



National Telecommunications and Information Administration

Mission Statement

The National Telecommunications and Information Administration (NTIA) advises the President on domestic and international communications policy, manages the Federal Government's use of the radio frequency spectrum, and performs research in telecommunications sciences.

NTIA's major responsibilities fall in the radio frequency spectrum management and communications policy arena. NTIA is the manager of the Federal Government's use of spectrum. NTIA is also the President's advisor on communications policy matters. NTIA is frequently asked by both the Administration and Congress to conduct studies of key policy issues.

In conjunction with the State Department and the Federal Communications Commission (FCC), NTIA represents U.S. interests on communications issues abroad. NTIA participates in a variety of international forums, such as the International Telecommunication Union (ITU), the Organization for Economic Cooperation and Development, the Asia-Pacific Economic Cooperation, and the Inter-American Telecommunications Commission. NTIA also participates in direct bilateral and multilateral negotiations with key strategic nations.

NTIA plays a major role in the continued successful functioning of the Internet through its contractual relationship with the Internet Corporation for Assigned Names and Numbers (ICANN), the private sector entity responsible for management of the Internet domain name system. NTIA is also involved in the management of .us, the U.S. country code top-level domain, through its contractual relationship with NeuStar in the management of .org with the Public Interest Registry, and in the management of .edu with EDUCAUSE.

The Institute for Telecommunication Sciences (ITS) is NTIA's chief research and engineering arm, and also serves as a principal federal resource for solving the telecommunications concerns of other federal agencies, state and local governments, and private associations and organizations.

NTIA's Public Telecommunications Facilities Program (PTFP) provides grants through a competitive process to help public broadcasting stations, state and local governments, Indian tribes, and nonprofit organizations construct facilities to bring educational and cultural programming to the American public.

Priorities/Management Challenges

NTIA's priorities are to promote competition and remove regulatory impediments to the development of new technologies, to promote international trade in telecommunications products and services, to identify and promote new wireless technologies and spectrum efficiencies, and to perform basic research on telecommunications technology. The major challenge for NTIA in the spectrum management area is to meet the ever-growing demands for spectrum by both the public and private sectors. This ultimately will involve significant changes in spectrum management practices, both in the United States and worldwide. A major portion of NTIA's resources is devoted to this challenge.

For NTIA, the challenge is to create and implement national policies that will promote the health and stability of the telecommunications sector. These policies must also reflect the new realities of the security and defense needs of the country.

FY 2003 Performance

In FY 2003, NTIA had three goals and 11 measures. Of the 11 measures, NTIA met nine, and did not meet two. For Performance Goal 1, NTIA conducted a wide variety of policy-related activities described in the narrative section below. NTIA postponed the customer survey until FY 2004. The postponement was necessitated by departures in NTIA's senior management, which meant that needed approvals and issuance of the survey to senior levels in the White House, FCC, Department of Commerce and other departments, and the Congress could not be obtained. The survey is ready for issuance in FY 2004, however. For Performance Goal 2, NTIA met the measure covering accuracy of frequency assignment requests but will discontinue the measure as it does not directly assess NTIA activities. NTIA is processing frequency assignment requests within 15 business days; it is achieving less than the anticipated 95 percent online applications by the end of FY 2003 because of delays in implementing secure digital authentication, and better than 90 percent of customers rate the training courses as satisfactory. For Performance Goal 3, NTIA awarded 79 digital television conversion grants, completed 100 percent of grant awards on schedule, and increased public radio and television coverage. NTIA published five peer-reviewed research publications, and entered into five Cooperative Research and Development Agreements (CRADA).

In the communications and information policy area, NTIA worked with regulators, industry, and consumers to promote broadband deployment, local competition, and universal access by removing regulatory and economic barriers to growth. NTIA promoted market-opening, competition-based U.S. telecom policy before international governing bodies and in international telecom forums. NTIA continued to promote effective privatization of the Internet domain name system management functions through contractual arrangements with ICANN. NTIA extended its Memorandum of Understanding (MOU) with ICANN after a thorough examination of ICANN's performance of its transition responsibilities to date, as well as of ICANN's ongoing reform efforts.

In January, the FCC and NTIA executed a new MOU on spectrum coordination. The MOU will apply to coordination of spectrum issues involving both federal and non-federal users. The FCC and NTIA have been operating under a MOU dating back to October 1940. The new agreement establishes procedures relating to frequency coordination, as well as spectrum planning provisions contained in the Communications Act. This MOU establishes a framework for compliance with the statutory requirements and stipulates that the Chairman of the FCC and Assistant Secretary for Communications and Information shall meet biannually to conduct joint spectrum planning. The MOU also is consistent with a recent General Accounting Office (GAO) report that focused on the need for greater cooperation between the two spectrum policy organizations. The Communications Act assigns joint jurisdiction for spectrum management to the FCC and NTIA. The FCC is responsible for non-federal users (e.g. broadcast, commercial, public safety, and state and local government users, etc.) and NTIA is responsible for federal users. The majority of spectrum is shared between federal and non-federal users, in which case the FCC and NTIA must coordinate spectrum policy.

