

SPECTRUM MANAGEMENT FOR THE 21ST CENTURY

**PLAN TO IDENTIFY AND IMPLEMENT INCENTIVES THAT
PROMOTE MORE EFFICIENT AND EFFECTIVE
USE OF SPECTRUM**

**PART OF
THE PRESIDENT'S SPECTRUM POLICY INITIATIVE**



U.S. DEPARTMENT OF COMMERCE

**CARLOS M. GUTIERREZ
SECRETARY OF COMMERCE**

Acknowledgements

The Department would like to thank all the senior managers and subject-matter experts in the government who provided significant contributions to the preparation of this implementation plan. These contributions came from the departments and agencies that use the radio frequency spectrum extensively in accomplishing their missions.

The National Telecommunications and Information Administration (NTIA) also received comments from the Office of Management and Budget, the Office of Science and Technology Policy, and the Federal Communications Commission (FCC). NTIA especially thanks the members of the Interdepartment Radio Advisory Committee for their contributions.

PLAN TO IDENTIFY AND IMPLEMENT INCENTIVES THAT PROMOTE MORE EFFICIENT AND EFFECTIVE USE OF SPECTRUM

PART OF THE PRESIDENT’S SPECTRUM POLICY INITIATIVE

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Executive Summary

In May 2003, the President committed the Administration to the development of a United States Spectrum Policy that promotes economic prosperity and national security through the 21st century. Since then, the Executive Branch has worked to implement the President's Spectrum Policy Initiative. In June 2004, the Secretary of Commerce provided the President two reports documenting the results of a one-year study of spectrum reform. Both reports focused on four specific goals outlined by the President. These were to: (a) facilitate a modernized and improved spectrum management system; (b) create incentives for more efficient and beneficial use of spectrum and policies increasing predictability and certainty for incumbent users; (c) develop policy tools to streamline the deployment of new services while preserving security and public safety, and encouraging scientific research; and (d) meet critical spectrum needs related to national and homeland security, critical infrastructure protection, and scientific advancement.

In November 2004, the President issued an Executive Memorandum directing that

. . . the Secretary of Commerce, in coordination with other relevant agencies identified by the Secretary . . . develop a plan for identifying and implementing incentives that promote more efficient and effective use of the spectrum while protecting national and homeland security, critical infrastructure, and Government services.

Pursuant to the President's directive, NTIA has developed this plan to expand on existing policies that (1) identify and implement incentives that are appropriate to Federal Government users; and (2) address incentives more broadly and develop possible legislative recommendations to increase the FCC's incentive authority.

I. Incentives for Improving Spectrum Use by Federal Agencies

NTIA, in consultation with the federal agencies, will: (1) examine whether user fees would encourage greater efficiency of government spectrum use, including methodologies for setting such fees, and the appropriateness of such fees considering the potential effect on an agency's mission effectiveness and on overseas operations; (2) examine other incentives to allow agencies to benefit from reducing or eliminating spectrum use; (3) identify options for giving agencies greater flexibility in managing their frequency assignments, including shared use and trading among federal and non-federal users; (4) identify other incentives for use of more spectrally efficient systems; (5) consider possible models and methods for estimating the economic value of given portions of the spectrum; (6) examine incentives for agencies willing to increase use of commercial services or technologies that result in decreased reliance on spectrum allocated for Federal Government use; and (7) develop and support the legislation necessary to implement incentives as appropriate. NTIA has identified the following subtasks to carry out this task:

- Subtask I-A: Convene Public Forum on Spectrum Incentives.
- Subtask I-B: Review and Analyze Incentives Used by Other Countries.
- Subtask I-C: Study Spectrum Valuation.
- Subtask I-D: Study Federal User Fees as Incentives.
- Subtask I-E: Develop Alternative Incentive Approaches.
- Subtask I-F: Examine Different Sharing Models.
- Subtask I-G: Recommend Actions.

