

**U.S. DEPARTMENT OF COMMERCE**  
**National Telecommunications and Information Administration**  
FY 2010 Budget as Presented to Congress



May 2009

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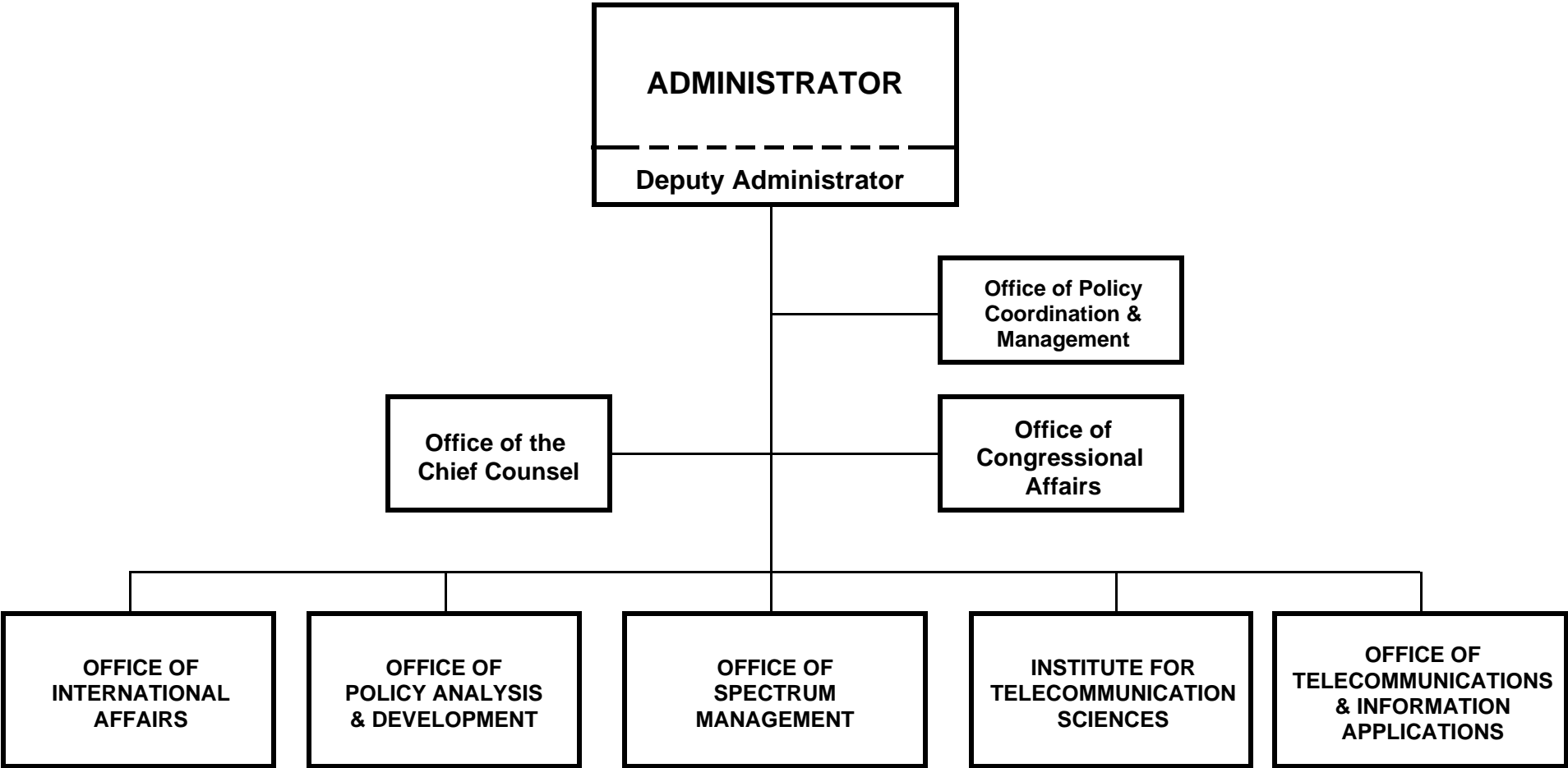
**DEPARTMENT OF COMMERCE  
NATIONAL TELECOMMUNICATIONS AND INFORMATION ADMINISTRATION  
Budget Estimates, Fiscal Year 2010  
Budget as Presented to Congress**

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# NATIONAL TELECOMMUNICATIONS AND INFORMATION ADMINISTRATION



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**Department of Commerce**  
**National Telecommunications and Information Administration**  
 Fiscal Year 2010 Budget  
 As Presented to Congress

**Executive Summary**

The National Telecommunications and Information Administration (NTIA) is responsible for the development of domestic and international telecommunications and information policy for the Executive Branch, for ensuring the efficient and effective use of the Federal radio spectrum, and for performing state-of-the-art telecommunications research, engineering, and planning. In addition, Congress has assigned to NTIA significant roles in the transition to digital television, the development of public safety interoperable communications, and most recently the deployment of broadband services under the authority of the American Recovery and Reinvestment Act of 2009. NTIA operates within the structure and context of the following goals.

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**Department of Commerce Strategic Goal 1**

Maximize U.S. competitiveness and enable economic growth for American industries, workers, and consumers

**General Goal/Objective 1.1**

Foster domestic economic development as well as export opportunities

**NTIA Goals/Outcomes**

Ensure the effective implementation of the Broadband Technology Opportunities Program

**Department of Commerce Strategic Goal 2**

Promote U.S. Innovation and Industrial Competitiveness

**General Goal/Objective 2.3**

Advance global e-Commerce and enhanced telecommunications and information services

**NTIA Goals/Outcomes**

Ensure that the allocation of radio spectrum provides the greatest benefit to all people

Promote the availability and support new sources of advanced telecommunications

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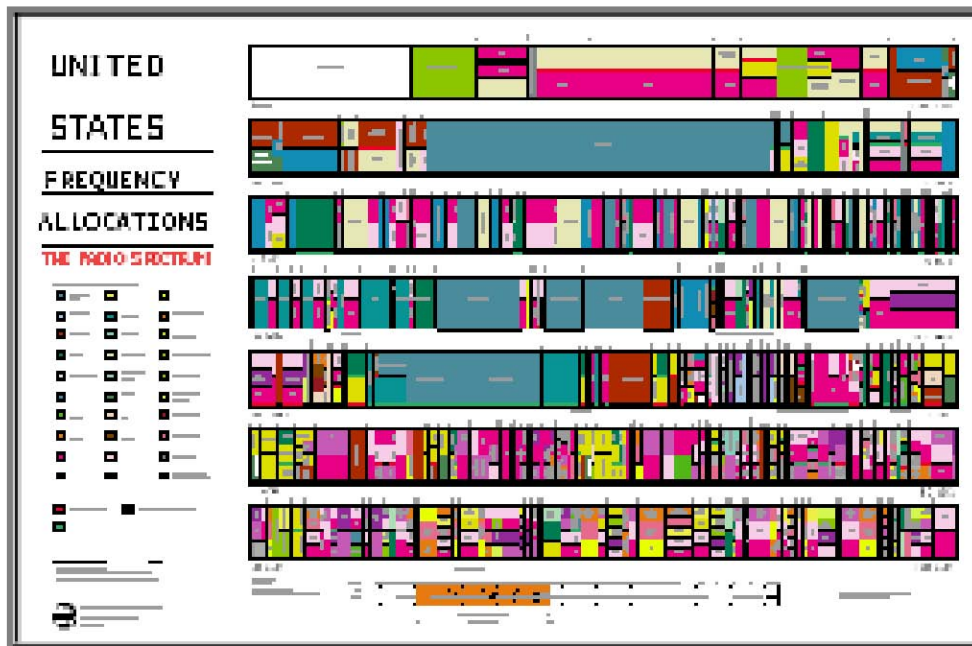
NTIA's policy, spectrum management, research, and grant programs support emerging technologies and uses of spectrum resources for affordable, alternative communications services. Promising technologies and services have the potential to drive economic growth and create jobs, if given the opportunity to succeed. The Administration and NTIA support the advancement of information technologies and have moved aggressively to create an economic and regulatory environment in which innovations in information and communications technologies can flourish.

NTIA programs support an environment that fosters private sector innovation in telecommunications. NTIA's Broadband Technology Opportunities Program (BTOP) is a vital component in the President's initiative to stimulate economic activity. The goals of this initiative are to foster economic growth and job creation by accelerating broadband deployment in unserved and underserved areas of the Nation and ensuring that strategic institutions that are likely to create jobs or provide significant public benefits have broadband connections.

**The budget for FY 2010 is \$59.1 million** (Discretionary: Appropriation – \$20.0 million; Reimbursable – \$39.1 million.)

NTIA's budget includes the following:

- The programs funded by the American Recovery and Reinvestment Act were appropriated in FY 2009.
- The base adjustments for FY 2010 for Salaries and Expenses activities.
- The Public Telecommunications Facilities Program (PTFP) will be discontinued in FY 2010 and will no longer require appropriations. Open PTFP grants will be closed using carryover funds and recoveries.



### American Recovery and Reinvestment Act (ARRA) Programs

The **Broadband Technology Opportunities Program budget** was provided \$4.7 billion in FY 2009 for grants that will enable broadband access for consumers in unserved and underserved areas as well as stimulate demand and facilitate greater use of broadband services. NTIA, in consultation with the RUS and FCC, will focus on the following initiatives:

- *BTOP Infrastructure Grants.* BTOP funds will support, among other things, competitive grants for broadband deployment in unserved and underserved areas, and for strategic community institutions and public safety agencies.
- *Public Computer Center Grants.* At least \$200 million in competitive grants will be made to eligible entities to expand public computer center capacity at institutions such as community colleges and libraries.
- *Sustainable Broadband Adoption Grants.* At least \$250 million in competitive grants will be awarded to fund innovative programs that encourage sustainable adoption of broadband service by consumers.
- *Broadband Mapping Grant Program.* Up to \$350 million of Federal assistance will be provided in the form of competitive grants to develop and implement statewide initiatives in the 50 states and U.S. territories to identify and track the availability and adoption of broadband services.

In addition, NTIA has transferred \$10 million to the Commerce Inspector General for the purpose of funding its audits and investigations work on this program.



The **Digital-to-Analog Converter Box Coupon Program** was provided \$650 million in FY 2009, in order to provide additional funding to support the demand for coupons through the extended digital television transition deadline, scheduled for June 12, 2009. NTIA transferred approximately \$66 million to the FCC for the purpose of funding its consumer education and outreach programs.

### **Programs Authorized by the Deficit Reduction Act of 2005**

The **Digital Television Transition and Public Safety Fund (13 FTE)**, created by the Deficit Reduction Act of 2005, as amended, received offsetting receipts from the auction of electromagnetic spectrum recovered from discontinued analog television signals, and provides funding for several one-time programs from these receipts.

The Deficit Reduction Act, as amended, also provided borrowing authority to the Department of Commerce to commence specified programs prior to the availability of auction receipts. Amounts borrowed from the Treasury have been repaid using earned revenues from the auction. At the end of FY 2009, NTIA will deposit in the General Fund \$7,363,000,000 of the earned revenues (receipts) for deficit reduction purposes, as required by law. (Additional deposits of revenues to the General Fund, estimated to be \$8.688 billion, will be initiated as program activities are completed.)

During FY 2010, the following programs are authorized to use receipts from the fund:

- Digital-to-Analog Converter Box Voucher (Coupon) Program.
- Public Safety Interoperable Communications Grants.
- Assistance to Low-Power Television Stations.
- National Alert and Tsunami Warning Programs.



### **Salaries and Expenses**

The **Salaries and Expenses budget (\$19,999,000 and 103 FTE)** focuses on its core programs for domestic and international policy development, Federal spectrum management, and related research.

### **Grant Program**

The **Public Telecommunications Facilities Program (PTFP) (no appropriation)** is to be discontinued in FY 2010. In recent years, most PTFP funds have supported public broadcasters' transition to digital broadcasts. This transition is largely complete, so this program is no longer necessary, and Federal support for public broadcasting will be consolidated into the Corporation for Public Broadcasting..

### **Performance**

NTIA's plan for assessing performance is organized under three performance goals that call for the **effective implementation of the ARRA programs to stimulate economic growth**, the **efficient use of the radio spectrum**, and the **availability and promotion of advanced telecommunications services to the public to maximize U.S. competitiveness**. Our activities, a cornerstone in the Department's efforts to

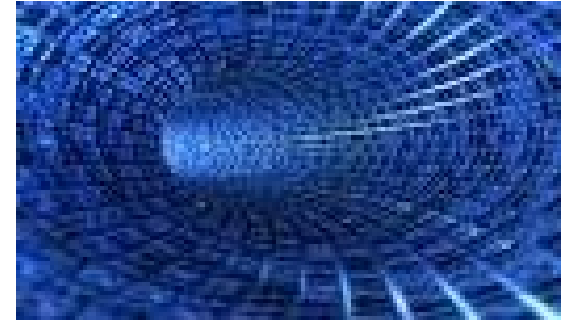
provide the infrastructure for innovations in technology, will continue to address impediments to the development of innovative telecommunications services by the private sector. Please reference the Performance section of the budget presentation for additional information on NTIA's program assessment.

## Context

The U.S. telecommunications market – \$1.1 trillion of the \$14.3 trillion U.S. economy in 2008 – is critical to our social and economic growth as telecommunications enables all other sectors, including education, healthcare and national security. Representing 29 percent of the global market, the U.S. telecommunications sector is a powerful force in leading U.S. innovation and technology development.

In the U.S. telecommunications market, total revenues rose to \$1.1 trillion in 2008 – up 19.2 percent over 2006 – and despite the current economic downturn is projected to grow another 20.9 percent by 2011. [TIA 2008 Telecom Market Review and Forecast] Wireless service revenues are projected to surpass local landline revenues in 2009. [TIA 2008 Industry Playbook]

Broadband access is driving demand for new technologies and applications, and consumers are benefitting from the new products; such as VoIP, Wi-Fi, WiMax, broadband over power lines (BPL), and advanced wireless services. The President's stimulus package has emphasized a commitment toward accelerating its development in order to spur economic growth and job creation.



### President's Broadband Goals



*"The state of our economy calls for action, bold and swift. And we will act, not only to create new jobs, but to lay a foundation for growth. We will build the roads and bridges, the electric grids and digital lines that feed our commerce and bind us together."*

-- President Obama, Inaugural Address, January 20, 2009

*"Here, in the country that invented the Internet, every child should have the chance to get online... That's how we'll strengthen America's competitiveness in the world."*

-- President Obama, January 8, 2009

Broadband deployment is a top priority for the Obama Administration and is critical to America's future as the world's economic leader because of its impact on increasing our productivity and improving Americans' quality of life – through economic growth, job creation, national security, tele-medicine, distance learning, and tele-work.

### **President Obama's comprehensive technology and innovation goals are to:**

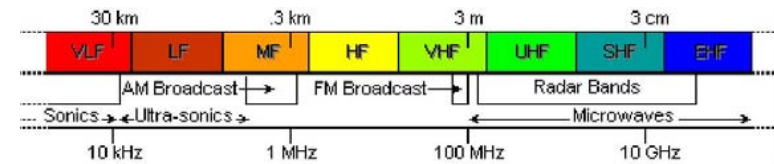
- Ensure the full and free exchange of information among Americans through an open Internet and diverse media outlets.

- Create a transparent and connected democracy.
- Encourage the deployment of a modern communications infrastructure.
- Employ technology and innovation to solve our Nation's most pressing problems, including reducing the costs of health care, encouraging the development of new clean energy sources, and improving public safety.
- Improve America's competitiveness.

Pursuant to the American Recovery and Investment Act of 2009, the Administration will award competitive grants to accelerate broadband deployment in unserved and underserved areas and to strategic institutions that are likely to create jobs or provide significant public benefits by September 30, 2010. The objectives of this NTIA Broadband Technology Opportunities Program (BTOP) include:

- Broadband access in unserved and underserved areas
- Broadband education, awareness, training, access, equipment and support
- Broadband access and use by public safety agencies
- Stimulate broadband demand, economic growth, and job creation

NTIA will also continue collaborating on a spectrum sharing test-bed for the testing of the dynamic spectrum sharing capabilities of six technologies in the 410-420 MHz band. NTIA continues its automation of all Federal spectrum management activities to produce processes that will provide a rapid response to incoming requests for spectrum use by Federal and non-Federal entities, as well as support improved data management and analysis capabilities.



**Office of Spectrum Management**

NTIA oversaw Federal departments and agencies in their work to relocate systems from the 1710-1755 MHz band under the mechanism established through the Commercial Spectrum Enhancement Act. This mechanism provides a means to accommodate the next generation of wireless services. NTIA has facilitated the transition through promoting dialog between the Federal agencies and the commercial license winners. The relocation effort is moving forward rapidly and commercial users have been able to enter many markets earlier than expected.

NTIA will continue to explore opportunities for efficiencies and sharing that will enable spectrum to meet future demand; we will continue to pursue foreign policies that allow U.S. companies to supply broadband services and equipment in competitive markets around the world; and we will continue to partner with industry in cooperative research and development agreements and other fora to combine our talents for the advancement of new technologies.

## Appropriations Bill Language

The appropriations bill language that supports NTIA's appropriation includes provisions that are crucial to the execution of NTIA's programs. The following language will be necessary to support the Salaries and Expenses budget as provided in this submission:

*For necessary expenses, as provided for by law, of the National Telecommunications and Information Administration (NTIA),[\$19,218,000], **\$19,999,000**, to remain available until September 30, [2010] **2011**: Provided, That, notwithstanding 31 U.S.C. 1535(d), the Secretary of Commerce shall charge Federal agencies for costs incurred in spectrum management, analysis, and operations, and related services and such fees shall be retained and used as offsetting collections for costs of such spectrum services, to remain available until expended: Provided further, That the Secretary of Commerce is authorized to retain and use as offsetting collections all funds transferred, or previously transferred, from other Government agencies for all costs incurred in telecommunications research, engineering, and related activities by the Institute for Telecommunication Sciences of NTIA, in furtherance of its assigned functions under this paragraph, and such funds received from other Government agencies shall remain available until expended.*

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The Radio Spectrum Measurement System



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Telecommunications research far afield



**NTIA Summary of Resources – FY 2010**

(Dollar amounts in thousands)

	ARRA Funds		[MANDATORY] DTTPSF		Salaries and Expenses		PTFPC		Total, All Accounts	
	FTE	Amount	FTE	Amount	FTE	Amount	FTE	Amount	FTE	Amount
FY 2009 enacted	33	\$5,350,000	17	\$119,813	103	\$19,218	13	\$20,000	166	\$5,509,031
Adjustments to the base	0	0	0	0	0	781	0	0	0	781
Program changes	40	(5,350,000)	(4)	(\$119,813)	0	0	(13)	(20,000)	23	(5,509,812)
FY 2010 appropriation	73	0	NA	NA	103	19,999	0	0	189	19,999
Mandatory programs	NA	NA	13	0	NA	NA	NA	NA	13	0
Reimbursable work	0	0	0	0	155	39,108	0	0	155	39,108
FY 2010 budget, all resources	73	0	13	0	258	59,107	0	0	344	59,107

## **LEGISLATIVE PROPOSALS**

The Administration will propose several legislative changes that will improve spectrum management and represent sound economic policy.

### **Spectrum License User Fee**

To promote efficient use of the electromagnetic spectrum, the Administration proposes to provide the FCC with new authority to use other economic mechanisms, such as fees, as a spectrum management tool. The Commission would be authorized to set user fees on unauctioned spectrum licenses based on spectrum-management principles. Fees would be phased in over time as part of an ongoing rulemaking process to determine the appropriate application and level for fees. Fee collections are estimated to begin in 2009, and total \$4.8 billion through 2019.

### **Permanent Spectrum License Auction Authority**

The Administrative proposes to extend indefinitely the authority of the FCC to auction spectrum licenses, which is widely accepted as the most efficient and effective means to assign licenses, and which expires on September 30, 2012. The additional offsetting receipts associated with this permanent extension are estimated to total \$1.4 billion through 2019.

### **Auction Spectrum Licenses for Predominantly Domestic Satellite Services**

The Administration proposes legislation to ensure that spectrum licenses for Direct Broadcast Satellite (DBS) Service and Satellite Digital Audio Radio Service (SDARS) space stations, and for any other satellite services deemed by the Commission to be predominantly domestic, are assigned efficiently and effectively through competitive bidding. Licenses for DBS and SDARS space stations were assigned by auction prior to a 2005 court decision that found that Section 647 of the ORBIT Act (47 U.S.C, § 7651) effectively prohibited DBS and SDARS auctions in light of Commission decisions permitting such licensees flexibility to provide service outside the United States. By clarifying through legislation that the Commission is authorized to use auctions to assign licenses for space stations for DBS and SDARS and for other satellite services the Commission deems predominantly domestic, prior policy of the Federal Communications will be restored. Auction receipts associated with this clarification are estimated to total \$200 million through 2019.

## FY 2010 Annual Performance Plan

### *National Telecommunications and Information Administration*

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  - Section 6. Recovery Act – New Metrics
  - Section 7. FY2010 Program Changes
  - Section 8. Resource Requirements Summary
- 

#### **Section 1.**

#### **Mission, Goals, and Objectives**

##### **Mission Statement**

The National Telecommunications and Information Administration (NTIA) serves as the President's principal adviser on telecommunications and information policy matters and develops forward looking spectrum policies that ensure efficient and effective spectrum access and use.

NTIA manages all spectrum use by the Federal government departments and agencies and examines how the radio frequency spectrum is used and managed in the United States. A large part of NTIA's policy activities is devoted to making spectrum use more efficient. NTIA's grant programs, such as the Broadband Technology Opportunities Program (BTOP), will be implemented and administered in a manner consistent with the Administration's goals of stimulating the U.S. economy and promoting job growth. Both domestically and internationally, NTIA will foster and encourage competition and universal service in telecommunications and information services, promote broadband deployment, oversee the transition of the Internet domain name system to private sector management, and advance the Administration's positions on policy issues such as Internet Governance, the stability of communications infrastructure, and cybersecurity. NTIA's research laboratory, the Institute for Telecommunications Sciences (ITS), will perform telecommunications research, conduct cooperative research and development with U.S. industry and academia, and provide technical engineering support to NTIA and to other Federal agencies. NTIA's policy, spectrum management, and research programs will support emerging technologies and uses of spectrum resources for affordable, alternative communications services.

## Section 2.

## Corresponding DOC Strategic Goal

### **Strategic Goal 1: Maximize U.S. competitiveness and enable economic growth for American industries, workers, and consumers**

- Objective 1.1 - Foster domestic economic development as well as export opportunities
- Objective 1.2 - Advance responsible economic growth and trade while protecting American security
- Objective 1.3 - Advance key economic and demographic data that support effective decision-making by policymakers, businesses, and the American public
- Objective 1.4 - Position small manufacturers to compete in a global economy

The American Recovery and Reinvestment Act of 2009 (ARRA or Recovery Act) is an unprecedented effort to jumpstart our economy, create or preserve millions of jobs, and put a down payment on addressing long-neglected challenges so our country can thrive in the 21st century. The Recovery Act includes measures to modernize our nation's infrastructure, enhance energy independence, expand educational opportunities, preserve and improve affordable health care, provide tax relief, and protect those in greatest need.

The Recovery Act provided \$4.7 billion for NTIA to establish the BTOP for awards to eligible entities to develop and expand broadband services to rural and underserved areas and provide broadband education, awareness, training, access, equipment and support to strategic institutions, such as schools, libraries and healthcare providers as well as improve access to, and use of, broadband service by public safety agencies. Of these funds, at least \$250 million is available for innovative programs that encourage sustainable adoption of broadband services; at least \$200 million is available to upgrade technology and capacity at public computing centers, including community colleges and public libraries; and up to \$350 million of the BTOP funding is designated to support the development and maintenance of a nationwide broadband map for use by policymakers and consumers. All grant awards must be made by the end of Fiscal Year 2010.

The goals of the BTOP include:

- accelerating broadband deployment;
- ensuring that strategic institutions that are likely to create jobs or provide significant public benefits have broadband connections;
- providing broadband education, awareness, training, access, equipment, and support to educational institutions; healthcare providers; entities that facilitate greater use of broadband service by low-income, unemployed, aged, and otherwise vulnerable populations; and job-creating strategic facilities;
- improve access to, and use, of broadband service by public safety agencies; and
- stimulate demand for broadband, economic growth, and job creation.

Meeting the goals of the BTOP program will lead to domestic economic development and make the United States more competitive in the international community with regard to technological innovation.

The Recovery Act calls for the development and maintenance of a comprehensive nationwide inventory map of existing broadband service capability and availability in the United States. The map will depict the geographic extent to which broadband services capability is deployed and available from a commercial provider or public provider in each State. The map information will be interactive, searchable, and made available to the public. The map will be completed by February 2011. The information contained in this map is likely to add material value to policymaking and have significant value to businesses and the public.



In awarding BTOP grants, NTIA is required to take into consideration a number of different factors, including whether applicants are socially and economically disadvantaged small businesses.

## **Strategic Goal 2: Promote U.S. innovation and industrial competitiveness**

Objective 2.3: Advance global e-Commerce and enhanced telecommunications and information services

NTIA's functions promote science and technological leadership through research in telecommunications technologies, support for U.S. positions in international standards-setting bodies, promotion of advanced telecommunications and information infrastructure development in the United States, enhancement of domestic competitiveness, improvement of foreign trade opportunities for U.S. telecommunications firms, and facilitation of more efficient and effective use of the radio spectrum.

