what environmental resources have been harmed. Finally, federal, state, and local governments and affected communities will continue to rely on NOAA to provide continued monitoring and accurate data so responders can react to the oil's effects on our ecosystem.

For more information, view the reports listed below at www.oig.doc.gov:

- Review of NOAA Fisheries Enforcement Programs and Operations (OIG-19887-2, September 23, 2010)
- Review of NOAA Fisheries Enforcement Asset Forfeiture Fund (OIG-19887-1, July 1, 2010)
- Letter to Massachusetts Congressional Delegation re: Status of OIG Review of Complaints Related to NOAA Fisheries Enforcement (June 25, 2010)
- IG's Testimony on NOAA Fisheries Enforcement: House Committee on Natural Resources (March 3, 2010)
- IG's Testimony on NOAA Fisheries Enforcement: Senate Committee on Commerce, Science, and Transportation (March 3, 2010)
- IG's Testimony on NOAA Fisheries Enforcement: House Committee on Oversight and Government Reform, Field Hearing, Gloucester, Massachusetts (March 2, 2010)
- Review of NOAA Fisheries Enforcement Programs and Operations (OIG-19887, January 21, 2010)

The following reviews are in progress:

- Review of NOAA's Systems and Processes for Tracking Gulf Coast Oil Spill Expenditures and Revenues
- Follow Up on Corrective Actions Taken to Address the Asset Forfeiture Fund
- Follow Up on NOAA Enforcement Issues

Renovation of Department of Commerce Headquarters

Protecting Against Cost Overruns and Schedule Delays for the Commerce Headquarters Renovation

The Herbert C. Hoover Building (HCHB)—the Department of Commerce's Washington, D.C., headquarters—is undergoing a comprehensive renovation. The eight-phase modernization and renovation of the over 1.8 million-gross-square-foot building is the first major upgrade of HCHB since its completion in 1932. The project, which has an estimated cost of $960 million and is currently scheduled for completion by 2021, will upgrade mechanical, electrical, and life-safety systems; increase usable space; improve energy and environmental efficiency; and incorporate security improvements. Phase 1 of the renovation was substantially completed in October 2009, and Phase 2 is underway. Phases 2 and 3 will utilize some $226 million in Recovery Act funds.

The General Services Administration (GSA) owns the building and is managing the renovation. However, the Department is also taking an active management role by working closely with GSA as an advocate for the operating units housed at HCHB with respect to space requirements, building services, and improvements. Since the renovation has the potential to disrupt the Department's operations and affect its workforce, OIG plans to conduct an ongoing review of the construction activities and the decisions critical to the renovation's success. Of special interest are the developments of the consolidated server room and perimeter security projects. These projects are Commerce's largest monetary responsibilities during the early phases of the renovation and directly affect critical stages of construction.

OIG's Initial Report Describes Problems with Billing Processes and Rental Rate Agreement

Our August 2010 report on the Department's management of the project noted that GSA, Commerce, and the contractor for the renovation have implemented reasonable operating procedures to insure adequate oversight of the initial phases of the project. However, Commerce did not have a formal procedure in place for tracking and reconciling the documents used by GSA to capture costs and bill customers for the renovations; in addition, GSA and the Department had not reached a formal agreement on Commerce's future rental rates. Also during our work, OIG became aware of health complaints from Commerce staff occupying the renovation swing space. An inspection conducted by an Occupational Safety and Health Administration (OSHA) compliance safety officer found that the complaints were related to indoor air quality and temperature (being too hot or too cold), which are not regulated by OSHA.

Since our report, GSA and the Department have made progress addressing the billing and rental rate issues; we are awaiting a plan from Commerce that will provide more details about specific corrective actions. The Department has also informed us that the HCHB renovation has been included in the Department's balanced scorecard, a strategic program management tool initiated by the Secretary that measures the Department's progress against its mission goals. The scorecard will assess the renovation project from four perspectives: financial, schedule, project scope, and customer disruptions. These categories will provide a means to track progress and make corrections over the course of the renovation.

HCHB Fire Underscores the Potential for Disruptions to Employee Productivity and Safety

On October 7, 2010, a fire broke out at HCHB after normal working hours in an area undergoing renovation. Everyone was accounted for, and there were no reports of injuries. The fire resulted in the closure of the building on Friday, October 8. Testing for hazardous materials was conducted, and all areas of the building were cleared for occupancy on October 12 (the next scheduled workday). However, this unexpected closure affected approximately 3,500 employees—a clear example of the disruptive effect that the renovation can have on Commerce's operational efficiency.

OIG will monitor the effectiveness of the lessons learned from the fire and other disruptive incidents so that potential future disruptions to operations—as well as adverse effects on employees' comfort, health, and productivity—can be mitigated. Our oversight in future reports will also include an assessment of the Department's performance in meeting its four scorecard objectives.