II. Incentives to Improve Efficiencies of both Government and Private Sector Spectrum Use

NTIA will more broadly establish or expand incentives throughout spectrum management for promoting efficient spectrum use by the private sector as well as Federal agencies, using market-based approaches wherever possible. The President's fiscal year 2004 through 2009 budgets called upon Congress to enact legislation to make the FCC's auction authority permanent and to authorize user fees on unauctioned spectrum licenses. In addition, recommendations in the two 2004 reports encouraged the FCC and NTIA to use existing incentives authority (particularly the expanded use of secondary markets) and to consider rulemakings, as appropriate, to examine additional incentives. NTIA will support and develop specific legislative proposals, working with the Congress, the FCC, and other Administration agencies to advance the goal of efficient use of spectrum. NTIA will also promote the greater use of economic incentives in general as a means to achieve greater efficiency and therefore additional spectrum for new and innovative technologies. NTIA has identified the following subtasks to carry out this task:

- Subtask II-A: Support the President's Legislative Proposals on Spectrum.
- Subtask II-B: Examine Incentives Possible Through Increased Sharing.
- Subtask II-C: Explore Changes in User Rights and Secondary Markets.
- Subtask II-D: Recommend Actions.

SPECTRUM MANAGEMENT FOR THE 21ST CENTURY

PLAN TO IDENTIFY AND IMPLEMENT INCENTIVES THAT PROMOTE MORE EFFICIENT AND EFFECTIVE USE OF THE RADIO SPECTRUM

PART OF THE PRESIDENT'S SPECTRUM POLICY INITIATIVE

We must unlock the economic value and entrepreneurial potential of U.S. spectrum assets while ensuring that sufficient spectrum is available to support critical Government functions.

George W. Bush, Executive Memorandum, May 2003

Section 1 - Introduction

In May 2003, the President committed the Administration to the development of a United States Spectrum Policy that promotes economic prosperity and national security through the 21st century.¹ Since then, the Executive Branch has worked to implement the President's Spectrum Policy Initiative. In June 2004, the Secretary of Commerce provided the President two reports documenting the results of a one-year study of spectrum reform. Both reports focused on four specific goals outlined by the President. These were to: (a) facilitate a modernized and improved spectrum management system; (b) make policy changes to create incentives for more efficient and beneficial use of spectrum and to increase predictability and certainty for incumbent users; (c) develop policy tools to streamline the deployment of new services while preserving security and public safety, and encouraging scientific research; and (d) meet critical spectrum needs related to national and homeland security, critical infrastructure protection, and scientific advancement.

In November 2004, the President issued an Executive Memorandum directing, among other things, that "the Secretary of Commerce, in coordination with other relevant agencies identified by the Secretary . . . develop a plan for identifying and implementing incentives that promote more efficient and effective use of the spectrum while protecting national and homeland security, critical infrastructure, and Government services."² Pursuant to the President's directive, NTIA has developed this plan to expand on existing policies that (1) identify and implement incentives that are appropriate to federal government users; and (2) address incentives more broadly and develop additional legislative or administrative recommendations to increase the FCC's incentive authority.

¹ Presidential Memo on Spectrum Policy: Memorandum for the Heads of Executive Departments and Agencies, 39 Weekly Comp. Pres. Doc. 726, 727 (May 29, 2003; rel. June 5, 2003) available at <http://www.whitehouse.gov/news/releases/2003/06/print/20030605-4.html>; see also Appendix 2, *infra*.

² Presidential Determination: Memorandum for the Heads of Executive Departments and Agencies, 40 Weekly Comp. Pres. Doc. 2875, 2876, sec. 3(c) (Nov. 30, 2004), available at <http://www.whitehouse.gov/news/releases/2004/11/20041130-8.html>; see also Appendix 3, *infra*.

The President's Spectrum Policy Initiative calls for a wide range of improvements to national spectrum management policies, including increased use of incentives. The two reports submitted to the President together in June 2004 each include recommendations for the greater use of incentives in spectrum management. Report 1, Recommendations of the Federal Government Spectrum Task Force, and Report 2, Recommendations of State and Local Governments and Private Sector Responders, included recommendations for the greater use of incentives in spectrum management.³ Report 1 recommended, *inter alia*, that NTIA, in coordination with the federal agencies, "initiate a plan to identify and implement incentives that promote more efficient and effective use of the spectrum," which would "include development of methods or models to determine spectrum value." Report 1 noted that "market-based incentives may not be appropriate for all federal radio services and in all bands, [and consequently] NTIA should apply these incentives only in appropriate situations."⁴