NTIA's functions ensure that Federal departments and agencies have sufficient spectrum to conduct radio activities in support of their missions. These activities directly benefit the American public through the universal, affordable availability of advanced telecommunications such as broadband and wireless services and Internet-related technologies and by facilitating national and homeland security, public safety, scientific research, and Federal transportation.

NTIA serves as the President's primary policy advisor on domestic and international telecommunications and information issues and acts as the Administration's primary voice on them. NTIA fulfills this role in a number of ways: by advocating globally for foreign regulatory and policy regimes that encourage competition and innovation; by preparing and issuing special reports on topics of broad interest; providing the Administration's views on actions proposed by the Federal Communications Commission (FCC); issuing requests for public input on specific issues; and encouraging dialogue with the private sector through sponsorship and participation in conferences, workshops, and other forums.

NTIA will also participate on behalf of the Administration in other proceedings related to telecommunications policy, including Internet Governance, domain name management, and proposals to regulate Internet services and content. NTIA will pursue policies promoting international trade in telecommunications products and services, promoting consistent international approaches to telecommunications policies, and improving relations with countries with rapidly expanding markets. All of these activities will require substantial coordination among NTIA's program offices, as well as interagency coordination to develop the Administration's positions.

In addition to its policy-related activities, NTIA supports innovative telecommunications and information technologies through basic research performed at its laboratory, the Institute for Telecommunications Sciences (ITS). ITS performs extensive basic research on quality of digital speech, audio and video compression, and transmission characteristics. This research has the potential to improve both the performance of telecommunications networks and the availability of digital content on the Internet. Its research also supports U.S. positions in international standards-setting bodies and NTIA's development of Administration policies related to the introduction of new technologies.

Telecommunications and information technologies support productivity, growth, and job creation in most industrial sectors. NTIA's activities will therefore promote U.S. economic success and lead to economic acceleration and job expansion.

### **Section 3.**

### **Impact of Recovery Act**

Broadband Technology Opportunities Program (BTOP) - The Recovery Act funds NTIA's new grant program, called BTOP. BTOP serves as an important engine for economic development, enabling communities and regions to develop and expand job-creating businesses and institutions. High-speed communications networks can also help improve the efficiency of virtually every sector of the economy and spur innovation. Recovery Act funds will advance one of the U.S. Department of Commerce's strategic goals of promoting U.S. innovation and industrial competitiveness by enhancing telecommunications and information services in the United States.

The BTOP will build and expand on broadband infrastructure development across the United States via government grants to eligible entities. Activities will include the construction of wireline and wireless broadband networks in unserved and underserved areas of the country. These construction and infrastructure development and improvement projects will deliver high-speed communications networks, create jobs and expand economic growth.

Aligned with these activities is the need to provide high-speed access and support to public institutions, including libraries, community colleges, healthcare providers, job training centers, public safety, and other community organizations. Activities to be funded might include expanding public computer center capacity in libraries or in job training centers to allow people to search for jobs, build their computer skills or explore entrepreneurship opportunities online. These organizations in many cases may be the only places where many vulnerable Americans can receive important communications services and stay connected.

Another critical set of investments will include grants to State-designated entities for the collection of broadband availability data to support a comprehensive nationwide broadband inventory map, to be made available on an NTIA website by February 2011.

DTV Converter Box Coupon Program – The Recovery Act funded the availability of a second tranche of vouchers for use by consumers with analog televisions to defray the costs of purchasing converter boxes that will enable viewing of digital broadcast signals over analog televisions. The ultimate deadline for full-power broadcasters to switch from analog to digital broadcast service is in FY 2009. The DTV Converter Box Coupon Program, however, will continue into FY 2010 as the program ramps down and comes to an end.

**Section 4.**

**Priorities/Management Challenges**

The bulk of NTIA’s resources will be directed toward achieving the President’s goals in the Recovery Act through the implementation, administration, and execution of the BTOP. Significant NTIA resources will also be devoted to ensuring the safety, stability, and security of the Internet via advocacy with regard to Internet governance and cybersecurity both domestically and internationally. The implementation, administration, and execution of the BTOP program leads to certain NTIA management challenges related to staffing and other resources. More specifically, the size and scope of the BTOP program demand significant increases in staffing and resources related to increased staffing. Termination of the PTFP program and consolidation of Federal support for public broadcasting into the Corporation for Public Broadcasting will enable NTIA to focus its management energy on successful implementation of the BTOP.

**Section 5.**

**Target and Performance Summary**

<b>Outcome 2: Ensure that the allocation of radio spectrum provides the greatest benefit to all people</b>						
<b>Measure</b>	<b>2005 Actual</b>	<b>2006 Actual</b>	<b>2007 Actual</b>	<b>2008 Actual</b>	<b>2009 Target</b>	<b>2010 Target</b>
1a. Frequency Assignment Processing Time	10 days	9 days	9 days	9 days	<9 days	<9 days
Description: NTIA authorizes the Federal agency use of the frequency spectrum in a timely manner for operation of radiocommunications systems. NTIA ensures that each assignment approved does not cause interference to other spectrum users nor will it receive harmful interference from other spectrum users and that each assignment complies with the rules, regulations and standards within NTIA’s Manual. The measure contains the planned average time it took to for all the Federal agencies, including NTIA, to review and respond to requests for frequency assignment and the average time it took to provide those responses. Improvements in the time allowed for review and response represent achievements of both administrative process improvements and IT investments, which will permit flexibility in adopting any changes in spectrum management regimes resulting from the President’s Spectrum Policy Initiative. Further improvements will depend on completion of IT improvements from 2008 and beyond.						
<b>Validation and Verification</b>						
Data Source	Frequency	Data Storage	Internal Control Procedures	Data Limitations	Actions to be Taken	
Interdepartmental Radio Advisory Committee (IRAC) Support Branch, Office of Spectrum Management (OSM)	Monthly, Annually	Office of Spectrum Management, Computer Services Division	Automated Data Processing (ADP) routines	Classified information is not included in public data	Collection of data	

Measure		2005 Actual	2006 Actual	2007 Actual	2008 Actual	2009 Target	2010 Target
1b. Certification Request Processing Time		NA*	4 mos.	4 mos.	2 mos.	<2 mos.	<2 mos.
<p>Description: NTIA certifies in a timely manner, per OMB Circular A-11, that spectrum will be available in the future for Federal agency planned radio communications. NTIA's approval prevents an agency from developing communications in the wrong frequency band and could cause or receive interference from other spectrum users that could result in being unable to implement the system and the loss of all the funding that was necessary to develop the communication system. The performance measure contains the planned average time it took for NTIA to complete the necessary analysis upon which to base the certification.</p> <p>* New – no target to measure against.</p>							
<b>Validation and Verification</b>							
Data Source	Frequency	Data Storage	Internal Control Procedures		Data Limitations	Actions to be Taken	
Interdepartmental Radio Advisory Committee (IRAC) Support Branch, Office of Spectrum Management (OSM)	Monthly, Annually	Office of Spectrum Management, Computer Services Division	Automated Data Processing (ADP) routines		Classified information is not included in public data	Collection of data	
Measure		2005 Actual	2006 Actual	2007 Actual	2008 Actual	2009 Target	2010 Target
1c. Space System Coord. Request Processing Time		NA*	95<14	97<18	95<14	90<14	90<14
<p>Description: NTIA provides approval and coordination domestically and internationally in a timely manner for an agency to operate its planned satellite communications. Coordination with other satellite spectrum users is essential to prevent interference to each other in light of the high costs of developing and implementing satellite communication systems. The performance measure contains the percentage of actions that meet planned average target time in days to obtain approval for coordination actions within the Space Systems Subcommittee process.</p> <p>* New – no target to measure against.</p>							
<b>Validation and Verification</b>							
Data Source	Frequency	Data Storage	Internal Control Procedures		Data Limitations	Actions to be Taken	
Interdepartmental Radio Advisory Committee (IRAC) Support Branch, Office of Spectrum Mgmt.	Monthly, Annually	Office of Spectrum Management, Computer Services Division	Automated Data Processing (ADP) routines		Classified information is not included in public data	Collection of data	

Measure	2005 Actual	2006 Actual	2007 Actual	2008 Actual	2009 Target	2010 Target
1d Spectrum Plans and Policies Processing Time	NA*	13 days	11 days	13.3 days	<15 days	<15 days
<p>Description: Most frequency spectrum is shared between the private sector and the Federal government. As such, there are constant changes in the spectrum allocations, rules and regulations developed and maintained by the FCC and NTIA to address access by new telecommunication technologies and services to ensure interference free operation between all spectrum users and a level playing field to promote competition. NTIA and the FCC have agreed in a memorandum of understanding that they would mutually perform the necessary coordination on rulemakings within 15 days or less. This performance measure contains the planned average target time to obtain NTIA coordination, and the average time it took to provide coordination.</p> <p>* New – no target to measure against.</p>						

Validation and Verification						
Data Source	Frequency	Data Storage	Internal Control Procedures		Data Limitations	Actions to be Taken
Interdepartmental Radio Advisory Committee (IRAC) Support Branch, Office of Spectrum Management (OSM)	Monthly, Annually	Office of Spectrum Management, Computer Services Division	Automated Data Processing (ADP) routines		Classified information is not included in public data	Collection of data
Measure	2005 Actual	2006 Actual	2007 Actual	2008 Actual	2009 Target	2010 Target
1e. Spectrum Management Improvements	NA*	18 of 22	23 of 29	22	14	14
<p>Description: NTIA is implementing 24 recommendations contained in two reports related to spectrum management and policy. The performance measure contains the planned target of the number of milestones required by the goals in the President's spectrum policy initiative.</p> <p>* New – no target to measure against.</p>						
Validation and Verification						
Data Source	Frequency	Data Storage	Internal Control Procedures		Data Limitations	Actions to be Taken
Interdepartmental Radio Advisory Committee (IRAC) Support Branch, Office of Spectrum Management (OSM)	Monthly, Annually	Office of Spectrum Management, Associate Administrator	NTIA document clearance process, OMB/Interagency clearance process		None	None

**Outcome 3: Promote the availability and support new sources of advanced telecommunications**

<b>Measure</b>	<b>2005 Actual</b>	<b>2006 Actual</b>	<b>2007 Actual</b>	<b>2008 Actual</b>	<b>2009 Target</b>	<b>2010 Target</b>
2a. Support new telecom and information technology by advocating Administration views in FCC docket filings and Congressional proceedings	5 dockets and proceedings	12 dockets and proceedings	8 dockets and proceedings	11 dockets and proceedings	5 dockets and proceedings	5 dockets and proceedings

Description: NTIA fulfills its policy-setting role in a number of ways: by preparing and issuing special reports on topics that emerge over time; testifying before Congress and other organizations that are concerned with telecommunications policy; providing the Administration's views on actions proposed by the Federal Communications Commission; issuing requests for public comment on specific issues; and encouraging dialogue with the private sector through sponsorship and participation in conferences, workshops, and other forums.

**Validation and Verification**

Data Source	Frequency	Data Storage	Internal Control Procedures	Data Limitations	Actions to be Taken
Activities are reflected on NTIA website; weekly reports to the Secretary of Commerce; annual report to Congress	Annual	Office of Policy Coordination and Management	Inspection	Data is not quantitative but rather yields a qualitative assessment of current policy directions and plans.	None

<b>Measure</b>	<b>2005 Actual</b>	<b>2006 Actual</b>	<b>2007 Actual</b>	<b>2008 Actual</b>	<b>2009 Target</b>	<b>2010 Target</b>
2b. Number of website views for research publications	New	94K/Mo	105K/Mo	127K/Mo	80K/Mo	80K/Mo

Description: NTIA will measure the number of website "hits" on its on-line research publications. This measure indicates the reception and utility of research results within the spectrum research and engineering community. Many government agencies and private sector organizations use these research publications to improve effectiveness in the planning, procurement and configuration of systems.

**Validation and Verification**

Data Source	Frequency	Data Storage	Internal Control Procedures	Data Limitations	Actions to be Taken
ITS	Monthly	ITS webserver	Inspection	None	Collection of data

**Section 6.**

**Recovery Act – New Metrics**

**Broadband Technology Opportunities Program.**

The Obama Administration has set five goals for the broadband stimulus funding: (1) create jobs; (2) increase broadband access in America; (3) stimulate private-sector investments; (4) improve high-speed access in strategic institutions, such as libraries, colleges and universities; and (5) encourage broadband demand. Reporting requirements will include the provision of information to quantify the Administration’s broadband goals. The following are preliminary metrics for NTIA for the BTOP, which will be refined as NTIA implements the program.

<b>Outcome 1 – Ensure the effective implementation of the ARRA Programs (Broadband Technology Opportunities Program)</b>							
<b>Measure</b>		<b>FY 2005 Actual</b>	<b>FY 2006 Actual</b>	<b>FY 2007 Actual</b>	<b>FY 2008 Actual</b>	<b>FY 2009 Target</b>	<b>FY 2010 Target</b>
1a. Job Creation		N/A	N/A	N/A	N/A	TBD	TBD
Description: The overall goal of the Recovery Act is to create or save 3 to 4 million jobs through 2011. Jobs created or saved as a result of BTOP program grants will inform the progress of the overall Recovery Act effort. This information will show a direct correlation between Recovery Act investment and job creation.							
<b>Validation and Verification</b>							
Data Source	Frequency	Data Storage	Internal Control Procedures		Data Limitations	Actions to be Taken	
Grantee reports	Quarterly	Office of Telecommunication and Information Applications	Inspection		None	Collection of data	
<b>Measure</b>		<b>FY 2005 Actual</b>	<b>FY 2006 Actual</b>	<b>FY 2007 Actual</b>	<b>FY 2008 Actual</b>	<b>FY 2009 Target</b>	<b>FY 2010 Target</b>
1b. Increasing broadband access		N/A	N/A	N/A	N/A	TBD	TBD
Description: Increasing broadband access and its ancillary benefits is a goal of the Recovery Act and the BTOP, which can be tracked by the increase of service in unserved and underserved areas. Information regarding where broadband service has been made available or has been improved will be available at a Census block level. This information will demonstrate that the Recovery Act funds are being used to advance its targeted policy initiatives.							
<b>Validation and Verification</b>							
Data Source	Frequency	Data Storage	Internal Control Procedures		Data Limitations	Actions to be Taken	
Grantee reports	Quarterly	Office of Telecommunication and Information Applications	Inspection		None	Collection of data	

Measure			FY 2005 Actual	FY 2006 Actual	FY 2007 Actual	FY 2008 Actual	FY 2009 Target	FY 2010 Target
1c. Stimulation of private sector investment			N/A	N/A	N/A	N/A	TBD	TBD
Description: BTOP provides that the Federal share of a grant-funded project cannot exceed 80% absent a waiver. This requirement encourages stimulation of private sector investment in BTOP projects. The direct private sector investment in BTOP programs and the secondary private sector investment as a result of the BTOP programs further the overall goals of the Recovery Act to magnify the stimulative effect and benefits garnered by targeted communities, public institutions, community educational centers, first responders, and vulnerable populations.								
<b>Validation and Verification</b>								
Data Source	Frequency	Data Storage	Internal Control Procedures			Data Limitations	Actions to be Taken	
Grantee reports	Quarterly	Office of Telecommunication and Information Applications	Inspection			None	Collection of data	
<b>Measure</b>			<b>FY 2005 Actual</b>	<b>FY 2006 Actual</b>	<b>FY 2007 Actual</b>	<b>FY 2008 Actual</b>	<b>FY 2009 Target</b>	<b>FY 2010 Target</b>
1d. Spur broadband demand			N/A	N/A	N/A	N/A	TBD	TBD
Description: The Recovery Act requires that at least \$250 million of BTOP funds be made available for innovative programs that encourage sustainable adoption of broadband services. The expenditure of such funds, plus the increase in broadband services and innovations flowing from BTOP grants, will also generate demand for broadband. Increase in broadband demand will be tracked by occurrences of broadband adoption.								
<b>Validation and Verification</b>								
Data Source	Frequency	Data Storage	Internal Control Procedures			Data Limitations	Actions to be Taken	
Grantee reports	Quarterly	Office of Telecommunication and Information Applications	Inspection			None	Collection of data	

### DTV Converter Box Coupon Program.

The ARRA provides \$650 million to the NTIA for the Digital-to-Analog Converter Box coupon program. Starting from the commencement of program operations in March 2009, NTIA plans to spend \$490 million to distribute up to 12.25 million additional coupons at \$40 each, subject to consumer demand. The 4.2 million coupons that had accumulated on the waiting list since January 2009 were obligated with ARRA funds on March 3, 2009, and then were distributed over the next two to three weeks. In addition, new requests for coupons and requests for replacements for expired coupons are currently being processed on a first-come, first served basis, though NTIA retains the flexibility to prioritize applications as necessary to assist consumers that are reliant on over-the-air broadcasts. In addition to the coupons already distributed to



households on the waiting list, at least 8 million additional coupons may be distributed using ARRA funds, and the program will accept requests from eligible households through July 31, 2009.

<b>Outcome 1 – Ensure the effective implementation of the ARRA Programs (Digital-to-Analog Converter Box Program)</b>						
<b>Measure</b>	<b>FY 2005 Actual</b>	<b>FY 2006 Actual</b>	<b>FY 2007 Actual</b>	<b>FY 2008 Target</b>	<b>FY 2009 Target</b>	<b>FY 2010 Target</b>
1a. Improved Program Effectiveness	N/A	N/A	N/A	N/A	90% ≤ 6 days	N/A
<p>Description: 90% of coupon requests are mailed within 6 business days and 100% of Coupons are mailed via First Class Postage (previously mailed standard class) NTIA's contractor has a service level standard in which 90% of the coupons are to be fulfilled within six business days. As each coupon request is processed, key dates are recorded in the system of record that are used to track data relevant to that specific coupon. IBM reports data to NTIA on a monthly basis as to whether this service level has been met.</p>						
Validation and Verification						
Data Source	Frequency	Data Storage	Internal Control Procedures		Data Limitations	Actions to be Taken
Contractor reports	Monthly	Office of Telecommunication and Information Applications	Inspection		None	Collection of data
<b>Measure</b>	<b>FY 2005 Actual</b>	<b>FY 2006 Actual</b>	<b>FY 2007 Actual</b>	<b>FY 2008 Target</b>	<b>FY 2009 Target</b>	<b>FY 2010 Target</b>
1b. Meeting Needs of Critical Stakeholders	N/A	N/A	N/A	N/A	100% Priority Consideration	N/A
<p>Description: 100% of coupon requests from over-the-air households receive priority consideration for coupon processing. NTIA has developed a plan to ensure priority is given to OTA households, including reserving a pool of funds for OTA coupons that will only be released to non-OTA household under certain events (i.e., low demand and/or the passing of the transition date). NTIA and its contractor has the ability to track data in the system of record which records the request and order data to determine the speed in which coupons from OTA requestors are ordered.</p>						
Validation and Verification						
Data Source	Frequency	Data Storage	Internal Control Procedures		Data Limitations	Actions to be Taken
Contractor reports	Monthly	Office of Telecommunication and Information Applications	Inspection		None	Collection of data

**Section 7.**

**FY 2010 Program Changes**

**Digital Television Transition and Public Safety Fund.**

The Digital Television Transition and Public Safety Fund, created by the Deficit Reduction Act of 2005 (Act), authorized offsetting receipts from the auction of electromagnetic spectrum recovered from discontinued analog television signals, and provided funding for several one-time programs from these receipts. In accordance with the Act, recovered spectrum not dedicated to public safety was auctioned by the Federal Communications Commission in 2008. The Act also provided borrowing authority to the Department of Commerce to commence specified programs prior to the availability of auction receipts. Amounts borrowed from the Treasury have been returned without interest. The Act authorized NTIA to administer several programs, including:

- Digital-to-Analog Converter Box Coupon Program
- Public Safety Interoperable Communications Grants
- New York City 9/11 Digital Transition
- Assistance to Low Power Television Stations
- National Alert Program
- Tsunami Warning Program
- Remote Community Alert Program
- Enhanced 9-1-1 Service Support
- Essential Air Service (Department of Transportation)

(Dollars in Thousands)

	Base		Increase/Decrease		<b>(Exhibit 13 Page for detailed discussion)</b>
	FTE	Amount	FTE	Amount	
Program Decrease	17	\$119,813	(4)	(\$119,813)	These one-time mandatory programs will begin to wind down in FY 2010.



Digital-to-Analog Converter Box Program, Recovery Act						584,295	0	0	0
<b>Performance Outcome 2: Ensure that the allocation of radio spectrum provides the greatest benefit to all people.</b>									
Salaries and Expenses									
Domestic and international policies	206	325	336	336	339	339	0	339	
Spectrum management	27,123	31,813	33,724	30,968	49,327	39,060	0	39,060	
Telecommunication sciences research	3,072	4,667	4,887	4,449	5,081	5,325	0	5,325	
<b>Performance Outcome 3: Promote the availability and support new sources of advanced telecommunications and information services.</b>									
Salaries & expenses									
Domestic and international policies	3,948	3,755	3,934	3,647	4,716	4,768	0	4,768	
Telecommunication sciences research	10,041	7,818	8,381	9,214	26,708	9,615	0	9,615	
Digital Television Transition and Public Safety Fund	0	0	1,070,272	942,432	790,189	119,813	(119,813)	0	
Public Telecommunications Facilities, Planning, and Construction									
Grants	21,565	19,952	22,450	19,067	18,297	18,000	(18,000)	0	
Program management	1,852	2,000	1,698	1,953	2,414	2,000	(2,000)	0	
Information Infrastructure Grants									
Grants	104	0	0	0	0	0	0	0	
Program management	1,945	600	397	323	1,629	0	0	0	
<b>Grand Total</b>									
Total funding	69,856	70,930	1,146,079	1,012,389	6,172,995	198,920	(139,813)	59,107	
Direct	42,389	39,723	1,113,132	979,965	6,106,310	159,812	(139,813)	19,999	
Reimbursable	27,467	31,207	32,947	32,424	66,685	39,108	0	39,108	
IT funding	5,400	5,400	5,400	5,400	5,400	5,400	0	5,400	
FTE	259	248	254	262	321	321	23	344	

**Department of Commerce**  
**National Telecommunications and Information Administration**  
 Broadband Technology Opportunities Program, Recovery Act  
 SUMMARY OF RESOURCE REQUIREMENTS  
 (Dollar amounts in thousands)

		Positions	FTE	Budget Authority	Direct Obligations
<b>2009 Enacted</b>		30	30	\$4,690,000	\$1,160,000
plus: Obligations from prior years		0	0	0	3,530,000
plus: Transfer to OIG		0	0	10,000	10,000
less: Non-recurring Recovery Act		(30)	(30)	(4,700,000)	(4,700,000)
plus: Recovery Act unobligated balances		70	70	0	3,530,000
<b>2010 Base</b>		70	70	0	3,530,000
plus: 2010 program changes		0	0	0	0
<b>2010 Estimate</b>		70	70	0	3,530,000

Comparison by activity/subactivity	2008 Actual		2009 Enacted		2010 Base		2010 Estimate		2010 Increase/ (Decrease)		
	Personnel	Amount	Personnel	Amount	Personnel	Amount	Personnel	Amount	Personnel	Amount	
Broadband Technology Opportunities Program											
Grants and Projects.....	Pos/BA	0	\$0	0	\$4,549,000	0	\$0	0	\$0	0	\$0
	FTE/Obl.	0	0	0	1,062,000	0	3,487,000	0	3,487,000	0	0
Program Management.....	Pos/BA	0	0	30	141,000	70	0	70	0	0	0
	FTE/Obl.	0	0	30	98,000	70	43,000	70	43,000	0	0
TOTALS.....	Pos/BA	0	0	30	4,690,000	70	0	70	0	0	0
	FTE/Obl.	0	0	30	1,160,000	70	3,530,000	70	3,530,000	0	0
<b>Adjustments to Obligations:</b>											
Recoveries/Refunds.....		0		0		0		0		0	0
Unobligated Balance, start of year.....		0		0		(3,530,000)		(3,530,000)		0	0
Unobligated Balance, end of year.....		0		3,530,000		0		0		0	0
Unobligated Balance expiring.....		0		0		0		0		0	0
Financing from transfers:											
Transfer from other accounts (-).....		0		0		0		0		0	0
Transfer to other accounts (+).....		0		10,000		0		0		0	0
<b>Appropriation.....</b>		0		4,700,000		0		0		0	0

NOTE: The grant allocations for the Public Computer Center and sustainable Broadband Service programs reflect the minimum amounts provided by the ARRA. To the extent NTIA allocates more to these components, funds will be taken from the Broadband Technology Opportunities Program. Accordingly, the BTOP amount represents the maximum allocation for this program. The plan will be updated as more information becomes available.

