

**DEPARTMENT OF COMMERCE
NATIONAL TELECOMMUNICATIONS AND INFORMATION ADMINISTRATION
Budget Estimates, Fiscal Year 2008
Budget as Presented to Congress**

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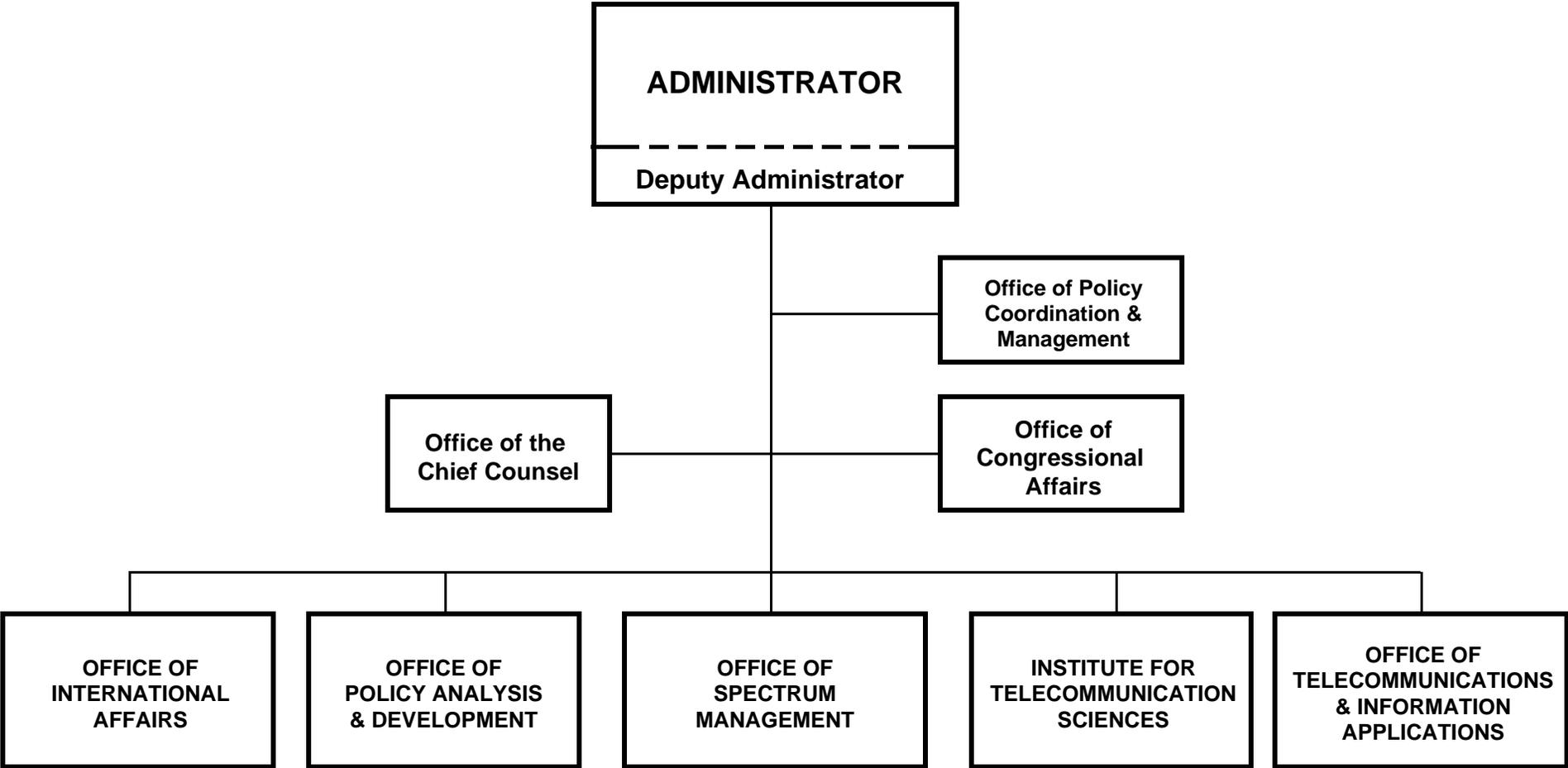
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NATIONAL TELECOMMUNICATIONS AND INFORMATION ADMINISTRATION



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Department of Commerce
National Telecommunications and Information Administration
Fiscal Year 2008 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. NTIA operates within the structure and context of the following goals.

Department of Commerce Strategic Goal 2

Foster Science and Technological Leadership by protecting intellectual property,
enhancing technical standards, and advancing measurement science

General Goal/Objective 2.3

Advance the development of 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 and information services

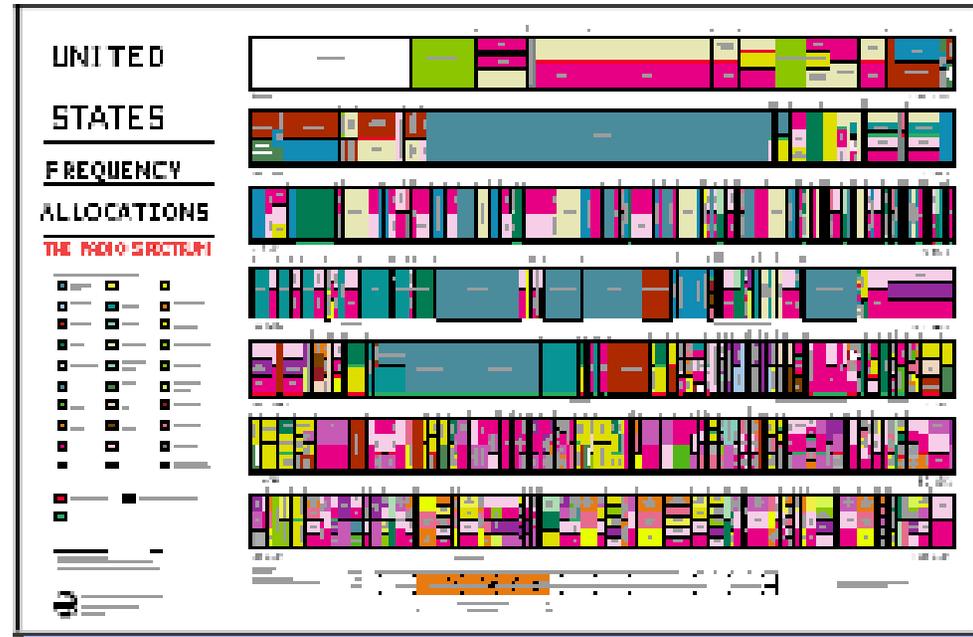
NTIA's policy, spectrum management, and research programs will support emerging technologies and uses of spectrum resources for affordable, alternative communications services. Promising technologies and services have the potential to drive the new economy, if given the opportunity to succeed. The Administration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

NTIA programs directly support the **American Competitiveness Initiative** by creating a regulatory environment that fosters private sector innovation in telecommunications, a fundamental ingredient in maintaining the Nation's productivity growth. NTIA, in conjunction with the Federal Communications Commission (FCC), the Department of State, and other partners, is a vital component in the President's **Spectrum Policy for the 21st Century** initiative. The goals of this initiative are to: foster economic growth; ensure our national and homeland security; maintain U.S. global leadership in communications technology development and services; and satisfy other vital U.S. needs in areas such as public safety, scientific research, Federal transportation infrastructure, and law enforcement.

The budget for FY 2008 is \$589 million (Discretionary: Appropriation – \$18.6 million; Reimbursable – \$36.6 million). Mandatory: \$533.8 million.

NTIA's budget includes the following:

- The base adjustments for FY 2008 for Salaries and Expenses activities.
- The Public Telecommunications Facilities Program is assumed to be discontinued in FY 2007 and will no longer require appropriations. Open grants will be closed using carryover funds and recoveries.
- Mandatory programs authorized by the Deficit Reduction Act of 2005 (Act), as modified by the Call Home and the Safe Port Acts of 2006, that are supported by borrowing authority are being implemented beginning in FY 2007. The remaining programs that rely on receipts from the FCC's auction will get underway late in FY 2008.



Salaries and Expenses

The **Salaries and Expenses budget (\$18,581,000 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 (no appropriation)** is to be discontinued in FY 2008.

Programs Authorized by the Deficit Reduction Act of 2005

The **Digital Television Transition and Public Safety Fund (\$533,800,000 and 17 FTE)**, created by the Deficit Reduction Act of 2005 (Act), and amended by the Call Home and Safe Port Acts of 2006, receives offsetting receipts from the auction of electromagnetic spectrum recovered from discontinued analog television signals, and provides funding for several programs from these receipts. The Act specifies that the 60 MHz of

recovered spectrum not dedicated to public safety use will be auctioned by the Federal Communications Commission in 2008, and identifies the distribution of revenue.

The Act, as amended, also provides borrowing authority to the Department of Commerce to commence specified programs prior to the availability of auction receipts. Amounts borrowed from the Treasury will be returned without interest upon the availability of auction revenue. Commerce programs authorized to use receipts from the fund include the following:

- Digital-to-Analog Converter Box Voucher Program (\$426.3 million via borrowing in FY 2008, 9 FTE).
- Public Safety Interoperable Communications Grants (\$17.1 million via borrowing in FY 2008, 4 FTE).
- New York City 9/11 Digital Transition (\$21.1 million via borrowing in FY 2008, <1 FTE).
- Assistance to Low-Power Television Stations (\$7.8 million via borrowing in FY 2008, 4 FTE).
- National Alert and Tsunami Warning Programs (\$40 million in FY 2008 via borrowing for the Alert Programs, <1 FTE).
- Enhanced 9-1-1 Service Support (\$21.5 million in FY 2008 if receipts are available, <1 FTE).

Performance

NTIA's plan for assessing performance is organized under two performance goals that call for the **efficient use of the radio spectrum**, and the **availability of advanced services to the public**. 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. Performance metrics related to the newly authorized programs will be addressed as management plans are developed.

Context

The U.S. telecommunications market – \$856.9 billion of the \$12 trillion U.S. economy – is critical to our social and economic growth as telecommunications enables all other sectors, including education,

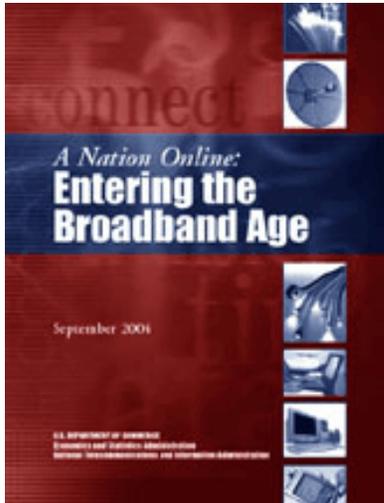


Calibrating Radio Frequency Paths

healthcare and national security. Representing one-third of the global market, the U.S. telecommunications sector is a powerful force in leading U.S. innovation and technology development.

The U.S. telecommunications market continues to grow, with total revenues reaching \$856.9 billion in 2005 – up 8.9 percent for the year – and is projected to reach over \$1 trillion by 2009. [TIA 2006 Telecom Market Review and Forecast]

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.



President's Broadband Goal

"This country needs a national goal for broadband technology . . . universal, affordable access for broadband technology by 2007."

President George W. Bush,
Albuquerque, NM, March 26, 2004

Broadband deployment is a top priority for the Bush Administration and is critical to America's future as the world's economic leader because of its impact on increasing our productivity and improving American's quality of life – through economic growth, job creation, national security, tele-medicine, distance learning, and tele-work. For that reason, President Bush set a bold vision by establishing a national goal of universal, affordable broadband access by 2007.

In the five years since President Bush took office, the number of broadband lines has grown by over 400 percent, with the count growing from 9.6 million in June 2001 to 50.2 million in December 2005, according to the FCC. Now, more Americans are accessing the Internet through broadband connections than dial-up.

"The role of government is not to create wealth; the role of our government is to create an environment in which the entrepreneur can flourish, in which minds can expand, in which technologies can reach new frontiers."

President George W. Bush
Technology Agenda, November, 2002.

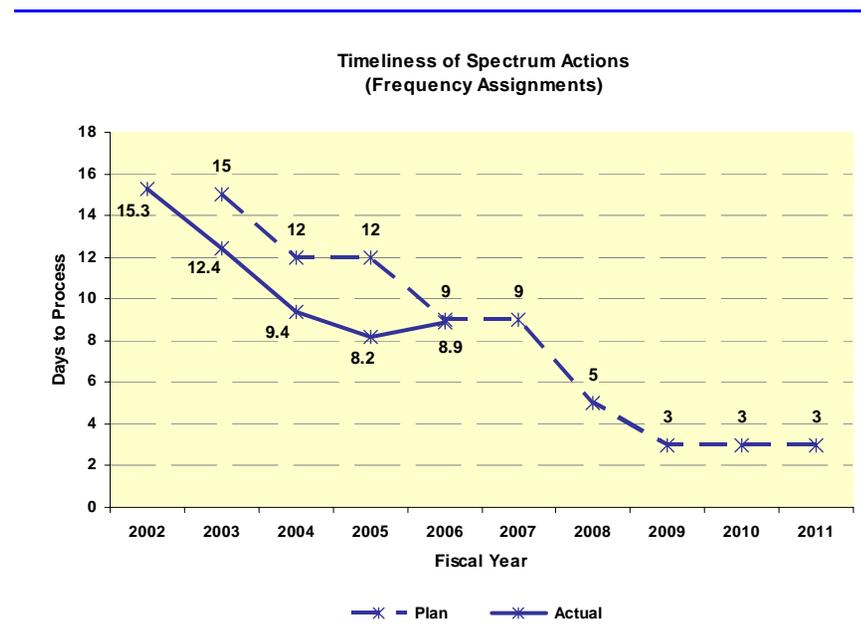
In support of this goal, the President has enacted economic incentives and created a regulatory environment to encourage innovation and investment in new broadband technologies, such as: an extension of the Internet tax moratorium, an economic security package that allows companies to speed depreciation schedules for capital-intensive broadband equipment, a permanent extension of the research and experimentation tax credit, and an expanded budget for research and development.

Working in partnership with the FCC, the Administration increased the amount of radio spectrum available for advanced wireless services, such as broadband, as part of the President's comprehensive **Spectrum Policy for the 21st Century** initiative. These include the following:

- 255 MHz of previously exclusive Federal government spectrum is now shared with unlicensed wireless local area networks such as wi-fi, wi-max and ultrawideband systems. They employ a new technology called dynamic frequency selection that would protect critical Federal government operations.
- sharing of both Federal and non-federal spectrum with a new technology called broadband over power line (BPL) that will provide broadband internet connections while protecting critical Federal government land mobile emergency communication operations.
- implementation of the Commercial Spectrum Enhancement Act that provides a funding mechanism through which Federal agencies can recover the costs of vacating spectrum, of which 1710 - 1755 will be available for commercial use, to be auctioned for commercial use, enabling the growth of advanced wireless services.

NTIA will develop the most efficient system for processing applications for frequency use, having reduced processing time from 15 days in 2002 to less than 9 in 2006, with plans to ultimately process assignments in 3 days or less by 2009. In addition, NTIA, in coordination with the FCC, completed a new automated, web-based coordination capability to provide federal and non-federal spectrum users the ability to coordinate their requests for licenses or authorizations in the 70 to 95 GHz frequency range. The new capability responds in minutes, as compared to months for the previous coordination process, and eliminates a significant amount of paperwork.