Report 2 recommended that the Administration "encourage Congress to enact legislation that provides the FCC with permanent authority to conduct spectrum auctions for licenses and to collect fees for spectrum use that once "enacted into law, the FCC and NTIA should use the statutory authorities . . . to develop increased economic incentives for efficient spectrum use." It also recommended that "NTIA, in conjunction with the FCC, should, through appropriate rulemaking processes, examine the possibility of modifying spectrum rights as a means to encourage the deployment of spectrally efficient technologies."⁵ The President directed the Department of Commerce to implement each of these recommendations. This Incentives Plan addresses their implementation.⁶

Spectrum is an input to both commercial and government operations, as is real estate, system design, electronic equipment, construction and installation, operating personnel, etc. Scarcity of

³ National Telecommunications and Information Administration, U.S. Dep't of Commerce (NTIA), *Spectrum Policy for the 21st Century – The President's Spectrum Policy Initiative: Report 1*, (2004) (Report 1), available at http://www.ntia.doc.gov/reports/specpolini/pressspecpolini_report1_06242004.htm, and *Spectrum Policy for the 21st Century – The President's Spectrum Policy Initiative: Report 2* (2004) (Report 2), available at http://www.ntia.doc.gov/reports/specpolini/pressspecpolini_report2_06242004.htm.

⁴ Report 1, *supra* note 3, at Recommendation 8, p.24.

⁵ Report 2, *supra* note 3, Recommendation 5.

⁶ Separate projects within the President's Initiative also focus on improving efficiency and effectiveness in federal agency spectrum use. For example, a capital planning activity led by the Office of Management and Budget (OMB) may assist in development of incentives. OMB amended its Circular No. A-11, Part 2, Preparation and Submission of Budget Estimates to require federal agencies to "consider the economic value of radio spectrum used in major telecommunication, broadcast, radar, and similar systems when developing economic and budget justifications for procurement of these systems, starting with the FY 2007 requests." This revision also requires the agencies to "obtain a certification by the NTIA, Department of Commerce that the radio frequency required can be made available" prior to submitting "estimates for the development or procurement of major radio spectrum-dependent communication-electronics systems (including all systems employing space satellite techniques)." (OMB Circular No. A-11, Part 2, Section 33.4) Also, the Federal Strategic Spectrum Plan and the underlying agency plans have identified related matters such as use of commercial systems or new technologies. (See NTIA, *Federal Strategic Spectrum Plan*, available at <http://www.ntia.doc.gov/reports/2008/FederalStrategicSpectrumPlan2008.pdf>.) Technical activities underway at NTIA, such as the development of metrics for evaluating technical efficiency in spectrum use under defined operational conditions and for specified radiocommunication services, could support actions to improve efficiency in federal agency spectrum use. More information on these activities is available in NTIA's annual progress reports. (See, e.g., NTIA, *The President's Spectrum Policy Initiative Second Annual Progress Report*, available at <http://www.ntia.doc.gov/reports/2007/SpectrumPolicySecondReport2007.pdf>.)

spectrum is a chronic challenge for spectrum managers. Innovative new services must often compete for the spectrum resource with other new users or established incumbents who themselves provide valuable or critical services. The ultimate goal of spectrum management is efficiency because more efficient spectrum use makes additional spectrum available for additional users or for new services.

The recommendations for greater incentives contained in the two Reports derive from the fact that the President launched the Spectrum Policy Initiative and requested that economic incentives be examined. These are reinforced by *The Economic Report of the President* (2005), which supported strengthening spectrum rights and observed the benefits of tradable rights. It noted the Administration's support of FCC efforts to expand secondary markets.⁷

Application of economic incentives to increase efficient use by non-commercial users, particularly federal and non-federal users, presents challenges that call for further inquiry. Federal government agencies depend on the availability of spectrum for national defense, homeland security, critical infrastructure such as transportation, and other vital activities. Incentives, including economic incentives, may not be appropriate for application to certain government spectrum uses, or applicable to the same degree. Any incentives adopted would need to be carefully crafted to avoid compromising government missions.