NTIA released a report in August finding that Internet blocking and filtering technologies available today have the capacity to meet most, if not all, of the needs and concerns that educational institutions have relative to protecting children from obscenity, pornography, or other harmful content. Mandated by Section 1703 of the Children's Internet Protection Act of 2000 (CIPA), the report says that educational institutions would benefit from greater awareness of the technology products available and would also benefit from more training. NTIA made two recommendations to Congress in the report: (1) technology vendors should offer training services to educational institutions on specific features of their products, and (2) CIPA's definition of "technology protection measures" should be expanded to include additional technologies in order to encompass a wider array of technological measures to protect children from inappropriate content.

Access to rights-of-way—the conduits, corridors, trenches, tower sites, and other physical passageways that modern communications networks traverse—is critical to the deployment of broadband services. To assist rights-of-way stakeholders in understanding and improving the authorization process for constructing new communications networks that carry broadband Internet and other communications services, NTIA in May launched an electronic report on state and local rights-of-way. Intended as a resource for state and local land managers, communications providers, and other rights-of-way stakeholders, the report provides information about the laws, regulations, policies, and practices that affect state and local management of rights-of-way. The electronic report includes a state-by-state matrix that provides the rights-of-way laws relating to jurisdiction, compensation, time lines, nondiscrimination, mediation, and condemnation in all 50 states and the District of Columbia. NTIA's electronic report is intended to help advance the dialogue on rights-of-way management at the state and local level, with the goal of promoting broadband deployment across all states and localities in the United States.

NTIA, in November 2002, announced the development of new and innovative techniques to measure the quality of digital video pictures that will significantly enhance the competitiveness of U.S. companies and lead to higher quality products for consumers. The new measurement tools will enable companies and public entities to determine, through objective technical means, the quality of digital video pictures on computers, TV monitors, and hand held devices. Improvements in digital video systems enable the creation of new telecommunication services essential to the U.S. economy, such as direct broadcast satellites, digital and high-definition television, video teleconferencing, telemedicine, and e-commerce. The new measurement software, known as "reduced-reference" video quality measurement tools, has received two U.S. patents and has been adopted as a telecommunications standard by the American National Standard Institute (ANSI). The software is available to the public through an online evaluation license agreement under which users receive the software in exchange for agreeing to evaluate it.

Major Initiatives and Priorities in FY 2004

NTIA will continue its leadership role in a major Administration initiative to develop a radio spectrum policy for the twenty-first century that will better manage the nation's airwaves, enhance homeland and economic security, increase benefits to consumers and ensure U.S. leadership in high-tech innovations. The Secretary of Commerce formed a high-level interagency task force under an Executive Memorandum issued by the Administration in June that will recommend ways to stimulate more efficient use of the radio frequency spectrum by government users. This effort will be the first comprehensive study of Federal Government radio spectrum policy in the modern era and will build on previous administration efforts to improve the spectrum management process. The task force, which will issue its recommendations within one year, includes Federal Government agencies that use the radio spectrum such as the Departments of Defense, Transportation and Homeland Security as well as the Federal Aviation Administration, the National Aeronautics and Space Administration, and others. The initiative also calls for a series of public meetings with the private sector and state and local governments to provide input to improve policies and procedures for overall management of the radio spectrum.

Targets and Performance Summary

See individual Performance Goals Section for further description of each measure.

Performance Goal 1: Promote Competition Within the Telecommunications Sector and Promote Universal Access to Telecommunications Services for all Americans

Measure	FY 2000 Actual	FY 2001 Actual	FY 2002 Actual	FY 2003 Target	FY 2003 Actual	FY 2003 Met	FY 2003 Not Met
Provide the policy framework for introduction of new technologies	New	New	New	Spectrum for third generation (3G) ultra-wideband (UWB); Internet Corporation for Assigned Names and Numbers (ICANN) reform; ".us" domain name administration.	Spectrum for 3G UWB; .us and kids.us, ENUM, Voice over Internet Protocol (VoIP), ICANN, Rights of way, Children's Internet Protection Act of 2000 (CIPA).	X	
Policy customer survey	New	New	New	50 customers	Postponed		X

Performance Goal 2: Ensure that the Allocation of Radio Spectrum Provides the Greatest Benefit to all People

Measure	FY 2000 Actual	FY 2001 Actual	FY 2002 Actual	FY 2003 Target	FY 2003 Actual	FY 2003 Met	FY 2003 Not Met
Timeliness of processing	New	New	New	15 business days.	15	X	
Percentage of requests accomplished online	New	New	New	95%	55%		X
Completeness and accuracy of agency assignment request	New	New	New	85%	87%	X	
Customer satisfaction survey on training course	New	New	New	90% satisfactory or better.	90%	X	

Performance Goal 3: Promote the Availability, and Support New Sources, of Advanced Telecommunications and Information Services

Measure	FY 2000 Actual	FY 2001 Actual	FY 2002 Actual	FY 2003 Target	FY 2003 Actual	FY 2003 Met	FY 2003 Not Met
Digital broadcasting conversion	New	New	New	40 grants	79	X	
Timeliness of grant awards	New	New	New	100%	100%	X	
Percentage of the U.S. covered by public broadcasting signals	New	New	New	95% TV 90% Radio	95% TV 90% Radio	X	
Quality of basic research as reflected in peer-reviewed publications	New	New	New	5 Publications	5	X	
Level of technology transfer activities conducted with the private sector through the Cooperative Research and Development Agreements (CRADA)				5 CRADAs	5	X	

Resource Requirements Summary

(Dollars in Millions. Funding amounts reflect total obligations.)