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), [\$17,837,000], **\$18,581,000**, to remain available until September 30, [2008] **2009**: 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.*

The Radio Spectrum Measurement System



Telecommunications research far afield



NTIA Summary of Resources – FY 2008
(Dollar amounts in thousands)

	Salaries and Expenses		Public Telecommunications, Facilities, Planning, and Construction		[MANDATORY] Digital Television Transition and Public Safety Fund		Total, All Accounts	
	FTE	Amount	FTE	Amount	FTE	Amount	FTE	Amount
FY 2007 estimate	103	\$16,887	13	\$20,362	11	\$2,136,000	116	\$2,173,249
Adjustments to the base	0	1,694	0	0	0	0	0	1,694
Program changes	0	0	(13)	(20,362)	6	(2,136,000)	(13)	(2,156,362)
FY 2008 appropriation	103	18,581	0	0	NA	NA	103	18,581
Reimbursable work	155	36,564	0	0	NA	NA	155	36,564
Borrowing authority [MANDATORY]	0	0	0	0	17	0	17	0
FY 2008 budget, all resources	258	55,145	0	0	17	0	275	55,145

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FY 2008 Annual Performance Plan
National Telecommunications and Information Administration

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 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 and identifying opportunities to make encumbered spectrum available to new uses. Both domestically and internationally, NTIA will foster competition and universal service in telecommunications, will promote broadband deployment, will continue to oversee the transition of the Internet domain name system to the private sector, and will continue to advance the Administration's positions on VOIP, ENUM, IPv6, and cybersecurity. NTIA's research laboratory, the Institute for Telecommunication 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.

NTIA's activities support DOC Strategic Goal 2, Foster Science and Technological Leadership by protecting intellectual-property, enhancing technical standards and advancing measurement science, and General Goal/Objective 2.3, Advance the development of global e-Commerce and enhanced telecommunications and information services. NTIA's functions promote science and technological leadership through basic research in telecommunications technologies, support for U.S. positions in international standard-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. 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. 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.

In a "Memorandum for the Heads of Executive Departments and Agencies" dated November 30, 2004, the President directed that an Implementation Plan be developed in FY 2005 for the recommendations contained in a two-part series of reports released by the Secretary of Commerce in June 2004, under the title *Spectrum Policy for the 21st Century - The President's Spectrum Policy Initiative Reports*. The President also directed among other things that the Secretary of Commerce shall develop a Federal Strategic Spectrum Plan and shall assist in the formulation of a National Strategic Spectrum Plan. The purpose of the Initiative is to promote the development and implementation of a U.S. spectrum policy that will foster economic growth; ensure our national and homeland security; maintain U.S. global leadership in communications technology development and services; and satisfy other vital U.S. needs in areas such as public safety, scientific research, federal

transportation infrastructure, and law enforcement. The bulk of NTIA's resources will be directed toward achieving the President's goal of spectrum management reform. NTIA's spectrum management activities are intertwined with its policy activities in that existing uses of spectrum by both the private and federal sectors must be examined to determine how spectrum management changes will affect new and innovative spectrum-using services that provide benefits to all consumers. NTIA also will continue to examine an array of spectrum management policy issues dealing with innovative approaches to spectrum management and the effectiveness of current processes.

Another of NTIA's primary missions is to serve as the President's principal policy advisor on domestic and international telecommunications and information issues and to be the Administration's primary voice on them. NTIA will fulfill this policy-setting 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 comment on specific issues; and encouraging dialogue with the private sector through sponsorship and participation in conferences, workshops, and other forums. NTIA will also support the telecommunications-related legislative proposals in the President's FY 2008 Budget.

NTIA also will participate on behalf of the Administration in FCC and Congressional proceedings on telecommunications policies, including the development of appropriate regulatory treatment for broadband services deployment. A number of Internet related policy issues will require NTIA action, including ICANN reform and continuing Internet privatization, domain name management both domestically and internationally, proposals to regulate Internet services and content, and the combination of Internet and telecommunications addressing (ENUM). 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, the NTIA supports innovative telecommunications and information technologies through basic research performed at its laboratory, the Institute for Telecommunication 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. Basic research at ITS also supports U.S. positions in international standard-setting bodies and NTIA's development of Administration policies related to the introduction of new technologies, such as ultra wideband (UWB) and third generation (3G) wireless services.

Priorities/Management Challenges

The President's "Memorandum for the Heads of Executive Departments and Agencies" dated November 30, 2004, sets out NTIA's major priorities. NTIA, working with the FCC, the Department of State, and other partners, is a vital component in this Presidential initiative to develop a "Spectrum Policy for the 21st Century." The President's Spectrum Reform Initiative will fundamentally change the business of spectrum management over the next five years. Given the scope of this initiative and the opportunities it presents, it is the top priority for NTIA. Implementing the specific recommendations that are developed for spectrum management reforms will continue to be priorities for NTIA. NTIA will continue to develop policy proposals and promote opportunities to provide high-speed information services to all Americans. NTIA management will meet this challenge by involving the Congress, the FCC, international bodies all other interested parties in the development and implementation of policy recommendations.

Unit Cost Measures

NTIA will complete development of unit cost measures for its “Timeliness of Processing” spectrum assignment requests (Performance measure 1a) for use in FY 2007 and beyond. This measure will provide a means for determining the efficiency and effectiveness of meeting the needs of NTIA’s Federal agency customers for spectrum support in accomplishing their missions.

PART Assessment

NTIA conducted a PART assessment of all its programs in FY 2005 and received a rating of adequate. The performance measures used in FY 2007 and beyond resulted from this assessment.

Status of Implementing PART Recommendations

Program	OMB Recommendation	Milestones	Milestone Target	Status
NTIA/OSM	Provide updated cost/benefit analysis of paperless spectrum initiative to OMB in FY2006			Completed.
NTIA/OSM	Provide marginal cost data in FY2006 for frequency assignment actions.			Completed.
NTIA/OSM	Improve FCC-NTIA coordination			On-going.

FY 2008 Program Changes

NTIA’s FY 2008 activities support DOC Strategic Goal 2, Foster Science and Technological Leadership by protecting intellectual-property, enhancing technical standards and advancing measurement science, and General Goal/Objective 2.3, Advance the development of global e-Commerce and enhanced telecommunications and information services. NTIA’s FY 2008 budget request includes funding to maintain ongoing programs that remain necessary for domestic and international policy development, federal spectrum management, and related research.

The Digital Television Transition and Public Safety Fund, created by the Deficit Reduction Act of 2005 (Act), receives offsetting receipts from the auction of electromagnetic spectrum recovered from discontinued analog television signals, and provides funding for several programs from these receipts. The Act specifies that 60 MHz of recovered spectrum not dedicated to public safety use will be auctioned by the Federal Communications Commission in 2008, and identifies the distribution of revenue. The Act also provides borrowing authority to the Department of Commerce to commence specified programs prior to the availability of auction receipts. Amounts borrowed from the Treasury will be returned without interest upon the availability of auction revenue. Administration of the programs will be funded through the proceeds from the auction of recovered analog spectrum. The Act gives NTIA borrowing authority in order to begin some programs in Fiscal Year 2007. Funding for other programs will not be available until after the spectrum is auctioned in 2008. The Act also prescribes specific dates for completion of these time-limited programs. NTIA will be conducting rule makings and other required administrative proceedings in order to establish the programs as directed by the Act. Programs authorized by the Act include the Digital-to-Analog Converter Box Voucher Program, Public Safety Interoperable Communications Grants, New York City 9/11 Digital Transition, Assistance to Low-Power Television Stations, National Alert and Tsunami Warning Program, and Enhanced 9-1-1 Service Support.

(Dollars in Thousands)

	Obligations		Increase/Decrease	
	FTE	Amount	FTE	Amount
Digital Television Transition and Public Safety Fund	11	\$1,056,100	6	(\$522,300)

Target and Performance Summary

Performance Goal 1: Ensure that the allocation of and access to radio spectrum provides the greatest benefit to all people; fosters economic growth; satisfies vital U.S. needs including U.S. national and homeland security, public safety, scientific research, Federal transportation infrastructure, natural resource management, and law enforcement; and maintains U.S. global leadership in communication technology development and services.								
Measure	Requestor	Measure	2003 Actual	2004 Actual	2005 Actual	2006 Actual	2007 Target	2008 Target
1a. Frequency Assignment Processing Time	Federal Agencies	Avg time (days) for completion	<15	<12	10	9	<5	<3
1b. Certification Request Processing Time	Federal Agencies	Avg time (months) for completion	New	<6	<6	4	<3	<3
1c. Space System Coordination Request Processing Time	Federal Agencies	% of coordination actions meeting the target avg time (days) for approval of Agency requests	New	80<21	80<21	80<14	90<18	90<14
1d. Spectrum Plans and Policies Processing Time	FCC	Avg time (work days) for providing comments	New	<15	<15	13	<15	<15
1e. Spectrum Management Improvements		Total Planned Milestones (136)	N/A	N/A	5	39	29	22
		Target # of milestones to be completed (108) /actual # of milestones to be completed			3/5	18/22	23/NA	18/NA

	FY 2003 Actual	FY 2004 Actual	FY 2005 Actual	FY 2006 Actual	FY 2007 Target	FY 2008 Target
Performance Goal 2: Promote the availability and support new sources of advanced telecommunications and information services						
2a. Support new telecom and info technology by advocating Administration views in FCC docket filings and Congressional proceedings	New	New	5 dockets and proceedings	12 dockets and proceedings	5 dockets and proceedings	5 dockets and proceedings
2b. Number of website views for research publications	New	New	New	94K/Mo	75K/Mo	75K/Mo

Resource Requirements Summary

(Dollars in Thousands)

	FY 2003 Actual	FY 2004 Actual	FY 2005 Actual	FY 2006 Actual	FY 2007 Estimate	FY 2008 Base	Increase/ Decrease	FY 2008 Request¹
Performance Goal 1: Performance Goal 1: Ensure that the allocation of and access to radio spectrum provides the greatest benefit to all people; fosters economic growth; satisfies vital U.S. needs including U.S. national and homeland security, public safety, scientific research, Federal transportation infrastructure, natural resource management, and law enforcement; and maintains U.S. global leadership in communication technology development and services.								
Salaries and Expenses	\$24,516	\$28,536	\$30,401	\$36,805	\$46,706	\$41,101	\$0	\$41,101
Performance Goal 2: Promote the availability and support new sources of advanced telecommunications and information services								
Salaries and Expenses	10,015	11,245	13,989	11,573	26,081	14,045	0	14,045
Digital Television Transition and Public Safety Fund	0	0	0	0	1,056,100	1,056,100	(522,300)	533,800
Public Telecom Facilities, Planning, and Construction	45,930	26,853	23,417	21,952	22,745	0	0	0
Information Infrastructure Grants	17,141	17,810	2,049	600	1,785	0	0	0
Grand Total								
Total Funding	97,602	84,444	69,856	70,930	1,153,417	1,111,246	(522,300)	588,946
Direct	77,355	61,187	42,389	39,723	1,099,127	1,074,682	(522,300)	552,382
Reimbursable	20,247	23,257	27,467	31,207	54,290	36,564	0	36,564
IT Funding ²	5,400	5,400	5,400	4,520	6,877	4,741	(2,136)	5,400
FTE	251	269	259	248	282	269	6	275

1. The Digital Television Transition and Public Safety Fund program has only recently been created for NTIA. Performance measures will be developed and monitored by NTIA and DOC management.

2. Total NTIA IT outlays (from NTIA Ex. 23 & 53) included in total funding

Skill Summary: NTIA employs policy analysts with legal, economics, and technical skills to perform these activities. NTIA does not have a separate budget category for these activities.

Performance Goal 1: Ensure that the allocation of and access to radio spectrum provides the greatest benefit to all people; fosters economic growth; satisfies vital U.S. needs including U.S. national and homeland security, public safety, scientific research, Federal transportation infrastructure, natural resource management, and law enforcement; and maintains U.S. global leadership in communication technology development and services.

Corresponding DOC Strategic Goal:

Strategic Goal 2 Foster Science and Technological Leadership by protecting intellectual property, enhancing technical standards and advancing measurement science

General Goal/Objective 2.3, Advance the development of global e-Commerce and enhanced telecommunications and information services

Rationale:

The availability of the radio frequency spectrum is key to the development and implementation of innovative telecommunications technologies. The National Telecommunication and Information Administration's (NTIA's) spectrum management activities are therefore intertwined with its policy activities in that existing uses of spectrum by both the private and federal sectors must be examined to determine where spectrum will be made available for new and innovative spectrum-using services that provide benefits to all consumers. In a "Memorandum for the Heads of Executive Departments and Agencies" dated November 30, 2004, the President directed that an Implementation Plan be developed in FY 2005 for the recommendations contained in a two-part series of reports released by the Secretary of Commerce in June 2004, under the title *Spectrum Policy for the 21st Century - The President's Spectrum Policy Initiative Reports*. The purpose of the Initiative is to promote the development and implementation of a U.S. spectrum policy that will foster economic growth; ensure our national and homeland security; maintain U.S. global leadership in communications technology development and services; and satisfy other vital U.S. needs in areas such as public safety, scientific research, federal transportation infrastructure, and law enforcement. The bulk of NTIA's resources will be directed toward achieving the President's goal of spectrum management reform. NTIA's other spectrum management activities include (1) identifying and supporting new wireless technologies that promise innovative applications for customers of the federal and private sectors; (2) providing the 63 federal agencies with the spectrum needed to support their missions for national defense, law enforcement and security, air traffic control, national resource management, and other public safety services; (3) developing plans and policies to use the spectrum effectively; (4) satisfying the United States' future spectrum needs globally through participation with the 190 other countries of the International Telecommunication Union in establishing binding treaty agreements through world radio-communication conferences; (5) and improving, through telecommunications research and engineering, the understanding of radio-wave transmission and thereby improving spectrum utilization and the performance of radio-communications systems.

Program Increases/Decreases:

None.

Measurement Explanation

The availability of the radio frequency spectrum is key to the development and implementation of innovative telecommunications technologies. The National Telecommunication and Information Administration's (NTIA's) spectrum management activities are therefore intertwined with its policy activities in that existing uses of spectrum by both the private and federal sectors must be examined to determine where spectrum will be made available for new and innovative spectrum-using services that provide benefits to all consumers and at the same time, ensure that spectrum is available for critical and vital radiocommunications for national and homeland security, law enforcement, natural resource management and other public safety activities.

In a "Memorandum for the Heads of Executive Departments and Agencies" dated November 30, 2004, the President directed that an Implementation Plan be developed in FY 2005 for the recommendations contained in a two-part series of reports released by the Secretary of Commerce in June 2004, under the title *Spectrum Policy for the*

21st Century - The President's Spectrum Policy Initiative Reports. The purpose of the Initiative is to promote the development and implementation of a U.S. spectrum policy that will foster economic growth; ensure our national and homeland security; maintain U.S. global leadership in communications technology development and services; and satisfy other vital U.S. needs in areas such as public safety, scientific research, federal transportation infrastructure, and law enforcement.

Based on the above, the measures for spectrum management cover:

(1) **Spectrum Requirements.** Satisfy the near-term and future spectrum requirements of the Federal agencies (63) to operate their radiocommunications that provide the public with national and homeland security, law enforcement, transportation control, natural resource management, and other public safety services during peacetime and emergencies; coordinate on spectrum requests from the private sector via the FCC and neighboring foreign governments; coordinate on space satellite system spectrum requirements from foreign governments; and obtain foreign country coordination on U.S. Government space satellite system spectrum requirements.

(2) **Spectrum Plans and Policies.** Formulate, establish, and implement plans and policies domestically and internationally for the 21st century that: (a) ensure the effective, efficient, and equitable use of the radio frequency spectrum resource both domestically and internationally; (b) protect critical and vital Federal government services; (c) promote spectrum access to the private sector to introduce new technologies that provide innovative communication services to the public and Federal government; and (d) satisfy the spectrum needs of the Federal government and the private sector, including the State and local public safety community;

(3) **Spectrum Management Improvements.** Improve the spectrum management process that provides the above through the implementation of 24 recommendations made to the President in June 2004 based on the President's direction to the Department of Commerce in the President's Executive Memoranda released in June 2003 and the acceptance of the recommendations and further direction by the President in November 2004; and,

(4) **Supporting Activities.** Provide the necessary support to attain the goals above efficiently and effectively through the use of automated information technology, engineering and analysis, and coordination with and advice of the Federal agencies through the Interdepartment Radio Advisory Committee, participation in the FCC rulemaking process, and participation with foreign countries and in international telecommunication fora.