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**Department of Commerce**  
**National Telecommunications and Information Administration**  
 Broadband Technology Opportunities Program, Recovery Act  
**PROGRAM AND PERFORMANCE: DIRECT OBLIGATIONS**  
 (Dollar amounts in thousands)

Activity: Broadband Technology Opportunities Program  
 Subactivity: Broadband Technology Opportunities Program

Comparison by line item		2008 Actual		2009 Enacted		2010 Base		2010 Estimate		2010 Increase/ (Decrease)	
		Personnel	Amount	Personnel	Amount	Personnel	Amount	Personnel	Amount	Personnel	Amount
Broadband Technology Opportunities	Pos/BA	0	\$0	0	\$3,749,000	0	\$0	0	\$0	0	\$0
Program Grants.....	FTE/Obl.	0	0	0	700,000	0	3,049,000	0	3,049,000	0	0
<b>Direct Obligations.....</b>	Pos/BA	9	0	0	3,749,000	0	0	0	0	0	0
	FTE/Obl.	0	0	0	700,000	0	3,049,000	0	3,049,000	0	0

**Department of Commerce**  
**National Telecommunications and Information Administration**  
 Broadband Technology Opportunities Program, Recovery Act  
**PROGRAM AND PERFORMANCE: DIRECT OBLIGATIONS**  
 (Dollar amounts in thousands)

Activity: Broadband Technology Opportunities Program  
 Subactivity: Public Computer Center Program

Comparison by line item	2008 Actual		2009 Enacted		2010 Base		2010 Estimate		2010 Increase/ (Decrease)		
	Personnel	Amount	Personnel	Amount	Personnel	Amount	Personnel	Amount	Personnel	Amount	
Public Computer Center Program											
Grants.....	Pos/BA	0	\$0	0	\$200,000	0	\$0	0	\$0	0	\$0
	FTE/Obl.	0	0	0	67,000	0	133,000	0	133,000	0	0
<b>Direct Obligations.....</b>	Pos/BA	0	0	0	200,000	0	0	0	0	0	0
	FTE/Obl.	0	0	0	67,000	0	133,000	0	133,000	0	0



**Department of Commerce**  
**National Telecommunications and Information Administration**  
 Broadband Technology Opportunities Program, Recovery Act  
**PROGRAM AND PERFORMANCE: DIRECT OBLIGATIONS**  
 (Dollar amounts in thousands)

Activity: Broadband Technology Opportunities Program  
 Subactivity: Sustainable Broadband Service Program

Comparison by line item		2008 Actual		2009 Enacted		2010 Base		2010 Estimate		2010 Increase/ (Decrease)	
		Personnel	Amount	Personnel	Amount	Personnel	Amount	Personnel	Amount	Personnel	Amount
Sustainable Broadband Service	Pos/BA	0	\$0	0	\$250,000	0	\$0	0	\$0	0	\$0
Program Grants.....	FTE/Obl.	0	0	0	125,000	0	125,000	0	125,000	0	0
<b>Direct Obligations.....</b>	Pos/BA	0	0	0	250,000	0	0	0	0	0	0
	FTE/Obl.	0	0	0	125,000	0	125,000	0	125,000	0	0

**Department of Commerce**  
**National Telecommunications and Information Administration**  
 Broadband Technology Opportunities Program, Recovery Act  
**PROGRAM AND PERFORMANCE: DIRECT OBLIGATIONS**  
 (Dollar amounts in thousands)

Activity: Broadband Technology Opportunities Program  
 Subactivity: Broadband Inventory Mapping Program

Comparison by line item	2008 Actual		2009 Enacted		2010 Base		2010 Estimate		2010 Increase/ (Decrease)		
	Personnel	Amount	Personnel	Amount	Personnel	Amount	Personnel	Amount	Personnel	Amount	
Broadband Inventory Mapping											
Program Grants.....	Pos/BA	0	\$0	0	\$350,000	0	\$0	0	\$0	0	\$0
	FTE/Obl.	0	0	0	170,000	0	180,000	0	180,000	0	0
<b>Direct Obligations.....</b>	Pos/BA	0	0	0	350,000	0	0	0	0	0	0
	FTE/Obl.	0	0	0	170,000	0	180,000	0	180,000	0	0

**Department of Commerce**  
**National Telecommunications and Information Administration**  
 Broadband Technology Opportunities Program, Recovery Act  
**PROGRAM AND PERFORMANCE: DIRECT OBLIGATIONS**  
 (Dollar amounts in thousands)

Activity: Broadband Technology Opportunities Program  
 Subactivity: Program Management

Comparison by line item		2008 Actual		2009 Enacted		2010 Base		2010 Estimate		2010 Increase/ (Decrease)	
		Personnel	Amount	Personnel	Amount	Personnel	Amount	Personnel	Amount	Personnel	Amount
Program Management.....	Pos/BA	0	\$0	30	\$141,000	70	\$0	70	\$0	0	\$0
	FTE/Obl.	0	0	30	98,000	70	43,000	70	43,000	0	0
<b>Direct Obligations.....</b>	Pos/BA	0	0	30	141,000	70	0	70	0	0	0
	FTE/Obl.	0	0	30	98,000	70	43,000	70	43,000	0	0

**Department of Commerce**  
**National Telecommunications and Information Administration**  
Broadband Technology Opportunities Program, Recovery Act  
SUMMARY OF REQUIREMENTS BY OBJECT CLASS  
(Dollar amounts in thousands)

Object Class	2008 Actual	2009 Enacted	2010 Base	2010 Estimate	2010 Increase/ (Decrease)
11 Personnel compensation					
11.1 Full-time permanent	\$0	\$3,366	\$7,854	\$7,854	\$0
11.3 Other than full-time permanent	0	0	0	0	0
11.5 Other personnel compensation	0	119	311	311	0
11.8 Special personnel services payments	0	0	0	0	0
11.9 <b>Total personnel compensation</b>	0	3,485	8,165	8,165	0
12.1 Civilian personnel benefits	0	1,122	\$1,964	\$1,964	0
13 Benefits for former personnel	0	0	0	0	0
21 Travel and transportation of persons	0	240	400	400	0
22 Transportation of things	0	60	60	60	0
23.1 Rental payments to GSA	0	317	950	950	0
23.2 Rental payments to others	0	0	0	0	0
23.3 Communications, utilities and miscellaneous charges	0	109	254	254	0
24 Printing and reproduction	0	100	100	100	0
25.1 Advisory and assistance services	0	20,197	2,184	2,184	0
25.2 Other services	0	2,219	1,739	1,739	0
25.3 Purchases of goods and services from Government accounts	0	69,821	27,034	27,034	0
25.7 Operation and maintenance of equipment	0	20	20	20	0
26 Supplies and materials	0	60	80	80	0
31 Equipment	0	250	50	50	0
41 Grants, subsidies and contributions	0	1,062,000	3,487,000	3,487,000	0
99 <b>TOTAL OBLIGATIONS</b>	\$0	\$1,160,000	\$3,530,000	\$3,530,000	\$0
<b>Prior Year Recoveries/Refunds</b>					
<b>Unobligated balances from Prior Years</b>			(3,530,000)	(3,530,000)	
<b>Unobligated balance EOY</b>		3,530,000			
<b>Unobligated balance, expiring</b>					
<b>Total Budget Authority</b>	\$0	\$4,690,000	\$0	\$0	\$0

**Department of Commerce**  
**National Telecommunications and Information Administration**  
 Broadband Technology Opportunities Program, Recovery Act  
 SUMMARY OF REQUIREMENTS BY OBJECT CLASS  
 (Dollar amounts in thousands)

Personnel Data	2008 Actual	2009 Enacted	2010 Base	2010 Estimate	2010 Increase/ (Decrease)
Full-Time Equivalent Employment:					
Full-time permanent	0	30	70	70	0
Other than full-time permanent	0	0	0	0	0
Total	0	30	70	70	0
Authorized Positions:					
Full-time permanent	0	30	70	70	0
Other than full-time permanent	0	0	0	0	0
Total	0	30	70	70	0

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**Department of Commerce**  
**National Telecommunications and Information Administration**  
 Digital-To-Analog Converter Box Program, Recovery Act  
 SUMMARY OF RESOURCE REQUIREMENTS  
 (Dollar amounts in thousands)

		Positions	FTE	Budget Authority	Direct Obligations
		<b>2009 Enacted</b>	3	3	\$584,295
plus: Obligations from prior years	0	0	0	2,500	
plus: Transfer to FCC	0	0	65,705	65,705	
less: Non-recurring Recovery Act	(3)	(3)	(650,000)	(650,000)	
plus: Recovery Act unobligated Balances	3	3		2,500	
<b>2010 Base</b>	3	3	0	2,500	
plus: 2010 program changes	0	0	0	0	
<b>2010 Estimate</b>	3	3	0	2,500	

Comparison by activity/subactivity	2008 Actual		2009 Enacted		2010 Base		2010 Estimate		2010 Increase/ (Decrease)	
	Personnel	Amount	Personnel	Amount	Personnel	Amount	Personnel	Amount	Personnel	Amount
Digital-To-Analog Converter Box Program										
Pos/BA	0	\$0	3	\$584,295	3	\$0	3	\$0	0	\$0
FTE/Obl.	0	0	3	581,795	3	2,500	3	2,500	0	0
<b>TOTALS.....</b>										
Pos/BA	0	0	3	584,295	3	0	3	0	0	0
FTE/Obl.	0	0	3	581,795	3	2,500	3	2,500	0	0
<b>Adjustments to Obligations:</b>										
Recoveries/Refunds.....		0		0		0		0		0
Unobligated Balance, start of year.....		0		0		(2,500)		(2,500)		0
Unobligated Balance, end of year.....		0		2,500		0		0		0
Unobligated Balance expiring.....		0		0		0		0		0
<b>Financing from transfers:</b>										
Transfer from other accounts (-).....		0		0		0		0		0
Transfer to other accounts (+).....		0		65,705		0		0		0
<b>Appropriation.....</b>		0		650,000		0		0		0

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**Department of Commerce**  
**Digital-To-Analog Converter Box Program, Recovery Act**  
 Digital-To-Analog Converter Box Program, Recovery Act  
**PROGRAM AND PERFORMANCE: DIRECT OBLIGATIONS**  
 (Dollar amounts in thousands)

Activity: Digital-To-Analog Converter Box Program  
 Subactivity: Digital-To-Analog Converter Box Program

Comparison by line item		2008 Actual		2009 Enacted		2010 Base		2010 Estimate		2010 Increase/ (Decrease)	
		Personnel	Amount	Personnel	Amount	Personnel	Amount	Personnel	Amount	Personnel	Amount
DTV Converter Box coupon program	Pos/BA	0	\$0	3	\$584,295	3	\$0	3	\$0	0	\$0
	FTE/Obl.	0	0	3	581,795	3	2,500	3	2,500	0	0
<b>Direct Obligations.....</b>	Pos/BA	9	0	3	584,295	3	0	3	0	0	0
	FTE/Obl.	0	0	3	581,795	3	2,500	3	2,500	0	0

**Department of Commerce**  
**National Telecommunications and Information Administration**  
 Digital-to-Analog Converter Box Program, Recovery Act  
 SUMMARY OF REQUIREMENTS BY OBJECT CLASS  
 (Dollar amounts in thousands)

Object Class	2008 Actual	2009 Enacted	2010 Base	2010 Estimate	2010 Increase/ (Decrease)
11 Personnel compensation					
11.1 Full-time permanent	\$0	\$357	\$364	\$364	\$0
11.3 Other than full-time permanent	0	0	0	0	0
11.5 Other personnel compensation	0	30	31	31	0
11.8 Special personnel services payments	0	0	0	0	0
11.9 <b>Total personnel compensation</b>	0	387	395	395	0
12.1 Civilian personnel benefits	0	89	91	91	0
13 Benefits for former personnel	0	0	0	0	0
21 Travel and transportation of persons	0	10	4	4	0
22 Transportation of things	0	0	0	0	0
23.1 Rental payments to GSA	0	10	8	8	0
23.2 Rental payments to others	0	0	0	0	0
23.3 Communications, utilities and miscellaneous charges	0	5	2	2	0
24 Printing and reproduction	0	6	2	2	0
25.1 Advisory and assistance services	0	0	0	0	0
25.2 Other services	0	73,354	1,995	1,995	0
25.3 Purchases of goods and services from Government accounts	0	17,925	0	0	0
25.7 Operation and maintenance of equipment	0	1	1	1	0
26 Supplies and materials	0	6	2	2	0
31 Equipment	0	1	0	0	0
41 Grants, subsidies and contributions	0	490,000	0	0	0
99 <b>TOTAL OBLIGATIONS</b>	\$0	\$581,795	\$2,500	\$2,500	\$0
<b>Prior Year Recoveries/Refunds</b>					
<b>Unobligated balances from Prior Years</b>			(2,500)	(2,500)	
<b>Unobligated balance EOY</b>		2,500			
<b>Unobligated balance, expiring</b>					
<b>Total Budget Authority</b>	\$0	\$584,295	\$0	\$0	\$0

**Department of Commerce**  
**National Telecommunications and Information Administration**  
 Digital-to-Analog Converter Box Program, Recovery Act  
 SUMMARY OF REQUIREMENTS BY OBJECT CLASS  
 (Dollar amounts in thousands)

Personnel Data	2008 Actual	2009 Enacted	2010 Base	2010 Estimate	2010 Increase/ (Decrease)
Full-Time Equivalent Employment:					
Full-time permanent	0	3	3	3	0
Other than full-time permanent	0	0	0	0	0
Total	0	3	3	3	0
Authorized Positions:					
Full-time permanent	0	3	3	3	0
Other than full-time permanent	0	0	0	0	0
Total	0	3	3	3	0

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**Department of Commerce**  
**National Telecommunications and Information Administration**  
 Digital Television Transition and Public Safety Fund  
 SUMMARY OF RESOURCE REQUIREMENTS  
 (Dollar amounts in thousands)

		2009 Enacted		2009 Enacted		2010 Base		2010 Estimate		Budget Authority	Direct Obligations
		Positions	FTE	Authority	Obligations	Positions	FTE	Authority	Obligations	Authority	Obligations
<b>2009 Enacted</b>		17	17	\$119,813	\$790,189						
less: Obligations from prior years		0	0	0	(670,376)						
<b>2010 Base</b>		17	17	119,813	119,813						
plus: 2010 program changes		(4)	(4)	(119,813)	(119,813)						
<b>2010 Estimate</b>		13	13	0	0						
Comparison by activity/subactivity		2008 Actual		2009 Enacted		2010 Base		2010 Estimate		2010 Increase/ (Decrease)	
		Personnel	Amount	Personnel	Amount	Personnel	Amount	Personnel	Amount	Personnel	Amount
Digital-to-Analog Converter Box Voucher Program.....	Pos/BA	9	\$1,393,061	2	\$22,062	2	\$22,062	1	\$0	(1)	(\$22,062)
	FTE/Obl.	7	840,809	2	595,399	2	22,062	1	972	(1)	(21,090)
Public Safety Interoperable Communications Grants.....	Pos/BA	3	21,542	3	0	3	0	3	0	0	0
	FTE/Obl.	3	6,722	3	8,540	3	0	3	8,043	0	8,043
New York City 9/11 Digital Transition.....	Pos/BA	0	21,739	0	0	0	0	0	0	0	0
	FTE/Obl.	0	21,813	0	0	0	0	0	0	0	0
Low-Power Television and Translator Digital to Analog Conversion Program.....	Pos/BA	2	2,844	1	506	1	506	0	0	(1)	(506)
	FTE/Obl.	2	1,531	1	1,775	1	506	0	108	(1)	(398)
Low-Power Television and Translator Upgrade Program	Pos/BA	1	68,055	6	0	6	0	6	0	0	0
	FTE/Obl.	0	0	6	42,683	6	0	6	2,134	0	2,134
National Alert Program.....	Pos/BA	1	49,983	4	46,017	4	46,017	3	0	(1)	(46,017)
	FTE/Obl.	0	4,724	4	90,127	4	46,017	3	230	(1)	(45,787)
Tsunami Warning Program.....	Pos/BA	0	0	0	50,000	0	50,000	0	0	0	(50,000)
	FTE/Obl.	0	0	0	50,000	0	50,000	0	0	0	(50,000)
Remote Community Alert Program.....	Pos/BA	0	0	0	0	0	0	0	0	0	0
	FTE/Obl.	0	10,000	0	0	0	0	0	0	0	0
Enhanced 9-1-1 Service Support.....	Pos/BA	0	42,033	1	1,465	1	1,465	0	0	(1)	(1,465)
	FTE/Obl.	0	41,833	1	1,665	1	1,465	0	0	(1)	(1,465)
Essential Air Service Program.....	Pos/BA	0	15,000	0	0	0	0	0	0	0	0
	FTE/Obl.	0	15,000	0	0	0	0	0	0	0	0
TOTALS.....	Pos/BA	16	1,614,257	17	119,813 (1)	17	119,813 (1)	13	0	(4)	(119,813) (1)
	FTE/Obl.	12	942,432	17	790,189	17	119,813	13	11,487	(4)	(108,326) (1)
<b>Adjustments to Obligations:</b>											
Recoveries/Refunds.....			(750)		0		0		0		0
Unobligated Balance, start of year.....			(13,891)		(686,703)		0		(16,327)		(16,327)
Unobligated Balance, end of year.....			686,703		16,327		0		4,840		4,840
Unobligated Balance expiring.....			0		0		0		0		0
<b>Budget Authority</b> .....			1,614,494		119,813		119,813		0		(119,813)
<b>Financing from borrowing authority:</b>											
Authority to borrow, start of year.....			2,525,011		2,689,500						
Borrowed (-).....			(500,200)		(4,724)						
Repaid (+).....			664,689		4,724						
Authority to borrow available, end of year.....			2,689,500		2,689,500						
<b>Financing from appropriated receipts:</b>											
Anticipated Receipts, start of year.....			1,778,983		17,777,601						
Repayment to Treasury:											
Borrowings Repaid (-).....			(664,689)		(4,724)						
Deficit Reduction (-).....			0		(7,363,000)						
Substitution of Borrowing Authority - not borrowed (-).....			0		(914,951)						
Obligated, not borrowed (-).....			(427,591)		(790,189)						
Receipts available, end of year .....			686,703		8,709,461				8,697,974		

Note (1): Appropriated receipts are reduced by \$237K due an adjustment to the Programs' FY2010-2012 Spending Plan (\$16,564K-\$16,327K)

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**Department of Commerce**  
**National Telecommunications and Information Administration**  
 Digital Television Transition and Public Safety Fund  
**PROGRAM AND PERFORMANCE: DIRECT OBLIGATIONS**  
 (Dollar amounts in thousands)

Activity: Digital Television Transition and Public Safety Fund  
 Subactivity: Digital-to-Analog Converter Box Voucher Program

Comparison by line item		2008 Actual		2009 Enacted		2010 Base		2010 Estimate		2010 Increase/ (Decrease)	
		Personnel	Amount	Personnel	Amount	Personnel	Amount	Personnel	Amount	Personnel	Amount
Digital-to-Analog Converter Box Voucher Program.....		9	\$1,393,061	2	\$22,062	2	\$22,062	1	\$0	(1)	(\$22,062)
	Pos/BA										
	FTE/Obl.	7	840,809	2	595,399	2	22,062	1	972	(1)	(21,090)
<b>Direct Obligations.....</b>		9	1,393,061	2	22,062	2	22,062	1	0	(1)	(22,062)
	Pos/BA										
	FTE/Obl.	7	840,809	2	595,399	2	22,062	1	972	(1)	(21,090)

**Department of Commerce**  
**National Telecommunications and Information Administration**  
 Digital Television Transition and Public Safety Fund  
**PROGRAM AND PERFORMANCE: DIRECT OBLIGATIONS**  
 (Dollar amounts in thousands)

Activity: Digital Television Transition and Public Safety Fund  
 Subactivity: Public Safety Interoperable Communications Grants

Comparison by line item	2008 Actual		2009 Enacted		2010 Base		2010 Estimate		2010 Increase/ (Decrease)		
	Personnel	Amount	Personnel	Amount	Personnel	Amount	Personnel	Amount	Personnel	Amount	
Public Safety Interoperable Communications											
Grants.....	Pos/BA	3	\$21,542	3	\$0	3	\$0	3	\$0	0	\$0
	FTE/Obl.	3	6,722	3	8,540	3	0	3	8,043	0	8,043
<b>Direct Obligations.....</b>	Pos/BA	3	21,542	3	0	3	0	3	0	0	0
	FTE/Obl.	3	6,722	3	8,540	3	0	3	8,043	0	8,043



**Department of Commerce**  
**National Telecommunications and Information Administration**  
 Digital Television Transition and Public Safety Fund  
**PROGRAM AND PERFORMANCE: DIRECT OBLIGATIONS**  
 (Dollar amounts in thousands)

Activity: Digital Television Transition and Public Safety Fund  
 Subactivity: New York City 9/11 Digital Transition

Comparison by line item		2008 Actual		2009 Enacted		2010 Base		2010 Estimate		2010 Increase/ (Decrease)	
		Personnel	Amount	Personnel	Amount	Personnel	Amount	Personnel	Amount	Personnel	Amount
New York City 9/11 Digital Transition.....	Pos/BA	0	\$21,739	0	\$0	0	\$0	0	\$0	0	\$0
	FTE/Obl.	0	21,813	0	0	0	0	0	0	0	0
<b>Direct Obligations.....</b>	Pos/BA	0	21,739	0	0	0	0	0	0	0	0
	FTE/Obl.	0	21,813	0	0	0	0	0	0	0	0

**Department of Commerce**  
**National Telecommunications and Information Administration**  
 Digital Television Transition and Public Safety Fund  
**PROGRAM AND PERFORMANCE: DIRECT OBLIGATIONS**  
 (Dollar amounts in thousands)

Activity: Digital Television Transition and Public Safety Fund  
 Subactivity: Low-Power Television and Translator Digital to Analog Conversion Program

Comparison by line item		2008 Actual		2009 Enacted		2010 Base		2010 Estimate		2010 Increase/ (Decrease)	
		Personnel	Amount	Personnel	Amount	Personnel	Amount	Personnel	Amount	Personnel	Amount
Low-Power Television and Translator Conversion Program.....	Pos/BA	2	\$2,844	1	\$506	1	\$506	0	\$0	(1)	(\$506)
	FTE/Obl.	2	1,531	1	1,775	1	506	0	108	(1)	(398)
<b>Direct Obligations.....</b>	Pos/BA	2	2,844	1	506	1	506	0	0	(1)	(506)
	FTE/Obl.	2	1,531	1	1,775	1	506	0	108	(1)	(398)

**Department of Commerce**  
**National Telecommunications and Information Administration**  
 Digital Television Transition and Public Safety Fund  
**PROGRAM AND PERFORMANCE: DIRECT OBLIGATIONS**  
 (Dollar amounts in thousands)

Activity: Digital Television Transition and Public Safety Fund  
 Subactivity: Low-Power Television and Translator Upgrade Program

Comparison by line item	2008 Actual		2009 Enacted		2010 Base		2010 Estimate		2010 Increase/ (Decrease)		
	Personnel	Amount	Personnel	Amount	Personnel	Amount	Personnel	Amount	Personnel	Amount	
Low-Power Television and Translator Upgrade Program.....	Pos/BA	1	\$68,055	6	\$0	6	\$0	6	\$0	0	\$0
	FTE/Obl.	0	0	6	42,683	6	0	6	2,134	0	2,134
<b>Direct Obligations.....</b>	Pos/BA	1	68,055	6	0	6	0	6	0	0	0
	FTE/Obl.	0	0	6	42,683	6	0	6	2,134	0	2,134

**Department of Commerce**  
**National Telecommunications and Information Administration**  
 Digital Television Transition and Public Safety Fund  
**PROGRAM AND PERFORMANCE: DIRECT OBLIGATIONS**  
 (Dollar amounts in thousands)

Activity: Digital Television Transition and Public Safety Fund  
 Subactivity: National Alert Program

Comparison by line item		2008 Actual		2009 Enacted		2010 Base		2010 Estimate		2010 Increase/ (Decrease)	
		Personnel	Amount	Personnel	Amount	Personnel	Amount	Personnel	Amount	Personnel	Amount
National Alert Program.....	Pos/BA	1	\$49,983	4	\$46,017	4	\$46,017	3	\$0	(1)	(\$46,017)
	FTE/Obl.	0	4,724	4	90,127	4	46,017	3	230	(1)	(\$45,787)
<b>Direct Obligations.....</b>	Pos/BA	1	49,983	4	46,017	4	46,017	3	0	(1)	(46,017)
	FTE/Obl.	0	4,724	4	90,127	4	46,017	3	230	(1)	(45,787)

**Department of Commerce**  
**National Telecommunications and Information Administration**  
 Digital Television Transition and Public Safety Fund  
**PROGRAM AND PERFORMANCE: DIRECT OBLIGATIONS**  
 (Dollar amounts in thousands)

Activity: Digital Television Transition and Public Safety Fund  
 Subactivity: Tsunami Warning Program

Comparison by line item	2008 Actual		2009 Enacted		2010 Base		2010 Estimate		2010 Increase/ (Decrease)	
	Personnel	Amount	Personnel	Amount	Personnel	Amount	Personnel	Amount	Personnel	Amount
Tsunami Warning Program .....	0	\$0	0	\$50,000	0	\$50,000	0	\$0	0	(\$50,000)
Pos/BA	0	0	0	50,000	0	50,000	0	0	0	(\$50,000)
FTE/Obl.										
<b>Direct Obligations.....</b>	0	0	0	50,000	0	50,000	0	0	0	(50,000)
Pos/BA	0	0	0	50,000	0	50,000	0	0	0	(50,000)
FTE/Obl.										