Information Technology (IT)

Full-Time Equivalent (FTE)

Performance Goal 1: Promote Competition Within the Telecommunications Sector and Promote Universal Access to Telecommunications Services for All Americans

	FY 2000 Actual	FY 2001 Actual	FY 2002 Actual	FY 2003 Actual
Salaries and Expenses	3.6	3.7	4.2	4.0
Domestic and International Policies	3.6	3.7	4.2	4.0
Spectrum Management	0.0	0.0	0.0	0.0
Telecommunication Sciences Research	0.0	0.0	0.0	0.0
Total Funding	3.6	3.7	4.2	4.0
IT Funding ¹	1.5	1.5	1.5	1.5
FTE	26	25	27	26

Performance Goal 2: Ensure that the Allocation of Radio Spectrum Provides the Greatest Benefit to all People

	FY 2000 Actual	FY 2001 Actual	FY 2002 Actual	FY 2003 Actual
Salaries and Expenses	19.8	21.5	23.4	24.7
Domestic and International Policies	0.0	0.0	0.1	0.1
Spectrum Management	17.8	19.3	19.0	20.6
Telecommunication Sciences Research	2.0	2.1	4.3	4.1
Total Funding	19.8	21.5	23.4	25.0
IT Funding ¹	2.4	3.2	3.2	3.2
FTE	135	133	141	147

Performance Goal 3: Promote the Availability, and Support New Sources, of Advanced Telecommunications and Information Services

	FY 2000 Actual	FY 2001 Actual	FY 2002 Actual	FY 2003 Actual
Salaries and Expenses	5.4	5.6	5.6	6.1
Domestic and International Policies	0.0	0.0	0.0	0.0
Spectrum Management	0.0	0.0	0.0	0.0
Telecommunication Sciences Research	5.4	5.6	5.6	6.1
Public Telecommunications Facilities, Planning, and Construction	27.5	44.2	47.6	45.9
Grants	25.8	42.0	45.4	43.5
Program Management	1.7	2.2	2.2	2.4
Information Infrastructure Grants	17.8	46.2	15.5	17.1
Grants	13.9	42.9	12.4	13.9
Program Management	3.8	3.3	3.0	3.2
Total Funding	50.6	96.0	68.6	69.1
IT Funding ¹	0.6	0.7	0.7	0.7
FTE	85	86	76	78

Grand total	FY 2000 Actual	FY 2001 Actual	FY 2002 Actual	FY 2003 Actual
Salaries and Expenses	29.0	30.8	33.2	34.5
Domestic and International Policies	3.7	3.8	4.3	4.0
Spectrum Management	17.8	19.3	19.0	20.4
Telecommunication Sciences Research	7.3	7.7	9.8	10.2
Public Telecommunications Facilities, Planning, and Construction	27.5	44.2	47.6	45.9
Grants	25.8	42.0	45.4	43.5
Program Management	1.7	2.2	2.2	2.4
Information Infrastructure Grants	17.7	46.2	15.5	17.1
Grants	13.9	42.9	12.4	13.9
Program Management	3.8	3.3	3.0	3.2
Total Funding	74.0	121.1	96.3	97.6
Direct	56.2	101.8	77.1	77.4
Reimbursable ²	17.8	19.4	19.1	20.2
IT Funding ¹	4.5	5.4	5.4	5.4
FTE	246	244	244	251

¹ IT funding included in total funding.

² Reimbursable funding 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.

FY 2003 Performance Goals

Performance Goal 1: Promote Competition Within the Telecommunications Sector, and Promote Universal Access to Telecommunications Services for all Americans

Corresponding Strategic Goal

Strategic Goal 1: Provide the information and the framework to enable the economy to operate efficiently and equitably.

Rationale for Performance Goal

One of NTIA's primary missions is to serve as the President's principal policy advisor on telecommunications and information issues, and to be the Administration's primary voice on them. NTIA fulfills this policy-setting role in a number of ways during the course of a year by preparing and issuing a number of special reports on topics that emerge over time, by testifying before Congress and other organizations that are concerned with telecommunications policy, by providing the Administration's views on actions proposed by the FCC, by issuing requests for public comment on specific issues, and by encouraging dialogue with the private sector through sponsorship and participation in conferences, workshops, and other forums.