Target and Performance Summary

Performance Goal 1: Ensure that the allocation of and access to radio spectrum provides the greatest benefit to all people; fosters economic growth; satisfies vital U.S. needs including U.S. national and homeland security, public safety, scientific research, Federal transportation infrastructure, natural resource management, and law enforcement; and maintains U.S. global leadership in communication technology development and services.

To meet this goal, the measures are divided into 3 areas: (a) spectrum requirements (current Federal agency spectrum needs, spectrum certification requests (future spectrum needs), and space system coordination requests), (b) spectrum plans and policies (domestic -federal rules and regulations and FCC rule-making) and world radio conferences, and (c) improvements to the spectrum management process which will establish the President's Spectrum Policy Initiative for the 21st Century.

a. Spectrum Requirements Performance Measures.

1. Frequency Assignment Requests Performance Measure.

(a) **Federal Agencies.** NTIA authorizes the federal agency use of the frequency spectrum in a timely manner so they can operate their radiocommunications. 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 target time to obtain approval, the number of requests for a frequency assignment, the average time it took to provide approval, and a comparison of actual time for approval versus the target.

Measure	Requestor	Measure	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
1a. Frequency Assignment Processing Time	Federal Agencies	Target Avg time (days) for completion	New	<15	<12	<9	<9	<5	<3	<3	<3	<3
		Actual No. of actions completed	69,575	74,657	85,625	83,660	80,121					
		Actual Avg time (days) for approval	15.32	12.42	9.41	10	8.9					

2. Spectrum Certification Requests Performance Measure.

(a) **Federal Agencies.** NTIA certifies in a timely manner as per OMB Circular A-11, that spectrum will be available in the future for Federal agency planned radiocommunications. 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 target time to obtain approval, the number of requests for spectrum support, the average time it took to provide approval, and a comparison of actual time for approval versus the target.

Measure	Requestor	Measure	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
1b. Certification Request Processing Time	Federal Agencies	Target Avg time (months) for completion	New	New	<6	<6	<4	<3	<3	<2	<2	<2
		Actual No. of actions completed	NA	NA	185	161	134					
		Actual Avg time (months) for approval	NA	NA	4	3.5	4.0					

3. Space System Coordination Requests Performance Measure.

(a) **Federal Agencies.** 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 planned average target time to obtain approval for coordination actions within the Space Systems Subcommittee process, the number of space systems coordination actions requested, and the percentage of actions meeting target approval time.

(b) **Foreign Countries.** NTIA also provides coordination to foreign satellite spectrum users to ensure that their systems do not interfere with U.S. satellite and terrestrial spectrum users. The performance measure contains the target percentage of responses to other countries meeting the ITU required timeframes, the number of space systems coordination requested, and the percentage of coordination actions completed on time.

Measure	Requestor	Measure	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	
Ic. Space System Coordination Request Processing Time	Federal Agencies	Target % of coordination actions meeting the target avg time (days) for approval of Agency requests	New	New	80<21	80<21	80<18	90<18	90<14	90<14	95<14	95<14	
		Actual No. of coordination actions (messages) completed	NA	NA	991	661	643						
		Actual % meeting target approval time	NA	NA	100	100	80<14						
	Foreign Countries	Target percentage of responses to other countries meeting ITU required timeframes	New	New	80	80	90	90	90	90	95	95	95
		Actual No. of coordination actions completed	NA	NA	226	174	167						
		Actual % of coordination actions completed on time	NA	NA	100	100	90<14						

b. Spectrum Plans and Policies Performance.

FCC Requests for NTIA Coordination on FCC Rulemakings. Most of the 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. FCC accomplishes this task on behalf of the private sector through public rulemaking and NTIA does this through advice of the Interdepartment Radio Advisory Committee (IRAC). NTIA and the FCC have agreed in a memorandum of agreement that they would mutually perform the necessary coordination on rulemakings within 15 days or less. This agreement prevents unnecessary delays in gaining access to the spectrum, thus ensuring that the costs of regulatory processes on technology and services deployment are minimized. This performance measure contains the planned average target time to obtain NTIA coordination, the number of requests, the average time it took to provide coordination and a comparison of the actual time for coordination versus the target.

1d Spectrum Plans and Policies Processing Time	FCC	Target Avg time (work days) for providing comments	<u>New</u>	<u>New</u>	≤15	≤15	≤15	≤15	≤15	≤15	≤15	≤15
		Actual No. of rulemaking requests	NA	NA	31	29	37					
		Actual Avg time (work days) for providing comments	NA	NA	14	14	13.7					

c. Spectrum Management Improvements Performance Measures.

NTIA has been directed by the President in November 30, 2004, to implement his Spectrum Policy Initiative by implementing 24 recommendations contained in two reports submitted by the Secretary of Commerce and coordinated with Federal agencies in the OMB coordination process. The recommendations call for improvements in the spectrum management process to meet the goals in the Performance Goal 1 above. NTIA has prepared an implementation plan with 136 milestones to be completed over the next 5 years as shown in Appendix 1. The performance measure contains the planned target of the number of milestones required to satisfy the 24 recommendations for each fiscal year until completed and for each of the four major goals in the President’s spectrum policy initiative. The actual number of milestones completed will be compared with the target.

Measure	Requestor	Measure	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
1e. Spectrum Management Improvements		Total Milestones Planned (136)	N/A	N/A	N/A	5	22	29	22	14	14	13
		Target # of milestones to be completed (107)/actual # of milestones completed				3/5	18/22	23/NA	18/NA	11/NA	11/NA	10/NA

FY 2008 Targets: The measures and targets for the spectrum management goal resulted from the PART conducted in FY 2005. NTIA expects that targets will continue to improve dramatically in FY 2008 and beyond as investments in the paperless spectrum initiative are realized.

Program Evaluations

NTIA management reviewed and assessed policy and program priorities in the development of FY 2007 and 2008 budgets. In addition, in a “Memorandum for the Heads of Executive Departments and Agencies” dated November 30, 2004, the President directed that an Implementation Plan be developed in FY 2005 for the recommendations contained in a two-part series of reports released by the Secretary of Commerce in June 2004, under the title *Spectrum Policy for the 21st Century - The President’s Spectrum Policy Initiative Reports*. The President also directed among other things that the Secretary of Commerce shall develop a Federal Strategic Spectrum Plan and shall assist in the formulation of a National Strategic Spectrum Plan. The bulk of NTIA’s resources will be directed toward achieving the President’s goal of spectrum management reform. These efforts will result in improved policies for use of the spectrum by Federal, State and local governments and the private sector, as well as improvements in the spectrum management process as a whole. In FY 2007 and continuing through FY 2008, NTIA will develop action plans to implement the collective set of recommendations presented in the overall program of spectrum management reform.

Cross-cutting Activities:

Intra-Department of Commerce:

Technology Administration and National Oceanic and Atmospheric Administration: Participate on the Interagency GPS Executive Board, which with DOD jointly manages the GPS satellite program as a national asset.

NOAA: Represented on NTIA's Interdepartment Radio Advisory Committee, which assists in assigning frequencies to U.S. Government radio stations and in developing and executing policies, programs, procedures, and technical criteria pertaining to the allocation, management, and use of the spectrum.

Other Government Agencies:

NTIA authorizes spectrum assignments for 56 federal government agencies to operate radio-communications systems. NTIA works with the 23 other major spectrum using federal agencies on IRAC to manage frequency assignment requests. NTIA represents the interests of 33 other agencies on the IRAC. NTIA serves as the manager of federal government spectrum while the Federal Communications Commission (FCC) manages the non-federal spectrum.

FCC: Since spectrum is often shared, NTIA and the FCC regularly engage in coordination of spectrum uses and spectrum policies. Uses of shared frequency bands are coordinated with the FCC.

State Department: NTIA works with the State Department in its international activities, including conferences and representation on international organizations.

NTIA leads a high-level inter-agency task force as part of its support for the President's Spectrum Management Policy Initiative. Each agency has responsibilities delineated in the "Memorandum for the Heads of Executive Departments and Agencies" dated November 30, 2004.

The Public Safety Interoperable Communications Program will be coordinated with the Department of Homeland Security and its SAFECOM program, especially in the area of interoperability standards.

Government/Private Sector:

—International bodies such as the International Telecommunication Union (ITU), in which NTIA participates as the U.S. representative, establish permissible uses of frequency bands.

—NTIA coordinates on spectrum management issues through advisory committees and special information-sharing initiatives.

External Factors and Mitigating Strategies:

Congress, from time to time, has required some changes in federal use of radio frequency spectrum, which can affect availability of frequencies to suit federal needs. The speed of development and implementation of wireless technologies will affect the level and type of demand by federal agencies for certain frequencies. The Federal Communications Commission initiates numerous spectrum-related proceedings in which NTIA participates on behalf of the Administration. NTIA anticipates and prepares for these developments through management meetings, participation on interagency task forces, and monitoring.

Performance Goal 2: Promote the availability and support new sources of advanced telecommunications and information services

Corresponding DOC Strategic Goal:

Strategic Goal 2 Foster Science and Technological Leadership by protecting intellectual property, enhancing technical standards and advancing measurement science

General Goal/Objective 2.3, Advance the development of global e-Commerce and enhanced telecommunications and information services

Rationale:

NTIA's policy-related activities are among the agency's most visible and have a large impact on consumers and industries both domestically and internationally. A large part of NTIA's domestic and international policy efforts will be devoted to achieving the President's goal of spectrum management reform. NTIA management also plans for multi-year efforts in a number of policy areas and receives requests to conduct policy analysis and other activities from the Secretary, the White House, and the Congress. NTIA is the Executive Branch's principal voice on domestic and international telecommunications and information technology issues. These activities are accomplished primarily through testimony on behalf of the Administration in Congressional proceedings, through development and coordination of Administration views in proceedings conducted by the Federal Communications Commission (FCC), and through advocacy in international and bilateral fora. In addition to its policy-related activities, NTIA supports innovative telecommunications and information technologies through basic research performed at its laboratory, the Institute for Telecommunication 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. Basic research at ITS also supports U.S. positions in international standard-setting bodies and NTIA's development of Administration policies related to the introduction of new technologies, such as ultra wideband (UWB), third generation (3G) wireless and broadband services.

Program Increases/Decreases:

None.

Measure 2a: Support new telecom and info technology by advocating Administration views in FCC docket filings and Congressional proceedings

	FY 2003 Actual	FY 2004 Actual	FY 2005 Actual	FY 2006 Actual	FY 2007 Target	FY 2008 Target
2a. Support new telecom and info technology by advocating Administration views in FCC docket filings and Congressional proceedings	New	New	5 dockets and proceedings	12 dockets and proceedings	5 dockets and proceedings	5 dockets and proceedings

Explanation of Measure: 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. NTIA will continue to examine an array of spectrum management policy issues in FY 2007 dealing with innovative approaches to spectrum management and the effectiveness of current processes. This examination will be conducted in tandem with the FCC's proceedings on spectrum management policy, in which NTIA will participate on behalf of the Administration and as part of the President's Spectrum Management Policy Initiative. NTIA also will participate on behalf of the Administration in FCC and Congressional proceedings on telecommunications policies, including the development of appropriate regulatory treatment for broadband services deployment. A number of Internet related policy issues will require NTIA action, including ICANN reform and continuing Internet privatization, domain name management both domestically and internationally, proposals to regulate Internet services and content, and the

combination of Internet and telecommunications addressing (ENUM). NTIA will advocate globally for foreign regulatory and policy regimes that promote international trade in telecommunications products and services by encouraging competition and innovation and improve relations with key trading partners including Mexico and Canada and countries with rapidly expanding markets, such as China and India. All of these activities will require substantial coordination among NTIA's program offices, as well as interagency coordination to develop the Administration's positions. These activities directly benefit the American public through promotion of universal, affordable availability of advanced telecommunications and information technologies -- such as broadband and wireless services -- that support productivity, growth and job creation in most industrial sectors.

Measure 2b: Number of website views for research publications

	FY 2003 Actual	FY 2004 Actual	FY 2005 Actual	FY 2006 Actual	FY 2006 Actual	FY 2007 Target
2b. Number of website views for research publications ²	New	New	New	94K/Mo	70K/Mo	75K/Mo

Explanation of Measure: NTIA will measure the number of website "hits" on its on-line research publications, replacing the measure of the number of peer-reviewed articles that are published in technical journals and publications. This measure will indicate 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. This basic research directly benefits the American public through 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.

FY 2008 Targets: For FY 2008, NTIA will measure the number of website "hits" on its on-line research publications. This measure will indicate the reception and utility of research results within the spectrum research and engineering community. The measures and targets for this goal resulted from the PART conducted in FY 2005.

Program Evaluations:

NTIA management reviewed and assessed policy and program priorities in the development of FY 2007 and 2008 budgets. NTIA also meets regularly with DOC management in the development of appropriate policy priorities. ITS research will focus on supporting those spectrum management reform activities and assessments undertaken in NTIA's policy development.

Cross-cutting Activities:

Intra-Department of Commerce:

NTIA supports the Secretary of Commerce on a broad range of telecommunications policy issues. NTIA works with the Technology Administration and the International Trade Administration on international issues, the Economics and Statistics Administration on Internet penetration and use measurements and analysis and with the Technology Administration on domain name and technology policy issues. ITS supports NTIA's policy-related activities by providing empirical analysis, and also supports NTIA's spectrum management activities through spectrum occupancy measurements and other technical support activities. ITS performs public safety telecommunications research under contract to NIST.

Other Government Agencies:

NTIA works with the White House and other federal agencies to develop and coordinate Administration-wide policy statements. NTIA serves as the manager of federal government spectrum while the Federal Communications Commission (FCC) manages the non-federal spectrum. Since spectrum is often shared, NTIA and the FCC regularly engage in coordination of spectrum uses and spectrum policies. ITS conducts research under contract for a wide variety of federal agencies, including the White House National Communications Agency, and the Departments of Defense and Transportation. Internationally, NTIA works with the White House, the State Department, the Federal Communications Commission (FCC) and the Office of the U.S. Trade Representative to shape policies in international, regional and bilateral fora which support competition, innovation and trade in telecommunications and information products and services.

Government/Private Sector:

NTIA obtains private-sector views on a broad range of telecommunications and information policy issues through formal proceedings in which public comments are solicited and through public conferences, workshops, and meetings on specific subjects. The Digital to Analog Converter Box Assistance Program will be coordinated with a broad range of private sector organizations, including broadcasters and cable television companies, to provide consumer information and other activities. ITS conducts extensive technology transfer activities through CRADAs with private sector entities. ITS cosponsors the annual International Symposium on Advanced Radio Technologies, which attracts attendees from around the world.

External Factors and Mitigating Strategies:

Consideration of telecommunications and information policy issues is affected by the activities of independent regulatory agencies (such as the Federal Communications Commission and the Federal Trade Commission) and by priorities established for NTIA by the Secretary of Commerce, the White House, and Congress. NTIA works closely with these entities in the establishment of policy priorities. Rapidly developing issues in the Internet and telecommunications industry sectors sometimes makes it difficult for government institutions to coordinate timely policy responses. Regular interagency meetings on policy issues will assist in the development of timely Administration positions. The number of projects that ITS can conduct is limited by the size of its scientific and technical staff and the availability of funding through other government agencies, as well as NTIA.

Data Validation and Verification

NTIA reviews performance data to ensure that it is complete and accurate. There were no significant deviations from projected targets. The actual validation process is conducted following audit principles including sampling and verification of data. Unclassified spectrum management data is published and distributed on CD-ROM and has been examined for accuracy by the Department's Inspector General and the Government Accountability Office (GAO). Additionally, documentation is reviewed and a determination is made on its adequacy and sufficiency to support claims that outcomes and outputs have been achieved.