The use of incentives implies that spectrum has economic value. This value is in the public resource, rather than the services provided by government agencies, such as national defense or public safety, which are difficult to express in economic terms. Yet, while the opportunity cost of these resources is considered in operational decisions, these considerations are currently limited in the instance of spectrum. A significant benefit of considering the economic value of spectrum is that operations can be more easily designed and conducted for minimum economic cost, which includes the value of spectrum used. Without an understanding of the cost of spectrum use, planning decisions will lack consideration of spectrum issues, making efforts to account for the true cost of spectrum incomplete. These decisions need to consider the trade-offs in spectrum use, just as they do other inputs, in order to provide maximum value for minimum cost.

NTIA will examine and compare the appropriateness and efficacy of various incentives for federal agencies. For example, agencies may gain incentives to use spectrum more efficiently if they have the right to enter into sharing arrangements or "lease" the spectrum to public or private users. Also, federal agencies may be able to use spectrum more efficiently if they have a greater ability to obtain or "lease" spectrum from non-federal users. The use of new technologies has the potential to increase sharing abilities and opportunities between Federal and non-Federal users.

Additionally, spectrum use fees (as distinguished from current administrative cost-recovery fees) imposed on spectrum users are one possible way of giving spectrum users the incentive to use the spectrum resource more efficiently. NTIA will explore whether such fees are likely to increase spectrum efficiency (and how they could be applied fairly) as well as alternative methodologies for setting a fee for particular services. NTIA will study fees based on value of the spectrum used, will

⁷ *Economic Report of the President* (2005) at 152-153; available at http://a257.g.akamaitech.net/7/257/2422/17feb20051700/www.gpoaccess.gov/eop/2005/2005_erp.pdf.

identify the appropriateness of such fees to particular services, and will develop economic models to predict whether such fees may increase economic efficiency.

Section 2 – Projects to Identify and Implement Incentives

Consistent with the directives in the November 2004 Executive Memorandum, NTIA plans to address incentives in two tasks presented below. In Task I, NTIA presents a plan for identifying and implementing incentives that are appropriate to Federal Government users. In Task II, NTIA presents a plan to address incentives more broadly and develop possible legislative recommendations to increase the FCC's incentive authority. Some of the activities, including an initial public forum and a review of spectrum reforms and practices used in other countries, are components of both subtasks.

Task I. Incentives for Improving Spectrum Use by Federal Agencies

NTIA, in consultation with the Federal agencies, plans to (1) examine whether use fees would encourage greater efficiency of government spectrum use, including methodologies for setting such fees, and the appropriateness of such fees considering the potential effect on agency's mission effectiveness and on overseas operations; (2) identify other incentives to allow agencies to benefit from reducing or eliminating spectrum use; (3) identify options for giving agencies greater flexibility in managing their frequency assignments, including shared use and trading among federal and non-federal users; (4) identify other incentives for use of more spectrally efficient systems; (5) develop possible models and methods for estimating the economic value of given portions of the spectrum; (6) examine incentives for agencies willing to be "first buyers" or anchor tenants for commercial services or technologies that result in decreased reliance on spectrum allocated to Federal Government use; and (7) develop and support such legislation necessary for implementing incentives as appropriate.

The following subtasks comprise the overall plan for Task 1:

Subtask I-A: Convene Public Forum on Spectrum Incentives (Completed February 28-March 1, 2006)

NTIA contracted with the National Academy of Sciences to hold a public workshop on February 28 and March 1, 2006 to discuss incentives for efficient spectrum use, including economic incentives for both government and private sector use. This forum brought together national and international government officials, private sector service providers, technology developers and manufacturers, spectrum users, academics, and others who recommended further actions to increase the efficiency of Federal and private sector spectrum use. NTIA will use the information gained from this workshop to guide and inform development of the further studies identified below.

This activity supports both Task I and Task II.

Subtask I-B: Review and Analyze Incentives Used by Other Countries (Completed Second Quarter 2006)

NTIA examined the spectrum management best practices of other countries. This included both the government and private sector, focusing on fees, auctions, secondary markets and other relevant measures. NTIA evaluated the countries' approaches to improving efficient and effective use of the spectrum and review distinctions in licensing approaches and incentives applied for government users. Based on this review, NTIA will consider new approaches to spectrum management, including through granting increased spectrum rights, better defining such rights, sharing or trading of spectrum between government and non-government users made possible by advanced technologies, development of dispute resolution mechanisms, and other reforms to determine whether they would be suitable for adoption in the United States.