**Department of Commerce**  
**National Telecommunications and Information Administration**  
 Digital Television Transition and Public Safety Fund  
**PROGRAM AND PERFORMANCE: DIRECT OBLIGATIONS**  
 (Dollar amounts in thousands)

Activity: Digital Television Transition and Public Safety Fund  
 Subactivity: Remote Community Alert Program

Comparison by line item		2008 Actual		2009 Enacted		2010 Base		2010 Estimate		2010 Increase/ (Decrease)	
		Personnel	Amount	Personnel	Amount	Personnel	Amount	Personnel	Amount	Personnel	Amount
Remote Community Alert Program.....	Pos/BA	0	\$0	0	\$0	0	\$0	0	\$0	0	\$0
	FTE/Obl.	0	10,000	0	0	0	0	0	0	0	0
<b>Direct Obligations.....</b>	Pos/BA	0	0	0	0	0	0	0	0	0	0
	FTE/Obl.	0	10,000	0	0	0	0	0	0	0	0

**Department of Commerce**  
**National Telecommunications and Information Administration**  
 Digital Television Transition and Public Safety Fund  
**PROGRAM AND PERFORMANCE: DIRECT OBLIGATIONS**  
 (Dollar amounts in thousands)

Activity: Digital Television Transition and Public Safety Fund  
 Subactivity: Enhanced 9-1-1 Service Support

Comparison by line item		2008 Actual		2009 Enacted		2010 Base		2010 Estimate		2010 Increase/ (Decrease)	
		Personnel	Amount	Personnel	Amount	Personnel	Amount	Personnel	Amount	Personnel	Amount
Enhanced 9-1-1 Service Support.....	Pos/BA	0	\$42,033	1	\$1,465	1	\$1,465	0	\$0	(1)	(\$1,465)
	FTE/Obl.	0	41,833	1	1,665	1	1,465	0	0	(1)	(\$1,465)
<b>Direct Obligations.....</b>	Pos/BA	0	42,033	1	1,465	1	1,465	0	0	(1)	(\$1,465)
	FTE/Obl.	0	41,833	1	1,665	1	1,465	0	0	(1)	(1,465)

**Department of Commerce**  
**National Telecommunications and Information Administration**  
 Digital Television Transition and Public Safety Fund  
**PROGRAM AND PERFORMANCE: DIRECT OBLIGATIONS**  
 (Dollar amounts in thousands)

Activity: Digital Television Transition and Public Safety Fund  
 Subactivity: Essential Air Service Program

Comparison by line item		2008 Actual		2009 Enacted		2010 Base		2010 Estimate		2010 Increase/ (Decrease)	
		Personnel	Amount	Personnel	Amount	Personnel	Amount	Personnel	Amount	Personnel	Amount
Essential Air Service Program.....	Pos/BA	0	\$15,000	0	\$0	0	\$0	0	\$0	0	\$0
	FTE/Obl.	0	15,000	0	0	0	0	0	0	0	0
<b>Direct Obligations.....</b>	Pos/BA	0	15,000	0	0	0	0	0	0	0	0
	FTE/Obl.	0	15,000	0	0	0	0	0	0	0	0



**Department of Commerce**  
**National Telecommunications and Information Administration**  
 Digital Television Transition and Public Safety Fund  
 SUMMARY OF REQUIREMENTS BY OBJECT CLASS  
 (Dollar amounts in thousands)

Object Class	2008 Actual	2009 Enacted	2010 Base	2010 Estimate	2010 Increase/ (Decrease)
11 Personnel compensation					
11.1 Full-time permanent	\$1,535	\$2,037	\$2,037	\$1,802	(\$235)
11.3 Other than full-time permanent	0	0	0	0	0
11.5 Other personnel compensation	127	84	84	99	15
11.8 Special personnel services payments	0	0	0	0	0
11.9 <b>Total personnel compensation</b>	1,662	2,121	2,121	1,901	(220)
12.1 Civilian personnel benefits	512	679	679	625	(54)
13 Benefits for former personnel	0	0	0	0	0
21 Travel and transportation of persons	120	109	17	60	43
22 Transportation of things	16	5	1	5	4
23.1 Rental payments to GSA	131	115	17	100	83
23.2 Rental payments to others	0	0	0	0	0
23.3 Communications, utilities and miscellaneous charges	70	62	9	54	45
24 Printing and reproduction	99	70	11	45	34
25.1 Advisory and assistance services	2,602	785	119	0	(119)
25.2 Other services	135,211	84,660	70,612	6,764	(63,848)
25.3 Purchases of goods and services from Government accounts	3,653	4,445	4,445	1,832	(2,615)
25.7 Operation and maintenance of equipment	0	0	0	0	0
26 Supplies and materials	23	66	10	75	65
31 Equipment	6	10	2	27	25
41 Grants, subsidies and contributions	798,327	697,063	41,771	0	(41,771)
99 <b>TOTAL OBLIGATIONS</b>	\$942,432	\$790,189	\$119,813	\$11,487	(\$108,326)
<b>Prior Year Recoveries/Refunds</b>	(750)				
<b>Unobligated balances from Prior Years</b>	(13,891)	(686,703)		(16,327)	
<b>Unobligated balance EOY</b>	686,703	16,327		4,840	
<b>Unobligated balance, expiring</b>					
<b>Total Budget Authority</b>	\$1,614,494	\$119,813	\$119,813	\$0	(\$108,326)

**Department of Commerce**  
**National Telecommunications and Information Administration**  
 Digital Television Transition and Public Safety Fund  
 SUMMARY OF REQUIREMENTS BY OBJECT CLASS  
 (Dollar amounts in thousands)

Personnel Data	2008 Actual	2009 Enacted	2010 Base	2010 Estimate	2010 Increase/ (Decrease)
Full-Time Equivalent Employment:					
Full-time permanent	12	17	17	13	(4)
Other than full-time permanent	0	0	0	0	0
Total	12	17	17	13	(4)
Authorized Positions:					
Full-time permanent	12	17	17	13	(4)
Other than full-time permanent	0	0	0	0	0
Total	12	17	17	13	(4)

**Department of Commerce**  
**National Telecommunications and Information Administration**  
 Salaries and Expenses  
 SUMMARY OF RESOURCE REQUIREMENTS  
 (Dollar amounts in thousands)

							Positions	FTE	Budget Authority	Direct Obligations	
<b>2009 Enacted</b>							103	103	\$19,218	\$19,486	
less: Unobligated Balance, start of year							0	0	0	(3,268)	
2009 unobligated balance rescission							0	0	(3,000)	0	
plus: 2009 restoration of unobligated balance rescission							0	0	3,000	3,000	
2010 adjustments to base							0	0	781	781	
<b>2010 Base</b>							103	103	19,999	19,999	
plus: 2010 program changes							0	0	0	0	
<b>2010 Estimate</b>							103	103	19,999	19,999	
Comparison by activity/subactivity		2008 Actual		2009 Enacted		2010 Base		2010 Estimate		2010 Increase/ (Decrease)	
		Personnel	Amount	Personnel	Amount	Personnel	Amount	Personnel	Amount	Personnel	Amount
Domestic and international policies .....	Pos/BA	26	\$4,474	26	\$3,351	26	\$5,107	26	\$5,107	0	\$0
	FTE/Obl.	19	3,983	26	5,055	26	5,107	26	5,107	0	
Spectrum management.....	Pos/BA	32	6,688	32	6,120	32	7,752	32	7,752	0	0
	FTE/Obl.	32	5,942	32	7,535	32	7,752	32	7,752	0	
Telecommunication sciences research.....	Pos/BA	45	6,304	45	6,747	45	7,140	45	7,140	0	0
	FTE/Obl.	40	6,265	45	6,896	45	7,140	45	7,140	0	
TOTALS.....	Pos/BA	103	17,466	103	16,218	103	19,999	103	19,999	0	0
	FTE/Obl.	91	16,190	103	19,486	103	19,999	103	19,999	0	
<b>Adjustments to Obligations:</b>											
Recoveries/Refunds.....			(84)		0		0		0		0
Unobligated Balance, start of year.....			(1,908)		(3,268)		0		0		0
Unobligated Balance, end of year.....			3,268		0		0		0		0
Unobligated Balance, rescission.....			0		3,000		0		0		0
Unobligated Balance expiring.....			0		0		0		0		0
Financing from transfers:											
Transfer from other accounts (-).....			0		0		0		0		0
Transfer to other accounts (+).....			0		0		0		0		0
<b>Appropriation.....</b>			17,466		19,218		19,999		19,999		0

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**Department of Commerce**  
**National Telecommunications and Information Administration**  
 Salaries and Expenses  
 SUMMARY OF REIMBURSABLE OBLIGATIONS  
 (Dollar amounts in thousands)

Comparison by activity	2008 Actual		2009 Enacted		2010 Base		2010 Estimate		2010 Increase/ (Decrease)		
	Personnel	Amount	Personnel	Amount	Personnel	Amount	Personnel	Amount	Personnel	Amount	
<u>Reimbursable projects</u>											
Telecommunication Sciences Research.....	Pos/BA	45	\$0	45	\$0	45	\$0	45	\$0	0	0
	FTE/Obl.	40	7,399	45	24,893	45	7,800	45	7,800	0	0
Other.....	Pos/BA	1	0	1	0	1	0	1	0	0	0
	FTE/Obl.	1	185	1	300	1	300	1	300	0	0
<b>Total, Reimbursable projects.....</b>	Pos/BA	46	0	46	0	46	0	46	0	0	0
	FTE/Obl.	41	7,584	46	25,193	46	8,100	46	8,100	0	0
<u>Spectrum fees</u>											
Spectrum Management.....	Pos/BA	109	0	109	0	109	0	109	0	0	0
	FTE/Obl.	109	24,840	109	41,492	109	31,008	109	31,008	0	0
<b>Total, Spectrum fees.....</b>	Pos/BA	109	0	109	0	109	0	109	0	0	0
	FTE/Obl.	109	24,840	109	41,492	109	31,008	109	31,008	0	0
<b>Total, Reimbursable Obligations.....</b>	Pos/BA	155	0	155	0	155	0	155	0	0	0
	FTE/Obl.	150	32,424	155	66,685	155	39,108	155	39,108	0	0

**Department of Commerce**  
**National Telecommunications and Information Administration**  
 Salaries and Expenses  
 SUMMARY OF FINANCING  
 (Dollar amounts in thousands)

Comparison by activity	2008 Actual	2009 Enacted	2010 Base	2010 Estimate	2010 Increase/ (Decrease)
<b>Total Obligations.....</b>	<b>\$48,614</b>	<b>\$86,171</b>	<b>\$59,107</b>	<b>\$59,107</b>	<b>\$0</b>
Offsetting collections from:					
Federal funds.....	(31,924)	(66,185)	(38,608)	(38,608)	0
Non-Federal sources.....	(500)	(500)	(500)	(500)	0
Recoveries/Refunds.....	(84)	0	0	0	0
Unobligated balance, start of year.....	(1,908)	(3,268)	0	0	0
Unobligated balance, end of year.....	3,268	0	0	0	0
Unobligated balance, recission.....	0	3,000	0	0	0
Unobligated balance expiring.....	0	0	0	0	0
<b>Budget Authority.....</b>	<b>17,466</b>	<b>19,218</b>	<b>19,999</b>	<b>19,999</b>	<b>0</b>
Financing:					
Transferred from other accounts (-).....	0	0	0	0	0
Transferred to other accounts (+).....	0	0	0	0	0
<b>Appropriation.....</b>	<b>17,466</b>	<b>19,218</b>	<b>19,999</b>	<b>19,999</b>	<b>0</b>

**Department of Commerce**  
**National Telecommunications and Information Administration**  
 Salaries and Expenses  
 ADJUSTMENTS TO BASE

Exhibit 8

Adjustments to Base	Positions	FTE	Amount (\$000)
<b><u>ADJUSTMENTS:</u></b>			
Restoration of 2009 Unobligated Balance Rescission	0	0	\$ 3,000
<b><u>COST CHANGES:</u></b>			
Full-year cost of FY 2009 pay increase and related costs.....	0	0	\$ 251
FY 2010 pay raise.....	0	0	236
Civil Service Retirement System (CSRS).....	0	0	(29)
Federal Employees Retirement System (FERS).....	0	0	47
Federal Insurance Contribution Act (FICA) - OASDI.....	0	0	23
Thrift Savings Plan.....	0	0	8
Health Insurance.....	0	0	16
Employees Compensation Fund.....	0	0	45
Travel.....	0	0	3
Per Diem.....	0	0	9
Rental payments to GSA.....	0	0	33
GSA Steam.....	0	0	230
Electricity.....	0	0	463
Other Services:			
Working Capital Fund.....	0	0	682
Less payment to WCF for utilities.....	0	0	(655)
Less payment to ITA for personnel services .....	0	0	(301)
General Pricing Level Adjustment:			
Communications, utilities and miscellaneous charges.....	0	0	0
Other services.....	0	0	15
Rental payments to others.....	0	0	0
Supplies and materials.....	0	0	2
Equipment.....	0	0	3
<b>Subtotal, Cost Changes.....</b>	<b>0</b>	<b>0</b>	<b>1,081</b>
<b>Less Amount Absorbed.....</b>	<b>0</b>	<b>0</b>	<b>(300)</b>
<b>Subtotal, Adjustments.....</b>	<b>0</b>	<b>0</b>	<b>3,000</b>
<b>Total, Adjustments to Base.....</b>	<b>0</b>	<b>0</b>	<b>\$ 3,781</b>

Department of Commerce  
National Telecommunications and Information Administration  
Salaries and Expenses  
JUSTIFICATION OF ADJUSTMENTS TO BASE

Exhibit 9

Adjustments to Base	Positions	FTE	Amount (\$000)
<b><u>COST CHANGES:</u></b>			
<b><u>Pay Raises</u></b>			
	0	0	\$ 487
<u>Full-year cost of FY 2009 pay increase and related costs</u>			
The FY 2009 President's budget assumes a pay raise of 3.9 percent to be effective January 1, 2009.			
Total cost in FY 2010 of FY 2009 pay increase.....			568,414
Less amount funded in FY 2009.....			-317,000
Total amount requested in FY 2010 to provide cost of FY 2009 pay raise.....			251,414
 <u>FY 2010 pay increase and related costs</u>			
A general pay raise of 2.0 percent is assumed to be effective January 1, 2010.			
Total cost of FY 2010 pay raise.....			207,500
Payment to Working Capital Fund.....			29,000
Total adjustment for FY 2010 pay increase.....			236,500
 <b><u>Civil Service Retirement System (CSRS)</u></b>			
	0	0	(29)
The number of employees covered by CSRS continues to drop as positions become vacant and are filled by employees who are covered by the Federal Employees' Retirement System (FERS). The estimated percentage of payroll for employees covered by CSRS will drop from 15.4 percent in FY 2009 to 11.8 percent in FY 2010. The contribution rate will remain 7.0 percent.			
FY 2010 (\$11,627,000 x .118 x .0700).....			96,039
FY 2009 (\$11,627,000 x .154 x .0700).....			125,339
Total adjustment to base.....			(29,300)
 <b><u>Federal Employees Retirement System (FERS)</u></b>			
	0	0	47
The number of employees covered by FERS continues to rise as employees covered by CSRS leave and are replaced by employees covered by FERS. The estimated percentage of payroll for employees covered by FERS will rise from 84.6 percent in FY 2009 to 88.26 percent in FY 2010. The contribution rate will remain 11.2 percent.			
FY 2010 (\$11,627,000 x .882 x .112).....			1,148,562
FY 2009 (\$11,627,000 x .846 x .112).....			1,101,682
Total adjustment to base.....			46,880
 <b><u>Federal Insurance Contribution Act (FICA)</u></b>			
	0	0	23
As the percentage of payroll covered by FERS rises, the cost of OASDI contributions will increase. In addition, the maximum salary subject to OASDI tax will rise from \$106,425 in FY 2009 to \$110,400 in FY 2010. The OASDI tax rate will remain 6.2 percent.			
Regular Employees			
FY 2010 (\$11,627,000 x .882 x .922 x .062).....			586,218
FY 2009 (\$11,627,000 x .846 x .924 x .062).....			563,510
Total Adjustment to Base.....			22,708



Department of Commerce  
National Telecommunications and Information Administration  
Salaries and Expenses  
JUSTIFICATION OF ADJUSTMENTS TO BASE

Adjustments to Base	Positions	FTE	Amount (\$000)
<b><u>Thrift Savings Plan (TSP)</u></b>			
The cost of NTIA's contributions to the Thrift Savings Plan will also rise as FERS participation increases. The contribution rate is expected to remain 2 percent.	0	0	\$ 8
FY 2010 (\$11,627,000 x .882 x .02).....	205,100		
FY 2009 (\$11,627,000 x .846 x .02).....	196,729		
Total Adjustment to Base.....	8,371		
<b><u>Health Insurance</u></b>			
Effective January 2008, NTIA's contribution to Federal employees' health insurance premiums increased by 2.5 percent. Applied against the 2009 estimate of \$630,000, the additional amount required is \$15,750.	0	0	16
<b><u>Employee Compensation Fund: (Revision Needed)</u></b>			
The Employees Compensation Fund bill for the year ending June 30, 2008, is \$45,000 higher than the bill for the year ending June 30, 2007. The Employee Compensation fund is based on an actual billing from the Department of Labor.	0	0	45
<b><u>Mileage Rate Increase</u></b>			
Effective August 2008, the General Services Administration raised the mileage rate to 58.5 cents per mile, a 20.6% increase from February 2007's rate of 48.5 cents per mile. This percentage was applied to the 2009 estimate of \$14,000 to arrive at an increase of \$2,884.	0	0	3
<b><u>Per Diem</u></b>			
Per diem rates are projected to increase 7.2 percent in FY 2010. This percentage was applied to the FY 2009 estimate of \$127,000 to arrive at an increase of \$9,144.	0	0	9
<b><u>GSA Steam</u></b>			
This request moves charges from the Working Capital Fund to Advances and Reimbursements for costs associated with GSA Steam Bill for HCHB.	0	0	230
<b><u>Electricity</u></b>			
This request moves charges from the Working Capital Fund to Advances and Reimbursements for costs associated with PEPCO electricity costs. It also includes an adjustment to cover the 6.1% increase in PEPCO electricity costs.	0	0	463
<b><u>Rental payments to GSA</u></b>			
GSA rates are projected to increase 2.5 percent in FY 2010. This percentage was applied to the FY 2009 estimate of \$1,339,000 to arrive at an increase of \$33,475.	0	0	33

**Department of Commerce**  
**National Telecommunications and Information Administration**  
 Salaries and Expenses  
 JUSTIFICATION OF ADJUSTMENTS TO BASE

Adjustments to Base	Positions	FTE	Amount (\$000)
<b>Other Services</b>			
Increase in Working Capital Fund charges.....	0	0	\$ (274)
Less payment to Working Capital Fund for utilities.....			-655
Less payment to ITA for personnel services.....			-301
			-274
<b>General Pricing Level Adjustment</b>			
This request applies .8 percent based on OMB economic assumptions for FY 2010 to object classes where the prices that the Government pays are established through the market system. Factors are applied to: other services (\$14,552), supplies and materials (\$1,736), and equipment (\$3,248).	0	0	20
<b>Subtotal, Cost Changes</b> .....	0	0	1081
<b>Less Amount Absorbed</b> .....			(300)
<b>Total, Adjustments to Base</b> .....	0	0	\$ 781

**Department of Commerce**  
**National Telecommunications and Information Administration**  
 Salaries and Expenses  
**PROGRAM AND PERFORMANCE: DIRECT OBLIGATIONS**  
 (Dollar amounts in thousands)

Activity: Salaries and expenses  
 Subactivity: Domestic and international policies

Comparison by line item	2008 Actual		2009 Enacted		2010 Base		2010 Estimate		2010 Increase/ (Decrease)		
	Personnel	Amount	Personnel	Amount	Personnel	Amount	Personnel	Amount	Personnel	Amount	
Domestic and international policies.....	Pos/BA	26	\$4,474	26	\$3,351	26	\$5,107	26	\$5,107	0	\$0
	FTE/Obl.	19	3,983	26	5,055	26	5,107	26	5,107	0	0
<b>Direct Obligations.....</b>	Pos/BA	26	4,474	26	3,351	26	5,107	26	5,107	0	0
	FTE/Obl.	19	3,983	26	5,055	26	5,107	26	5,107	0	0

**Department of Commerce**  
**National Telecommunications and Information Administration**  
Salaries and Expenses  
Domestic and International Policies  
**Justification of Program and Performance**

**Goal Statement**

NTIA serves as the principal adviser to the President on telecommunications and information policy issues. In this role, NTIA formulates, advocates, and participates in the implementation of policies that further domestic and foreign policy goals and enhance the international competitiveness of U.S. telecommunications and information technology, equipment, and services companies. These policies further the United States' strategic goals of opening markets and encouraging competition, innovation, and entrepreneurship, in the United States and globally; advancing the public interest in telecommunications, mass media, and information services; and promoting the availability of advanced services to all peoples around the globe. Policy objectives are based on the identification and interdisciplinary analysis of economic, technological, regulatory, legal, social, and foreign policy issues. These activities fall within the Department of Commerce Strategic Goal 2 - Promote U.S. innovation and industrial competitiveness, Performance Goal/Objective 2.3: Advance global e-Commerce and enhanced telecommunications and information services. NTIA's activities that include working with the White House and other federal agencies on Administration-wide telecommunications and information policy statements, and on obtaining private sector views on a broad range of telecommunications and information policy issues, are described in the "Crosscutting Programs" section of the Department of Commerce Strategic Plan for FY 2004 – FY 2009.

**Statement of Operating Objectives**

**Domestic Policies** – NTIA formulates and promotes national policies for consideration by the President and other executive branch agencies and by the independent Federal Communications Commission (FCC), Federal Trade Commission (FTC), and other government and non-government organizations. NTIA's domestic policy objectives are to:

- promote the deployment of broadband services;
- open telecommunications and information markets to greater competition;
- refrain from regulating telecommunications and information markets wherever market forces are sufficient to ensure reasonable prices and terms of services and to protect consumers;
- preserve and promote an open Internet, consistent with service providers' need to manage their networks in a transparent and nondiscriminatory manner;

- encourage the development of new telecommunications and information technologies and services for the American public;
- promote economic growth; and
- promote minority ownership in the telecommunications industry.

NTIA possesses the necessary expertise, skill, and understanding in legal, economic, and technical issues: in telecommunications and information technology innovations, products, and services; in telecommunications and information technology policy; and in regulatory structures and processes to accomplish these objectives.

**International Policies** - NTIA formulates and promotes national policies for presentation in multilateral, bilateral and international organizational settings. The objective of these policies is to enhance competition in pursuit of both improved market access for U.S. service and equipment providers, and to achieve foreign policy goals such as economic development, democratization, and promotion of U.S. national security telecommunications and information interests in geographically strategic areas. Current operational objectives include:

- continuing support for private sector management of the Internet's domain name and addressing system (DNS), and the security and stability of the DNS;
- coordinating new international telecommunications and information policies and technologies with domestic policies (such as, the introduction of internationalized domain names (IDN), identify management (IdM), the deployment of Internet Protocol Version 6 (IPv6), Radio Frequency Identification (RFID), etc.);
- negotiating open, competitive markets abroad for telecommunications and information services, including IP-enabled services;
- working multilaterally and bilaterally to ensure policy and regulatory approaches pertaining to converged communications services are fair, open, transparent, not-overly burdensome and in line with U.S. domestic policies; and
- encouraging other governments to adopt sound policies, laws, and regulations to stimulate telecommunications and information technology development, including the Internet.

NTIA possesses expertise in the following areas: an understanding of international telecommunications and information policies and the resultant regulatory structures and processes; an appreciation of U.S. economic, foreign, and trade policies and objectives, in particular as they relate to foreign telecommunications and information regulatory policies; knowledge of U.S.-backed foreign assistance resources that can supplement our educational efforts; in-depth expertise regarding U.S. and foreign-developed telecommunications and information products and services; and a detailed understanding of relevant international and intergovernmental organizations and treaties.

## Base Program

**Domestic Policies** –The U.S. has the world's leading telecommunications and information markets, and leads the world in the number of broadband connections. This translates to increased jobs for Americans, economic growth, innumerable socio-economic benefits to the public, improved supply of governmental services, and strong public safety and national and homeland security capabilities. Much of the U.S. success in these sectors is based on market-driven, pro-competitive policies and prudent deregulation, measures that have been emulated throughout the world. In radio spectrum management in particular, market based spectrum management reforms, advocated by NTIA and adopted by the FCC, have led to more efficient and innovative use of spectrum for commercial services.

The Communications Act of 1934, as amended, provides a basis for policymaking with respect to many telecommunications and information services and products. Other U.S., state, and Federal laws also affect the telecommunications and information sectors. Existing laws, regulations, and administrative procedures are subject to enormous pressures created by rapid changes in technology and increased demand for advanced services and equipment. NTIA is the only Executive Branch agency dedicated exclusively to telecommunications and information policy making. NTIA also serves as the manager of the Federal government's use of the electromagnetic spectrum. NTIA's responsibilities are set forth by statute (47 U.S.C. §901 *et seq*). NTIA's domestic policy activities require it to identify important current telecommunications and information policy issues, to evaluate and articulate those policies, and to respond to specific requests.

NTIA's policy activities support the Department's strategic themes of providing the information and the framework to enable the economy to operate efficiently and equitably, on a global scale; providing infrastructure for innovation and entrepreneurship to enhance American competitiveness; and strengthening management at all levels. NTIA promotes these policies within the Administration and before the Congress, the FCC, the FTC, U.S. State Governments, governments of other nations, and ultimately, the public at large. NTIA's domestic policy activities require it to maintain expertise with respect to current telecommunications and information policy issues and to identify the most important for Executive Branch attention. NTIA performs research and analysis, and prepares written recommendations for future courses of action that affect these sectors. In coordination with other parts of the Administration, NTIA makes recommendations and works with the Congress on new or revised laws affecting these sectors; it also files written comments to the FCC on specific regulatory proposals.