Performance Measure	Data Source	Frequency	Data Storage	Internal Control Procedures	Data Limitations	Actions to be taken
Timeliness of Processing	Interdepartment 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
Certification Request Processing Time	Interdepartment 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
Space System Coordination Request Processing Time	Interdepartment 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
Spectrum Management Improvements	Office of Spectrum Management (OSM)	Monthly, Annually	Office of Spectrum Management, Associate Administrator	NTIA document clearance process, OMB/Interagency clearance process	None	None
Support new telecom and info technology by advocating Administration views in FCC docket filings and Congressional proceedings	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 a qualitative assessment of current policy directions and plans.	None
Number of website views for research publications ¹	ITS	Monthly	ITS, webserver	Inspection	None	Collection of data

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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						
Continuing Resolution, FY 2007		103	103	\$16,887	\$18,497						
less: Obligations from prior years		0	0	0	(1,610)						
plus: 2008 adjustments to base		0	0	744	744						
plus: Adjustment to support level in FY 2007 President's Budget				950	950						
2008 Base		103	103	18,581	18,581						
plus: 2008 program changes		0	0	0	0						
2008 Estimate		103	103	18,581	18,581						
Comparison by activity/subactivity	2006 Actual		2007 Estimate		2008 Base		2008 Estimate		2008 Increase/ (Decrease)		
	Personnel	Amount	Personnel	Amount	Personnel	Amount	Personnel	Amount	Personnel	Amount	
Domestic and international policies	Pos/BA	26	\$4,589	26	\$4,063	26	\$4,759	26	\$4,759	0	\$0
	FTE/Obl.	22	4,080	26	4,914	26	4,759	26	4,759	0	
Spectrum management.....	Pos/BA	32	6,766	32	6,456	32	7,116	32	7,116	0	0
	FTE/Obl.	30	6,598	32	7,101	32	7,116	32	7,116	0	
Telecommunication sciences research.....	Pos/BA	45	6,482	45	6,368	45	6,706	45	6,706	0	0
	FTE/Obl.	43	6,493	45	6,482	45	6,706	45	6,706	0	
TOTALS.....	Pos/BA	103	17,837	103	16,887	103	18,581	103	18,581	0	0
	FTE/Obl.	95	17,171	103	18,497	103	18,581	103	18,581	0	
Adjustments to Obligations:											
Recoveries/Refunds.....			(283)		0		0		0		0
Unobligated Balance, start of year.....			(661)		(1,610)		0		0		0
Unobligated Balance, end of year.....			1,610		0		0		0		0
Unobligated Balance expiring.....					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
Appropriation.....			17,837		16,887		18,581		18,581		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		2006 Actual		2007 Estimate		2008 Base		2008 Estimate		2008 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.	34	5,992	45	19,688	45	7,800	45	7,800	0	0
Other.....	Pos/BA	1	0	1	0	1	0	1	0	0	0
	FTE/Obl.	1	28	1	300	1	300	1	300	0	0
Total, Reimbursable projects.....	Pos/BA	46	0	46	0	46	0	46	0	0	0
	FTE/Obl.	35	6,020	46	19,988	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.	107	25,187	109	34,302	109	28,464	109	28,464	0	0
Total, Spectrum fees.....	Pos/BA	109	0	109	0	109	0	109	0	0	0
	FTE/Obl.	107	25,187	109	34,302	109	28,464	109	28,464	0	0
Total, Reimbursable Obligations.....	Pos/BA	155	0	155	0	155	0	155	0	0	0
	FTE/Obl.	142	31,207	155	54,290	155	36,564	155	36,564	0	0

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

Comparison by activity	2006 Actual	2007 Estimate	2008 Base	2008 Estimate	2008 Increase/ (Decrease)
Total Obligations.....	\$48,378	\$72,787	\$55,145	\$55,145	\$0
Offsetting collections from:					
Federal funds.....	(30,707)	(53,790)	(36,064)	(36,064)	0
Non-Federal sources.....	(500)	(500)	(500)	(500)	0
Recoveries/Refunds.....	(283)	0	0	0	0
Unobligated balance, start of year.....	(661)	(1,610)	0	0	0
Unobligated balance, end of year.....	1,610	0	0	0	0
Unobligated balance expiring.....	0	0	0	0	0
Budget Authority.....	17,837	16,887	18,581	18,581	0
Financing:					
Transferred from other accounts (-).....	0	0	0	0	0
Transferred to other accounts (+).....	0	0	0	0	0
Appropriation.....	17,837	16,887	18,581	18,581	0

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

Exhibit 8

Adjustments to Base	Positions	FTE	Amount (\$000)
<u>COST CHANGES:</u>			
Full-year cost of FY 2007 pay increase and related costs.....	0	0	\$ 77
FY 2008 pay raise.....	0	0	315
Civil Service Retirement System (CSRS).....	0	0	(30)
Change in compensable days.....	0	0	94
Federal Employees Retirement System (FERS).....	0	0	48
Federal Insurance Contribution Act (FICA) - OASDI.....	0	0	28
Thrift Savings Plan.....	0	0	9
Health Insurance.....	0	0	39
Employees Compensation Fund.....	0	0	(62)
Travel.....	0	0	1
Rental payments to GSA.....	0	0	31
Postage.....	0	0	1
Working Capital Fund.....	0	0	138
GPO Printing.....	0	0	1
NARA storage and maintenance	0	0	(1)
General Pricing Level Adjustment:			
Communications, utilities and miscellaneous charges.....	0	0	1
Other services.....	0	0	39
Rental to others.....	0	0	0
Supplies and materials.....	0	0	4
Equipment.....	0	0	11
Subtotal, Cost Changes.....	0	0	744
Total, Adjustments to Base.....	0	0	\$ 744

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

Adjustments to Base	Positions	FTE	Amount (\$000)
<u>COST CHANGES:</u>			
<u>Pay Raises</u>			
Full-year cost of FY 2007 pay increase and related costs	0	0	\$ 392
The FY 2007 President's budget assumes a pay raise of 2.2 percent to be effective January 1, 2007.			
Total cost in FY 2008 of FY 2007 pay increase.....			308,000
Less amount funded in FY 2007.....			231,000
Total Amount requested in FY 2008 to provide cost of FY 2007 pay raise.....			77,000
FY 2008 pay increase and related costs			
A general pay raise of 2.2 percent is assumed to be effective January 1, 2008.			
Total cost of FY 2008 pay raise.....			285,000
Payment to Working Capital Fund.....			30,000
Total adjustment for FY 2008 pay increase.....			315,000
<u>Civil Service Retirement System (CSRS)</u>			
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 21.7 percent in FY 2007 to 17.7 percent in FY 2008. The contribution rate will remain 7.0 percent.			
FY 2008 (\$10,658,000 x .177 x .0700).....			132,053
FY 2007 (\$10,658,000 x .217 x .0700).....			161,895
Total adjustment to base.....			(29,842)
<u>Federal Employees Retirement System (FERS)</u>			
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 79.7 percent in FY 2007 to 82.3 percent in FY 2008. The contribution rate will increase to 11.2 percent.			
FY 2008 (\$10,658,000 x .823 x .112).....			982,412
FY 2007 (\$10,658,000 x .783 x .112).....			934,664
Total adjustment to base.....			47,748
<u>Federal Insurance Contribution Act (FICA)</u>			
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 \$96,150 in FY 2007 to \$102,300 in FY 2008. The OASDI tax rate will remain 6.2 percent.			
Regular Employees			
FY 2008 (\$10,658,000 x .823 x .923 x .062).....			501,960
FY 2007 (\$10,658,000 x .916 x .916 x .062).....			473,941
Total Adjustment to Base.....			28,019

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

Adjustments to Base	Positions	FTE	Amount (\$000)
<u>Thrift Savings Plan (TSP)</u>			
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	\$ 9
FY 2008 (\$10,658,000 x .823 x .02).....			175,431
FY 2007 (\$10,658,000 x .823 x .02).....			166,904
Total Adjustment to Base.....			8,527
<u>Two Additional Compensable Days</u>			
The increased cost of two additional compensable days in FY 2008 compared to FY 2007 is calculated by dividing the 2007 estimated personnel compensation (\$10,658,000) and applicable benefits (\$1,507,000) by 260 compensable days. The increased cost resulting from one additional compensable days is (\$46,788). For two additional days the increased cost is \$93,576.	0	0	94
<u>Health Insurance</u>			
Effective January 2008, NTIA's contribution to Federal employees' health insurance premiums increased by 6.6 percent. This represents an increase of \$38,544 over the FY 2007 estimate of \$584,000.	0	0	39
<u>Employee Compensation Fund</u>			
The Employees Compensation Fund for the year ending June 30, 2006, is \$62,000 less than the bill for the year ending June 30, 2005.	0	0	(62)
<u>Mileage Rate Increase</u>			
Effective January 2006, the General Services Administration raised the mileage rate from 40.5 cents to 44.5 cents per mile, a 9.9% rate increase. This percentage was applied to the 2007 estimate of \$12,000 to arrive at an increase of \$1,188.	0	0	1
<u>Postage</u>			
Effective January 8, 2006, the Governors of the Postal Service implemented a rate increase for first-class mail from 37 cents to 39 cents. The increase of 5.4 percent was applied to the 2007 estimate of \$19,000 to arrive at an increase of \$1,026.	0	0	1
<u>Rental payments to GSA</u>			
GSA rates are projected to increase 2.4 percent in FY 2008. This percentage was applied to the FY 2007 estimate of \$1,277,000 to arrive at an increase of \$30,648.	0	0	31
<u>Working Capital Fund</u>			
An additional amount of \$138,000 is required to fund the cost increases in the Department Working Capital Fund.	0	0	138
<u>GPO Printing</u>			
GPO has provided an estimated rate increase of 1.8 percent. This percentage was applied to the FY 2007 estimate of \$34,000 to arrive at an increase of \$612.	0	0	1

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

Adjustments to Base	Positions	FTE	Amount (\$000)
<p><u>NARA Storage and Maintenance</u> In FY 2008, NARA estimates reflect a decrease of \$600 for records storage and maintenance costs from the current \$4,000. The new total for storage and maintenance will be \$3,400.</p>	0	0	\$ (1)
<p><u>General Pricing Level Adjustment</u> This request applies 1.8 percent based on OMB economic assumptions for FY 2008 to object classes where the prices that the Government pays are established through the market system. Factors are applied to: Rental payments to others, other services, supplies and materials, equipment, and communications, utilities and misc. charges.</p>	0	0	55
<p>Subtotal, Cost Changes</p>	0	0	744
<p>Total, Adjustments to Base</p>	0	0	\$ 744

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		2006 Actual		2007 Estimate		2008 Base		2008 Estimate		2008 Increase/ (Decrease)	
		Personnel	Amount	Personnel	Amount	Personnel	Amount	Personnel	Amount	Personnel	Amount
Domestic and international policies.....	Pos/BA	26	\$4,589	26	\$4,063	26	\$4,759	26	\$4,759	0	\$0
	FTE/Obl.	22	4,080	26	4,914	26	4,759	26	4,759	0	
Direct Obligations.....	Pos/BA	26	4,589	26	4,063	26	4,759	26	4,759	0	0
	FTE/Obl.	22	4,080	26	4,914	26	4,759	26	4,759	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. 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. 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; ensuring that spectrum provides the greatest benefit to all people; 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 - Foster science and technological leadership by protecting intellectual property, enhancing technical standards, and advancing measurement science, under Objective 3 - Advance the development of global e-commerce and enhanced telecommunications and information services.

Statement of Operating Objectives

Domestic Policies – NTIA's domestic policy objectives are to:

- open telecommunications markets to greater competition,
- promote the deployment of broadband services;
- encourage the development of new communications technologies and services for the American public;
- improve spectrum management;
- facilitate the transition to digital television;
- encourage the protection of critical infrastructure in the telecommunications and information sectors; and [not described above]
- 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 organization settings. The objective of these policies is to enhance liberalization, deregulation and privatization 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 ICT interests in geographically strategic areas. Current operational objectives include:

- continuing support for private sector management of the Internet's domain name and addressing system;
- coordinating new international ICT policies and technologies with domestic ICT policies (such as ENUM, IPv6, NGN, RFID, WiMAX);
- negotiating open, competitive markets abroad for telecommunications and 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 and regulations to stimulate telecommunications and Internet development.

NTIA possesses expertise in the following areas: an understanding of international telecommunications and information policies and the resultant regulatory structure and processes; an appreciation of U.S. economic, foreign, and trade policies and objectives, in particular as they relate to foreign telecommunications regulatory policies; and an understanding of U.S. and foreign-developed telecommunications and information products and services.

Base Program

Domestic Policies - 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. 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 Federal Communications Commission (FCC) and other independent agencies, U.S. state governments, governments of other nations, and ultimately, to the public at large. NTIA's domestic policy activities require it to maintain expertise over all 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 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 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 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.

International Policies. If U.S.-invested companies are to continue to innovate and maintain their global leadership in this sector, they must depend on economic policy and regulatory environments at home and abroad that encourage build out and uptake of information and communications technologies (ICTs). At the same time, NTIA advocates for universal access to ICTs in developing markets overseas, to stimulate democratization, economic development, entrepreneurship, disaster relief, and promotion of U.S. national security ICT 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. Delegations draw upon NTIA's wide-ranging expertise on ICT policy issues, particularly those related to the Internet's critical underlying infrastructure, to support these goals of innovation, market entry, and universal ICT 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 ICT fora such as the International Telecommunication Union (ITU), the Inter-American Telecommunications Commission (CITEL), the Asia Pacific Economic Cooperation forum (APEC), and the Organization for Cooperation and Economic Development (OECD), as well as in bilateral discussions. The Office also works with other Federal agencies to prepare for and participate in other related telecommunications and information international activities, such as trade negotiations involving the ICT 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 domain name and addressing system (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 Memorandum of Understanding (MOU) with ICANN and represents the U.S. Government in the ICANN's Governmental Advisory Committee, which advises ICANN on policy issues related to the Internet DNS. NTIA also coordinates with the Department of Homeland Security, the National Security Council and others to safeguard the stability and security of the Internet DNS.

Explanation and Justification

Domestic Policies - The NTIA Organization Act, as amended, (47 U.S.C. 901, et. seq.,) requires the Secretary of Commerce to assign to the Assistant Secretary for Communication and Information various functions, including 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; 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, interoperability, privacy, security, and emergency readiness; the authority to develop and set forth telecommunications policies pertaining to the Nation's economic and technological advancement and to the regulation of the telecommunications industry; and 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 range of domestic telecommunications policy issues is broad and increasingly complex, reflecting the rapid changes in telecommunications technology and its application to the marketplace. Issues include traditional common carrier telephony and cable television, Internet growth; the deployment of broadband services; radio spectrum management and development of new services; concentration of ownership in the mass media (radio and television); development of digital television (DTV); e-commerce issues such as spam and electronic signatures; IP telephony; critical infrastructure protection in the information and communications sectors, and content-oriented issues, such as privacy, free speech, indecency and political broadcasting. Also the convergence of technologies challenges old regulatory constructs and institutions. Current and future issues require NTIA to provide expertise and leadership in the rapidly changing environment of telecommunications and information.

As part of the spectrum efficiency and planning initiative, NTIA's request supports analysis to develop principles and policies based on economic theory, to help implement Administration policy on spectrum access. It will further develop concepts and policy direction in this area articulated by the FCC's Spectrum Policy Task Force as well as the proposal in the President's budget for the greater use of economic mechanisms, such as fees, to promote efficient use of the spectrum.

In FY 2008, NTIA will continue its activities to promote innovation and growth in the telecommunications and information sector. In the area of wireless communications, NTIA will develop and implement the action plan under the Presidential Initiative to Improve Spectrum Management for the 21st Century. NTIA will advance the continued growth and advancement of the Internet by, among other things, continued policy development regarding Voice Over Internet Protocol (VOIP), and Internet Protocol version 6 (IPv6). NTIA will continue its management of certain contracts for the technical management of the Dot-US top level domain. NTIA will be at the forefront of other new technologies, such as RFID sensors to globally track such things as inventory and livestock. NTIA will continue to examine policies that affect the ability of U.S. broadcasting, cable and satellite video services and newer services, such as satellite television, low power radio, and digital television (DTV) -- to provide diverse and affordable media services to American consumers; to promote minority ownership opportunities in telecommunications; to protect the public interest as it works to encourage mobile commerce and e-commerce, focusing on issues of privacy, security, and electronic signatures; to provide staff support and expertise to the White House and the Department of Commerce and to respond to requests for technical and policy advice from Congress, other Federal Government officials and the private sector.