Beginning in FY 2003 and through FY 2004, NTIA's main policy development activities will focus on:

- Removing impediments to broadband deployment;
- Promoting spectrum policies that rely on market-based incentives for efficiently deploying new technologies and addressing consumer needs;
- Promoting international trade in telecommunications products and services, promoting consistent approaches to telecommunications policy, and improving relations with Western Hemisphere neighbors;
- Continuing progress toward privatization of Internet management; and
- Examining issues and making recommendations on proposals to regulate Internet services and content.

NTIA expects to have a significant role in the public debate on these issues and in the development of policy solutions, but does not have direct responsibility for implementing solutions.

FY 2003 Performance

NTIA worked with regulators, industry, and consumers to promote broadband deployment, local competition, and universal access by removing regulatory and economic barriers to growth. NTIA promoted market-opening, competition-based U.S. telecom policy before international governing bodies and in international telecom forums. NTIA continued to promote effective privatization of the Internet domain name system (DNS) management functions through contractual arrangements with ICANN. NTIA extended its Memorandum of Understanding (MOU) with ICANN after a thorough examination of ICANN's performance of its transition responsibilities to date, as well as of ICANN's ongoing reform efforts.

Measure 1a: Provide the Policy Framework for Introduction of New Technologies

	FY 2000	FY 2001	FY 2002	FY 2003
Target	New	New	New	Spectrum for third generation (3G) ultra-wideband (UWB); Internet Corporation for Assigned Names and Numbers (ICANN) reform; “.us” domain name administration.
Actual				Spectrum for 3G UWB; .us and kids.us, ENUM, Voice over Internet Protocol (VoIP), ICANN, Rights of way, Children’s Internet Protection Act of 2000 (CIPA).
Met/Not Met				Met

Explanation of Measure

This measure is intended to provide a place for NTIA to describe accomplishments in its many policy-related activities. Much of the policy work that NTIA performs is initiated to provide the Administration’s views on industry developments and on legislative and regulatory proposals. A substantial portion, however, is directed by Congress, the White House and by the Secretary of Commerce, and therefore is difficult to plan in advance. The narrative description of policy issue results reported with this measure is intended to demonstrate that the resources NTIA devotes to these activities are justified.

FY 2003 Performance

- In February, NTIA hosted a roundtable to discuss Voice over Internet Protocol (VoIP) and the convergence of the Internet and the public switched telephone network. The roundtable included an overview of VoIP technology, including a brief demonstration of the Commerce Department’s new VoIP telephone system. The overview was followed by two panels of leading experts addressing the VoIP marketplace and the policy and regulatory implications of VoIP.
- To assist rights-of-way stakeholders in understanding and improving the authorization process for constructing new communications networks that carry broadband Internet and other communications services, NTIA in May launched an electronic report on state and local rights-of-way. Intended as a resource for state and local land managers, communications providers, and other rights-of-way stakeholders, the report provides information about the laws, regulations, policies, and practices that affect state and local management of rights-of-way. The electronic report includes a state-by-state matrix that provides the rights-of-way laws relating to jurisdiction, compensation, timelines, nondiscrimination, mediation, and condemnation in all 50 states and the District of Columbia.
- In August, the heads of the NTIA, the FCC, and the Department of State’s International Communications and Information Policy declared their support for an industry-based mechanism to implement ENUM in the U.S. provided the process is “as inclusive as possible” and adheres to principles of competition, interoperability, innovation, privacy and security. ENUM is a mapping protocol that links the Internet and telephony platforms through a single identifier. ENUM has the potential to facilitate convergence of communications networks by linking e-mail addresses, telephone numbers, fax numbers, and cell phone numbers for individuals or businesses.
- Also in August, NTIA released a report finding that Internet blocking and filtering technologies available today have the capacity to meet most, if not all, of the needs and concerns that educational institutions have relative to protecting children from obscenity, pornography, or other harmful content. Mandated by Section 1703 of CIPA, the report states that educational institutions would benefit from greater awareness of the technology products available and would also benefit from more training.

- On September 4, general registrations in the "kids.us" second level domain was launched. NTIA is required by the law establishing kids.us to publicize its availability as a source for Internet content suitable for children. The kids.us registration process opened to the public on a first-come, first-served basis through the .us registry operated by NeuStar. Kids.us is an Internet domain that parents and children can trust for educational and appropriate online fun; all content on affiliated sites is regularly screened and monitored.

Measure 1b: Policy Customer Survey

	FY 2000	FY 2001	FY 2002	FY 2003
Target	New	New	New	50 Customers
Actual				Postponed
Met/Not Met				Not Met

Explanation of Measure

NTIA has developed a customer survey to be administered in FY 2004 that yields qualitative assessments of NTIA’s policy activities. The survey will measure Administration customer perceptions of NTIA’s policy priorities, the timeliness of its activities in support of those priorities, and the inclusiveness of NTIA’s policy activities. Customers that will be surveyed include the White House, the State Department, other federal agencies, the Technology Administration, the International Trade Administration, and the Office of the Secretary within the Department of Commerce. NTIA intends to survey at least 50 customers on its policy-related activities.