NTIA engages in public discussions and meetings with government (Federal, state, and foreign) officials and private sector representatives to formulate and advocate its policies. NTIA obtains information and advice both informally, on an *ad hoc* basis, and through the Commerce Spectrum Management Advisory Committee. Consistent with the Federal Advisory Committee Act, this committee provides advice to the Assistant Secretary of Commerce for Communications and Information on needed reforms to domestic spectrum policies and management to enable the introduction of new spectrum-dependent technologies and services, including policy reforms for expediting the American public's access to broadband services, public safety, digital television, and long-range spectrum planning. In addition, NTIA facilitates business ownership and participation, particularly small business and minority participation, in these important sectors.

NTIA has a number of domestic programmatic responsibilities as well, most notably serving as the point of contact for the NTIA's Online Safety and Technology Working Group. In the 2008 "Protecting Children in the 21<sup>st</sup> Century Act," Congress directed to NTIA to establish the working group to examine industry efforts to create a safe online environment for children.

**International Policies** - If U.S.-invested companies are to continue to innovate and maintain their global leadership in these sectors, policy and regulatory environments at home and abroad need to encourage the development of and access to telecommunications and information technologies and networks. To meet this need, NTIA advocates for flexible, technology neutral, and transparent policy and regulatory regimes. This approach supports universal access to telecommunications and information technologies and networks which stimulates democratization, economic development, and entrepreneurship. It also facilitates the use of these technologies in disaster relief efforts and meeting broader U.S. national security, telecommunications, and information interests in war-torn areas. NTIA is uniquely positioned to serve as, or advise U.S. negotiators by participating as delegates or in leadership posts in a variety of fora on international, regional and bilateral policies and regulations, mainly of an intergovernmental nature. Delegations draw upon NTIA's wide-ranging expertise in telecommunications and information policy issues, particularly those related to the Internet's critical underlying infrastructure, to support these goals of innovation, market entry, and universal telecommunications and information access. For example, NTIA advocates adoption abroad of open and transparent processes that take into account the input of all relevant stakeholders and that avoid overly prescriptive or burdensome regulation.

NTIA's International Office implements its policy objectives through a variety of representational and management responsibilities in inter-governmental fora such as the International Telecommunication Union (ITU), the Inter-American Telecommunications Commission (CITEL), the Asia Pacific Economic Cooperation forum (APEC), the Organization for Cooperation and Economic Development (OECD), the International Telecommunications Satellite Organization (ITSO), the International Mobile Satellite Organization (IMSO), as well as in bilateral discussions (e.g., China, India, Japan). The International Office also works with other Federal agencies to prepare for and participate in other related international telecommunications and information activities, such as trade negotiations involving the telecommunications and information sector. For example, NTIA staff possesses the most extensive technical knowledge and policy expertise in the U.S. Government regarding management of a critical Internet infrastructure asset: the Internet's DNS. As such, NTIA staff administers the Department's Internet Assigned Numbers Authority (IANA) functions contract with the private-sector Internet Corporation for Assigned Names and Numbers (ICANN), through which all changes to the Internet's authoritative root zone file – or “address book” are approved. NTIA also oversees the administration of the Department's Joint Project Agreement (JPA) with ICANN and represents the U.S. Government in the ICANN's Governmental Advisory Committee, which advises ICANN on public policy issues related to the Internet DNS. NTIA also serves as the point of contact for the Department's contract with Neustar, Inc. for the management of the DOT-US (“.us”) Internet top level domain, and educating parents/guardians by promoting awareness of the KIDS-DOT-US (“kids.us”) Internet domain. NTIA also serves as the Federal Program Officer for the Department's Cooperative Agreement with EDUCAUSE to manage the DOT-EDU (“.edu”) domain space for use by educational institutions. This cooperative agreement facilitates the policy development and technical operations of the .edu domain and provides a framework for the administration of the .edu domain. NTIA also coordinates with the Department of Homeland Security, the National Security Council and others to safeguard the security and stability of the Internet DNS.

## Explanation and Justification

**Domestic Policies** - The NTIA Organization Act, as amended, (47 U.S.C. §902(b)) requires the Secretary of Commerce to assign the Assistant Secretary for Communication and Information and NTIA various functions regarding domestic telecommunications and information policy. These functions include but are not limited to: the authority to serve as the President's principal adviser on telecommunications policies pertaining to the Nation's economic and technological advancement and to the regulation of the telecommunications industry and to develop and set forth such policies; the authority to provide for the coordination of the telecommunications activities of the Executive Branch and assist in the formulation of policies and standards for those activities, including (but not limited to) consideration of spectrum use, privacy, security, and emergency readiness; the responsibility to ensure that the views of the Executive Branch on telecommunications matters are effectively presented to the FCC and, in coordination with the Office of Management and Budget, to the Congress; the authority to establish policies concerning spectrum assignments and use by radio stations belonging to and operated by the United States; the authority to conduct studies and make recommendations concerning the impact of the convergence of computer and telecommunications technology; the authority to conduct and coordinate economic and technical analyses of telecommunications policies, activities, and opportunities in support of assigned functions; and the authority to contract for studies and reports relating to any aspect of assigned functions.

The range of domestic telecommunications policy issues is broad and increasingly complex, reflecting the rapid changes in the telecommunications and information markets, the convergence of technologies, and the sector's importance to economic growth and security and pervasiveness to the lives of all Americans. Issues include: broadband deployment; competition in wireless, wireline, and video markets; Internet network management; and content-oriented issues such as privacy, free speech, indecency and political broadcasting. The convergence of technologies challenges old regulatory constructs and institutions. The issues require NTIA to provide expertise and leadership to address existing and unexpected developments in the rapidly changing environment of telecommunications and information.

NTIA will remain at the forefront of other new technologies and the policy changes they will require, such as next generation broadband services. NTIA will continue to develop and advocate policies that affect the Internet, wireless and wireline telecommunications competition, terrestrial and satellite video services, unlicensed devices, and future products and services important to the United States and its economy. It will also continue to promote minority ownership opportunities in telecommunications; provide staff support and expertise to White House offices and the Department of Commerce; respond to requests for technical and policy advice from the Congress, other Federal Government officials and from the private sector; and to provide staff support to the Commerce Spectrum Management Advisory Committee.

**International Policies** – The NTIA Organization Act as amended (47 U.S.C. §902(b)) also requires the Secretary of Commerce to assign the Assistant Secretary for Communication and Information and NTIA various responsibilities and functions regarding international telecommunications and information policy. These responsibilities and functions include the development of plans, policies, and programs relating to international telecommunications and information issues for use in conferences, negotiations, and other fora. The Secretary is also responsible for coordinating economic, technical, operational and related preparations for U.S. participation in international inter-governmental ICT organizations and negotiations. The Act requires NTIA to formulate telecommunications and information policy for participation and activities in international organizations such as the ITU, CITELE, APEC, the OECD, ITSO, IMSO, and others. A July 1997 Presidential directive requires the Department of Commerce (DOC) to transition the management of the Internet DNS to the private sector, which is currently



underway through a Joint Project Agreement between the DOC and ICANN. In June 2005, NTIA released U.S. Principles on the Internet's Domain Name and Addressing System that explain the continued importance of the U.S. Government's role and objectives in this area. In March 2008, NTIA released the results of a mid-term review of the current JPA articulating that while some progress has been made towards privatization more efforts were needed by ICANN to increase institutional confidence through implementing effective processes that will enable: long term stability; accountability; responsiveness; continued private sector leadership, stakeholder participation; increased contract compliance; and enhanced competition. NTIA will continue its efforts in the stewardship of the DNS including the management of certain contracts for the technical management of the .us and .edu top level domains as well as the IANA functions.

The Telecommunications Trade Act of 1988 sets forth policy goals for international telecommunications trade. NTIA assists in implementation of the Act through policy coordination with the International Trade Administration (ITA), USTR and other U.S. agencies by preparing for and participating in telecommunications consultations with selected countries, with such organizations as the World Trade Organization (WTO), and through bilateral and regional Free Trade Agreements (FTAs) where telecommunications and information regulatory policies are involved.

In FY 2010, NTIA will continue its wide-ranging activities to enhance the global strength of U.S. telecommunications and information interests.

NTIA will encourage bilateral, regional and multilateral adoption of policies that encourage open and competitive foreign markets, with transparent decision-making, while stimulating democratization, economic development, and promotion of U.S. national security telecommunications and information interests overseas. We will advance these objectives by advocating, monitoring and participating in the structural reform of international institutions such as the ITU, CITELE, OECD, APEC, IMSO and ITSO.

We will assist other parts of the Administration in development of specific trade negotiation language, for instance in the continuation of the Doha Round of Services negotiations at the World Trade Organization, and the annual telecommunications trade act reviews under Section 1377 of the Telecommunications Trade Act of 1988. We will assist the ITA, Treasury, State, Justice, and the FCC to review potential acquisitions of strategic, critical U.S. telecommunications assets under FCC regulations and the Exon-Florio review mechanism for Foreign Direct Investment (FDI) in the United States (CFIUS process). NTIA will work through bilateral, regional and international fora such as the ITU, OECD, APEC, and CITELE to promote the rollout and uptake of broadband infrastructure, services, and equipment. We will work with USTR, other Commerce agencies (ITA, NIST, FCS), and State on policy approaches to telecommunications and information standards developments worldwide, especially in key emerging markets such as India and China and our North American partners (Canada and Mexico). These standards are emerging in influential new technologies in developing economies, such as NGNs, Advanced Wireless systems such as third and fourth Generation Wireless (3G/4G), RFID, and WiMAX. NTIA will continue to work with other agencies to develop implementation strategies for improved and continuous telecommunications and information development in key countries and regions (e.g., Africa, Central and Latin America, the Middle East), through such foreign assistance efforts as the Telecommunications Leadership Program, and the U.S. Telecommunications Training Institute. NTIA will also provide policy and technical guidance to the State Department in the IMSO and ITSO oversight processes, to ensure fair and competitive provisioning of fixed and mobile satellite services on a global basis, to protect lifeline telecommunications connectivity for developing nations, to protect Safety of Life at Sea (under the SOLAS treaty), and to implement provisions of the U.S. Maritime Transport Security Act of 2002 to ensure long-range tracking of vessels on the high seas.

NTIA will work to preserve key U.S. foreign policy goals in the telecommunications and information sector, in particular on the policy

approaches to Internet Governance to counter the many opponents to the U.S. approach. We will continue to promote market driven approaches to telecommunications and information pricing issues, such as international settlement rates and proposals for Internet cost-sharing arrangements. We will work collaboratively with other countries and institutions to ensure the benefits of new technologies that bring increased connectivity, such as electronic numbering and unlicensed usage of advanced wireless technologies. We will continue to support the transition of management of the DNS to the private sector through ICANN and to advance public and private sector policies that promote the security and stability of the Internet and the DNS.

**Department of Commerce**  
**National Telecommunications and Information Administration**  
 Salaries and Expenses  
**PROGRAM AND PERFORMANCE: DIRECT OBLIGATIONS**  
 (Dollar amounts in thousands)

Activity: Salaries and expenses  
 Subactivity: Spectrum management

Comparison by line item		2008 Actual		2009 Enacted		2010 Base		2010 Estimate		2010 Increase/ (Decrease)	
		Personnel	Amount	Personnel	Amount	Personnel	Amount	Personnel	Amount	Personnel	Amount
Spectrum management.....	Pos/BA	32	\$6,688	32	\$6,120	32	\$7,752	32	\$7,752	0	\$0
	FTE/Obl.	32	5,942	32	7,535	32	7,752	32	7,752	0	
<b>Direct Obligations.....</b>	Pos/BA	32	6,688	32	6,120	32	7,752	32	7,752	0	0
	FTE/Obl.	32	5,942	32	7,535	32	7,752	32	7,752	0	

**Department of Commerce**  
**National Telecommunications and Information Administration**  
 Salaries and Expenses  
**PROGRAM AND PERFORMANCE: REIMBURSABLE OBLIGATIONS**  
 (Dollar amounts in thousands)

Activity: Salaries and Expenses  
 Subactivity: Spectrum management

Comparison by line item		2008 Actual		2009 Enacted		2010 Base		2010 Estimate		2010 Increase/ (Decrease)	
		Personnel	Amount	Personnel	Amount	Personnel	Amount	Personnel	Amount	Personnel	Amount
Reimbursable projects - other.....	Pos/BA	1	\$0	1	\$0	1	\$0	1	\$0	0	\$0
	FTE/Obl.	1	185	1	300	1	300	1	300	0	0
Spectrum fees.....	Pos/BA	109	0	109	0	109	0	109	0	0	0
	FTE/Obl.	109	24,840	109	41,492	109	31,008	109	31,008	0	0
<b>Total Reimbursable Obligations.....</b>	Pos/BA	110	0	110	0	110	0	110	0	0	0
	FTE/Obl.	110	25,025	110	41,792	110	31,308	110	31,308	0	0

**Department of Commerce**  
**National Telecommunications and Information Administration**  
Salaries and Expenses  
Spectrum Management  
**Justification of Program and Performance**

**Goal Statement**

The goals of this program are to formulate, establish, and implement plans, and policies to ensure that the United States' domestic and international requirements for using the radio frequency spectrum are satisfied effectively, efficiently, equitably, and in a timely manner; to execute the spectrum management functions and activities assigned to NTIA under 47 U.S.C. 902 and 903; to overhaul and rebuild, as necessary, the international and domestic radio frequency spectrum management processes to be more responsive, effective, and efficient; to establish a United States Spectrum Policy for the 21<sup>st</sup> Century; to work cooperatively with the Federal agencies in developing long range spectrum planning processes and Federal Spectrum Plans that define future Federal Government spectrum requirements; to develop plans for managing radiocommunications during emergencies; to assist the FCC in developing a National Spectrum Plan that defines future United States spectrum requirements; to coordinate and register internationally planned Federal Government satellite networks and selected assignments for terrestrial systems; to assist the Federal agencies in satisfying their requirements for spectrum use; to work cooperatively with the FCC and the Federal agencies in coordinating the orderly implementation of innovative radiocommunications technologies and services; to provide spectrum certification for planned Federal agency radiocommunication systems; to develop the tools needed and conduct the analyses of existing Federal uses required for determining the adequacy of current spectrum allocations and the spectral efficiencies achieved by currently operating spectrum dependent systems; to characterize evolving radiocommunications technologies including their potential for causing unacceptable interference to incumbent radiocommunication systems; to review existing domestic and international spectrum management policies with the view of identifying and removing barriers to the timely global implementation of United States' innovations in radiocommunications technologies and services; and to provide the automated information technology capabilities necessary for performing these activities.

These activities fall within the Department of Commerce Strategic Goal 2 - Promote U.S. innovation and industrial competitiveness, Performance Goal/Objective 2.3: Advance global e-Commerce and enhanced telecommunications and information services. The subsequent paragraphs define the objective areas in which plans and necessary activities are defined to execute the NTIA's statutory responsibilities under 47 U.S.C 902 and 903, and to establish a United States Spectrum Policy for the 21<sup>st</sup> Century.

## **Domestic Spectrum Policy & Interdepartment Radio Advisory Committee (IRAC) Support**

NTIA will continue to: (1) direct and support the IRAC and its representative subcommittees and ad hoc groups, both administratively and technically; (2) provide spectrum management training activities including support for the U.S. Telecommunications Training Institute (USTTI); (3) formulate policies, issue and revise allocations and regulations concerning Federal spectrum use; (4) provide public access to the IRAC and to releasable spectrum management information; (5) issue changes to regulations and allocations; and (6) continue to improve and upgrade the electronic archives of the IRAC and distribute it periodically to the NTIA staff and Federal agencies.

- Provide the necessary administrative support for the IRAC, its subcommittees, and ad hoc groups. The IRAC and its subcommittees provide advice to NTIA on spectrum issues and problems, including coordination of spectrum use, review of spectrum plans, development of Federal technical standards, emergency planning, satellite registration and coordination, international conference preparations, and development of coordination arrangements with Canada and Mexico;
- With the advice of the IRAC, coordinate with the FCC views on all technical and policy decisions under consideration by the FCC which may impact Federal operations, and decisions under consideration by NTIA which may impact non-Federal operations;
- Provide support for the Policy and Plans Steering Group, an interagency advisory committee whose membership includes representatives from those Federal agencies whose missions require significant use of the radio frequency spectrum resource. The representation of the Federal agencies on this committee will be limited to individuals holding the rank equivalent to Assistant Secretary in their respective agencies; the role of this committee will be advisory and this committee will report to the Assistant Secretary of Commerce for Communications and Information. This forum will serve as a significant mechanism for resolving spectrum policy issues within the Executive Branch.
- Plan and conduct spectrum training courses and seminars for U.S. and foreign spectrum managers;
- Respond to queries from the private sector relative to the use of spectrum by the Federal Government;
- Facilitate opportunities for non-Federal entities to provide information to the IRAC; and
- Develop and update the Federal Government rules and regulations necessary to manage the Federal Government's use of the spectrum including those governing the relationships between the FCC and the NTIA.

## **International Spectrum Plans and Policies**

NTIA will continue to: (1) negotiate with personnel in foreign administrations in support of U.S. goals at international conferences, other International Telecommunication Union fora, and other international organizations; (2) prepare for, participate in and provide leadership for the ITU Radiocommunication Sector (ITU-R) Study Groups' activities and other activities of the ITU; (3) prepare for, participate in and provide leadership for the Organization of American States (OAS), Inter-American Telecommunications Commission (CITEL) activities; and (4) provide consultations with foreign countries on reforming their spectrum management processes to use the spectrum more efficiently and effectively.

- Coordinate, develop, and present the Federal Government's contribution to U.S. proposals and positions for international fora where radio frequency spectrum management issues are addressed such as the ITU World and Regional Radiocommunication Conferences,

- ITU Plenipotentiary Conferences, ITU Council, ITU Standards Conferences, the ITU Development Conferences and the OAS CITELE;
- Analyze other administration's proposals to determine the impact on U.S. spectrum requirements;
  - Develop and implement a plan for ongoing outreach strategies to facilitate gaining international support for U.S. positions;
  - Lead or participate in and contribute to ITU-R study groups and other international telecommunication regulatory fora;
  - Participate in and contribute to other international fora dealing with radio spectrum issues such as the NATO Joint Civil/Military Committees, the International Civil Aviation Organization and the International Maritime Organization;
  - Chair the IRAC Radio Conference Subcommittee (RCS) and through this forum coordinate Federal Government positions and proposals to be submitted to international fora involved in spectrum management matters;
  - Consult with foreign countries on reforming their spectrum management processes to use the spectrum more efficiently and effectively;
  - Lead and participate in bilateral and multilateral meetings on spectrum management issues with foreign administrations including bilateral frequency coordination agreements with Mexico and Canada;
  - Implement the results of international radio treaty conferences by recommending changes to U.S. domestic rules;
  - Chair the IRAC ad hoc group on WRC Implementation;
  - Provide leadership on spectrum-related issues that come before the ITU Council and Plenipotentiary Conference;
  - Review Federal space systems for compliance with national requirements, coordinate with other Federal and non-Federal radiocommunication systems, and participate in satellite coordination meetings with other administrations;
  - Chair the IRAC Space Systems Subcommittee;
  - Coordinate non-Federal space systems with Federal radiocommunication systems;
  - Develop spectrum policies relative to satellite operation, national and international coordination, notification, and advanced publication;
  - Negotiate satellite coordination agreements with foreign countries relative to either Federal Government satellite operations or foreign government satellite operations;
  - Coordinate with the FCC on both domestic satellite systems and Federal Government systems. Provide recommendations on FCC rulemakings on space allocations and rules and regulations;
  - Provide comments to the FCC on rulemakings concerning international activities;
  - Provide support and technical analysis in cooperation with other Department offices to promote U.S. product sales to other countries;
  - Initiate and conduct scientific and technical cooperation in the field of telecommunications and spectrum management with specific foreign countries in accordance with U.S. foreign and international trade policy objectives;
  - Identify regulatory and procedural barriers to the timely and global implementation of United States innovations in radiocommunications technologies and services and recommend methods to remove those barriers;
  - Participate in and contribute to Federal strategic spectrum planning on emerging technologies such as dynamic spectrum access, and incorporate domestic activities in international planning; and
  - Lead and participate in international spectrum management training activities including support for the U.S. Telecommunications Training Institute (USTTI).

## **Strategic Planning**

NTIA will continue to: (1) sustain the established Spectrum Policy Initiative (SPI) for the 21<sup>st</sup> century; (2) monitor and report on the progress achieved by all participants in responding to the Spectrum Policy Initiative for the 21<sup>st</sup> Century; (3) assist the Federal agencies in improving their means to identify and analyze their current and future spectrum requirements; (4) maintain and update the Federal Strategic Spectrum Plan in coordination with the Federal agencies and the FCC; (5) assist FCC in the formulation of a National Strategic Spectrum Plan; and (6) expand the initiative into a broader and more comprehensive program by developing a longer range plan and future Federal spectrum management architecture necessary for the Federal government to achieve a comprehensive and enduring spectrum policy for the future.

- Develop, coordinate, and execute an integrated program that responds to the President's directive defined in the Executive Memoranda released in June 2003 and November 2004 regarding the establishment of a United States spectrum policy for the 21<sup>st</sup> Century;
- Promote and bring awareness to the efforts resulting from respective spectrum policy initiatives to include the planned strategic elements identified within the proposed national spectrum policy;
- Develop long range goals for Federal spectrum management that will include the development of a spectrum management architecture for the future and coordinate among affected stakeholders;
- Assist the Federal agencies in maintaining and updating their agency-specific spectrum plans defining current and future spectrum requirements; to include the identification of those spectrum efficiency enhancing technologies under consideration;
- Develop a methodology and provide an implementation for an NTIA capability to electronically compile, store, update, and analyze current and future spectrum requirements for all the Federal agencies that will include how, where and when it is intended to be used;
- Maintain and update the Federal Strategic Spectrum Plan, biennially, and coordinate the Plan with appropriate Federal agencies;
- Assist the Federal agencies and the Office of Management and Budget with incorporating the consideration of spectrum-related requirements within the capital planning process;
- In coordination with the FCC, assist in the development and updating of a National Strategic Spectrum Plan to include appropriate coordination with affected Federal agencies and other executive components;
- Formulate, revise, and advocate plans and policies that provide incentives for Federal agencies to implement spectrum efficient concepts and technologies in their respective acquisitions of mission-related systems;
- Investigate and develop a future Federal spectrum management architecture that considers advanced and spectrum efficient concepts to improve the effectiveness and efficiency of spectrum use by the Federal agencies thereby increasing the spectrum availability in fulfilling the national interest for national security, public safety and economic opportunities; and
- Provide monitoring of and annual reporting on the progress achieved toward the satisfaction of the United States Spectrum Policy for the 21<sup>st</sup> Century: this, in coordination with the Federal agencies, and other relevant components of the Executive branch.

## **Emergency Planning and Public Safety**

NTIA will continue to: (1) develop and modify spectrum policies and procedures for crisis-related situations; (2) provide emergency readiness planning for the Federal use of the radio frequency spectrum; (3) identify and provide solutions to issues and deficiencies in the national



security/emergency preparedness communications planning process in support of the National Communications System (NCS); (4) promote and address the public safety community spectrum needs in coordination with the FCC and; (5) provide the necessary leadership, technical expertise, applied research, policy guidance, and spectrum management support for the successful coordination of national public safety requirements, goals and objectives both within the Federal Government and the state and local entities in coordination with the FCC.

- Develop public safety telecommunications policy consistent with Administration goals;
- Provide leadership, liaison, and guidance for the integration of national public safety telecommunications systems, ensuring interoperability among Federal, state, and local public safety agencies; provide for the spectrum needs of these integrated systems;
- Provide the necessary leadership, technical expertise, applied research, policy guidance, and spectrum management support for the successful coordination of national public safety requirements, goals and objectives both within the Federal Government and the state and local entities in coordination with the FCC;
- Identify current and future technology which could enhance interoperability;
- Develop security/emergency preparedness and long-range plans for use of the spectrum;
- Develop procedures and incorporate them in the planning process for a timely and orderly transition from normal to emergency modes;
- Participate with other Federal agencies in communications emergency readiness planning and implementation;
- Formulate and advocate plans and policies necessary to the development of strategies to improve and restore U.S. telecommunications resources;
- Serve as the Department's working group and focus group representative for the Emergency Communications Preparedness Center; and
- Maintain a viable NTIA continuity of operations (COOP) capability.

### **Spectrum Services**

NTIA will continue to: (1) process and authorize frequency assignment actions to ensure interference-free operations among Federal stations; (2) maintain and update spectrum management data bases; (3) resolve spectrum management problems between the Federal agencies and other domestic and foreign entities; and (4) evaluate proposed Federal radiocommunications systems to determine compliance with applicable regulations and policies, as well as compatibility with other systems, resulting in guidance concerning frequency bands, design parameters, and appropriate operating constraints necessary to mitigate harmful interference and ensure effective use of available spectrum resources.