International Policies – The Secretary of Commerce is charged by the NTIA Organization Act as amended (47 U.S.C. 901, et seq.) to develop and set forth plans, policies and programs that relate to international telecommunications issues, conferences and negotiations. 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, the OECD, APEC, CITELE, the International Mobile Satellite

Organization (IMSO), the International Telecommunications Satellite Organization (ITSO), and others. A July, 1997 Presidential directive requires the Department of Commerce to transition management of the Internet domain name and addressing system to the private sector, which is currently underway through an MOU between the Department and ICANN.

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, USTR and other U.S. agencies by preparing for and participating in telecommunications talks with selected countries and with such organizations as the World Trade Organization (WTO) and through bilateral and regional Free Trade Agreements (FTAs) where telecommunications regulatory policies are involved.

In FY 2008, NTIA will continue its wide-ranging activities to enhance the global strength of U.S. telecommunications and information interests.

We will encourage bilateral, regional and multilateral adoption of policies that encourage open and liberalized foreign markets, while stimulating, democratization, economic development, and promotion of U.S. national security ICT interests overseas. We will advance these objectives by advocating, monitoring and participating in the structural reform of international institutions such as the ITU, the OECD, 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, 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 to promote the rollout and uptake of broadband infrastructure, services, and equipment, through such fora as the ITU, OECD, APEC, and CITELE. We will work with USTR, other Commerce agencies (ITA, NIST, FCS), and State on policy approaches to ICT standards developments worldwide, especially in key emergent markets such as India and China and our North American partners (Canada and Mexico) under the Security and Prosperity Partnership program. These standards are emerging in influential new technologies in developing economies, such as Next-Generation Networks (NGN), Advanced Wireless systems such as third Generation Wireless (3G), Radio Frequency Identification (RFID), and WiMAX (Worldwide Interoperability for Microwave Access). NTIA will continue to work with other agencies to develop implementation strategies for improved and continuous ICT development in key countries and regions (e.g., Africa, Middle East), through the President's Digital Freedom Initiative, 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 over 60 countries, 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.

NTIA will work to preserve key U.S. foreign policy goals in the ICT sector, in particular on the policy approaches to Internet Governance. We will continue to promote market driven approaches to ICT 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 (ENUM) and unlicensed usage of advanced wireless technologies. We will continue to support the transition of management of the domain name and addressing system (DNS) to the private sector through the 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		2006 Actual		2007 Estimate		2008 Base		2008 Estimate		2008 Increase/ (Decrease)	
		Personnel	Amount	Personnel	Amount	Personnel	Amount	Personnel	Amount	Personnel	Amount
Spectrum management.....	Pos/BA	32	\$6,766	32	\$6,456	32	\$7,116	32	\$7,116	0	\$0
	FTE/Obl.	30	6,598	32	7,101	32	7,116	32	7,116	0	
Direct Obligations.....	Pos/BA	32	6,766	32	6,456	32	7,116	32	7,116	0	0
	FTE/Obl.	30	6,598	32	7,101	32	7,116	32	7,116	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		2006 Actual		2007 Estimate		2008 Base		2008 Estimate		2008 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	28	1	300	1	300	1	300	0	0
Spectrum fees.....	Pos/BA	109	0	109	0	109	0	109	0	0	0
	FTE/Obl.	106	25,187	109	34,302	109	28,464	109	28,464	0	0
Total Reimbursable Obligations.....	Pos/BA	110	0	110	0	110	0	110	0	0	0
	FTE/Obl.	107	25,215	110	34,602	110	28,764	110	28,764	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 activity are to formulate, establish, and implement plans ,and policies, which 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 21st Century as per the President's Executive Memoranda of June 2003 and November 2004; 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 radio communications during emergencies; to work cooperatively with the Federal Communications Commission 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 Federal Communications Commission 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; characterizing 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 – Foster science and technological leadership by protecting intellectual property, enhancing technical standards, and advancing measurement science, under Objective 2.3 - Advance the development of global e-commerce and enhanced telecommunications and information services. 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, to implement the planned spectrum policy reforms defined in the President's FY 03 Budget submitted to the Congress, and to respond to the President's direction to the Secretary of Commerce as stated in the President's Executive Memoranda released in June 2003 and November 2004 regarding the establishment of a United States' Spectrum Policy for the 21st 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 adhoc 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/allocations; and (6) continue to improve and upgrade the electronic archive of the IRAC and distribute it periodically to the NTIA staff and Federal agencies.

- Provide the necessary administrative support for the Interdepartment Radio Advisory Committee (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 Federal Communications Commission (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;
- Establish, and provide support for, 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 and other ITU fora; (2) prepare for and participate in the ITU Radiocommunication Sector (ITU-R) Study Groups' activities; and (3) 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 International Telecommunication Union (ITU) World and Regional Radiocommunication Conferences, ITU Plenipotentiary Conferences, ITU Council, ITU Standards Conferences, and the ITU Development Conferences;

- 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 ITU-R study groups and other international telecommunication regulatory fora;
- 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 bi-lateral frequency coordination agreements with Mexico and Canada;
- Implement the results of international radio treaty conferences by recommending changes to U.S. domestic rules;
- 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-government radiocommunication systems, and participate in satellite coordination meetings with other administrations;
- Chair the Space Systems Subcommittee;
- Coordinate non-Federal government 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 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; and
- 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.

Strategic Spectrum Planning and Reform

NTIA will continue to: (1) implement the necessary planned spectrum policy reforms and respond to the President's direction, under delegated authority from the Secretary of Commerce, to establish a United States spectrum policy for the 21st century; (2) conduct a comprehensive review of domestic and international spectrum management policies; (3) assist the Federal agencies in improving their long range spectrum planning processes and establish a long range planning process within NTIA; (4) produce Federal and National Spectrum Plans in coordination with the Federal agencies and the FCC; and (5) produce an annual report on the progress achieved in responding to the President's directive regarding the establishment of a United States' Spectrum Policy for the 21st Century.

- 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 21st Century;
- Develop and conduct a program of outreach activities with the Federal agencies and industry for the purpose of identifying deficiencies in domestic and international spectrum management policies;
- Develop and coordinate recommended strategies among affected stakeholders for correcting these deficiencies;
- Assist the Federal agencies in establishing long range spectrum planning processes and in developing agency specific spectrum plans that define spectrum requirements over at least the next ten-year period;
- Develop and implement an NTIA capability for electronically compiling, storing, and analyzing the collective spectrum requirements (projected over at least the next ten-year period) for all the Federal agencies (Federal Long-Range Planning Database);
- Develop the biennial Federal Spectrum Plan, coordinate the Plan with appropriate Federal agencies, and provide it the Secretary of Commerce for release to the President;
- Assist the Federal agencies and the Office of Management and Budget in establishing a clear linkage between the agencies' budget and the agencies long range spectrum planning processes;
- Develop the National Spectrum Plan containing the collective spectrum requirements of the United States in coordination with the Federal agencies, the FCC, and other executive components;
- Assist NTIA's Office of Policy Analysis Division in formulating and advocating plans and policies that provide incentives for improving the efficiency with which the Federal agencies use the spectrum resource to satisfy their mandated missions;
- Promote and conduct analyses of the Federal agencies' future spectrum requirements to determine the continued effectiveness of the spectrum allocation framework in light of changes in spectrum requirements resulting from redirections in federal agencies' mandated missions and the availability of evolving technologies;
- As issues arise regarding specific innovations in technologies, services, or band use, that require a review of selected affected spectrum policies, provide focused spectrum planning to promote effective and efficient spectrum allocation and use so that near-term spectrum needs of the Federal Government and the private sector can be met;
- Investigate and implement advanced technologies for management of the spectrum to improve the effectiveness and efficiency of allocation and use of spectrum by the Federal agencies thereby maximizing spectrum availability for new technologies for both government and non-government spectrum users;
- Develop an annual report on the progress achieved toward the satisfaction of the President's directive of establishing a United States Spectrum Policy for the 21st Century in coordination with the Federal agencies, and other relevant components of the Executive branch.

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 emergency 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; (5) and 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 and 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 inter-operability 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 and in coordination with the FCC;
- Identify current and future technology which could enhance interoperability; Develop emergency/wartime 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; and
- Engage with the Department of Transportation's National Highway Traffic Safety Administration (NHTSA), establish an E-911 Implementation Coordination and communication of E-911 services among E-911 stakeholders in accordance with P.L. 108-494.

Spectrum Services

NTIA will continue to: (1) resolve spectrum management problems between the Federal agencies and other domestic and foreign entities; (2) process and authorize frequency assignment actions to ensure interference-free operations to Federal stations; (3) maintain and update spectrum management data bases; 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.

- Provide Federal agencies with accurate spectrum management data;
- Process Federal agencies requests for frequency assignment authorizations and actions;
- Assist non-IRAC agencies in identifying spectrum to meet their radiocommunications needs;
- Evaluate proposed Federal telecommunications systems for certification for spectrum support in accordance with OMB Circular A-11;
- Resolve conflicting requirements concerning Federal agencies' use of the spectrum;
- 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; and
- Participate in spectrum coordination negotiations with Mexico and Canada.

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; and
- 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.

Information Technology

NTIA will: (1) continue to maintain and update existing computer software used for processing assignments, data bases, 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, and (c) resolving interference problems; (6) prepare and implement plans to improve the efficiency and effectiveness of the Federal Government's spectrum management process using current ADP technology; 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.

- 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. e.g. the Government Master File, that will enable the Federal agencies to manage their spectrum assets without interference and within the current rules and regulations;
- Develop plans to develop and 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; and
- Implement the President's 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 much more rapid method for the Federal agencies to obtain spectrum to operate their radio communications; and (3) provide a method for the radiocommunication manufacturers to ensure that their systems meet Federal spectrum standards and provide the Federal agencies a means to obtain technical information on radio communications for planning spectrum use in the future.

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, and to respond to the President's direction to the Secretary of Commerce as stated in the President's Executive Memoranda released in June 2003 and November 2004 regarding the establishment of a United States' Spectrum Policy for the 21st Century. In 2006, the following are the accomplishments relative to the President's direction on the U.S. Spectrum Policy Initiative: (1) Strategic Spectrum Plan - led the effort to consolidate federal agency-specific strategic spectrum plans and to develop the federal strategic spectrum plan; (2) Working Level Groups – Led seven interagency working level groups to obtain advice on implementing Presidential approved recommendations (24); (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. Worked collaboratively with OPAD to conduct a National Academy of Sciences (NAS) workshop in January, 2006 on Identifying and Implementing 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; (4) Public Safety Demonstration – Completed report on the District of Columbia Office of the Chief Technology Officer (DC OCTO) Wireless Accelerated Responder Network (WARN), the spectrum-sharing approach and on-going demonstration selected to be the first demonstration project to comply with Presidential direction; (5) Plans and Policy Steering Group – Stood up a political senior level plans and policy steering group to provide advice to the Assistant Secretary. The group met twice during 2006; and (6) Spectrum Sharing Innovation Test-Bed - Issued a Notice of Inquiry inviting parties to file comments on issues related to establishing the Spectrum Sharing Innovation Test-Bed (Test-Bed). These issues include identification of technologies and services; establishment of processes, principles and guidelines; identification of candidate frequency band (s); and activation, termination and evaluation of the test bed. The Test-Bed is a key recommendation of President Bush's Spectrum Policy Initiative, and will enable federal and non-federal users of spectrum to test ideas on new ways to share the radio frequency spectrum. The Test-Bed will build on the successful sharing arrangements between federal and non-federal users at 5 GHz and in the 70, 80, and 90 GHz bands and will drive future innovation and the expansion of sharing to benefit federal and commercial users.

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, Radiocommunication 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 & IRAC Support 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, which will initiate and process requests for background investigations for applicants and current NTIA personnel; forward up-to-date national security information to supervisors and employees in their organization; assist a senior facility manager in coordinating a physical security risk assessment of his facility; assist the head of the organization in ensuring that all persons with security clearances receive an annual refresher security briefing; request assistance from the office of security in a security matter; or certify NTIA/OSM personnel security clearances for a visit to another agency or facility and validating security clearance notifications to engage in an NTIA/OSM sponsored meeting or event; and make arrangements for providing security training to all OSM personnel.

NTIA will provide support for the Policy and Planning 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.

NTIA will provide revisions as needed to the memorandum of understanding and the Code of Federal Regulations governing the relationship between NTIA and the FCC. In 2006, IRAC support was provided, FCC rulemakings were addressed and support was provided to the IRAC subcommittees.

International Spectrum Plans and Policies

NTIA provides leadership and participates with the FCC and the State Department 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 members for the U.S. delegation to radio treaty conferences and other ITU and regional administrative, policy and technical forums. In addition, NTIA works toward building confidence worldwide in U.S. spectrum planning techniques to win support for U.S. positions in negotiations and forums. In 2006, NTIA completed draft Executive Branch proposals for all agenda items to be addressed at the World Radiocommunication Conference to be held in Geneva by the International Telecommunications Union (ITU) in 2007.

Strategic Spectrum Planning and Reform

The Strategic Spectrum Planning and Reform Program is designed to implement the spectrum policy reforms and to respond to the President's directive for establishing a United States spectrum policy for the 21st Century. The program activities include a comprehensive review of the domestic and international spectrum management policies to identify policy deficiencies affecting the United States interests, the development and coordination of recommended strategies for correcting these deficiencies, and promoting the implementation domestically and internationally of these recommendations for spectrum policy reform. The purposes of this program are to: (1) foster economic growth, (2) promote our national and homeland security, (3) maintain 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 in strategic spectrum planning and reform include: establishing mechanisms for effectively obtaining the views of a broad range of stakeholders in spectrum management; establishing processes in spectrum using organizations for long range spectrum planning; developing Federal and National spectrum plans; and establishing an NTIA Information Technology capability for performing strategic spectrum planning. Strategic spectrum planning and reform is focused on promoting effective and efficient spectrum use, so that both near-term and long-range spectrum needs of the Federal Government and the private sector can be satisfied. Based on the appropriate technical, economic, regulatory, statutory, diplomatic, and social policy analyses of given issues, policy deficiencies can be identified and recommended reforms can be developed. Implementation of recommended spectrum policy reforms will require coordination with all affected stakeholders. The Federal Long-Range Spectrum Planning capability envisioned may include a compilation of all Federal agencies current and planned requirements for spectrum use with each requirement justified through linkage with a defined agency mission.

Also included in this program are the development, coordination, and implementation of specific plans and policies designed to improve the Federal spectrum management process,, investigations of advanced technologies and advanced approaches for management of the spectrum that hold potential for increasing the efficiency of spectrum use; and assessments of the continued effectiveness of spectrum allocations in light of changes in planned spectrum usage. In 2006, a draft Federal Spectrum Strategic Plan was completed and it is expected that it will be finalized in FY 2007.

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 the state and local entities and in coordination with the Department of Homeland Security and 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 (if available) for state and local agencies to adopt new technology. Consideration will also be given to shared and joint use plans, use of standard radio systems, and coordination processes with all federal agencies. NTIA plays a central role in developing and promoting policy and guidance to improve the Government's emergency communications response posture and the protection of information during electronic transmission or processing.

In concert with the Department of Transportation's National Highway Traffic Safety Administration (NHTSA), establish an E-911 Implementation Coordination Office (ICO) that will: (1) coordinate ICO activities consistent with existing Administration E-911 programs; (2) work with established public safety and industry organizations that support E-911 implementation on E-911 technical and implementation issues and new technologies; (3) coordinate discussions with Federal agencies, including the Department of Homeland Security and Federal Communications Commission to plan improved Federal coordination of 911 related activities; (4) Develop, collect and disseminate information concerning best practice models, procedures and technologies from successful regional, State and local government wireless E-911 implementations; and (5) using available data on the status of E-911 deployment and Public Safety Answering Point readiness, target technical assistance to the appropriate regions, States, and localities.