This activity supports both Task I and as Task II.

Subtask I-C: Study Spectrum Valuation (Target Completion Date Third Quarter 2009)

NTIA will study methods to estimate the economic value for spectrum used by federal agencies. This will include estimating the value of government-used spectrum, comparing the use and value of government spectrum to comparable non-federal spectrum, and assessing the opportunity cost of government spectrum versus other uses. The study will seek to develop a method for estimating the value of government spectrum across different spectrum bands and services.

Subtask I-D: Study Federal User Fees as Incentives (Target Completion Date Fourth Quarter 2008)

Federal agencies currently pay NTIA a fee for frequency assignments. These fees help NTIA recover the costs of its spectrum management program and they provide modest incentives for agencies to use spectrum efficiently. Countries including the United Kingdom and Canada have developed user fees (sometimes referred to as incentive pricing) on government agency spectrum use that reflect the opportunity cost of spectrum as a means to encourage greater spectrum efficiency by those agencies. NTIA will analyze the possible effectiveness of user fees designed specifically to encourage Federal agencies to make more efficient use of spectrum. This will include identifying services and bands most appropriate for fees, and constructing fee schedules that consider characteristics of the spectrum such as frequency, bandwidth, geographic location, coverage area, and service. NTIA will carefully consider the extent to which fees would be effective in increasing efficiency, particularly in an environment of annual appropriations, or suitable for certain services or missions. This study also will analyze the effect of such fees on agencies, including their planning for spectrum-based systems, use of commercial systems and services, budget planning, and possible programmatic impacts.

Subtask I-E: Develop Alternative Incentive Approaches (Target Completion Date Fourth Quarter 2008)

NTIA will examine non-fee incentives that could promote efficiency among federal agency spectrum users. These options could include granting agencies tradable rights and allowing agencies to accept payment for, or otherwise benefit from, allowing others to access their spectrum. NTIA may also study additional rights that federal users may need to enable them to make spectrum available on a temporary or secondary basis, or to receive payment for use of the spectrum by private sector entities.

Subtask I-F: Examine Different Sharing Models (Target Completion Date Fourth Quarter 2008)

The development of new technologies, such as agile or cognitive radios, could significantly increase efficiency through dynamic spectrum access. NTIA will study how this and other types of sharing provide incentives for more spectrum efficiency. This will include examining frequency availability for such systems, different dynamic spectrum access techniques, and preemptive spectrum rights. It will also include examination of incentives to or obstacles against agency procurement of systems incorporating new technologies. Other options could include ways in which agencies might permit unlicensed operations in their spectrum, or conversely, operate in a non-licensed environment.

Subtask I-G: Recommend Actions (Target Completion Date Fourth Quarter 2008 and Fourth Quarter 2009)

Incorporating the results from subtasks listed above, NTIA will identify needed administrative, regulatory and/or legislative action to implement changes in federal spectrum management. NTIA will then develop recommendations for the President on how best to increase the efficiency and effectiveness of federal spectrum use, and provide draft proposals needed to implement these recommendations.

Task II. Incentives to Improve the Efficiencies of both Government and Private Sector Spectrum Use

NTIA will establish economic incentives for promoting efficient use of spectrum, utilizing market-based approaches wherever possible. The following tasks outline NTIA plans to identify and implement economic incentives:

Subtask II-A: Support the President's Legislative Proposals on Spectrum (Target Completion Date Continuing)

The President's fiscal year 2007 budget calls for extending indefinitely the FCC's authority under section 309(j) of the Communications Act to use competitive bidding (auctions) to award spectrum licenses, and also proposes new authority for the FCC to set user fees on unauctioned spectrum licenses, based on public interest and spectrum management

principles. NTIA, in coordination with OMB, will support legislation that implements the President's policies and budget.

Subtask II-B: Examine Incentives Possible Through Increased Sharing (Target Completion Date Fourth Quarter 2009)

NTIA will examine the incentives needed to encourage greater sharing of spectrum, particularly between government and non-government users. A government entity may have a critical but infrequent need for spectrum. During times when spectrum bands are idle, there is an opportunity to share this spectrum with other users under specified conditions. NTIA will explore proposals to allocate or assign spectrum for sharing on a preemptive basis. For example, a commercial user may value particular frequencies and be willing to operate subject to preemption and/or make payments in exchange for access. NTIA will also examine legal and regulatory obstacles to spectrum licensees offering access to other spectrum users.