- Process Federal agencies requests for frequency assignment authorizations and actions;
- Provide Federal agencies with accurate spectrum management data;
- Assist non-IRAC agencies in identifying spectrum to meet their radiocommunications needs;
- Resolve conflicting requirements concerning Federal agencies' use of the spectrum;
- Evaluate proposed Federal radiocommunications systems for certification for spectrum support in accordance with OMB Circular A-11;
- Identify and work with information technology to implement Federal agency requirements for computer automated tools to assist the Federal agencies in preparing frequency authorization and spectrum certification requests, determining compliance with rules and regulations, predicting and mitigating interference, and using the spectrum efficiently and effectively;

- Participate in spectrum coordination negotiations with Mexico and Canada;
- Coordinate requests for radio frequency assignments in the US/Canadian border area in order to ensure interference-free operations to both the U.S. and Canada;
- Coordinate with the FCC requests for Special Temporary Authorizations from the private sector when such requests use spectrum that is allocated for Federal use on a primary or shared Federal/non-Federal basis; and
- Chair the IRAC Frequency Assignment and Spectrum Planning Subcommittees (FAS and SPS) and through these forums, coordinate the processing of requests by the Federal agencies for frequency assignment and spectrum certification actions.

### **Spectrum Engineering and Analysis**

NTIA will: (1) assess the present and projected Federal use of the spectrum by conducting in depth studies of spectrum use (concentrating on bands and services, supporting upcoming international conferences, and those areas where significant improvements in utilization appear possible); (2) resolve operational problems concerning interagency conflicts in the use of the radio frequency spectrum that cannot be satisfied within existing policies and procedures by evaluating tradeoffs between technical and operational factors; (3) provide technical support to the IRAC and its subcommittees associated with the preparation and participation in international radio treaty conferences and technical standards groups; (4) undertake a comprehensive examination of adjacent band and man-made interference, including technical and regulatory issues, and make appropriate recommendations; and (5) evaluate a number of technologies, bands, and radio services to determine their potential spectrum efficiency and their usefulness for Government applications.

- Assess the present and projected Federal use of the spectrum by conducting studies of spectrum use, concentrating on bands and services involving: upcoming international radiocommunication conferences, Federal and non-Federal sharing, and those areas where significant improvements in utilization appear possible;
- Resolve spectrum sharing problems concerning conflicts between Federal agencies or between Federal and non-Federal spectrum users, and identify any changes to existing spectrum policies and procedures that could minimize such problems in the future;
- Provide technical engineering support to the IRAC and its subcommittees, especially in the area of spectrum standards, FCC proposed rulemaking, improved frequency coordination procedures, and resolving reported interference cases;
- Undertake a comprehensive examination of adjacent band interference, including technical and regulatory issues, and make appropriate recommendations;
- Evaluate new technologies, applicable to various radio services and frequency bands, to determine their potential spectrum efficiency and usefulness for Government applications;
- Develop plans for intra-service and inter-service sharing in selected bands;
- Define new or improved automated techniques for the study of spectrum sharing, interference prediction, and frequency coordination;
- Plan and coordinate spectrum measurements in selected frequency bands to support ongoing studies involving spectrum sharing, radio interference, spectrum standards, spectrum policy development, frequency coordination, and/or spectrum efficiency;
- Provide technical support in performing research and development of automated spectrum engineering and analysis capabilities;
- Provide technical engineering and policy analysis support in preparation for and participation in international radiocommunication

- conferences and in development of domestic spectrum policy and long-range planning; and
- Chair the IRAC Technical Subcommittee (TSC) and through this forum, coordinate and develop spectrum standards that apply to all Federal systems.

## **Information Technology**

The NTIA Information Technology Division (ITD) provides support to the spectrum management, grants administration, and domestic and international policy development mission areas as well as, back-office administrative support. As such, the Chief of ITD also serves as the NTIA Chief Information Officer (CIO).

Under the CIO functions, NTIA will: (1) continue to provide the information technology management and oversight activities required by the Clinger-Cohen Act; (2) continue to participate in the Infrastructure Optimization Initiative and other OMB initiatives by aligning common resources and services within the Department of Commerce; (3) develop and implement standardized processes to ensure alignment of NTIA business processes through centralized IT investment, architectural planning and project management methodologies; (4) support the requirements of National Communications System Directive 3-10 through the implementation of crisis management systems that ensure the business continuity of all NTIA mission areas; (5) continue to serve as the Department's Executive Agent for management, operation, and maintenance of the Department's national security systems infrastructure; (6) continue to support the activities of the Information Sharing Environment; (7) continue to support the activities of the National Cyber Response Coordinating Group; and (7) continue to provide support for various standing and ad hoc committees affecting cyber security and national security systems.

NTIA will:

- Provide the information technology systems required for inter-office and back-office communications in support of administrative systems;
- Provide creation and maintenance of NTIA Internet and Intranet web site pages, software, hardware, and network connectivity; and
- Develop, modify, implement, and maintain software that is necessary to operate and administer NTIA grant-making activities.

Under the ITD functions, NTIA will: (1) continue to maintain and update existing computer software used for processing assignments, databases, and interference calculations; (2) continue to design or implement new software packages to further improve assignment data processing and analytical engineering evaluation; (3) develop new automated systems to improve access to spectrum management information; (4) plan for upgrading the spectrum management frequency assignment and system review processes; (5) plan, upgrade and improve the computer automated software tools (*e.g.*, Federal Spectrum Management System) provided to the Federal agencies to assist them in: (a) making more efficient and effective use of the spectrum, (b) preparing frequency assignment and spectrum certification applications, (c) developing spectrum related policies and procedures and (d) resolving interference problems; (6) prepare and implement plans to improve the efficiency and effectiveness of the Federal Government's spectrum management process using advanced information technology techniques and business re-engineering; and (7) plan, upgrade and implement new methods of providing secure and non-secure access to Federal spectrum management data by NTIA staff, Federal spectrum managements, the telecommunications industry, and the general public.

NTIA will:

- Provide the information technology systems required for inter-office communications, processing frequency assignment requests, exchanging spectrum management information with Federal agencies using the radio-frequency spectrum, and providing the public with electronic access to spectrum management information;
- Develop and improve engineering and analysis models and tools to support spectrum engineering and analysis and the spectrum authorization processes;
- Develop, modify and implement software that is necessary to operate the spectrum authorization processes, to provide the Federal agencies the computer automated capability to manage their frequency spectrum assets, and to provide the spectrum management community the necessary spectrum information that will enable the Federal agencies to manage their spectrum assets without interference and within the current rules and regulations;
- Develop plans to implement computer automated software tools to assist the Federal agencies in: (1) preparing their requests for frequency authorization and spectrum certification; (2) insuring that requests for spectrum are interference free and comply with NTIA's rules and regulations; (3) coordinating spectrum requests of other agencies; (4) ensuring that their use of the spectrum is efficient and effective; (5) managing their frequency assignment assets; and (6) resolving interference problems;
- Implement the FY 2003 Paperless initiative that will: (1) enhance technology development and commercialization by improving the use of spectrum through increased sharing and spectrum efficiency; (2) provide a more rapid method for the Federal agencies to obtain spectrum to operate their radiocommunications; (3) provide a method for the radiocommunication manufacturers to ensure that their systems meet Federal spectrum standards; and (4) provide the Federal agencies a means to obtain technical information on radiocommunications for planning spectrum use in the future; and
- Develop and implement standardized processes to ensure alignment of spectrum management systems with the Federal IT Enterprise Architecture Models, Capital Planning and Investment Control guidelines, and IT security regulations and best practices.

## **Base Program**

### **Explanation and Justification**

The subsequent paragraphs define the objective areas in which plans and necessary activities are defined which are designed to execute the NTIA's statutory responsibilities under 47 U.S.C 902 and 903. In 2008, NTIA accomplished the following tasks to improve Federal spectrum management: (1) Strategic Spectrum Plan – led the effort to consolidate Federal agency-specific strategic spectrum plans, to develop and publish the Federal strategic spectrum plan; (2) Working Level Groups – led seven interagency working level groups to obtain advice on implementing improvements to spectrum management; (3) Incentives for Efficient Use of the Spectrum – provided advice and assistance to the Office of Policy Analysis and Development (OPAD) in implementing its plan to investigate incentives for efficient use of the spectrum; (4) Annual Report to the President on Progress in Implementing the Recommendations on Improvement to Spectrum Management – prepared outline, drafted report, and organized input from OSM divisions and Federal agencies; (5) Policy and Plans Steering Group (PPSG) – maintained a senior political level policy and plans steering group to provide advice to the Assistant Secretary; and (6) Under the Spectrum Sharing Innovation Test Bed Pilot Program, examined new technologies that will enable Federal and non-Federal users to share the radio frequency spectrum.

### **Domestic Spectrum Policy & Interdepartment Radio Advisory Committee (IRAC) Support**

The NTIA Manual of Regulations & Procedures for Federal Radio Frequency Management governing the Federal spectrum will be updated and administrative support will be provided to the IRAC, the Frequency Assignment Subcommittee (FAS), the Space Systems Subcommittee (SSS), the Spectrum Planning Subcommittee (SPS), the Technical Subcommittee (TSC), the Radio Conference Subcommittee (RCS), the Emergency Planning Subcommittee (EPS), and the IRAC ad hoc groups, including the archiving of all documents of record.

As part of its role in establishing Federal spectrum management policy, NTIA allocates and assigns the radio frequency spectrum to Federal users. This responsibility includes chairing the IRAC, its major subcommittees and various specialized ad hoc groups. The IRAC, which is a committee composed of the representatives of 19 Federal agencies and an FCC liaison, is the primary Executive Branch adviser to NTIA on Federal agency spectrum management. Through the Space Systems, Spectrum Planning, Technical, Radio Conference, Emergency Planning and Frequency Assignment Subcommittees as well as numerous ad hoc groups, the IRAC advises NTIA on spectrum policy and procedural matters, develops Federal positions on international radio treaty conferences, and provides recommendations for conflict resolution.

NTIA will conduct spectrum training courses and seminars for U.S. and foreign spectrum managers. The Domestic Spectrum Policy Division coordinates these courses, drawing upon experts from other divisions of OSM as well as various Federal agencies and the private sector.

NTIA, in coordination with the DOC Office of Security, maintains a security program that adheres to HSPD-12. The security program: initiates and processes requests for background investigations for applicants and current NTIA personnel; forwards up-to-date national security information to supervisors and employees in their organization; assists a senior facility manager in coordinating a physical security risk assessment of his facility; assists the head of the organization in ensuring that all persons with security clearances receive an annual

refresher security briefing; requests assistance from the office of security in a security matter; certifies NTIA/OSM personnel security clearances for a visit to another agency or facility and validates security clearance notifications for non-NTIA personnel to engage in an NTIA/OSM sponsored meeting or event; and makes arrangements for security training to all OSM personnel.

NTIA will provide support for the Policy and Plans Steering Group (PPSG), an interagency advisory committee whose membership includes representatives holding the rank equivalent to Assistant Secretary in those Federal agencies whose missions require significant use of the radio frequency spectrum resource. The PPSG is advisory and reports to the Assistant Secretary of Commerce for Communications and Information. This forum will serve as a significant mechanism for resolving spectrum policy issues within the Executive Branch.

### **International Spectrum Plans and Policies**

NTIA provides leadership and participates with the State Department, FCC, Federal agencies, commercial industry, and private sector interests in preparing for diverse international radio treaty conferences, negotiations and forums on spectrum management, allocations, technical standards and regulation. Specifically, NTIA coordinates and develops the Federal Government's contributions to the U.S. proposals for these treaty conferences and forums and helps prepare the preliminary and final U.S. positions. In many cases, NTIA representatives chair the national preparatory groups for these forums. Also, these representatives are often called upon to chair or organize activities at an international level on behalf of the ITU. NTIA analyzes the known intentions and positions of other nations to determine whether U.S. counter-proposals are necessary. NTIA also participates in bilateral negotiations and provides personnel and technical support for the U.S. delegations to radio treaty conferences and other ITU and regional administrative, policy and technical forums.

NTIA works toward building confidence worldwide in U.S. spectrum planning techniques to win support for U.S. positions in negotiations and forums. NTIA developed a plan to implement the results of the 2007 World Radiocommunication Conference sponsored by the International Telecommunications Union (ITU) and began preparations for WRC 2011.

### **Strategic Planning**

The Strategic Planning Program is designed to respond to and implement recommendations regarding the United States Spectrum Policy for the 21<sup>st</sup> Century. The program's strategic elements include a comprehensive strategy to continue the development of long range goals and objectives for Federal spectrum management, and the development of a spectrum management architecture for the future and an overarching roadmap that will lead to improved means to assuring spectrum access in the most effective and efficient manner across the Federal Government. The purposes of this program are to: (1) foster economic growth, (2) support national and homeland security, (3) maintain the United States global leadership in communications technology, and (4) satisfy other vital United States needs in areas such as public safety, scientific research, Federal transportation infrastructure, and law enforcement. Activities include: (1) providing a means to gather, maintain and update accurate information relating to current and future spectrum requirements, (2) collaborating and coordinating effectively among the various Federal agencies to obtain the necessary results to collectively execute the means in a unified approach; (3) developing a future architecture designed to incrementally improve Federal spectrum management and use; (4) investigating advanced technologies and concepts for the management of the spectrum that hold the potential for increasing the efficiency of spectrum use; and (5) assessing the continued effectiveness of spectrum allocations in light of changes in planned spectrum usage.

## **Emergency Preparedness and Public Safety**

In recognition of the importance of public safety services to the American public and the importance of spectrum to these activities, NTIA will provide the necessary leadership, technical expertise, applied research, policy guidance, and spectrum management support for the successful coordination of national public safety requirements, goals and objectives both within the Federal Government and state and local entities in coordination with the Department of Homeland Security and the FCC. NTIA will address and support the needs of: (1) Project SAFECOM; (2) a follow-on program (National Public Safety Telecommunications Council) to the Public Safety Wireless Advisory Committee (PSWAC) to further address PSWAC recommendations including satisfying future spectrum needs; (3) interoperability between Federal, state and local emergency entities; (4) national and international public safety standards; (5) new technology evaluation and testing; and (6) funding assistance for state and local agencies to adopt new technology (as per the DTV Act, P.L. 109-171). Consideration also will be given to shared and joint use plans, use of standard radio systems, and coordination processes with all Federal agencies.

NTIA will address and implement the new requirements of National Communications System (NCS) Directive 3-10 to provide the required continuity communications capabilities at both the NTIA primary and alternate operating facilities. NTIA also will maintain a viable COOP capability by: (1) enhancing the capabilities of the NTIA COOP Alternate Operating Facilities, (2) conducting COOP/COG tests, training, and exercises for NTIA and IRAC personnel to include annual national exercises, and (3) supporting the National Response Framework (NRF) and upon activation of ESF #2 by DHS deploy (as needed) in support of the coordinated Federal response effort to provide Federal spectrum management services at the Joint Field Office or other designated facility.

NTIA will also serve in the capacity as the executive committee member to the Emergency Communications Preparedness Center. The Division will support the Assistant Secretary in that capacity while also serving as the working/focus group member for the Department.

## **Spectrum Services**

NTIA reviews, processes, and authorizes Federal radio frequency assignments. NTIA also reviews each frequency assignment action to determine the degree of compliance with authorized use and will continue its reviews of Federal frequency assignments to evaluate the validity of current needs. This frequency assignment responsibility involves chairing the IRAC Frequency Assignment Subcommittee (FAS) as well as directing that subcommittee's activities and providing its administrative support. The assignment responsibility also involves ensuring that the spectrum needs of certain Federal Government agencies not represented on the IRAC and the spectrum access requirements of the United Nations and foreign embassies in the United States are satisfied. NTIA maintains and updates files and records for radio spectrum management. The computerized files include: the Government Master File of Frequency Assignments (GMF); portions of the FCC frequency records necessary for use in Federal spectrum management, especially the management of frequency bands allocated for shared Federal/non-Federal use; frequency allocation records; terrain elevation data; and Federal systems characteristics data used to support the processing of requests for spectrum certification. In 2008, NTIA authorized use by some 56 Federal agencies, non-Federal entities (in coordination with the FCC), and foreign governments (Canada and Mexico) - a total of more than 400,000 active assignments as of the end of FY 2008. NTIA processed 83,172 frequency assignments and 600 requests for Special Temporary Authority of which approximately half were from the FCC on behalf of the private sector. These diverse files and records provide varied information and publications for NTIA's staff as

well as the rest of the spectrum management community. They are also used to support activities that involve coordinating spectrum requirements of Federal agencies with Canada and Mexico. The information provided will be used by Federal agencies in proposing frequency assignments and by NTIA personnel in analyzing potential interference and spectrum sharing problems.

NTIA will continue to review proposed Federal radiocommunication systems to determine compliance with applicable Federal regulations and policies and to evaluate such systems for compatibility with other present and planned spectrum-dependent systems. Guidance is developed concerning frequency bands, design parameters, and appropriate operating constraints necessary to mitigate harmful interference and ensure effective use of available spectrum resources. NTIA, in accordance with the advice of the Spectrum Planning Subcommittee (SPS) of the IRAC, approves or withholds certification of spectrum support for the system or, alternatively, indicates what adjustments to the system are needed to enable the certification to be approved. The spectrum certification responsibility involves chairing the SPS and directing the subcommittee's activities. Certification reviews are done at the conceptual, experimental, developmental, and operational stages of a given system's procurement cycle, as required by OMB Circular A-11. In fiscal year 2008, NTIA approved 133 agency requests for spectrum certification and completed 119 preliminary assessments of requests for spectrum support from the Federal agencies.

### **Spectrum Engineering and Analysis**

NTIA conducts in-depth analyses of spectrum use, technically reviews new Federal radiocommunication systems, including space systems; assists Federal agencies in resolving operational problems; provides technical engineering/policy analysis support for international radio treaty conferences; and establishes and improves Federal standards to assure efficient use of the spectrum. The in-depth studies evaluate the effect of existing and planned radiocommunication systems on the radio frequency spectrum and provide technical engineering support for domestic and international policy development and long range planning. These technical/policy analyses are of two types, the first focusing on the selected portions of the radio frequency spectrum and the second focusing on particular types of uses of the spectrum. Both types of studies will examine present and planned equipment usage to determine if the spectrum is efficiently and effectively used, the potential for compatible sharing of Federal radio services, and the effects of proposed and planned national and international allocation changes on the ability of Federal agencies to complete their mandated missions. NTIA will also investigate the possibility of increased sharing of spectrum resources between Federal and non-Federal radiocommunication systems in order to increase the efficient use of the spectrum within the United States. Results from field and laboratory measurements will aid in the evaluation of frequency utilization, policy compliance, new technologies, and radio frequency interference.

NTIA will resolve operational conflicts that arise between Federal agencies regarding the use of the spectrum and coordinate the process of meeting spectrum requirements that cannot be satisfied within existing policies and procedures. These operational problems are detected through NTIA studies or brought to the attention of NTIA by other agencies. Solving such problems demands analyses of the effects that proposed changes in frequency assignments, operational procedures, or equipment will have on the electromagnetic environment as well as consideration of the various tradeoffs between technical and operational factors. NTIA will provide solutions to operational problems involving incompatibility between systems. In support of international spectrum management, NTIA will continue to provide engineering analyses on technical issues necessary to support U.S. participation in and preparation for international conferences and meetings.

Extensive radio regulations have been developed, both nationally and internationally, to ensure that various radio services can operate



compatibly in the same environment without unacceptable levels of radio interference. These regulations are focused primarily on radio systems using the same allocated bands of frequencies. Recent years have seen a dramatic increase in the number of spectrum issues involving adjacent band interference (*i.e.*, interference from a transmitter operating in one band to a receiver operating in an adjacent allocated band). In the national and international marketplace, adjacent band problems are beginning to surface as the search goes on to identify spectrum for an ever-expanding number of new and innovative radio-based telecommunication services continues. Billions of dollars of investment are contingent on the availability of spectrum where in-band and adjacent band interference concerns are resolved either through proper coordination or by effective equipment designs through the use of technologies. Within this environment of increased spectrum requirements and new and innovative radio communication systems, a challenging issue is the question of how to address the adjacent band interference problem and apply the latest technologies. It is particularly challenging because it involves the effects of adjacent band emission from transmitters and the characteristics of the adjacent band receiving equipment and its interference susceptibility to unwanted signals. The issue of adjacent band receiver susceptibility is particularly challenging because receivers by tradition have not been subject to standards and cost factors which have led to interference prone designs. The key to success in reducing receiver susceptibility is to develop a technical and regulatory framework that maintains flexibility, while meeting the overall goal of effective and efficient national and international spectrum management. NTIA has undertaken a comprehensive examination of adjacent band and man-made interference, including technical and regulatory issues. While a number of the above individual issues and questions have been examined in depth by NTIA and others, a more comprehensive examination of the overall issue will be undertaken. NTIA will explore these and other identified issues and will develop appropriate recommendations.

New technologies will be evaluated that can be used to increase the efficiency with which the Federal and private sector use the radio spectrum, making more spectrum available for emerging technologies. New engineering analysis capabilities will be developed to improve spectrum efficiency in the Federal frequency assignment process. Advances in engineering modeling and information technology will be used to improve existing Federal spectrum certification and frequency assignment processes. Measurement techniques will be developed to assess innovative adaptive sharing techniques between Federal and non-Federal systems.

### **Information Technology**

NTIA will continue its activities relative to Systems Development, Network & Technical Services, Systems Support, Enterprise Architecture, Information Assurance and Project Management as further described below.

**Systems Development** in which NTIA will design, develop, and implement software and services that are necessary to optimize the spectrum authorization processes; optimize the Federal agencies' computer automated capabilities to manage their frequency spectrum assets; and provide the spectrum management community the optimal spectrum information (*e.g.*, Federal Spectrum Management System) that will enable the Federal agencies to manage their spectrum assets without interference and within the current rules and regulations. The goal is to ensure that Federal agencies have access to accurate spectrum management data, that Federal agencies have the information technology tools necessary to use that data to develop new assignment application requests or changes to existing authorizations that comply with Federal regulations and procedures for using the radio frequency spectrum, and that NTIA has the information technology required to effectively process agency requests for frequency assignment authorizations in a timely manner. NTIA will also develop and improve engineering and analysis models and tools to support spectrum engineering and analysis and the spectrum authorization processes; review

its automated analytical capability to ensure the methods of problem solving are appropriate for new communications systems and for state-of-the-art changes in telecommunications technology; and develop and enhance analytical computer programs that permit rapid computation of potential interference between existing and proposed communications systems. NTIA also supports design, development, and implementation of administrative/back office systems that support NTIA mission-specific functions including domestic and international telecommunications policy, financial management, human resources, and grants administration.

**Network & Technical Services** in which NTIA will provide the information technology systems and services required for inter-office communications, processing frequency assignment requests, exchanging spectrum management information with Federal agencies using the radio-frequency spectrum, telecommunications grants administration, and providing the public with electronic access to spectrum management and telecommunications policy information. It will also maintain and enhance local area networks and use the Internet to support spectrum management activities (NTIA's unclassified local area network supports traditional office automation activities, such as e-mail and word processing. A classified local area network provides the NTIA staff with access to the computers that process frequency assignment actions and provides secure access to Federal spectrum managers via remote access servers and through the SIPRNet. Internet servers provide spectrum management information on NTIA's World Wide Web pages. List-servers provide a means for electronic conferences); and provide the necessary coordination with and support of NTIA's CIO to implement guidance provided by the Department of Commerce CIO relative to information technology. NTIA also serves as the Department of Commerce SIPRNet and Information Sharing Environment program office, providing a centralized, managed interconnection to the multiple systems at varying security levels.

**Systems Support** in which NTIA will modify and maintain the production software and databases necessary to operate the spectrum authorization process; provide the Federal agencies the computer automated capability to manage their frequency spectrum assets; and provide the spectrum management community the necessary spectrum information which will enable the Federal agencies to manage their spectrum assets without interference and within the current rules and regulations. Additionally, as the new Federal Spectrum Management System is placed into production, provide the application, database, and end-user support necessary to ensure a smooth transition from the legacy system to the new system.

**Enterprise Architecture** in which NTIA will provide the business strategy and operational transformation to support the information technology required for NTIA to manage the Federal Government's use of the radio frequency spectrum, formulate international information and communications policy, goals, and strategies; enhance the public interest by generating, articulating, and advocating creative and influential policies and programs in the telecommunications and information sectors; and to assist public and non-profit entities in effectively using telecommunications and information technologies to better provide public services and advance other national goals.

This will ensure that the business of NTIA supports the Government's goals for providing value to the public through citizen-centered, results-oriented, and market-based approaches. This is accomplished by providing a common framework for improvement in the following areas:

- Budget Allocation
- Information Sharing
- Performance Measurement

- Budget/Performance Integration
- Cross-Agency Collaboration
- E-Government
- Component-Based Architectures

These methodologies will be used for all information technology projects, including a project to implement the FY 2003 budget paperless initiative by modifying present spectrum management processes that include frequency authorization, spectrum certification of future radiocommunication systems, satellite coordination, and spectrum allocation and use, to increase effectiveness and efficiency, especially through the application of information technology. The improvements are expected to reduce the time it takes to obtain frequency assignments and spectrum certifications. Enterprise Architecture (EA) will assure alignment of NTIA business processes with NTIA objectives by conducting a maturity assessment of NTIA's EA using as a guideline OMB's EA Assessment framework. A plan for improvement will be developed, if necessary.

EA assists with Capital Planning and purchasing by aligning the NTIA EA model with the following documents and processes:

- OMB Federal Enterprise Architecture (FEA) Model;
- Exhibit 300 Capital Asset Plans and Business Cases;
- NTIA IT Strategic Plan and OSM Acquisition Plan and budget planning process;
- Conducting a maturity assessment using the Commerce IT Capital Planning and Investment Control Maturity Model; and
- Processing IT related purchase requests ensuring all requests meet established guidelines, procedures, and architectural compliance.