In 2006, NTIA addressed emergency planning and support by (1) enhancing the capabilities of the NTIA COOP Alternate Site, (2) conducting COOP/COG Exercise FORWARD CHALLENGE 2006 for NTIA and IRAC personnel in June, and (3) supported the National Response Plan (NRP) Emergency Support Function #2 (Communications) by identifying, designating, training and equipping four personnel to respond upon activation of ESF#2 by DHS and deploy (as needed) in support of the Emergency Communications Team-Field (ECT-F) to provide Federal spectrum management services at the Joint Field Office. In addition, improvements were made in public safety by working closely with the Conveners of the IRAC Ad Hoc 214 to modify and approve the existing interoperability channels in the NTIA Manual to allow state and local governments easier access to Federal law enforcement and incident response channels. In the E911 area, NTIA completed a Memorandum of Understanding (MOU) between NTIA and NHTSA to implement the Management Plan and formally establish the joint NTIA/NHTSA E-911 Implementation Coordination Office (ICO); implemented the initial ICO organizational structure; submitted an Annual Report to Congress on the status of the ICO and developed an ICO E-911 website to disseminate and educate the public.

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 Government agencies not represented on the IRAC and those of the United Nations and foreign embassies requirements 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 shared government/non-Government frequency bands; frequency allocation records; terrain elevation data; and Federal systems review data.

In 2006, NTIA has authorized some 56 Federal agencies, non-government entities (in coordination with the FCC), and foreign governments (Canada and Mexico) - a total of 434,934 active assignments as of the end of FY 2006. NTIA processed 80,121 frequency assignments and 677 requests for Special Temporary Authority of which 347 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 in the Canada and Mexico spectrum coordination processes with the Federal agencies. The information provided will be used by Federal agencies in proposing frequency assignments and by NTIA personnel in analyzing potential and spectrum sharing interference 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 2006, NTIA approved 134 agency requests for spectrum certification and completed 110 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 problems and 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.

A database of the allocated frequency bands will be produced once the projected energy levels in the adjacent bands and other man-made noise are estimated. Based on these estimates, bands would be prioritized as to urgency and magnitude of the problem and recommendations made as to setting transmitter or receiver spectrum standards among other possible solutions. In addition, algorithms will be developed that use these adjacent band levels and will be included in NTIA's spectrum management system (Spectrum Management System). Short term and longer range solutions at both the national and international level will be pursued. New technologies can be used to increase the efficiency with which the Government and private sector use the radio spectrum, making more spectrum available, in effect, for other applications. The potential increases in spectrum efficiency will be evaluated for a number of technologies, including sectorized and adaptive antennas, spectrum sharing etiquettes, software driven radios, and other means of spectrum sharing.

In 2006, the following engineering studies were completed:

(1) 5 GHz Compliance Measurement Procedures – Completed the measurement procedures and pass/fail criteria for Unlicensed National Information Infrastructure devices employing Dynamic Frequency Selection (DFS). The compliance measurement procedures are necessary to show compliance with the Federal Communications Commission DFS rules. By utilizing DFS, unlicensed devices may detect and avoid transmitting on channels being used by military radars vital to national defense. The completion of the compliance measurement

procedures makes 255 MHz of additional spectrum available for unlicensed devices on a non-interference basis. Using the compliance measurement procedures, the Federal Communications Commission began certifying commercial devices. The use of adaptive techniques such as DFS is an example of innovative spectrum sharing between federal and non-federal users, and meets a key goal of the President's initiative on using the nation's airwaves more efficiently.

(2) 70/80/90 GHz Web-Based Coordination - The NTIA web-based coordination capability in the 71-76 GHz, 81-86 GHz, 92-94 GHz, and 94.1-95 GHz bands has been operational for over one year. As part of the President's initiative to streamline U.S. spectrum policy, fiber-speed wireless communications links in these frequency bands are coordinated and approved for non-federal use in a matter of minutes. Since the inception of the web-based capability, over one hundred and eighty non-federal frequency assignments have been successfully coordinated. This automated coordination capability is an example of how the combination of Information Technology and engineering analysis capabilities can enable non-federal users to gain faster and easier access to the radio frequency spectrum.

(3) Broadband over Power Line – Worked with the Federal Communications Commission Office of Engineering and Technology staff to finalize the service rules for Access BPL systems.

(4) High Powered Ultrawideband Device Rules – Developed rules to permit the operation of federal fixed ultrawideband (UWB) devices with power levels that exceed the Federal Communications Commission unlicensed device rules. An example of the type of UWB devices that are permitted to operate under the new NTIA rules are surveillance systems used to augment security and defense systems, providing an advanced warning of potential intruders to sites that have strategic, military or significant commercial interests, such as public utilities, nuclear power plants, public water supplies, petroleum sites, industrial sites, and national landmarks. The rules developed by NTIA are being used by the Federal Communications Commission to permit operation of non-federal systems.

(5) Ultrawideband Transmission Systems - NTIA continued to work with the Federal Communications Commission Office of Engineering and Technology staff to evaluate various request for waivers of the Part 15 UWB rules necessary to accommodate applications that were not addressed during the original rulemaking proceeding.

(6) Global Positioning System Spectrum Protection Plan - Developed a plan to address the Department of Commerce (DOC) responsibilities in the management and protection of the frequency bands used for current and evolving space-based positioning, navigation, and timing (PNT) services. The DOC plan will be performed as a phased plan that is comprised of a series of tasks with output documentation at the completion of each phase.

(7) Land Mobile Efficiency - Published NTIA Report 06-440 Federal Land Mobile Operations in the 162-174 MHz Band in the Washington D.C. Area which is part of a multi-phase analysis effort assessing spectrum efficiency in the federal land mobile radio frequency bands.

(8) Radar Receiver Performance – Published NTIA Report TR-06 Effects of RF Interference on Radar Receiver Performance to be used in the development of the Best Practices in Spectrum Management Handbook.

Also in 2006, the 1710-1755 MHz band was identified by NTIA as spectrum that could be allocated for new commercial services without disrupting communications systems critical to national security. It is estimated that the new services to be deployed in this spectrum will benefit approximately 195 million U.S. wireless subscribers. On December 23, 2004, President Bush signed into law the Commercial Spectrum

Enhancement Act, which provided a funding mechanism through which federal agencies can recover the costs associated with relocating their radio communications systems from the 1710-1755 MHz band to be auctioned for commercial purposes. The NTIA working with the federal agencies completed a report on the costs to move incumbent federal users. This report showed that the cost to move the federal users was far less than previous estimates. A total of 1,990 frequency assignments will be relocated by twelve federal agencies and the cost of relocating federal operations is estimated to be \$1,008,562,777. The relocation cost estimates and timelines were provided to the Federal Communications Commission on time, paving the way for the auction of some of the nation's most valuable airwaves.

Information Technology

NTIA will continue its activities relative to Systems Development, Network & Technical Services, Spectrum Operations Support, and Enterprise Architecture 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 the 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 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; develop and enhance analytical computer programs that permit rapid computation of potential interference between existing and proposed communications systems.

Network & Technical Services in which 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. 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 Chief Information Officer (CIO) to implement guidance provided by the Department of Commerce CIO relative it information technology (IT). NTIA also serves as the Department of Commerce SIPRNet program office, providing interconnection to the Department of Defense SIPRNet for the Office of the Secretary, Office of Security, Bureau of Industry and Security, International Trade Administration, and National Oceanographic and Atmospheric Administration.

Spectrum Operations 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, e.g., the Government Master

File, that will enable the Federal agencies to manage their spectrum assets without interference and within the current rules and regulations.

Enterprise Architecture in which NTIA will provide COTR services for Information Technology projects, including a project to implement the President's 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 (IT). These improvements are expected to reduce the time it takes to obtain frequency assignments. In FY 2005, there was a significant reduction in the time to process frequency assignments versus the anticipated target time of 9 days. This can be attributed to the early implementation of the automated software used to process frequency assignment authorizations. In an effort to continue to stream line the processing of frequency assignments from the FY 2006 anticipated target of 9 days, OSM will continue to review and upgrade the automated software to allow further refinement of the process to 3 days by FY 2009. In FY 2005, spectrum certification met its target of less than 6 months. Targets for FY 2007 and FY 2008 are set for less than 3 months. Enterprise Architecture will assure alignment of NTIA business processes with NTIA objectives by conducting a maturity assessment of OSM Enterprise Architecture using as a guideline the Commerce Enterprise Architecture Capability Maturity Model and OMB's Enterprise Architecture Assessment framework and develop plan for improvement if necessary. Enterprise Architecture assists with Capital Planning and purchasing by aligning the OSM EA model with the following documents and processes: OMB Federal Enterprise Architecture (FEA) Model, Exhibit 300 Capital Asset Plans and Business Cases, OSM IT Strategic Plan and OSM Acquisition Plan and budget planning process. Conduct a maturity assessment using the Commerce IT Capital Planning and Investment Control Maturity Model. Process IT related purchase request and all OSM requests above the amount of \$2,500.00. Ensure all requests meet established guidelines, procedures, and are architecturally compliant.

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. In support of future system requirements, Information Technology will design, develop, and implement 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 systems; active monitoring of systems, networks, and applications to ensure compliance with security related parameters, and maintenance of a computer incident response capability. 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.

In 2006, NTIA accomplished the following in the information technology area: Information Technology: (1) Implemented the following classified on-line systems via the SIPRNet and/or dial-up remote access: Spectrum XXI, FREQNet, IRAC Documents Database, Retrieve, EL-CID, and Data Capture and Forwarding System; (2) developed technical computer hardware requirements and specifications for planned spectrum management processes; (3) developed technical requirements and specifications for installation, electrical power and environmental air-handling to support expanded computer hardware requirements; (4) developed a high-level transition plan from the current spectrum management computer system to the proposed new system; (5) developed and demonstrated a cross-security domain prototype system; (6) provided electronic access to the daily Frequency Assignment Subcommittee agenda and action files resulting in the discontinuation of paper and CD-ROM distributions; (7) procured enterprise content management system pursuant to the President's "paperless initiative" and implemented a pilot project for the electronic processing of IRAC policy documents; (8) established formal working partnership with the FCC for implementation of an automated frequency coordination system; (9) continued support of the DOD in development of a common data standard

for use within the NATO community; (10) developed a system to stabilize the existing DataWare CD-ROM product used for monthly Government Master File distributions resulting in a cost-avoidance of \$500K to develop a replacement system; (11) established an Information Security Operations Center that allows for automated monitoring of the security and performance of NTIA networks, workstations, and systems; (12) continued detailed use case analysis for the spectrum management business processes, identifying fourteen (13) "use cases" or types of activities that OSM performs, over sixty (60) business work flows, and 1,500 specific system requirements, which have been captured in the newly implemented requirements management repository; (14) evaluated and procured OSM's enterprise portal, service oriented architecture framework, Business Process Management and monitoring software; (15) further refined the OSM data dictionary for increased accuracy and efficiency of OSM systems and processes; (15) established SIPRNet access points in the Bureau of Industry and Security, Office of Security, Office of the Executive Secretary, and International Trade Administration. SIPRNet system now consists of over 160 Departmental users and 40 OSM users; and (17) developed technical design for implementation of segregated development, quality assurance, and production enclaves to enhance system development activities and provide a dedicated testing environment.

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	2006 Actual		2007 Estimate		2008 Base		2008 Estimate		2008 Increase/ (Decrease)		
	Personnel	Amount	Personnel	Amount	Personnel	Amount	Personnel	Amount	Personnel	Amount	
Telecommunication sciences research.....	Pos/BA	45	\$6,482	45	\$6,368	45	\$6,706	45	\$6,706	0	\$0
	FTE/Obl.	43	6,493	45	6,482	45	6,706	45	6,706	0	
Direct Obligations.....	Pos/BA	45	6,482	45	6,368	45	6,706	45	6,706	0	0
	FTE/Obl.	43	6,493	45	6,482	45	6,706	45	6,706	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		2006 Actual		2007 Estimate		2008 Base		2008 Estimate		2008 Increase/ (Decrease)	
		Personnel	Amount	Personnel	Amount	Personnel	Amount	Personnel	Amount	Personnel	Amount
Reimbursable projects.....	Pos/BA	45		45		45	\$0	45	\$0	0	\$0
	FTE/Obl.	35	25,091	45	\$19,688	45	7,800	45	7,800	0	
Total Reimbursable Obligations.....	Pos/BA	45	0	45	0	45	0	45	0	0	0
	FTE/Obl.	35	25,091	45	19,688	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 – Foster science and technological leadership by protecting intellectual property, enhancing technical standards, and advancing measurement science, under Objective 3 – Advance the development of 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 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, broadband over power lines, 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.
- 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), communications systems utilization, and other topics critical to the development and implementation of advanced IP-based networks, optical signal propagation, next-generation networks (NGNs), and supporting broadband infrastructures.

Statement of Operating Objectives

FY 2008 operating objectives for the Telecommunication Sciences Research activity are summarized by program area below.

Spectrum Environment: Provide measurements and analysis of spectrum occupancy, interference and noise effects.

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

Personal Communication Services: Conduct requirements analysis; identify technological capabilities to determine best selection of services and capabilities for Government applications.

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.

Private 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-T National Committee, continue leadership of international committees in ITU-T Study Groups developing technical standards of importance to U.S. industry and Government planners (e.g., ATM, advanced signaling, intelligent networks, third generation wireless, and advanced IP networks). Submit new and enhanced ITU-T Recommendations on broadband network performance (e.g., DWDM, ATM, advanced IP, switched optical, and next-generation networks) and multimedia quality of service (e.g., video telephony, video conferencing) to ITU-T and coordinate their formal review and approval. Prepare and submit new and revised technical information to ITU-R Recommendations on the performance and availability of multimedia services, on improved radio propagation prediction methods, and on propagation measurements and databases.

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 third generation 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 concepts, 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 utilizes a Radio Spectrum Measurement System (RSMS), comprised of a van and other transportable equipment to measure and record signals between 10 kHz and 26 GHz. NTIA utilizes this system to perform measurements in the land and marine mobile and radar bands at selected sites, and to make other 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 is also used to analyze and resolve difficult or unusual interference problems where a Government system is thought to be involved. This activity often saves costs to Federal agencies and the private sector that far exceed the funding for this effort. The RSMS is 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 reimbursable work draws on expertise developed for the RSMS, but also provides an opportunity to investigate advanced measurement methods for use in the RSMS 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. 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 2008, NTIA will continue to support essential spectrum utilization analyses, including the impact of new ultrawideband, frequency-agile, and software 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 ultrawideband may have on other 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 use 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 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. Many radio systems are already moving into the millimeter-wave band, located at the upper end of the allocated radio spectrum (30-300 GHz). Reallocating existing users of lower bands to these higher frequency ranges will reduce spectrum congestion and provide additional frequency availability. NTIA is a key source of information for characterizing radio propagation in support of spectrum policy and management as well as the development and deployment of new technologies, such as third generation wireless, wireless local loop, ultrawideband, and millimeter-wave systems. NTIA is also involved in efforts to allow different types of users to share spectrum. NTIA recently tested a spectrum-sharing idea called dynamic frequency selection (DFS), which may enable 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 third generation wireless, multiple input, multiple output (MIMO), and ultrawideband communications. Knowledge from measurements and modeling of advanced antenna technologies (e.g., adaptive antennas), and the propagation of radio waves on short paths in man-made environments are crucial in the planning, development, and deployment of commercially viable systems. NTIA is developing the means to predict the performance of radio systems operating over short paths using detailed geographic databases. 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 cellular and PCS applications. NTIA supports private industry in their wireless technology development efforts through technology transfer under Cooperative Research and Development Agreements.