For more information, view the reports listed below at www.oig.doc.gov:

- Review of Management of Herbert C. Hoover Building Renovation (OAE-19885, August 5, 2010)
- Top Management Challenges Facing the Department of Commerce (OIG-19884, January 2010)

Census Bureau

Effectively Planning the 2020 Decennial

The decennial census provides important information that guides the apportioning of congressional representation and redistricting, as well as the distribution of more than $400 billion of government funding every year. The 2010 census was an immense undertaking that encompassed a decade of planning and testing. It involved a massive end-of-decade effort to collect addresses and geographic information to update the bureau's master address file and digital maps, a late change in plans to revert to a pen-and-paper nonresponse follow-up operation instead of using handheld computers, and the training and deployment of more than 784,000 temporary employees to accurately count the estimated 300 million people living in the United States.

The 2010 decennial's life-cycle cost is approximately $13 billion. Considering the current trends in population and cost growth, if Census uses 2010 as a model for designing the 2020 census, the total price of the next decennial could rise to more than $22 billion (according to bureau estimates). Such cost growth is unsustainable. Census must make fundamental changes to the design, implementation, and management of the decennial census in order to obtain a quality count for a reasonable cost.

Lessons Learned from 2010 Are an Essential Part of Success in 2020

Census must apply lessons learned from the 2010 process to develop an innovative, flexible, cost-effective, and transparent approach to the 2020 census. Alternative approaches to the labor-intensive end-of-decade address list improvement and non-response follow-up operations—both of which were major 2010 cost drivers—must be explored and tested early in the decade to prevent schedule delays or cost increases, and to enhance accuracy. In addition, Census must improve its IT management, as well as reduce costs and risk by limiting the deployment of one-time-use technology.

Exploring Options for Improving Operations

The decennial is not the Census Bureau's only means of tracking the population of the United States. Currently, 12 regional offices manage a trained federal workforce to conduct a variety of censuses and surveys throughout the decade. Every month, quarter, and year households and businesses are contacted via mail, telephone, or in-person interview to provide information used by the government to manage its population and economic data. To be effective, the 2020 planning approach needs to leverage these existing surveys, field operations, and data assets.

One likely vehicle to continuously develop, test, and improve decennial operations and technology is through the American Community Survey. This nationwide survey replaced the once-a-decade "long form" and is conducted on an ongoing basis in every part of the country (using a national sample size of 250,000 households per month). Employing this survey to incrementally test various aspects of the 2020 census—including the development and testing of a secure system and approach for an Internet response option and exploring the use of existing information collected by public and private entities (commonly referred to as administrative records)—would reduce both cost and risk during future decennials. A continuous update of Census's maps and its address list throughout the coming decade—using the existing trained workforce in both office and field operations—could further reduce cost and risk, and likely increase quality.

Fiscal years 2011 and 2012 are critical years in the planning of the 2020 census and will set the course for how well this constitutionally mandated responsibility is performed.

For more information, view the reports listed below at www.oig.doc.gov:

- 2010 Census: The Partner Support Program Lacked Adequate Controls for Monitoring Purchases and Ensuring Compliance (OIG-11-013-A, November 18, 2010)

- IG's Testimony on Census Whistleblower Allegations: House Committee on Oversight and Government Reform, Field Hearing, Brooklyn (July 19, 2010)

- Early Observations Indicate That Some Nonresponse Follow-up Procedures Are Not Being Followed and Others Are Lacking (OAE-19893-01, June 2010)

- 2010 Census: Quarterly Report to Congress (OIG-19791-4, May 2010)

- Assoc. Deputy IG's Testimony on 2010 Census: House Committee on Oversight and Government Reform (March 25, 2010)

- IG's Testimony on 2010 Census: Senate Committee on Homeland Security and Governmental Affairs (February 23, 2010)

The following reviews are in progress:

- 2010 Census: Quarterly Report to Congress (OIG-19791-5, December 2010)

- Partnership Program/Partnership Assistant Evaluation

- 2010 Census: Final Report to Congress

Acronyms and Abbreviations

BTOP	Broadband Technologies Opportunities Program
C&A	certification and accreditation
CIO	Chief Information Officer
DRIS	Decennial Response Integration System
EDA	Economic Development Administration
FDCA	Field Data Collection Automation
FISMA	Federal Information Security Management Act
FY	fiscal year
GOES-R	Geostationary Operational Environmental Satellite-R Series
GSA	General Services Administration
HCHB	Herbert C. Hoover Building
IT	information technology
JPSS	Joint Polar Satellite System
NASA	National Aeronautics and Space Administration
NIST	National Institute of Standards and Technology
NOAA	National Oceanic and Atmospheric Administration
NPOESS	National Polar-orbiting Operational Environmental Satellite System
NPP	NPOESS Preparatory Project
NTIA	National Telecommunications and Information Administration
OIG	Office of Inspector General
OMB	Office of Management and Budget
OSHA	Occupational Safety and Health Administration
USPTO	U.S. Patent and Trademark Office

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