**Information Assurance** in which NTIA will provide compliance with applicable information technology laws and regulations regarding the security of information systems and communications security. In support of future system requirements, Information Assurance will design, develop, and implement the policies and procedures that will allow implementation of cross-domain security systems that protect national security information while simultaneously providing greater access to Federal spectrum managers and the public to spectrum management data. Information Assurance includes certification and accreditation of system; active monitoring of systems, networks, and applications to ensure compliance with security related parameters; maintenance of a computer incident response capability; and Federal Information Security Management Act (FISMA) reporting.

**Project Management** in which NTIA will plan, charter, and establish a Program Management Office (PMO) in order to standardize and more effectively manage NTIA IT projects, maximize returns on investment, provide better reporting to NTIA and DOC management, and ensure compliance with all OMB and GAO mandates and regulations regarding project planning and execution. The PMO will provide the leadership that will enable the Administration to manage its IT portfolio, programs, and projects utilizing sound project management methodologies based on industry best practices as presented in the Project Management Institute's Project Management Body of Knowledge Guide and The Standard for Program Management. NTIA established a PMO charter, scope statement, and management team; developed the PMO implementation plan; and partnered with an industry expert to establish the NTIA PMO organizational and mission constructs. Effective portfolio management is essential to achieving the mission and objectives of NTIA. The NTIA PMO will develop and implement portfolio management tools and processes to ensure that IT Project Managers conduct projects in a disciplined, well-managed, and consistent manner

so that quality products are completed on time and within budget. The systematic process for portfolio management will ensure that project needs are prioritized and governed by importance to the Administration's mission rather than by urgency. NTIA will conduct impact analyses for projects within the portfolio, including project impacts resulting for schedule, manpower and resource changes. The NTIA PMO will partner with the NTIA Enterprise Architecture office in working with DOC procurement organizations to establish and subsequently assist in the management of IT procurements that are in response to NTIA's business needs. The NTIA PMO will develop and implement contract management processes and procedures in order to ensure that new IT procurements are planned and executed in a timely manner.

Information technology ensures compliance with applicable information technology laws and regulations regarding the operation, information assurance, including continuity of operations, communications security, emergency operations, and procurement of IT products and services. NTIA has established an Enterprises Architecture Council to ensure IT capital investments are made wisely and in coordination with all business processes. Information technology also maintains an active emergency relocation site to meet the national security/emergency preparedness functions of the NTIA.

**Department of Commerce**  
**National Telecommunications and Information Administration**  
 Salaries and Expenses  
**PROGRAM AND PERFORMANCE: DIRECT OBLIGATIONS**  
 (Dollar amounts in thousands)

Activity: Salaries and expenses  
 Subactivity: Telecommunication sciences research

Comparison by line item		2008 Actual		2009 Enacted		2010 Base		2010 Estimate		2010 Increase/ (Decrease)	
		Personnel	Amount	Personnel	Amount	Personnel	Amount	Personnel	Amount	Personnel	Amount
Telecommunication sciences research.....	Pos/BA	45	\$6,304	45	\$6,747	45	\$7,140	45	\$7,140	0	\$0
	FTE/Obl.	40	6,265	45	6,896	45	7,140	45	7,140	0	
<b>Direct Obligations.....</b>	Pos/BA	45	6,304	45	6,747	45	7,140	45	7,140	0	0
	FTE/Obl.	40	6,265	45	6,896	45	7,140	45	7,140	0	

**Department of Commerce**  
**National Telecommunications and Information Administration**  
 Salaries and Expenses  
**PROGRAM AND PERFORMANCE: REIMBURSABLE OBLIGATIONS**  
 (Dollar amounts in thousands)

Activity: Salaries and expenses  
 Subactivity: Telecommunication sciences research

Comparison by line item		2008 Actual		2009 Enacted		2010 Base		2010 Estimate		2010 Increase/ (Decrease)	
		Personnel	Amount	Personnel	Amount	Personnel	Amount	Personnel	Amount	Personnel	Amount
Reimbursable projects.....	Pos/BA	45	\$0	45	\$0	45	\$0	45	\$0	0	\$0
	FTE/Obl.	40	7,399	45	24,893	45	7,800	45	7,800	0	
<b>Total Reimbursable Obligations.....</b>	Pos/BA	45	0	45	0	45	0	45	0	0	0
	FTE/Obl.	40	7,399	45	24,893	45	7,800	45	7,800	0	

**Department of Commerce**  
**National Telecommunications and Information Administration**  
Salaries and Expenses  
Telecommunication Sciences Research  
**Justification of Program and Performance**

**Goal Statement**

Through core telecommunications research and engineering, NTIA supports Administration telecommunications goals, such as enhanced domestic competition, advanced services and new technology deployment, improved foreign trade opportunities for U.S. telecommunication firms, and more efficient use of the radio frequency spectrum. These activities fall within the Department of Commerce Strategic Goal 2 - Promote U.S. innovation and industrial competitiveness, Performance Goal/Objective 2.3: Advance global e-Commerce and enhanced telecommunications and information services. Specifically, the objectives of the Telecommunication Sciences Research activity are to:

- Continue applied engineering and measurement work that is essential to effective NTIA and FCC management of the radio frequency spectrum, the efficient implementation and electromagnetic compatibility of advanced wireless, public safety, broadcasting, and satellite communications technologies, and the development and effective use of emerging technologies, such as ultrawideband, dynamic frequency selection, digital television, land mobile radio communications, RFID, WiMAX, and software-defined radio systems.
- Provide timely technical advice to support the mandate of NTIA to develop and promulgate executive branch policies addressing domestic and international telecommunications and information issues.
- Promote timely, effective application of NTIA's research and engineering results to U.S. industry through technology transfer and commercialization activities.
- Accomplish research and engineering to promote technology advancement and the efficient delivery of public services, enabling private industry, other Federal agencies, and state and local governments to meet their specific telecommunications needs in the areas of applied radio science, public safety communications, e-Government, and next-generation networks (NGN).
- Organize and coordinate preparations for U.S. participation in international telecommunications conferences and negotiations in cooperation with other interested agencies and industry groups.
- Develop and present public interest and user-oriented technical contributions to national and international standards organizations addressing quality of service (QOS), communication network resource management, and other topics critical to the development and implementation of advanced IP-based networks, optical transport networks, NGNs, and supporting broadband infrastructures.

## **Statement of Operating Objectives**

FY 2010 operating objectives for the Telecommunication Sciences Research activity are summarized by program area below.

Characterization of the Radio Environment: Advance the current state of knowledge, including the impact of radio frequency noise and interference on radio systems. Develop analysis techniques that may be used to describe the radio environment.

Radio Spectrum Measurement and Analysis: Provide measurements of environmental radio signals assessing levels and types of spectrum occupancy, and technical support to help resolve selected spectrum management problems and interference issues. Perform engineering analyses to characterize telecommunications systems and apply radio/wireless propagation models to help maximize performance of systems and to ensure interference-free sharing of bands.

Propagation Model Development: Conduct fundamental measurements and analyses of the radio propagation channel in various topographies in support of the development and validation of improved radio propagation models.

Broadband Radio: Study and characterize the broadband transmission channel for within-building and campus-wide wireless local area networks and ultrawideband communications. Develop models and radio link simulators.

Interoperability of Public Safety and Justice Wireless and Information Technology Systems: Develop test methods to ensure interoperability of land mobile radio systems used by public safety and justice communities. Develop information technology standards that public safety and justice communities could adopt to ensure interoperability for information sharing.

Land Mobile Radio Service Analysis: Provide analysis methods to evaluate new wireless communication systems and to ensure compatible operation between systems to be used by public safety, public service, and land transportation agencies.

Domestic and International Standards: In cooperation with the U.S. ITU National Committees, continue leadership of committees in ITU-T and ITU-R Study Groups developing technical standards of importance to U.S. industry and Government (e.g., NGNs, switched optical networks, IMS and other advanced signaling systems, integrated broadband cable networks, and radar systems). Submit ITU recommendations on emerging mobile radio technologies, broadband network performance (e.g., NGN QOS), radio propagation prediction, multimedia quality of service, and radar systems, and coordinate their formal review and approval. Develop and coordinate approval of related U.S. voluntary consensus standards where appropriate.

Performance Assessment: Demonstrate NTIA-developed, perception-based audio and video performance assessment tools for critical new areas including Internet multimedia conferencing, advanced television, and wireless services. Document the advances associated with these tools in open-literature publications. Encourage technology transfer to Government, industrial, academic, and individual users via NTIA-developed, easy-to-use, portable software toolkit.



Wireless Networks: Perform interoperability and quality assessments of representative wireless network technologies. Spearhead standards committee activities and provide engineering analysis and simulation results defining quantitative limits for adjacent and co-frequency block interference within and among advanced wireless communications technologies.

## **Base Program**

### **Explanation and Justification**

Through the Telecommunication Sciences Research activity, NTIA performs state-of-the-art telecommunications research and engineering to further the knowledge of the radio frequency spectrum and to improve wireless telecommunications system planning, design, and evaluation. These efforts strengthen coordination with the FCC on the use of the non-Federal portion of the spectrum. This technical research also improves fundamental understanding of radio-wave transmission, wireless communications technologies, and networking systems, thereby enhancing spectrum utilization and the performance of advanced wireless systems. These efforts directly support industry and Government needs, and directly respond to the requirements of NTIA to manage Federal use of the radio spectrum. Important results of this research include spectrum use and interference mitigation strategies, models, and measurements that lead to more efficient industry and Government use of the radio frequency spectrum, improved radio-wave propagation and wireless communication techniques to enhance spectrum efficiency, and better methods to describe the performance of both conventional radio and emerging wireless systems. This knowledge base is essential to support the Government's spectrum management responsibilities and for technical support to other Federal agencies and industry. These research and engineering efforts will result in an improved U.S. telecommunications technology base and a strong technical foundation for telecommunication standards development in national and international arenas.

As a result of these activities, NTIA has established a core telecommunications research expertise that is accessible to both the public and private sectors. Through cooperative research and development agreements (CRADAs) with industry and reimbursable agreements with other Federal agencies, NTIA applies its expertise to some of the most important practical problems in telecommunications today. For example, both the private sector and other government agencies have direct access, at cost, to an on-line NTIA service that applies advanced radio-wave propagation models in determining the capabilities of specific wireless communications media. Direct-funded NTIA programs and other agency-sponsored research activities interact in a synergistic manner, leading to greater contributions to national goals and the spectrum management role of the Government.

In support of NTIA's mandate to oversee the usage of the radio spectrum by Federal agencies, NTIA maintains a comprehensive capability to measure the use of the spectrum. NTIA's Radio Spectrum Measurement Science (RSMS) program employs equipment to measure and record signals between 10 kHz and 26 GHz and a transportable radiofrequency shielded enclosure to isolate the equipment from strong external signals. NTIA uses this system to perform measurements at selected sites, and to make specialized measurements necessary to ensure compliance with frequency assignment rules and regulations. NTIA conducts definitive measurements of spectrum usage/efficiency/assessment and channel occupancy in selected bands and summarizes the results in support of specific Inter-department Radio Advisory Committee (IRAC) concerns. The RSMS program also analyzes and resolves difficult or unusual interference problems where a Government system is thought to be involved. This often saves costs to Federal agencies and the private sector. RSMS services are available for other agency applications on a reimbursable basis.

NTIA also assists various Department of Defense agencies and Department of Commerce agencies in efficiently operating their own radio spectrum measurement programs through technical consultations, and modification, design, and construction of new radio spectrum and propagation measurement systems. This work draws on expertise developed for the RSMS program, but also provides an opportunity to investigate advanced measurement methods for use in the system itself.

As new wireless technologies emerge, NTIA must strengthen its efforts to develop improved software and measurement techniques to support increasingly sophisticated uses of the spectrum, including spread-spectrum, ultrawideband, and frequency-agile systems, i.e. Dynamic Frequency Selection or Dynamic Spectrum Access. NTIA performs spectrum engineering analyses as required to assess current and future Federal use of the spectrum and determine where significant improvements in utilization appear possible. NTIA is currently assessing emerging spectrum requirements for public safety and law enforcement in coordination with the Public Safety Wireless Communications Program, and a number of different Federal departments and programs that have a keen interest in public safety interoperability. NTIA is also evaluating the Federal Government's use of its spectrum to promote more efficient and economic spectrum use. In FY 2010, NTIA will continue to support essential spectrum utilization analyses, including the impact of new frequency-agile, software defined Dynamic Spectrum Access radio technologies. NTIA develops the measurement procedures needed to characterize these new signals and perform the increasingly complex system compatibility analyses to assess, for example, the effects such technologies may have on incumbent systems. Technical support will be continued for major frequency management concerns through representation at technical subcommittee (IRAC) meetings with principal emphasis on improving Federal spectrum efficiency.

Global trends are moving toward providing diverse services, such as audio, video, data, broadcasting, and common carrier services through a converged system of wire line and wireless networks. Radio science has an important role in portable and mobile communications, and will play an increasingly important role in connecting the end user to the information infrastructure and in providing personal communication services. Another trend becoming evident as technology advances is that of radio systems utilizing higher frequencies. Some radio systems are already moving into the millimeter-wave band, located at the upper end of the allocated radio spectrum (30-300 GHz). NTIA is a key developer of radio propagation models in support of spectrum policy and management. NTIA is also involved in efforts to allow different types of users to share spectrum. NTIA recently tested and validated a spectrum-sharing technology called dynamic frequency selection (DFS), which enables radio local area networks (RLANs) to operate in bands normally reserved for radars.

NTIA continues to provide support to the development and deployment of various wireless technologies such as dynamic spectrum access (DSA) technologies which have been proposed as interference-free secondary users in Land Mobile Radio bands. Knowledge from measurements and modeling DSA technologies are crucial in determining the feasibility of interference-free, commercially viable systems. NTIA is developing models to predict the performance of radio systems operating over short paths using detailed geographic information systems (GIS). NTIA is also operating an advanced antenna test bed for evaluation and comparison of the performance and spectral efficiency of adaptive antennas. Adaptive antennas have the capability to dynamically increase the number of users in a limited bandwidth, such as in Commercial Mobile Radio Services (CMRS) applications.

NTIA supports private industry in their wireless technology development efforts through technology transfer under CRADA's. Under other agency agreements, NTIA is providing telecommunications engineering assistance to a variety of Federal and state agencies, most notably in the area of wireless telecommunications interoperability and information sharing for, and among, local, state, and Federal users in the justice/public

safety/homeland security community. NTIA is also assisting the National Security Agency and other DOD agencies to address the increasing threat to information security.

NTIA provides telecommunications engineering support to improve public safety communications interoperability on behalf of a multiagency effort that includes: NIST's Office of Law Enforcement Standards (OLES), DHS' Office of Interoperability and Compatibility (OIC), the National Public Safety Telecommunications Council, DOJ's Office of Community Oriented Policing Services (COPS), and DHS's Office of Emergency Communications (OEC) Federal Partnership for Interoperable Communications (FPIC). In general, the broad based interoperability effort addresses four key areas: (1) development of qualitative and quantitative public safety communication and information sharing requirements that are accepted nationally by the public safety community and industry alike; (2) identification and development of interface standards (that satisfy defined user requirements) through leadership and direct technical contribution to national and international standards bodies focused on public safety applications; (3) test and evaluation of concepts, products, and services for the long-term interoperability solution as well as interim improvements; and (4) research and development to accommodate technical gaps that emerge during the entire process. All elements of the NTIA public safety activity involve close and constant coordination with public safety practitioners.

The demand for new and enhanced telecommunication services, such as digital television (DTV), wireless voice and data, and radio navigation, has placed increased burdens on spectrum planners and policy makers. To address this situation, NTIA developed fundamental data and more accurate modeling of radio propagation that led to improved methods for planning spectrum sharing among the various users. Predicting how these systems can share the same spectrum space requires a better understanding of broadband radio propagation and the use of multi-dimensional modeling techniques – both areas in which NTIA has unique expertise. NTIA has provided analysis tools and techniques used in the allocation of channels for digital television systems, and a technical analysis of DTV broadcasting options. NTIA and FCC engineering personnel have jointly developed the signal coverage and interference analysis programs to evaluate the DTV Allotment Table for over 1,600 broadcast TV stations. NTIA has provided spectrum management tools to assist the private sector in planning and deploying DTV systems. In FY 2010, NTIA will focus on technical issues associated with the grant programs for digital to analog conversion and public safety interoperable communications.

In cooperation with U.S. industry, NTIA prepares and coordinates proposed domestic and international telecommunications standards, develops and demonstrates technologies for assessing the performance and optimizing the utilization of public and private telecommunication networks from a user perspective, and evaluates emerging technologies for application to future needs. These activities promote international trade opportunities for U.S. telecommunication firms, enhance competition in the U.S. telecommunications industry, and improve the cost effectiveness of Government telecommunications use. In its international standards activity, NTIA is working to expand trade opportunities for U.S. telecommunications and information providers by leading and supporting U.S. participation in key technical negotiations of the International Telecommunication Union's Telecommunication Standardization Sector (ITU-T) and Radiocommunication Sector (ITU-R). ITU telecommunication standards and radiocommunication Recommendations serve as blueprints for future technology development involving billions of dollars in telecommunications industry investment worldwide. NTIA activities strengthen U.S. participation in ITU negotiations and provide the technical content for international standards and recommendations.

To support fundamental research into the nature, interaction, and evaluation of telecommunication devices, systems, and services NTIA manages the Table Mountain Field Site and Radio Quiet Zone. This is a 1,800 acre open air test location protected from strong external radio signals by both Federal and State laws. This site is used for performing sensitive radio or electromagnetic experiments, as well as for applications needing

low vibration and unobstructed views of the sky. NTIA actively solicits research proposals from inside the Institute as well as from external agencies. This research serves to expand the knowledge base available to the Institute, helps identify emerging technologies, and provides for the development of new measurement methods needed to study the characteristics of new devices and systems based on this technology. The results of the Table Mountain work benefit the public via reports, technical papers, journal articles, conference papers, web documents, and computer programs.

In FY 2010, NTIA will continue to provide leadership in key ITU-T standards development groups. This work will advance the realization of multi-service, Internet Protocol (IP) based NGNs and will provide objective quality metrics and quality objectives enabling assessment and optimization of NGN services. NTIA will continue to spearhead and contribute to the ITU-affiliated Video Quality Experts Group (VQEG) and will promote and lead related national standards work organized by the Alliance for Telecommunications Industry Solutions (ATIS), the Society of Cable Telecommunications Engineers (SCTE), and other U.S. voluntary consensus standards organizations. NTIA contributions to national standards committees provide technical solutions to some of the most compelling issues facing U.S. telecommunications planners, and thereby help to more rapidly evolve our national information infrastructures. Examples include the inter-operation of multi-vendor systems employing various transmission media (cable, microwave, fiber, satellite) in a competitive environment and key IP/optical network planning issues including traffic management and economical resource sharing among integrated multimedia services. This work promotes industry competition and innovation in the provision of integrated broadband digital services, facilitates efficient matching of offered services with user needs, and ensures that emerging U.S. broadband network standards are consistent with Internet evolution, U.S. broadband network deployment objectives, and applicable Government (e.g., OMB, FCC) policy guidelines.

NTIA provides important, ongoing technical support for the U.S. Administration in ITU-R Study Group 3 (Radiowave Propagation) and Study Group 5 (Mobile, Radiodetermination, Amateur and Related Satellite Services); Working Party 5B; the Radar Correspondence Group, and the Radar Unwanted Emissions Group. In Study Group 3, NTIA is a leader in the development and evaluation of radio propagation models for Working Party 3K. An NTIA engineer serves as the Chair of U.S. Study Group 3. It is devoted to making improvements in propagation models and studies with the goal of improved efficiency in radio spectrum usage domestically and internationally.

In Study Group 5, Working Party 5B, current areas of interest include (but are not limited to): potential reallocation of radar spectrum; effects on radars of interference from communication systems; dynamic frequency selection technology; development of radar emission spectrum measurement techniques; development of more efficient radar spectrum emission criteria. ITS staff provides critical support to the U.S. Administration on radar systems, preserving the spectrum that critically important radar systems need for their continued operation in areas of safety and defense.

ITU-R Working Party 5D is involved with the development of standards for future terrestrial wireless communication networks. Current work involves the development of guidelines involving technologies to be considered for the next generation of communication systems (IMT-Advanced). ITS staff provides necessary technical support for the policy decisions made by other members of the U.S. Delegation to WP-5D to assure that the guidelines and standards produced by WP-5D are technology-neutral and that U.S. interests and needs are taken into account.

NTIA's international and U.S. standards committee leadership is supported by telecommunications research and engineering activities directed toward the development, implementation, and promulgation of user-oriented performance measures for integrated data, audio (including voice),

video, and multimedia communication equipment and services. NTIA will continue to apply its unique expertise and state-of-the-art voice and video measurement laboratories to validate and optimize telecommunication performance standards. This research is leading U.S. industry and the world in the development of user-oriented, technology-independent performance parameters and measurement methods for high-speed data communication services. In FY 2010, NTIA will continue its groundbreaking work in perception-based audio and video quality assessment and associated digital compression and transmission issues. NTIA will focus its development work toward important new technology areas including Internet multimedia conferencing and advanced television (e.g., IPTV) services. Both of these fundamentally new areas pose significant and novel coding, transmission, and quality assessment challenges. NTIA will also conduct research addressing specific coding and transmission quality issues associated with wireless and broadband access services. NTIA will continue to pursue in-service quality assessment techniques, since these allow for the most relevant assessments and do not require the interruption of services. NTIA will continue to enhance its laboratory facilities to support fully-automated, all-digital subjective audio-visual testing, and will demonstrate the enhanced audio/video test capabilities to industry and Government users. To encourage technology transfer and widespread adoption of NTIA-developed audio and video quality assessment technologies, NTIA will enhance and make available an easy-to-use, highly portable audio-video assessment software toolkit.

NTIA is also involved in the development of Federal and industry standards under other agency Reimbursable Agreements. This work includes development of Federal telecommunications specifications and standards, proof of concept and demonstration measurements, interoperability analyses, and technical and economic impact assessments. FY 2010 reimbursable programs are expected to address Public Safety communications interoperability, digital land mobile radio standards development, network reliability and restoration, and priority access capabilities for public wireless and IP-based networks. In Public Safety work, for example, NTIA advances the work of other Federal Programs (e.g., NIST/OLES, DHS/OIC, etc.) through leadership and critical technical contributions to the Project 25 Technical Committees, Working Groups, and Task Groups, as well as the associated organizational entities within the Telecommunications Industry Association (TIA) TR-8 Committees.

NTIA will continue its on-going program in wireless networking in FY 2010. Advanced wireless technologies are expected to provide wireless voice, data, and image communications and a variety of advanced service features using small, inexpensive, lightweight, low-powered portable radio terminals. Advanced wireless technologies can extend wired information infrastructures to mobile, rural, and other users and can dramatically improve telecommunication service availability in natural disaster and other emergency situations. However, achieving these benefits will require solutions to major implementation problems. As wireless networks and applications expand, interference among users sharing spectrum is likely. Users and service providers hoping to develop advanced wireless networks may be faced with an over-abundance of candidate technologies, many of which are non-interoperable. NTIA is addressing these problems by providing objective, expert technical contributions in support of public interest concerns in national and international committees responsible for resolving wireless network implementation issues. A particular focus of NTIA activity is in the development of intra-system and inter-system interference assessment metrics and standards in the Alliance for Telecommunications Industry Solutions (ATIS) subcommittee WTSC/G3GRA (Wireless Technologies and Systems Committee — Radio Aspects of GSM/3G and Beyond) to enhance capability and harmonization among telecommunication systems in the environment. Results promote efficient use of increasingly scarce radio spectrum and improve wireless system coverage and performance.