NTIA may undertake this project in conjunction with Subtask F of Task I, above.

Subtask II-C: Explore Changes in User Rights and Secondary Markets (Target Completion Date Fourth Quarter 2009)

The current spectrum management system gives exclusive rights to many spectrum licensees in particular services. The FCC has moved towards granting licensees flexibility as part of its transition to a more market-oriented approach to spectrum management. NTIA will examine spectrum rights, how the FCC and NTIA define rights, and what changes, if any, would be beneficial and practical.

In this subtask, NTIA will review the interference rights or protections granted to spectrum users by FCC license or NTIA authorization. This review may include legal, engineering, or economic assessments of rights to operate or protection from interference. NTIA will examine alternative approaches to designing and devolving spectrum rights, including transition issues. NTIA will consider the effect and appropriateness of policy modifications on individual services or users, such as international services.

Additionally, NTIA will examine the FCC's recent work to establish secondary markets and streamline their processes. NTIA will explore ways to enhance secondary markets, including increasing technical flexibility, developing real time electronic trading mechanisms, and expanding the trading of spectrum to federal as well as non-federal users.

Subtask II-D: Recommend Actions (Target Completion Date Fourth Quarter 2008 and Fourth Quarter 2009)

Incorporating the results from previous subtasks, NTIA will identify needed administrative, regulatory and/or legislative action to implement changes in federal spectrum management. NTIA will then develop recommendations for the President on how best to increase the efficiency and effectiveness of federal spectrum use, and provide draft proposals needed to implement these recommendations.

Appendix 1

Overview of Key Deliverables and Target Completion Dates

<i>Deliverable</i>	<i>Target Completion Date (Calendar Year)</i>
Task I. Spectrum Use by Federal Agencies	
Subtask I-A: Convene Public Forum on Incentives	1Q 2006 [Completed]
Subtask I-B: Review and Analyze Incentives Used by Other Countries	2Q 2006 [Completed]
Subtask I-C: Study Spectrum Valuation	3Q 2009
Subtask I-D: Study Federal User Fees as Incentives	4Q 2008
Subtask I-E: Develop Alternative Incentive Approaches	4Q 2008
Subtask I-F: Examine Different Sharing Models	4Q 2008
Subtask I-G: Recommend Actions	4Q 2008 and 4Q2009
Task II. Government and Private Sector Spectrum Use	
Subtask II-A: Support President's Legislative Proposals on Spectrum	Continuing
Subtask II-B: Examine Incentives Possible through Increased Sharing	4Q 2009
Subtask II-C: Explore Changes in User Rights and Secondary Markets	4Q 2009
Subtask II-D: Recommend Actions	4Q 2008 and 4Q 2009

Appendix 2



For Immediate Release
Office of the Press Secretary
June 5, 2003

Presidential Memo on Spectrum Policy

Memorandum for the Heads of Executive Departments and Agencies
Subject: Spectrum Policy for the 21st Century

The radio frequency spectrum is a vital and limited national resource. Spectrum contributes to significant technological innovation, job creation, and economic growth, and it enables military operations, communications among first responders to natural disasters and terrorist attacks, and scientific discovery.

Recent years have witnessed an explosion of spectrum-based technologies and uses of wireless voice and data communications systems by businesses, consumers, and Government. Today there are over 140 million wireless phone customers and, increasingly, businesses and consumers are installing systems that use unlicensed spectrum to allow wireless data, called Wireless Fidelity (WiFi), on their premises. The Federal Government makes extensive use of spectrum for radars, communications, geolocation/navigation, space operations, and other national and homeland security needs. We must unlock the economic value and entrepreneurial potential of U.S. spectrum assets while ensuring that sufficient spectrum is available to support critical Government functions.

The existing legal and policy framework for spectrum management has not kept pace with the dramatic changes in technology and spectrum use. Under the existing framework, the Government generally reviews every change in spectrum use, a process that is often slow and inflexible, and can discourage the introduction of new technology. Some spectrum users, including Government agencies, maintain that the existing spectrum process is insufficiently responsive to the need to protect current critical uses.