FY 2003 Performance

NTIA anticipated conducting the customer survey in FY 2003 but changes in the Agency’s leadership necessitated postponement of the survey until FY 2004. The survey is intended to be approved and issued to senior levels in the White House, FCC, Department of Commerce and other departments, and the Congress by the agency head as an assessment of NTIA’s priorities and performance. The survey is ready for issuance in FY 2004.

Program Evaluation

NTIA conducts weekly meetings and semi-annual strategic planning retreats with senior executives to evaluate progress and to develop and refine program goals. NTIA meets with the Deputy Secretary monthly to plan and coordinate activities associated with the President’s Spectrum Management Initiative. Agency priorities and resource allocations are examined to ensure that limited resources are devoted to the highest priority goals. These program goals are coordinated with the Secretary of Commerce and the White House. Program evaluations determine whether existing resources are being assigned appropriately to the highest priority issues.

Performance Goal 2: Ensure Allocation of Radio Spectrum Provides the Greatest Benefit to all People

Corresponding Strategic Goal

Strategic Goal 2: Provide infrastructure for innovation to enhance American competitiveness.

Rationale for Performance Goal

The availability of the radio frequency spectrum is key to the development and implementation of innovative telecommunications technologies such as ultra-wideband (UWB) and third generation (3G) wireless services. NTIA's spectrum management activities are intertwined with its policy activities because 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. Recent examples include undertaking a leadership role in a major Bush Administration initiative to develop a radio spectrum policy for the twenty-first century, as well as actions to provide spectrum for 3G and UWB wireless services, and to evaluate broadband over powerline technology. NTIA's activities include (1) identifying and supporting new wireless technologies that promise innovative applications for customers of the federal and the private sectors; (2) providing the 56 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 future U.S. 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; and (5) improving through telecommunications research and engineering the understanding of radio-wave transmission, thereby improving spectrum utilization and the performance of radio-communications systems.

FY 2003 Performance

In January, NTIA and the FCC executed a new MOU on spectrum coordination. The FCC and NTIA have been operating under a MOU dating back to October 1940. The new agreement establishes procedures relating to frequency coordination, as well as spectrum planning provisions contained in the Communications Act. This MOU establishes a framework for compliance with the statutory requirements and stipulates that the Chairman of the FCC and Assistant Secretary for Communications and Information shall meet biannually to conduct joint spectrum planning. The MOU also is consistent with a recent GAO report that focused on the need for greater cooperation between the two spectrum policy organizations.

The U.S. Government agencies involved in spectrum management—NTIA, FCC and the State Department—must work collaboratively as "one spectrum team" to serve the nation's collective interest. Second, policies that encourage spectrum efficiency must be further developed. NTIA has long advocated and required the use of spectrum efficient technologies by federal agencies. For example, NTIA has developed, and the federal agencies are now implementing, a transition to narrowband technology to relieve the congestion in the land mobile radio bands used by the Federal Government. NTIA and the federal public safety agencies have adopted technical standards for receivers to minimize interference and increase overall spectrum efficiency. NTIA is also exploring innovative new technologies, including those that will permit radios to select their operating frequencies, decrease power, and adjust coverage, based on sensing the operating environment and dynamically selecting unused channels. Forward-looking policies must be established that enable technological advances and eliminate legacy regulations that stand in the way of innovation. One such promising reform in this area is the FCC's proceeding on creating

secondary markets that would permit parties to "lease" their spectrum to others to put otherwise unused spectrum to its most efficient use. Another is the accommodation of frequency flexible wireless systems, such as those under the 802.11 standard, on an unlicensed basis. NTIA is achieving these goals through research at its Boulder, Colorado, laboratory, and through education and outreach.

In May 2003, NTIA in cooperation with the FCC and the U.S. Department of State's International Communications and Information Policy group, hosted a two-day wireless technology showcase and policy discussion. The first day consisted of an exhibition of new, innovative wireless technologies, devices, and applications. The second day featured panel discussions on unlicensed wireless technologies by key policymakers, entrepreneurs, industry representatives, and experts from government and academia. This event built upon NTIA's "Spectrum Summit" held in FY 2002, the findings and recommendations of the FCC's Spectrum Policy Task Force, and the State Department's international policy and regulatory reform efforts by highlighting and demonstrating new and emerging technologies and creating a forum to discuss important spectrum policy issues that are likely to impact tomorrow's marketplace.