Under other agency agreements, NTIA is providing telecommunications engineering assistance to a variety of Federal 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 interoperability communications on behalf of a multiagency effort that includes: NIST's Office of Law Enforcement Standards (OLEs), DHS' SAFECOM Program, the National Public Safety Telecommunications Council, the National Institute of Justice's CommTech Program, and DOJ's Office of Community Oriented Policing

Services (COPS). In addition, effort is being undertaken on behalf of the Federal Partnership for Interoperable Communications (FPIC). In general, the broad based interoperability effort can be seen as addressing five areas: development of qualitative and quantitative public safety requirements that are accepted nationally by the public safety community and industry alike, architecture framework development consistent with Federal enterprise architecture guidelines, and including an associated data model tool to apply to local, state, and regional telecommunications integration projects; 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; test and evaluation of concepts, products, and services for the long-term interoperability solution as well as interim improvements; and 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 develops fundamental data and more accurate modeling of radio propagation that will lead to improved methods for planning spectrum sharing among the various users. Future systems will employ wide frequency bandwidths to provide greater transmission capacity. New systems will use more advanced digital modulation techniques that enhance system performance and provide better spectral efficiency. Adaptive antennas will also be used to increase capacity. 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 2008, 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.

In FY 2008, NTIA will continue to provide leadership in two key ITU-T groups: Study Group 13 Working Party 4 (Network Performance and Resource Management) and Study Group 9's Working Group on Quality Assessment. Study Group 13 develops international standards (Recommendations) addressing Optical Transport Network (OTN), Multi-Protocol Label Switching (MPLS), Ethernet, and IP-based technologies, all of which are expected to play an important role in the realization of multi-service Next-Generation Networks (NGNs). SG 13/WP 4 develops international standards on network performance and resource management for all of the NGN core technologies. SG 9's Working Group on Quality Assessment defines quality objectives for integrated broadband cable networks and television and sound transmission. Within that group NTIA chairs the Video Quality Experts Group (VQEG) and the Alliance for Telecommunications Industry

Solutions (ATIS) Network Performance, Reliability and Quality of Service Committee (PRQC), formerly T1A1. VQEG works in conjunction with ITU-T SG 9 and ITU to develop performance and signal processing (e.g., coding) standards for U.S. public digital networks. NTIA contributions to these 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 services. NTIA promotes industry competition and innovation in the provision of integrated broadband digital services and facilitates efficient matching of such services with user needs. NTIA will continue to lead and coordinate standards development in key U.S. telecommunications industry forums to ensure that emerging U.S. broadband network standards are consistent with market competition, Internet evolution and the Administration's broadband network deployment objectives, and applicable Government (e.g., OMB, FCC) policy guidelines.

Success in worldwide telecommunication markets, as well as successful, compatible use of telecommunications technologies, is critical to the long-term success of the United States in many spheres. To achieve these goals, the U.S. Administration participates in a telecommunications standards and regulatory body, the International Telecommunication Union - Radiocommunication Sector (ITU-R), to further its objectives regarding all forms of wireless communication on a worldwide basis. ITS provides important, ongoing technical support for the U.S. Administration in ITU-R Study Groups 3 and 8; Working Party 8B; the Radar Correspondence Group (RCG), and Joint Rapporteur Group (JRG) 1A-1C-8B. Current areas of interest include (but are not limited to): dynamic frequency selection technology proposed for 5 GHz spectrum sharing between communication systems and radars; effects of radars on interference from communications systems; development of the new X-band radar technologies; and, in Study Group 3, Radiowave Propagation, and point-to-area propagation in Subgroup 3K-2.

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 2008, 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 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 2008 reimbursable programs are expected to address Public Safety interoperability, wideband 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, SAFECOM, etc.) through leadership and critical technical contributions to the Project 25 Steering Committee, Technical Committees, Working Groups, and Task Groups, as well as the associated organizational entities within the Telecommunications Industry Association TR-8 Committee.

NTIA will continue its on-going program in wireless networking in FY 2008. Third generation 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 TIA Engineering Committee TR-46 (Mobile and Personal Communications) 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	2006 Actual	2007 Estimate	2008 Base	2008 Estimate	2008 Increase/ (Decrease)
11 Personnel compensation					
11.1 Full-time permanent	\$8,877	\$10,378	\$10,770	\$10,770	\$0
11.3 Other than full-time permanent	260	260	260	260	0
11.5 Other personnel compensation	204	20	20	20	0
11.8 Special personnel services payments	0	0	0	0	0
11.9 Total personnel compensation	9,341	10,658	11,050	11,050	0
12.1 Civilian personnel benefits	2,582	2,107	2,233	2,233	0
13 Benefits for former personnel	0	0	0	0	0
21 Travel and transportation of persons	355	250	311	311	0
22 Transportation of things	6	10	10	10	0
23.1 Rental payments to GSA	961	1,277	1,308	1,308	0
23.2 Rental payments to others	20	10	10	10	0
23.3 Communications, utilities and miscellaneous charges	135	100	102	102	0
24 Printing and reproduction	19	34	35	35	0
25.1 Advisory and assistance services	529	270	410	410	0
25.2 Other services	1,750	511	1,300	1,300	0
25.3 Purchases of goods and services from Government accounts	730	835	972	972	0
25.7 Operation and maintenance of equipment	27	104	104	104	0
26 Supplies and materials	224	211	215	215	0
31 Equipment	492	510	521	521	0
41 Grants, subsidies and contributions	0	0	0	0	0
99 TOTAL OBLIGATIONS	\$17,171	\$16,887	\$18,581	\$18,581	\$0
Prior Year Recoveries/Refunds	(283)				
Unobligated balances from Prior Years	(661)				
Unobligated balance EOY	1,610				
Total Budget Authority	\$17,837	\$16,887	\$18,581	\$18,581	\$0

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

Object Class	2006 Actual	2007 Estimate	2008 Base	2008 Estimate	2008 Increase/ (Decrease)
Full-Time Equivalent Employment:					
Full-time permanent	95	103	103	103	0
Other than full-time permanent	0	0	0	0	0
Total	95	103	103	103	0
Authorized Positions:					
Full-time permanent	103	103	103	103	0
Other than full-time permanent	0	0	0	0	0
Total	103	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	2008 Adjustments to Base	2007 Adjustment to Pres Bud	2008 Base	2008 Estimate	2008 Increase/ (Decrease)
11 Personnel compensation					
11.1 Full-time permanent					
Senior Executive Level	\$0	\$0	\$0	\$0	\$0
General schedule	392	300	10,770	10,770	0
Subtotal	<u>392</u>	<u>300</u>	<u>10,770</u>	<u>10,770</u>	<u>0</u>
11.3 Other than full-time permanent					
General schedule	0	0	260	260	0
Subtotal	<u>0</u>	<u>0</u>	<u>260</u>	<u>260</u>	<u>0</u>
11.5 Other personnel compensation					
Cash awards		0	20	20	0
Subtotal	<u>0</u>	<u>0</u>	<u>20</u>	<u>20</u>	<u>0</u>
11.8 Special personnel services payments					
Other	0	0	0	0	0
Subtotal	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
11.9 Total personnel compensation	<u>392</u>	<u>300</u>	<u>11,050</u>	<u>11,050</u>	<u>0</u>
12.1 Civilian personnel benefits					
Civil service retirement	(30)	9	30	30	0
Federal employees' retirement	48	0	811	811	0
Thrift savings plan	9	0	150	150	0
Federal insurance contribution act - Medicare	0	0	157	157	0
Federal insurance contribution act - OASDI	28	0	407	407	0
Health insurance	39	0	623	623	0
Change in Compensable Day	94	0	104	104	0
Life insurance	0	0	7	7	0
Employees' compensation fund	(62)	0	(56)	(56)	0
Subtotal	<u>126</u>	<u>0</u>	<u>2,233</u>	<u>2,233</u>	<u>0</u>

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

Object Class	2008 Adjustments to Base	2007 Adjustment to Pres Bud	2008 Base	2008 Estimate	2008 Increase/ (Decrease)
13 Benefits for former personnel	0	0	0	0	0
Subtotal	0	0	0	0	0
21 Travel and transportation of persons					
Common carrier	\$0	\$60	\$175	\$175	\$0
Per diem/actual mileage	0	0	\$123	123	0
Subtotal	1	60	311	311	0
22 Transportation of things	0	0	10	10	0
23.1 Rental payments to GSA	31	0	1,308	1,308	0
23.2 Rental payments to others	0	0	10	10	0
23.3 Communications, utilities and miscellaneous cha					
Rental of ADP equipment	0	0	0	0	0
Rental of office copying equipment	0	0	0	0	0
Other equipment rental	0	0	0	0	0
Federal telecommunications system	1	0	41	41	0
Other telecommunications services	0	0	50	50	0
Postal Service by USPS	1	0	11	11	0
Other		41	0	0	0
Subtotal	2	41	102	102	0

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

Object Class	2008 Adjustments to Base	2007 Adjustment to Pres Bud	2008 Base	2008 Estimate	2008 Increase/ (Decrease)
24 Printing and reproduction	0	0	0	0	0
Publications	1	0	11	11	0
Other	0	0	24	24	0
Subtotal	1	0	35	35	0
25.1 Advisory and assistance services					
Management and professional support services	0	0	184	184	0
Studies, analyses, and evaluation	0	0	0	0	0
Engineering and technical services	0	0	226	226	0
Subtotal	0	0	410	410	0
25.2 Other services					
Training	\$0	\$0	\$0	\$0	\$0
Other non-government contracts	39	449	\$1,300	1,300	0
Subtotal	39	449	1,300	1,300	0
25.3 Purchases of goods and services from Governm	0	0	0	0	0
Maintenance of equipment	0	0	0	0	0
Payments to GA, WCF, NARA	137	0	972	972	0
Subtotal	137	0	972	972	0

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

Object Class	2008 Adjustments to Base	2007 Adjustment to Pres Bud	2008 Base	2008 Estimate	2008 Increase/ (Decrease)
25.7 Operation and maintenance of equipment	0	0	104	104	0
26 Supplies and materials			0	0	
Office supplies	0	0	0	0	0
ADP supplies	4	0	215	215	0
Other	0	0	0	0	0
Subtotal	4	0	215	215	0
31 Equipment					
Office machines and equipment	0	0	0	0	0
ADP hardware/software	11	100	521	521	0
Equipment depreciation	0	0	0	0	0
Other	0	0	0	0	0
Subtotal	11	100	521	521	0
41 Grants, subsidies and contributions	0	0	0	0	0
99 Budget Authority	\$744	\$950	\$18,581	\$18,581	\$0

Department of Commerce
National Telecommunications and Information Administration
Salaries and Expenses
SUMMARY OF INFORMATION TECHNOLOGY RESOURCES
(Dollar amounts in thousands)
(Budget Authority)

IT Projects by activity/subactivity: with totals by activity	Unique Project Identifier	IT Investment Title	2006 Actual	2007 Estimate	2008 Estimate	Increase/ Decrease
Domestic and international policies	006-03-02-00-01-0511-00-404-139	DOC Consolidated Infrastructure - NTIA portion	494	600	475	-125
Spectrum management	006-03-02-00-01-0511-00-404-139	DOC Consolidated Infrastructure - NTIA portion	2,194	2,598	1,427	-1,171
	006-60-02-00-02-7315-00	NTIA - National Security Information Infrastructure	347	380	338	-42
	006-00-01-29-02-7316-00	NTIA - Frequency Management Records System	450	471	493	22
	006-60-03-00-02-7314-00-304-103	NTIA - OSM Enterprise Architecture	204	213	221	8
	006-60-01-29-01-8312-00-409-202	NTIA - Radio Spectrum Management	631	2,415	1,587	-828
Telecommunication sciences research	006-60-01-30-02-7311-00-404-142	NTIA - Telecommunications Analysis Services and Research	200	200	200	0
Total			4,520	6,877	4,741	-2,136

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), \$18,581,000, to remain available until September 30, 2008. 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.

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
 (Dollar amounts in thousands)

	<u>2006</u> <u>Actual</u>	<u>2007</u> <u>Estimate</u>	<u>2008</u> <u>Estimate</u>
Management and Professional Support Services	\$ 179	\$ 200	\$ 100
Studies, Analysis & Evaluations	0	0	0
Engineering & Technical Services	<u>350</u>	<u>210</u>	<u>210</u>
Total	\$ 529	\$ 410	\$ 310

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
 (Dollar amounts in thousands)

	<u>2006</u> <u>Actual</u>	<u>2007</u> <u>Estimate</u>	<u>2008</u> <u>Estimate</u>
Periodicals	\$ 0	\$ 0	\$ 0
Pamphlets	40	20	20
Audiovisual Products	<u>0</u>	<u>0</u>	<u>0</u>
Total	\$ 40	\$ 20	\$ 20

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

	2006 <u>Actual</u>	2007 <u>Estimate</u>	2008 <u>Estimate</u>
Direct:			
Average ES Salary	\$ 140,533	\$ 143,625	\$ 146,784
Average Career Path Salary	84,343	86,199	88,095
Average GS Grade	12.6	12.6	12.6
Average GS Salary	\$ 91,774	\$ 93,793	\$ 95,856

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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	
Continuing Resolution, FY 2007							13	13	\$20,362	\$22,745	
less: Obligations from prior years							0	0	0	(2,383)	
Adjustment to support level in FY 2007 President's Budget							(13)	(13)	(20,362)	(20,362)	
2008 Base							0	0	0	0	
plus: 2008 program changes							0	0	0	0	
2008 Estimate							0	0	0	0	
Comparison by activity/subactivity		2006 Actual		2007 Estimate		2008 Base		2008 Estimate		2008 Increase/ (Decrease)	
		Personnel	Amount	Personnel	Amount	Personnel	Amount	Personnel	Amount	Personnel	Amount
Public Telecommunications Facilities, Planning and Construction											
Grants.....	Pos/BA	0	\$19,745	0	\$18,372	0	0	0	\$0	0	0
	FTE/Obl.	0	19,951	0	20,419	0	0	0	0	0	0
Program management.....	Pos/BA	13	1,974	13	1,990	0	0	0	0	0	0
	FTE/Obl.	10	2,000	13	2,326	0	0	0	0	0	0
TOTALS.....	Pos/BA	13	21,719	13	20,362	0	0	0	0	0	0
	FTE/Obl.	10	21,951	13	22,745	0	0	0	0	0	0
Adjustments to Obligations											
Recoveries/Refunds.....			(1,589)		0		0		0		0
Unobligated Balance, start of year.....			(1,026)		(2,383)		0		0		0
Unobligated Balance, end of year.....			2,383		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
Appropriation.....			21,719		20,362		0		0		0

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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	2006 Actual	2007 Estimate	2008 Base	2008 Estimate	2008 Increase/ (Decrease)
Total Obligations.....	\$21,951	\$22,745	\$0	\$0	\$0
Offsetting collections from:					
Federal funds.....	0	0	0	0	0
Non-Federal sources.....	0	0	0	0	0
Recoveries/Refunds.....	(1,589)	0	0	0	0
Unobligated balance, start of year.....	(1,026)	(2,383)	0	0	0
Unobligated balance, end of year.....	2,383	0	0	0	0
Unobligated balance expiring.....	0	0	0	0	0
Budget Authority.....	21,719	20,362	0	0	0
Financing:					
Transferred from other accounts (-).....	0	0	0	0	0
Transferred to other accounts (+).....	0	0	0	0	0
Appropriation.....	21,719	20,362	0	0	0

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	2006 Actual		2007 Estimate		2008 Base		2008 Estimate		2008 Increase/ (Decrease)		
	Personnel	Amount	Personnel	Amount	Personnel	Amount	Personnel	Amount	Personnel	Amount	
Grants.....	Pos/BA	0	\$19,745	0	\$18,372	0	\$0	0	\$0	0	0
	FTE/Obl.	0	20,419	0	20,419	0		0		0	
Program management.....	Pos/BA	13	1,974	13	1,990	0	0	0	0	0	0
	FTE/Obl.	10	2,326	13	2,326	0		0		0	
Direct Obligations.....	Pos/BA	13	21,719	13	20,362	0	0	0	0	0	0
	FTE/Obl.	10	22,745	13	22,745	0		0		0	

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 will be discontinued in FY 2008. Since 2000, the majority of PTFP grants have been used to support public broadcasting's transition to digit formats. Most public television stations have completed their transition to digital broadcasts, in order to comply with the rules of the FCC. Funding for any remaining digital transition and other activities is available elsewhere.