**Department of Commerce**  
**National Telecommunications and Information Administration**  
Salaries and Expenses  
SUMMARY OF REQUIREMENTS BY OBJECT CLASS  
(Dollar amounts in thousands)

Object Class	2008 Actual	2009 Enacted	2010 Base	2010 Estimate	2010 Increase/ (Decrease)
11 Personnel compensation					
11.1 Full-time permanent	\$9,157	\$11,367	\$11,854	\$11,854	\$0
11.3 Other than full-time permanent	296	260	260	260	0
11.5 Other personnel compensation	20	20	20	20	0
11.8 Special personnel services payments	0	0	0	0	0
11.9 <b>Total personnel compensation</b>	9,473	11,647	12,134	12,134	0
12.1 Civilian personnel benefits	3,059	2,226	2,336	2,336	0
13 Benefits for former personnel	0	0	0	0	0
21 Travel and transportation of persons	415	316	328	328	0
22 Transportation of things	6	10	10	10	0
23.1 Rental payments to GSA	722	1,339	1,372	1,372	0
23.2 Rental payments to others	10	10	10	10	0
23.3 Communications, utilities and miscellaneous charges	102	104	94	94	0
24 Printing and reproduction	32	36	36	36	0
25.1 Advisory and assistance services	410	410	410	410	0
25.2 Other services	478	1,584	1,041	1,041	0
25.3 Purchases of goods and services from Government accounts	972	1,088	1,507	1,507	0
25.7 Operation and maintenance of equipment	93	93	93	93	0
26 Supplies and materials	174	217	219	219	0
31 Equipment	241	406	409	409	0
41 Grants, subsidies and contributions	3	0	0	0	0
99 <b>TOTAL OBLIGATIONS</b>	\$16,190	\$19,486	\$19,999	\$19,999	\$0
<b>Prior Year Recoveries/Refunds</b>	(84)				
<b>Unobligated balances from Prior Years</b>	(1,908)	(3,268)			
<b>Unobligated balance EOY</b>	3,268				
<b>Unobligated Balance Rescission</b>		\$3,000			
<b>Total Budget Authority</b>	\$17,466	\$19,218	\$19,999	\$19,999	\$0

**Department of Commerce**  
**National Telecommunications and Information Administration**  
 Salaries and Expenses  
 SUMMARY OF REQUIREMENTS BY OBJECT CLASS  
 (Dollar amounts in thousands)

Personnel Data	2008 Actual	2009 Enacted	2010 Base	2010 Estimate	2010 Increase/ (Decrease)
Full-Time Equivalent Employment:					
Full-time permanent	91	103	103	103	0
Other than full-time permanent	0	0	0	0	0
Total	91	103	103	103	0
Authorized Positions:					
Full-time permanent	91	103	103	103	0
Other than full-time permanent	0	0	0	0	0
Total	91	103	103	103	0

**Department of Commerce**  
**National Telecommunications and Information Administration**  
Salaries and Expenses  
**DETAILED REQUIREMENTS BY OBJECT CLASS**  
(Dollar amounts in thousands)

Object Class	2010 Adjustments to Base	2010 Base	2010 Estimate	2010 Increase/ (Decrease)
11 Personnel compensation				
11.1 Full-time permanent				
Senior Executive Level	\$0	\$0	\$0	\$0
General schedule	487	11,854	11,854	0
Subtotal	487	11,854	11,854	0
11.3 Other than full-time permanent				
General schedule	0	260	260	0
Subtotal	0	260	260	0
11.5 Other personnel compensation				
Cash awards		20	20	0
Subtotal	0	20	20	0
11.8 Special personnel services payments				
Other	0	0	0	0
Subtotal	0	0	0	0
11.9 Total personnel compensation	487	12,134	12,134	0
12.1 Civilian personnel benefits				
Civil service retirement	(29)	0	0	0
Federal employees' retirement	47	869	869	0
Thrift savings plan	8	163	163	0
Federal insurance contribution act - Medicare	0	157	157	0
Federal insurance contribution act - OASDI	23	445	445	0
Health insurance	16	646	646	0
Change in Compensable Day	0	4	4	0
Life insurance	0	7	7	0
Employees' compensation fund	45	45	45	0
Subtotal	110	2,336	2,336	0
13 Benefits for former personnel				
Subtotal	0	0	0	0



**Department of Commerce**  
**National Telecommunications and Information Administration**  
 Salaries and Expenses  
 DETAILED REQUIREMENTS BY OBJECT CLASS  
 (Dollar amounts in thousands)

Object Class	2010 Adjustments to Base	2010 Base	2010 Estimate	2010 Increase/ (Decrease)
21				
Travel and transportation of persons				
Common carrier	\$3	178	\$178	\$0
Per diem/actual mileage	9 0	136 14	136 14	0 0
Subtotal	12	328	328	0
22	0	10	10	0
Transportation of things				
23.1	33	1,372	1,372	0
Rental payments to GSA				
23.2	0	10	10	0
Rental payments to others				
23.3				
Communications, utilities and miscellaneous charges				
Rental of ADP equipment	0	0	0	0
Rental of office copying equipment	0	0	0	0
Other equipment rental	0	0	0	0
Federal telecommunications system	0	32	32	0
Other telecommunications services	0	50	50	0
Postal Service by USPS	0	12	12	0
Other		0	0	0
Subtotal	0	94	94	0
24	0	35	35	0
Printing and reproduction				
Publications	0	1	1	0
Other	0	0	0	0
Subtotal	0	36	36	0
25.1				
Advisory and assistance services				
Management and professional support services	0	60	60	0
Studies, analyses, and evaluation	0	0	0	0
Engineering and technical services	0	350	350	0
Subtotal	0	410	410	0

**Department of Commerce**  
**National Telecommunications and Information Administration**  
Salaries and Expenses  
**DETAILED REQUIREMENTS BY OBJECT CLASS**  
(Dollar amounts in thousands)

Object Class	2010 Adjustments to Base	2010 Base	2010 Estimate	2010 Increase/ (Decrease)
25.2 Other services				
Training	\$0	0	\$0	\$0
Other non-government contracts	(285)	1,041	1,041	0
Subtotal	(285)	1,041	1,041	0
25.3 Purchases of goods and services from Government accounts	0	0	0	0
Maintenance of equipment	0	0	0	0
Payments to GA, WCF, NARA	419	1,507	1,507	0
Subtotal	419	1,507	1,507	0
25.7 Operation and maintenance of equipment	0	93	93	0
26 Supplies and materials			0	
Office supplies	2	2	2	0
ADP supplies	0	217	217	0
Other	0	0	0	0
Subtotal	2	219	219	0
31 Equipment				
Office machines and equipment	0	0	0	0
ADP hardware/software	3	409	409	0
Equipment depreciation	0	0	0	0
Other	0	0	0	0
Subtotal	3	409	409	0
41 Grants, subsidies and contributions	0	0	0	0
99 <b>Budget Authority</b>	<b>\$781</b>	<b>\$19,999</b>	<b>\$19,999</b>	<b>\$0</b>

**Department of Commerce**  
**National Telecommunications and Information Administration**  
Salaries and Expenses  
APPROPRIATIONS LANGUAGE AND CODE CITATIONS

For necessary expenses, as provided for by law, of the National Telecommunications and Information Administration (NTIA), \$19,999,000, to remain available until September 30, 2010. Provided, That notwithstanding 31 U.S.C. 1535(d), the Secretary of Commerce shall charge Federal agencies for costs incurred in spectrum management, analysis and operations, and related services and such fees shall be retained and used as offsetting collections for costs of such spectrum services, to remain available until expended: Provided further, That the Secretary of Commerce is authorized to retain and use as offsetting collections all funds transferred, or previously transferred, from other Government agencies for all costs incurred in telecommunications research, engineering, and related activities by the Institute for Telecommunication Sciences of NTIA, in furtherance of its assigned functions under this paragraph, and such funds received from other Government agencies shall remain available until expended. (Department of Commerce Appropriations Act, 2009)

15 U.S.C. § 1512  
15 U.S.C. § 1532  
47 U.S.C. § 305  
47 U.S.C. § 606  
47 U.S.C. § 901, et seq.

15 U.S.C. § 1512 authorizes the Secretary of Commerce to foster, promote and develop foreign and domestic commerce.

15 U.S.C. § 1532 authorizes the Secretary of Commerce to conduct research and analysis in all telecommunications sciences; to investigate the transmission of radio waves and electromagnetic radiation; and to compile, evaluate, publish, and distribute related information.

47 U.S.C. § 305 authorizes the President to assign frequencies to radio stations or classes of radio stations belonging to and operated by the United States. Originally delegated to the Department of Commerce by Executive Order 12046, as later codified in the National Telecommunications and Information Administration Organization Act, 47 U.S.C. § 901, et seq.

47 U.S.C. § 606 and associated Executive Orders authorize the President to perform certain telecommunications emergency functions essential to security and the national defense.

47 U.S.C. § 901, et seq., authorizing NTIA to perform the Secretary's communications and information functions.

**Department of Commerce**  
**National Telecommunications and Information Administration**  
 Salaries and Expenses  
 ADVISORY AND ASSISTANCE SERVICES

	2008 <u>Actual</u>	2009 <u>Enacted</u>	2010 <u>Estimate</u>
Management and Professional Support Services	\$200	\$200	\$200
Studies, Analysis & Evaluations	0	0	0
Engineering & Technical Services	210	210	210
Total	<u>\$410</u>	<u>\$410</u>	<u>\$410</u>

NTIA utilizes consultants throughout its programs to provide scientific or technical expertise in specialized areas.

**Department of Commerce**  
**National Telecommunications and Information Administration**  
Salaries and Expenses  
PERIODICALS, PAMPHLETS AND AUDIOVISUAL PRODUCTS

	2008 <u>Actual</u>	2009 <u>Enacted</u>	2010 <u>Estimate</u>
Periodicals	\$0	\$0	\$0
Pamphlets	20	20	20
Audiovisual Products	0	0	0
Total	<u>\$20</u>	<u>\$20</u>	<u>\$20</u>

NTIA utilizes pamphlets to provide an overview of NTIA programs and services to the public.

**Department of Commerce**  
**National Telecommunications and Information Administration**  
 Salaries and Expenses  
 AVERAGE GRADE AND SALARIES

	2008 <u>Actual</u>	2009 <u>Enacted</u>	2010 <u>Estimate</u>
Direct:			
Average ES Salary.....	\$149,799	\$155,641	\$158,754
Average Career Path Salary.....	89,903	93,410	95,278
Average GS Grade.....	12.6	12.6	12.6
Average GS Salary.....	\$97,826	\$101,641	\$103,674

**Department of Commerce**  
**National Telecommunications and Information Administration**  
 Public Telecommunications Facilities, Planning and Construction  
 SUMMARY OF RESOURCE REQUIREMENTS  
 (Dollar amounts in thousands)

		Positions	FTE	Budget Authority	Direct Obligations						
<b>2009 Enacted</b>		13	13	\$20,000	\$20,711						
less:	Unobligated Balance, start of year	0	0	0	(2,311)						
	2009 unobligated balance rescission	0	0	(1,600)	0						
plus:	2009 restoration of unobligated balance rescission	0	0	1,600	1,600						
	2010 adjustments to base	0	0	0	0						
<b>2010 Base</b>		13	13	20,000	20,000						
less:	2010 program changes	(13)	(13)	(20,000)	(20,000)						
<b>2010 Estimate</b>		0	0	0	0						
Comparison by activity/subactivity	2008 Actual		2009 Enacted		2010 Base		2010 Estimate		2010 Increase/ (Decrease)		
	Personnel	Amount	Personnel	Amount	Personnel	Amount	Personnel	Amount	Personnel	Amount	
Public Telecommunications Facilities, Planning and Construction											
Grants.....	Pos/BA	0	\$16,800	0	\$16,681	0	\$18,000	0	\$0	0	(\$18,000)
	FTE/Obl.	0	19,067	0	18,297	0	0	0	0	0	0
Program management.....	Pos/BA	13	2,000	13	1,719	13	2,000	0	0	(13)	(2,000)
	FTE/Obl.	8	1,953	13	2,414	13	0	0	0	(13)	0
TOTALS.....	Pos/BA	13	18,800	13	18,400	13	20,000	0	0	(13)	(20,000)
	FTE/Obl.	8	21,020	13	20,711	13	0	0	0	(13)	0
<b>Adjustments to Obligations</b>											
Recoveries/Refunds.....			(1,228)		0		0		0		0
Unobligated Balance, start of year.....			(3,303)		(2,311)		0		0		0
Unobligated Balance, end of year.....			2,311		0		0		0		0
Unobligated Balance, rescission.....			0		1,600		0		0		0
Unobligated Balance expiring.....			0		0		0		0		0
Financing from transfers:											
Transfer from other accounts (-).....			0		0		0		0		0
Transfer to other accounts (+).....			0		0		0		0		0
<b>Appropriation.....</b>			18,800		20,000		20,000		0		(20,000)

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**Department of Commerce**  
**National Telecommunications and Information Administration**  
 Public Telecommunications Facilities, Planning and Construction  
 SUMMARY OF FINANCING  
 (Dollar amounts in thousands)

Comparison by activity	2008 Actual	2009 Enacted	2010 Base	2010 Estimate	2010 Increase/ (Decrease)
<b>Total Obligations</b> .....	<b>\$21,020</b>	<b>\$20,711</b>	<b>\$20,000</b>	<b>\$0</b>	<b>(\$20,000)</b>
Offsetting collections from:					
Federal funds.....	0	0	0	0	0
Non-Federal sources.....	0	0	0	0	0
Recoveries/Refunds.....	(1,228)	0	0	0	0
Unobligated balance, start of year.....	(3,303)	(2,311)	0	0	0
Unobligated balance, end of year.....	2,311		0	0	0
Unobligated balance, rescission.....		1,600			
Unobligated balance expiring.....	0	0	0	0	0
<b>Budget Authority</b> .....	<b>18,800</b>	<b>20,000</b>	<b>20,000</b>	<b>0</b>	<b>(20,000)</b>
Financing:					
Transferred from other accounts (-).....	0	0	0	0	0
Transferred to other accounts (+).....	0	0	0	0	0
<b>Appropriation</b> .....	<b>18,800</b>	<b>20,000</b>	<b>20,000</b>	<b>0</b>	<b>(20,000)</b>

**Department of Commerce**  
**National Telecommunications and Information Administration**  
 Public Telecommunications Facilities, Planning and Construction  
 PROGRAM AND PERFORMANCE: DIRECT OBLIGATIONS  
 (Dollar amounts in thousands)

Activity: Public telecommunications, facilities, planning and construction  
 Subactivity: Grants and program management

Comparison by line item		2008 Actual		2009 Enacted		2010 Base		2010 Estimate		2010 Increase/ (Decrease)	
		Personnel	Amount	Personnel	Amount	Personnel	Amount	Personnel	Amount	Personnel	Amount
Grants.....	Pos/BA	0	\$16,800	0	\$16,681	0	\$18,000	0	\$0	0	(\$18,000)
	FTE/Obl.	0	19,067	0	18,297	0		0		0	
Program management.....	Pos/BA	13	2,000	13	1,719	13	2,000	0	0	(13)	(2,000)
	FTE/Obl.	8	1,953	13	2,414	13		0		(13)	
<b>Direct Obligations.....</b>	Pos/BA	13	18,800	13	18,400	13	20,000	0	0	(13)	(20,000)
	FTE/Obl.	8	21,020	13	20,711	13		0		(13)	

**Department of Commerce**  
**National Telecommunications and Information Administration**  
Public Telecommunications Facilities, Planning and Construction  
**Justification of Program and Performance**

**Goal Statement**

The Public Telecommunications Facilities, Planning and Construction Program (PTFP) is being discontinued in FY 2010. Since 2000, the majority of PTFP grants have been used to support public broadcasting's transition to digital formats, which will be completed in FY 2009 in order to comply with the rules of the FCC. Funding for public broadcasters will be consolidated into the corporation for Public Broadcasting which will enable NTIA to focus on effective implementation of the BTOP.

**Department of Commerce**  
**National Telecommunications and Information Administration**  
Public Telecommunications Facilities, Planning and Construction  
SUMMARY OF REQUIREMENTS BY OBJECT CLASS  
(Dollar amounts in thousands)

Object Class	2008 Actual	2009 Enacted	2010 Base	2010 Estimate	2010 Increase/ (Decrease)
11 Personnel compensation					
11.1 Full-time permanent	\$839	\$938	\$975	\$0	(\$975)
11.3 Other than full-time permanent	0	0	0	0	0
11.5 Other personnel compensation	57	57	59	0	(59)
11.8 Special personnel services payments	0	0	0	0	0
11.9 <b>Total personnel compensation</b>	896	995	1,034	0	(1,034)
12.1 Civilian personnel benefits	280	295	306	0	(306)
13 Benefits for former personnel	0	0	0	0	0
21 Travel and transportation of persons	30	30	30	0	(30)
22 Transportation of things	2	2	2	0	(2)
23.1 Rental payments to GSA	68	68	68	0	(68)
23.2 Rental payments to others	0	0	0	0	0
23.3 Communications, utilities and miscellaneous charges	17	17	17	0	(17)
24 Printing and reproduction	32	32	32	0	(32)
25.1 Advisory and assistance services	0	0	0	0	0
25.2 Other services	366	597	250	0	(250)
25.3 Purchases of goods and services from Government accounts	244	244	244	0	(244)
25.7 Operation and maintenance of equipment	0	0	0	0	0
26 Supplies and materials	17	17	17	0	(17)
31 Equipment	0	0	0	0	0
41 Grants, subsidies and contributions	19,068	18,414	18,000	0	(18,000)
99 <b>TOTAL OBLIGATIONS</b>	\$21,020	\$20,711	\$20,000	\$0	(\$20,000)
<b>Prior Year Recoveries/Refunds</b>	(1,228)				
<b>Unobligated balances from Prior Years</b>	(3,303)	(2,311)			
<b>Unobligated balance EOY</b>	2,311				
<b>Unobligated balance Rescission</b>		1,600			
<b>Total Budget Authority</b>	\$18,800	\$20,000	\$20,000	\$0	(\$20,000)

**Department of Commerce**  
**National Telecommunications and Information Administration**  
Public Telecommunications Facilities, Planning and Construction  
SUMMARY OF REQUIREMENTS BY OBJECT CLASS  
(Dollar amounts in thousands)

Personnel Data	2008 Actual	2009 Enacted	2010 Base	2010 Estimate	2010 Increase/ (Decrease)
Full-Time Equivalent Employment:					
Full-time permanent	8	13	13	0	(13)
Other than full-time permanent	0	0	0	0	0
Total	8	13	13	0	(13)
Authorized Positions:					
Full-time permanent	8	13	13	0	(13)
Other than full-time permanent	0	0	0	0	0
Total	8	13	13	0	(13)

**Department of Commerce**  
**National Telecommunications and Information Administration**  
Public Telecommunications Facilities, Planning and Construction  
APPROPRIATIONS LANGUAGE AND CODE CITATIONS:

For the administration of prior year grants, recoveries and unobligated balances of funds previously appropriated are hereafter available for the administration of all open grants until their expiration. (Department of Commerce Appropriations Act, 2009)

47 U.S.C. 391 authorizes the Secretary of Commerce to provide grant funds for the planning and construction of public telecommunications facilities by eligible entities.

47 U.S.C. 392 sets forth the application requirements to be submitted to the Secretary of Commerce by eligible entities to request funds for the construction of public telecommunications facilities.

47 U.S.C. 902(b)(3) assigns to NTIA the administration of the Public Telecommunications Facilities Program.

**Department of Commerce**  
**National Telecommunications and Information Administration**  
Public Telecommunications Facilities, Planning and Construction  
ADVISORY AND ASSISTANCE SERVICES  
(Dollar amounts in thousands)

	2008 Actual	2009 Enacted	2010 Estimate
Management and Professional Support Services	\$0	\$0	\$0
Studies, Analysis & Evaluations	0	0	0
Engineering & Technical Services	0	0	0
Total	\$0	\$0	\$0

NTIA utilizes consultants throughout its programs to provide scientific or technical expertise in specialized areas.

**Department of Commerce**  
**National Telecommunications and Information Administration**  
Public Telecommunications Facilities, Planning and Construction  
PERIODICALS, PAMPHLETS AND AUDIOVISUAL PRODUCTS  
(Dollar amounts in thousands)

	2008 Actual	2009 Enacted	2010 Estimate
Periodicals	\$0	\$0	\$0
Pamphlets	0	0	0
Audiovisual Products	0	0	0
Total	\$0	\$0	\$0

NTIA utilizes pamphlets to provide an overview of NTIA programs and services to the public.



**Department of Commerce**  
**National Telecommunications and Information Administration**  
 Information Infrastructure Grants  
 SUMMARY OF RESOURCE REQUIREMENTS  
 (Dollar amounts in thousands)

		Positions	FTE	Budget Authority	Direct Obligations						
<b>2009 Enacted</b>		0	0	\$0	\$1,629						
less: Obligations from prior years		0	0	0	(1,629)						
plus: 2010 adjustments to base		0	0	0	0						
<b>2010 Base</b>		0	0	0	0						
plus: 2010 program changes		0	0	0	0						
<b>2010 Estimate</b>		0	0	0	0						
Comparison by activity/subactivity		2008 Actual		2009 Enacted		2010 Base		2010 Estimate		2010 Increase/ (Decrease)	
		Personnel	Amount	Personnel	Amount	Personnel	Amount	Personnel	Amount	Personnel	Amount
Technology Opportunities Program											
Grants.....	Pos/BA	0	0	0	0	0	0	0	0	0	0
	FTE/Obl.	0	0	0	0	0	0	0	0	0	0
Program management.....	Pos/BA	0	0	0	0	0	0	0	0	0	0
	FTE/Obl.	1	323	0	1,629	0	0	0	0	0	0
TOTALS.....	Pos/BA	0	0	0	0	0	0	0	0	0	0
	FTE/Obl.	1	323	0	1,629	0	0	0	0	0	0
Adjustments to Obligations											
Recoveries/Refunds.....			(132)		0		0		0		0
Unobligated Balance, start of year.....			(1,820)		(1,629)		0		0		0
Unobligated Balance, end of year.....			1,629		0		0		0		0
Unobligated balance expiring.....			0		0		0		0		0
Financing from transfers:											
Transfer from other accounts (-).....			0		0		0		0		0
Transfer to other accounts (+).....			0		0		0		0		0
<b>Appropriation.....</b>			0		0		0		0		0

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**Department of Commerce**  
**National Telecommunications and Information Administration**  
 Information Infrastructure Grants  
 SUMMARY OF FINANCING  
 (Dollar amounts in thousands)

Comparison by activity	2008 Actual	2009 Enacted	2010 Base	2010 Estimate	2010 Increase (Decrease)
<b>Total Obligations.....</b>	<b>\$323</b>	<b>\$1,629</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
Offsetting collections from:					
Federal funds.....	0	0	0	0	0
Non-Federal sources.....	0	0	0	0	0
Recoveries/Refunds.....	(132)	0	0	0	0
Unobligated balance, start of year.....	(1,820)	(1,629)	0	0	0
Unobligated balance, end of year.....	1,629	0	0	0	0
Unobligated balance expiring.....	0	0	0	0	0
<b>Budget Authority.....</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
Financing:					
Transferred from other accounts (-).....	0	0	0	0	0
Transferred to other accounts (+).....	0	0	0	0	0
<b>Appropriation.....</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

**Department of Commerce**  
**National Telecommunications and Information Administration**  
 Information Infrastructure Grants  
 PROGRAM AND PERFORMANCE: DIRECT OBLIGATIONS  
 (Dollar amounts in thousands)

Activity: Technology Opportunities Program  
 Subactivity: Grants and program management

Comparison by line item		2008 Actual		2009 Enacted		2010 Base		2010 Estimate		2010 Increase/ (Decrease)	
		Personnel	Amount	Personnel	Amount	Personnel	Amount	Personnel	Amount	Personnel	Amount
Grants.....	Pos/BA	0	\$0	0	\$0	0	\$0	0	\$0	0	\$0
	FTE/Obl.	0	0	0	0	0	0	0	0	0	0
Program management.....	Pos/BA	0	0	0	0	0	0	0	0	0	0
	FTE/Obl.	1	323	0	1,629	0	0	0	0	0	0
Direct Obligations.....	Pos/BA	0	0	0	0	0	0	0	0	0	0
	FTE/Obl.	1	323	0	1,629	0	0	0	0	0	0

**Department of Commerce**  
**National Telecommunications and Information Administration**  
Information Infrastructure Grants  
**Justification of Program and Performance**

**Technology Opportunities Program**

The Technology Opportunities Program was discontinued in FY 2005.

**Department of Commerce**  
**National Telecommunications and Information Administration**  
 Information Infrastructure Grants  
 SUMMARY OF REQUIREMENTS BY OBJECT CLASS  
 (Dollar amounts in thousands)

Object Class	2008 Actual	2009 Enacted	2010 Base	2010 Estimate	2010 Increase/ (Decrease)
11 Personnel compensation					
11.1 Full-time permanent	\$139	\$145	\$0	\$0	\$0
11.3 Other than full-time permanent	0	0	0	0	0
11.5 Other personnel compensation	7	7	0	0	0
11.8 Special personnel services payments	0	0	0	0	0
11.9 <b>Total personnel compensation</b>	146	152	0	0	0
12.1 Civilian personnel benefits	46	46	0	0	0
13 Benefits for former personnel	0	0	0	0	0
21 Travel and transportation of persons	3	3	0	0	0
22 Transportation of things	0	0	0	0	0
23.1 Rental payments to GSA	19	19	0	0	0
23.2 Rental payments to others	13	13	0	0	0
23.3 Communications, utilities and miscellaneous charges	0	0	0	0	0
24 Printing and reproduction	0	0	0	0	0
25.1 Advisory and assistance services	0	0	0	0	0
25.2 Other services	70	1,371	0	0	0
25.3 Purchases of goods and services from Government accounts	24	24	0	0	0
25.7 Operation and maintenance of equipment	0	0	0	0	0
26 Supplies and materials	1	1	0	0	0
31 Equipment	0	0	0	0	0
41 Grants, subsidies and contributions	0	0	0	0	0
44 Refunds	0	0	0	0	0
99 <b>TOTAL OBLIGATIONS</b>	323	1,629	0	0	0
<b>Prior Year Recoveries/Refunds</b>	(132)				
<b>Unobligated balances from Prior Years</b>	(1,820)	(1,629)	0	0	0
<b>Unobligated balance from EOY</b>	1,629				
<b>Total Budget Authority</b>	0	0	0	0	0

**Department of Commerce**  
**National Telecommunications and Information Administration**  
 Information Infrastructure Grants  
 SUMMARY OF REQUIREMENTS BY OBJECT CLASS  
 (Dollar amounts in thousands)

Personnel Data	2008 Estimate	2009 President's Budget	2010 Base	2010 Estimate	2010 Increase/ (Decrease)
Full-Time Equivalent Employment:					
Full-time permanent	0	0	0	0	0
Other than full-time permanent	0	0	0	0	0
Total	0	0	0	0	0
Authorized Positions:					
Full-time permanent	0	0	0	0	0
Other than full-time permanent	0	0	0	0	0
Total	0	0	0	0	0