In August 2003, the FCC and NTIA announced a plan for implementation in the U.S. of the Final Acts of the 2003 World Radiocommunication Conference (WRC-03). The Final Acts record the decisions taken at the conference, and include the new and revised provisions of the Radio Regulations and associated Appendices, as well as the new and revised Resolutions and Recommendations adopted by the Conference. The ITU, under the auspices of the United Nations, convened WRC-03 from June 9 to July 4, 2003, in Geneva, Switzerland, with over 140 countries participating. The U.S. delegation was led by Ambassador Janice Obuchowski. WRC-03 considered 48 conference agenda items concerning the deployment, growth, and evolving use of a broad range of spectrum-based services. The changes adopted by the WRC-03 will directly impact global spectrum use for government and commercial use of the spectrum. The United States achieved its goals at WRC-03 and the FCC, in concert with NTIA, has developed a plan to implement the results of the conference. It will ensure that Federal Government, state and local governments, and commercial spectrum users promptly derive maximum benefits from the WRC-03 results. This summit plan follows the MOU signed by the FCC and NTIA in January 2003 for coordination of spectrum issues involving both federal and non-federal users.

Measure 2a: Timeliness of Processing

	FY 2000	FY 2001	FY 2002	FY 2003
Target	New	New	New	15 business days
Actual				15
Met/Not Met				Met

Explanation of Measure

NTIA has made substantial improvements over the years in the time required to process frequency assignment actions requested by the federal agencies. This measure will permit NTIA to continue to track improvements in processing time through further automation procedures and logistical procedures that are included in its paperless spectrum management initiative.

FY 2003 Performance

The target for FY 2003 to have frequency assignment requests processed and placed on the Interdepartmental Radio Advisory Committee (IRAC) agenda within 15 business days was met. As the paperless process is fully implemented, improvements in this schedule are expected. The IRAC then will consider those items for approval at its next regularly scheduled meeting.

Measure 2b: Percentage of Requests Accomplished Online				
	FY 2000	FY 2001	FY 2002	FY 2003
Target	New	New	New	95%
Actual				55%
Met/Not Met				Not Met

Explanation of Measure

NTIA has made substantial progress over the years in automating the frequency assignment process for federal agencies. This measure tracks and demonstrates the effectiveness of a new, secure Web-based interface for federal agencies to request frequency assignment actions entirely online.

FY 2003 Performance

The target for FY 2003 to process 95 percent of frequency assignment requests online was not met due to delays in implementing a Public Key Infrastructure (PKI) authentication schema meeting the program’s security requirements. A PKI solution has been implemented and the program performance is expected to achieve these planned levels in FY 2004 and beyond as investments in the paperless spectrum management initiative yield further results.

Measure 2c: Completeness and Accuracy of Agency Assignment Requests				
	FY 2000	FY 2001	FY 2002	FY 2003
Target	New	New	New	85%
Actual				87%
Met/Not Met				Met

Explanation of Measure

This measure was intended as an indication of whether customers are able to file a request completely and accurately, and whether improvements in the customer interface are needed. NTIA will discontinue this measure after FY 2003 as many customer behaviors are outside its control, subject to too many outside variables beyond NTIA’s control, and the information sought through this measure is more readily obtained in the spectrum management training courses offered throughout the year.

FY 2003 Performance

More than 87 percent of agency frequency assignment requests are complete and accurate when filed. This is largely due to the routine nature of the filings and the help routines built into the Spectrum XXI software package, however. As indicated above, program management derives little useful information from this measure so it will be discontinued.

Measure 2d: Customer Satisfaction Survey on Training Course				
	FY 2000	FY 2001	FY 2002	FY 2003
Target	New	New	New	90% satisfactory or better
Actual				90%+
Met/Not Met				Met

Explanation of Measure

NTIA's Office of Spectrum Management (OSM) conducts a number of spectrum management training seminars each year for federal spectrum managers and for representatives from foreign administrations. This measure will determine whether the seminar content is useful to participants. NTIA's goal in FY 2003 is to have 90 percent or better of customers to give the course a satisfactory rating.

FY 2003 Performance

NTIA's goal in FY 2003 was to have 90 percent or better of customers give the spectrum management training courses a satisfactory rating. These training courses have developed such a positive reputation in the federal spectrum management community that there is a waiting list for each session. The goal was met.

Program Evaluation

NTIA management reviewed and assessed policy and program priorities in the development of FY 2003 and 2004 budgets. In addition, NTIA's spectrum summit in FY 2002 began an inquiry on how to better manage and allocate this finite resource among competing uses. The ongoing inquiry will yield information about new and innovative ideas for spectrum policy and management that encourage spectrum efficiency, that provide spectrum for new technologies, and that improve the effectiveness of the domestic and international spectrum management process. NTIA will continue this leadership role in a major Bush Administration initiative to develop a radio spectrum policy for the twenty-first century that will better manage the nation's airwaves, enhance homeland and economic security, increase benefits to consumers, and ensure U.S. leadership in high-tech innovations. To meet its current obligations and to address improvements, NTIA's spectrum management functions will continue to consume the largest share of agency resources.

Performance Goal 3: Promote the Availability, and Support New Sources, of Advanced Telecommunications and Information Services

Corresponding Strategic Goal

Strategic Goal 2: Provide infrastructure for innovation to enhance American competitiveness.

Rationale for Performance Goal

In addition to its policy-related activities, NTIA supports innovative telecommunications and information technologies through a grant program and through basic research performed at its laboratory, the 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 UWB and 3G wireless services.