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	2006 Actual	2007 Estimate	2008 Base	2008 Estimate	2008 Increase/ (Decrease)
11 Personnel compensation					
11.1 Full-time permanent	\$893	\$1,150	\$0	\$0	\$0
11.3 Other than full-time permanent	0	0	0	0	0
11.5 Other personnel compensation	76	0	0	0	0
11.8 Special personnel services payments	0	0	0	0	0
11.9 Total personnel compensation	969	1,150	0	0	0
12.1 Civilian personnel benefits	252	253	0	0	0
13 Benefits for former personnel	0	0	0	0	0
21 Travel and transportation of persons	10	36	0	0	0
22 Transportation of things	1	0	0	0	0
23.1 Rental payments to GSA	88	134	0	0	0
23.2 Rental payments to others	0	0	0	0	0
23.3 Communications, utilities and miscellaneous charges	22	44	0	0	0
24 Printing and reproduction	7	5	0	0	0
25.1 Advisory and assistance services	0	0	0	0	0
25.2 Other services	330	343	0	0	0
25.3 Purchases of goods and services from Government accounts	303	361	0	0	0
25.7 Operation and maintenance of equipment	0	0	0	0	0
26 Supplies and materials	14	0	0	0	0
31 Equipment	4	0	0	0	0
41 Grants, subsidies and contributions	19,951	20,419	0	0	0
99 TOTAL OBLIGATIONS	\$21,951	\$22,745	\$0	\$0	\$0
Prior Year Recoveries/Refunds	(1,589)				
Unobligated balances from Prior Years	(1,026)	(2,383)	0	0	0
Unobligated balance EOY	2,383				
Total Budget Authority	\$21,719	\$20,362	\$0	\$0	\$0

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	2006 Actual	2007 Estimate	2008 Base	2008 Estimate	2008 Increase/ (Decrease)
--------------	----------------	------------------	--------------	------------------	---------------------------------

Full-Time Equivalent Employment:

Full-time permanent	10	13	0	0	0
Other than full-time permanent	0	0	0	0	0
Total	10	13	0	0	0

Authorized Positions:

Full-time permanent	13	13	0	0	0
Other than full-time permanent	0	0	0	0	0
Total	13	13	0	0	0

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

IT Projects by activity/subactivity: with totals by activity	Unique Project Identifier	IT Investment Title	2006 Actual	2007 Estimate	2008 Estimate	Increase/ Decrease
Grants	006-60-04-00-01-7310-00-109-026	Monitoring and Processing System	0	0	0	0
Program management	006-03-02-00-01-0511-00-404-139	DOC Consolidated Infrastructure - NTIA portion	220	0	0	0
Total			220	0	0	0

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. (Science, State, Justice, Commerce, and Related Agencies Appropriations Act, 2006)

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

	2006 <u>Actual</u>	2007 <u>Estimate</u>	2008 <u>Estimate</u>
Management and Professional Support Services	\$ 0	\$ 0	\$ 0
Studies, Analysis & Evaluations	0	0	0
Engineering & Technical Services	<u>0</u>	<u>0</u>	<u>0</u>
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)

	<u>2006</u> <u>Actual</u>	<u>2007</u> <u>Estimate</u>	<u>2008</u> <u>Estimate</u>
Periodicals	\$ 0	\$ 0	\$ 0
Pamphlets	0	0	0
Audiovisual Products	<u>0</u>	<u>0</u>	<u>0</u>
Total	\$ 0	\$ 0	\$ 0

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

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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	
Continuing Resolution, FY 2007							0	0	\$0	\$1,785	
less: Obligations from prior year funds							0	0	0	(1,785)	
							0	0	0	0	
2008 Base							0	0	0	0	
plus: 2008 program changes							0	0	0	0	
2008 Estimate							0	0	0	0	
Comparison by activity/subactivity		2006 Actual		2007 Estimate		2008 Base		2008 Estimate		2008 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	600	0	1,785	0	0	0	0	0	0
TOTALS.....	Pos/BA	0	0	0	0	0	0	0	0	0	0
	FTE/Obl.	1	600	0	1,785	0	0	0	0	0	0
Adjustments to Obligations											
Recoveries/Refunds.....			(1,332)		0		0		0		0
Unobligated Balance, start of year.....			(1,053)		(1,785)		0		0		0
Unobligated Balance, end of year.....			1,785		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
Appropriation.....			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	2006 Actual	2007 Estimate	2008 Base	2008 Estimate	2008 Increase/ (Decrease)
Total Obligations.....	\$600	\$1,785	\$0	\$0	\$0
Offsetting collections from:					
Federal funds.....	0	0	0	0	0
Non-Federal sources.....	0	0	0	0	0
Recoveries/Refunds.....	(1,332)	0	0	0	0
Unobligated balance, start of year.....	(1,053)	(1,785)	0	0	0
Unobligated balance, end of year.....	1,785	0	0	0	0
Unobligated balance expiring.....	0	0	0	0	0
Budget Authority.....	0	0	0	0	0
Financing:					
Transferred from other accounts (-).....	0	0	0	0	0
Transferred to other accounts (+).....	0	0	0	0	0
Appropriation.....	0	0	0	0	0

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	2006 Actual		2007 Estimate		2008 Base		2008 Estimate		2008 Increase/ (Decrease)		
	Personnel	Amount	Personnel	Amount	Personnel	Amount	Personnel	Amount	Personnel	Amount	
Grants.....	Pos/BA	0	\$19,745	0	\$18,372	0	\$0	0	\$0	0	0
	FTE/Obl.	0	20,419	0	20,419	0		0		0	
Program management.....	Pos/BA	13	1,974	13	1,990	0	0	0	0	0	0
	FTE/Obl.	10	2,326	13	2,326	0		0		0	
Direct Obligations.....	Pos/BA	13	21,719	13	20,362	0	0	0	0	0	0
	FTE/Obl.	10	22,745	13	22,745	0		0		0	

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

Goal Statement

The Information Infrastructure Grants 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	2006 Actual	2007 Estimate	2008 Base	2008 Estimate	2008 Increase/ (Decrease)
11 Personnel compensation					
11.1 Full-time permanent	268	\$0	\$0	\$0	\$0
11.3 Other than full-time permanent	0	0	0	0	0
11.5 Other personnel compensation	21	0	0	0	0
11.8 Special personnel services payments	0	0	0	0	0
11.9 Total personnel compensation	289	0	0	0	0
12.1 Civilian personnel benefits	76	0	0	0	0
13 Benefits for former personnel	6	0	0	0	0
21 Travel and transportation of persons	0	0	0	0	0
22 Transportation of things	0	0	0	0	0
23.1 Rental payments to GSA	44	0	0	0	0
23.2 Rental payments to others	0	0	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	182	1,782	0	0	0
25.3 Purchases of goods and services from Government accounts	0	0	0	0	0
25.7 Operation and maintenance of equipment	0	0	0	0	0
26 Supplies and materials	2	2	0	0	0
31 Equipment	1	1	0	0	0
41 Grants, subsidies and contributions	0	0	0	0	0
44 Refunds	0	0	0	0	0
99 TOTAL OBLIGATIONS	600	1,785	0	0	0
Prior Year Recoveries/Refunds	(1,332)				
Unobligated balances from Prior Years	(1,053)		0	0	0
Unobligated balance EOY	1,785				
Total Budget Authority	0	1,785	0	0	0

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

Object Class	2006 Actual	2007 Estimate	2008 Base	2008 Estimate	2008 Increase/ (Decrease)
Full-Time Equivalent Employment:					
Full-time permanent	1	0	0	0	0
Other than full-time permanent	0	0	0	0	0
Total	1	0	0	0	0
Authorized Positions:					
Full-time permanent	1	0	0	0	0
Other than full-time permanent	0	0	0	0	0
Total	1	0	0	0	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)

		Positions	FTE	Budget Authority	Direct Obligations
Estimate, FY 2007		11	0	\$2,136,000	\$1,056,100
plus: Obligations from prior years		0	0	0	0
plus: 2008 adjustments to base		0	0	0	0
2008 Base		11	0	2,136,000	1,056,100
plus: 2008 program changes		6	0	(2,136,000)	(522,300)
2008 Estimate		17	0	0	533,800

Comparison by activity/subactivity	2006 Actual		2007 Estimate		2008 Base		2008 Estimate		2008 Increase/ (Decrease)		
	Personnel	Amount	Personnel	Amount	Personnel	Amount	Personnel	Amount	Personnel	Amount	
Digital-to-Analog Converter Box Voucher Program.....	Pos/BA	0	\$0	6	\$90,900	6	\$90,900	9	\$426,300	3	\$335,400
	FTE/Obl.	0	0	0	0	0	0	0	0	0	0
Public Safety Interoperable Communications Grants.....	Pos/BA	0	0	3	950,600	3	950,600	4	17,100	1	(933,500)
	FTE/Obl.	0	0	0	0	0	0	0	0	0	0
New York City 9/11 Digital Transition.....	Pos/BA	0	0	0	8,100	0	8,100	0	21,100	0	13,000
	FTE/Obl.	0	0	0	0	0	0	0	0	0	0
Low-Power Television and Translator Digital to Analog Conversion Program.....	Pos/BA	0	0	2	500	2	500	4	7,800	2	7,300
	FTE/Obl.	0	0	0	0	0	0	0	0	0	0
Low-Power Television and Translator Upgrade Program	Pos/BA	0	0	0	0	0	0	0	0	0	0
	FTE/Obl.	0	0	0	0	0	0	0	0	0	0
National Alert and Tsunami Warning Program.....	Pos/BA	0	0	0	6,000	0	6,000	0	40,000	0	34,000
	FTE/Obl.	0	0	0	0	0	0	0	0	0	0
Enhanced 9-1-1 Service Support.....	Pos/BA	0	0	0	0	0	0	0	21,500	0	21,500
	FTE/Obl.	0	0	0	0	0	0	0	0	0	0
TOTALS.....	Pos/BA	0	0	11	1,056,100	11	1,056,100	17	533,800	6	(522,300)
	FTE/Obl.	0	0	0	0	0	0	0	0	0	0
Adjustments to Obligations:											
Recoveries/Refunds.....			0		0		0		0		0
Unobligated Balance, start of year.....			0		0		0		(1,079,900)		0
Unobligated Balance, end of year.....			0		1,079,900		0		546,100		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
Authority to borrow.....			0		2,136,000		0		0		0

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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		2006 Actual		2007 Estimate		2008 Base		2008 Estimate		2008 Increase/ (Decrease)	
		Personnel	Amount	Personnel	Amount	Personnel	Amount	Personnel	Amount	Personnel	Amount
Digital-to-Analog Converter Box Voucher Program.....	Pos/BA	0	\$0	6	\$90,900	6	\$90,900	9	\$426,300	3	\$335,400
	FTE/Obl.	0	0	0	0	0	0	0	0	0	0
Direct Obligations.....	Pos/BA	0	0	6	90,900	6	90,900	9	426,300	3	335,400
	FTE/Obl.	0	0	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: New York City 9/11 Digital Transition

Comparison by line item		2006 Actual		2007 Estimate		2008 Base		2008 Estimate		2008 Increase/ (Decrease)	
		Personnel	Amount	Personnel	Amount	Personnel	Amount	Personnel	Amount	Personnel	Amount
New York City 9/11 Digital Transition.....	Pos/BA	0	\$0	0	\$8,100	0	\$8,100	0	\$21,100	0	\$13,000
	FTE/Obl.	0	0	0	0	0	0	0	0	0	0
Direct Obligations.....	Pos/BA	0	0	0	8,100	0	8,100	0	21,100	0	13,000
	FTE/Obl.	0	0	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	2006 Actual		2007 Estimate		2008 Base		2008 Estimate		2008 Increase/ (Decrease)	
	Personnel	Amount	Personnel	Amount	Personnel	Amount	Personnel	Amount	Personnel	Amount
Low-Power Television and Translator Digital to Analog Conversion Program.....										
Pos/BA	0	\$0	2	\$500	2	\$500	4	\$7,800	2	\$7,300
FTE/Obl.	0	0	0	0	0	0	0	0	0	0
Direct Obligations.....										
Pos/BA	0	0	2	500	2	500	4	7,800	2	7,300
FTE/Obl.	0	0	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 Upgrade Program

Comparison by line item			2006 Actual		2007 Estimate		2008 Base		2008 Estimate		2008 Increase/ (Decrease)	
			Personnel	Amount	Personnel	Amount	Personnel	Amount	Personnel	Amount	Personnel	Amount
Low-Power Television and Translator Upgrade Program.....	Pos/BA		0	\$0	0	\$0	0	\$0	0	\$0	0	\$0
	FTE/Obl.		0	0	0	0	0	0	0	0	0	0
Direct Obligations.....	Pos/BA		0	0	0	0	0	0	0	0	0	0
	FTE/Obl.		0	0	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: National Alert and Tsunami Warning Program

Comparison by line item		2006 Actual		2007 Estimate		2008 Base		2008 Estimate		2008 Increase/ (Decrease)	
		Personnel	Amount	Personnel	Amount	Personnel	Amount	Personnel	Amount	Personnel	Amount
National Alert and Tsunami Warning Program.....											
	Pos/BA	0	\$0	0	\$6,000	0	\$6,000	0	\$40,000	0	\$34,000
	FTE/Obl.	0	0	0	0	0	0	0	0	0	0
Direct Obligations.....											
	Pos/BA	0	0	0	6,000	0	6,000	0	40,000	0	34,000
	FTE/Obl.	0	0	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		2006 Actual		2007 President's Budget		2008 Base		2008 Estimate		2008 Increase/ (Decrease)	
		Personnel	Amount	Personnel	Amount	Personnel	Amount	Personnel	Amount	Personnel	Amount
Enhanced 9-1-1 Service Support.....	Pos/BA	0	\$0	0	\$0	0	\$0	0	\$21,500	0	\$21,500
	FTE/Obl.	0	0	0	0	0		0		0	
Direct Obligations.....	Pos/BA	0	0	0	0	0	0	0	21,500	0	21,500
	FTE/Obl.	0	0	0	0	0		0		0	

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

Object Class	2006 Actual	2007 Estimate	2008 Base	2008 Estimate	2008 Increase/ (Decrease)
11 Personnel compensation					
11.1 Full-time permanent	\$0	\$1,203	\$1,203	\$1,955	\$752
11.3 Other than full-time permanent	0	77	77	112	35
11.5 Other personnel compensation	0	0	0	0	0
11.8 Special personnel services payments	0	0	0	0	0
11.9 Total personnel compensation	0	1,280	1,280	2,067	787
12.1 Civilian personnel benefits	0	339	339	552	213
13 Benefits for former personnel	0	0	0	0	0
21 Travel and transportation of persons	0	55	55	55	0
22 Transportation of things	0	4	4	7	3
23.1 Rental payments to GSA	0	210	210	293	83
23.2 Rental payments to others	0	10	10	20	10
23.3 Communications, utilities and miscellaneous charges	0	30	30	30	0
24 Printing and reproduction	0	25	25	17	-8
25.1 Advisory and assistance services	0	245,752	245,752	13,893	-231,859
25.2 Other services	0	463,820	463,820	22,529	-441,291
25.3 Purchases of goods and services from Government accounts	0	275,000	275,000	19,839	-255,161
25.7 Operation and maintenance of equipment	0	61,523	61,523	3,431	-58,092
26 Supplies and materials	0	13	13	21	8
31 Equipment	0	85	85	36	-49
41 Grants, subsidies and contributions	0	8,000	8,000	471,000	463,000
99 TOTAL OBLIGATIONS	\$0	\$1,056,146	\$1,056,146	\$533,790	-\$522,356
Prior Year Recoveries/Refunds	0				
Unobligated balances from Prior Years	0				
Unobligated balance EOY	0				
Unobligated balance, expiring	0				
Total Budget Authority	\$0	\$1,056,146	\$1,056,146	\$533,790	-\$522,356

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