FY 2003 Performance

To foster more efficient use of the radio spectrum, and to advance the development and introduction of more spectrally efficient communication technologies, NTIA's ITS completed a number of key research and engineering studies in 2003 focused on radio spectrum occupancy and new communication technologies. This research was accomplished in close coordination with NTIA's Office of Spectrum Management (OSM). A critical part of this work centered on the measurement and analysis of the actual use of the spectrum, utilizing the ITS-operated Radio Spectrum Measurement System (RSMS). The RSMS, consisting of a mobile unit, a suitcase-transportable version, and a supporting laboratory in Boulder, is used to perform measurements in multiple frequency bands at selected sites, and to make other specialized measurements as necessary to determine the effects that emerging technologies have on spectrum use/efficiency and on existing systems. ITS continued research and engineering to support the development of new wireless technologies, including wireless local area networks, 3G wireless, broadband wireless access, digital broadcasting, smart antennas, and UWB communications. Public Telecommunications Facilities Program (PTFP) grants assisted public broadcasting stations across the country complete federally mandated conversions to digital technology.

Measure 3a: Digital Broadcasting Conversion				
	FY 2000	FY 2001	FY 2002	FY 2003
Target	New	New	New	40 grants
Actual				79
Met/Not Met				Met

Explanation of Measure

The PTFP is a competitive grant program that helps public broadcasting stations, state and local governments, Indian tribes, and nonprofit organizations construct facilities to bring educational and cultural programs to the American public using broadcast and nonbroadcast telecommunications technologies. The main objective of the program is to extend the delivery of public radio and television to unserved areas of the United States. Because the FCC requires that all public television stations begin broadcasting a digital signal, PTFP has implemented special provisions to help public television stations meet the FCC's digital conversion requirement. As part of this performance measure, PTFP will track the number of all public television stations that have converted to digital broadcasting and will, therefore, be able to estimate the percentage of the U.S. population served by a digital public television signal. This estimate will help in determining program-funding priorities.

FY 2003 Performance

PTFP awarded \$31 million in 79 digital television conversion grants, which will be matched by \$51 million raised by the recipients. Funds were awarded to support the digital television conversion in 49 states and of statewide systems in 28 states. Determination of U.S. population covered will be made in FY 2004.

Measure 3b: Timeliness of Grant Awards				
	FY 2000	FY 2001	FY 2002	FY 2003
Target	New	New	New	100%
Actual				100%
Met/Not Met				Met

Explanation of Measure

PTFP has a number of steps to accomplish in each grant round before making awards near the end of the fiscal year. These include preparation of the application package, initial review of applications, engineering and outside review of applications, and rating and recommendations for grant applications. This measure permits the program to determine whether its procedures are working adequately for the timely award of grants.

FY 2003 Performance

PTFP awarded a total of \$39 million in FY 2003 funding to assist public radio, public television, and nonbroadcast (distance learning) projects across the country. On September 30, 2003, \$6 million went to 23 grantees to assist in the digital conversion of 36 public television stations. Other grant awards also included \$4.5 million for 66 radio grants, \$1.6 million for nine television equipment replacement grants, \$1.4 million for 11 nonbroadcast (distance learning) grants, and one grant to the University of Hawaii for \$488,977 for the PEACESAT (Pan-Pacific Educational and Cultural Experiments by Satellite) project.

Earlier in the year, PTFP awarded \$25 million for the conversion of public television stations to digital broadcasting, bringing the total amount awarded for digital television conversion projects during the year to \$31 million. These 79 digital television conversion grants will be matched by \$51 million raised by the recipients.

All grants were awarded by September 30, 2003.

Measure 3c: Percent of the U.S. Covered by Public Broadcasting Signals				
	FY 2000	FY 2001	FY 2002	FY 2003
Target	New	New	New	95% 90% Radio
Actual				95% TV 90% Radio
Met/Not Met				Met

Explanation of Measure

One of the primary goals of the PTFP is to bring a public radio or public television signal to unserved areas. This measure indicates how well the program is meeting that goal. The target for FY 2003 is to increase the population served by public broadcasting coverage in the United States.

FY 2003 Performance

Eleven awards will extend public radio signals to approximately 223,000 people unserved by public radio. PTFP awarded \$30,922,311 in digital television conversion grants, which supports the digital conversion of 116 stations, a top priority of the program. This goal was met in that grants were made to extend public broadcasting to unserved areas, but actual FY 2003 population data will not be available from the FCC until sometime in 2004.

Measure 3d: Quality of Basic Research as Reflected in Peer-reviewed Publications				
	FY 2000	FY 2001	FY 2002	FY 2003
Target	New	New	New	Five publications
Actual				5
Met/Not Met				Met

Explanation of Measure

One measure of the quality of basic research programs is the number of peer-reviewed articles that are published in technical journals and publications. This measure indicates the reception of research results within the spectrum research and engineering community. This research supports NTIA's spectrum management and policy-related activities, as well as other federal agencies.

FY 2003 Performance

The target for FY 2003 was five peer-reviewed articles, and was met. ITS also published reports on *An Iterated Nested Least-Squares Algorithm for Fitting Multiple Data Sets* (October 2002), *Compensating for System Gain: Motivations, Derivations, and Relations for Three Common Solutions*, (October 2002), *Proceedings of the International Symposium on Advanced Radio Technologies March 4-7, 2003* (March 2003), *Measurements to Determine Potential Interference to Public Safety Radio Receivers from Ultrawideband Transmission Systems* (June 2003), and *Measurements of Channel Transfer Functions and Capacity Calculations for a 16x16 BLAST Array over a Ground Plane* (June 2003).

Measure 3e: Level of Technology Transfer Activities Conducted with the Private Sector through the Cooperative Research and Development Agreements (CRADA).

	FY 2000	FY 2001	FY 2002	FY 2003
Target	New	New	New	3 CRADAs
Actual				5
Met/Not Met				Met

Explanation of Measure

CRADAs based upon the Federal Technology Transfer Act of 1986 are the principal means of aiding the private sector through ITS's spectrum research and engineering activities. This measure provides an indication of the utility of these activities to the private sector.

FY 2003 Performance

The target for FY 2003 was three CRADAs, and was met. New and existing research agreements include those with Bell South Enterprises; Telesis Technology Laboratories; US WEST Advanced Technologies; Bell Atlantic Mobile Systems; GTE Laboratories Inc.; US WEST New Vector Group; General Electric Company; Motorola Inc.; Hewlett-Packard Company; Integrator Corporation; AudioLogic, Inc.; Industrial Technology, Inc.; Netrix Corporation; Lucent Technologies; ARINC; Lehman Chambers; Lucent Digital Radio; Intel Corporation; and the American Automobile Manufacturers Association.

Program Evaluation

NTIA management reviewed and assessed policy and program priorities in the development of FY 2003 and 2004 budgets. As a result, ITS research will focus on supporting those spectrum management reform activities undertaken in NTIA's policy development (see Goals 1 and 2 above.)

NTIA Data Validation and Verification

NTIA reviews performance data to ensure that it is complete and accurate. In FY 2003, NTIA had three goals and 11 measures. Of the 11 measures, NTIA postponed activity associated with one (policy customer survey), met nine, and did not meet two. The actual validation process is conducted following similar 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 GAO. Grant information is verified by the Department's Office of Financial Assistance and published on the NTIA Web site. Additionally, documentation is reviewed and a determination is made on its adequacy and sufficiency to support claims that outcomes and outputs have been achieved.

The NTIA Data Validation and Verification table can be found on the following page.

NTIA Data Validation and Verification

Performance Measure	Data Source	Frequency	Data Storage	Verification	Data Limitations	Actions to be Taken
Measure 1a: Provide the policy framework for introduction of new technologies	Office of Policy Coordination and Management.	Weekly, monthly, annually.	NTIA intranet	Manual inspection	None	Collection of data.
Measure 1b: Policy customer survey	Customer surveys	Annual	NTIA's CIO	Manual inspection	A survey of 50 federal customers should yield useful results for program planning and evaluation. The sample size will be examined in light of experience with the FY 2003 survey.	Develop survey methodology and conduct survey.
Measure 2a: Timeliness of processing	Interdepartmental Radio Advisory Committee (IRAC) support branch, Office of Spectrum Management (OSM).	Weekly, monthly, annually.	Computer services division, OSM.	Automated data processing (ADP) routines.	Classified information is not included in public data.	Collection of data.
Measure 2b: Percentage of requests accomplished online	IRAC support branch, OSM.	Annual	Computer services division, OSM.	ADP routines	Classified information is not included in public data.	Collection of data.
Measure 2c: Completeness and accuracy of agency assignment request	IRAC support branch, OSM.	Annual	Computer services division, OSM.	ADP routines and manual inspection.	Classified information is not included in public data.	Collection of data.
Measure 2d: Customer satisfaction survey on training course	OSM	Every course conducted.	OSM	Manual inspection	None	Develop survey.
Measure 3a: Digital broadcasting conversion	Public Telecommunications Facilities Program (PTFP).	Annual	PTFP	Awards are posted on the public Web site when made.	None	Collection of data.
Measure 3b: Timeliness of grant awards	PTFP	Annual	PTFP	Manual inspection	Depends on the data from the Federal Communications Commission (FCC).	Inspection of the U.S. covered by public broadcasting signals.
Measure 3c: Quality of basic research as reflected in peer-reviewed publications	Institute for Telecommunication Sciences (ITS).	Annual	NTIA/ITS Web site.	Inspection, posted on the public Web site.	None	Inspection of current publications.
Measure 3e: Level of technology transfer activities conducted with the private sector through the Cooperative Research and Development Agreements (CRADA).	ITS	Annual	ITS administrator.	Inspection, posted on the public Web site.	None	Inspection of transfer activities.