My Administration is committed to promoting the development and implementation of a U.S. spectrum policy for the 21st century that will: (a) foster economic growth; (b) ensure our national and homeland security; (c) maintain U.S. global leadership in communications technology development and services; and (d) satisfy other vital U.S. needs in areas such as public safety, scientific research, Federal transportation infrastructure, and law enforcement. My Administration has already proposed several legislative changes or program initiatives to improve elements of the spectrum management process. These proposals would greatly enhance the Government's ability to efficiently manage spectrum. To further promote the development and implementation of a U.S. spectrum policy for the 21st century, I hereby direct the following:

Section 1. Establishment. There is established the "Spectrum Policy Initiative" (the "Initiative") that shall consist of activities to develop recommendations for improving spectrum management policies and procedures for the Federal Government and to address State, local, and private spectrum use. The Secretary of Commerce shall chair and direct the work of the Initiative. The Initiative shall consist of two courses of spectrum-related activity: (a) an interagency task force that is created by section 3 of this memorandum; and (b) a series of public meetings consistent with section 4 of this memorandum. The interagency task force and the public meetings shall be convened under the auspices of the Department of Commerce and used by the Department to develop spectrum management reform proposals.

Sec. 2. Mission and Goals. The Initiative shall undertake a comprehensive review of spectrum management policies (including any relevant recommendations and findings of the study conducted pursuant to section 214 of the E-Government Act of 2002) with the objective of identifying recommendations for revising policies and procedures to promote more efficient and beneficial use of spectrum without harmful interference to critical incumbent users. The Department of Commerce shall prepare legislative and other recommendations to:

- (a) facilitate a modernized and improved spectrum management system;
- (b) facilitate policy changes to create incentives for more efficient and beneficial use of spectrum and to provide a higher degree of predictability and certainty in the spectrum management process as it applies to incumbent users;
- (c) develop policy tools to streamline the deployment of new and expanded services and technologies, while preserving national security, homeland security, and public safety, and encouraging scientific research; and
- (d) develop means to address the critical spectrum needs of national security, homeland security, public safety, Federal transportation infrastructure, and science.

Sec. 3. Federal Government Spectrum Task Force. There is hereby established the Federal Government Spectrum Task Force (the "Task Force") to focus on improving spectrum management policies and procedures to stimulate more efficient and beneficial use of Government spectrum. The Secretary of Commerce, or the Secretary's designee under this section, shall serve as Chairman of the Task Force.

(a) Membership of the Task Force. The Task Force shall consist exclusively of the heads of the executive branch departments, agencies, and offices listed below:

- (1) the Department of State;
- (2) the Department of the Treasury;
- (3) the Department of Defense;
- (4) the Department of Justice;
- (5) the Department of the Interior;
- (6) the Department of Agriculture;
- (7) the Department of Commerce;
- (8) the Department of Transportation;
- (9) the Department of Energy;
- (10) the Department of Homeland Security;
- (11) the National Aeronautics and Space Administration;
- (12) the Office of Management and Budget;
- (13) the Office of Science and Technology Policy;

(14) such other executive branch departments, agencies, or offices as the Chairman of the Task Force may designate; and

(15) subject to the authority of the Director of the Office of Management and Budget, the Office of Project SAFECOM.

A member of the Task Force may designate, to perform the Task Force functions of the member, any person who is a part of the member's department, agency, or office, and who is a full-time officer or employee of the Federal Government.

(b) Functions of the Task Force. The functions of the Task Force are advisory and shall include, but are not limited to, producing a detailed set of recommendations for improving spectrum management policies and procedures to stimulate more efficient and beneficial use of spectrum by the Federal Government. The recommendations shall be consistent with the objectives set out in section 2 of this memorandum. The Task Force may hold meetings to obtain information and advice concerning spectrum policy from individuals in a manner that seeks their individual advice and does not involve collective judgment or consensus advice or deliberation. At the direction of the Chairman, the Task Force may establish subgroups consisting exclusively of Task Force members or their designees under this section, as appropriate.

Sec. 4. Recommendations to Address State, Local, and Private Spectrum Use. Consistent with the objectives set out in section 2 of this memorandum, the Department of Commerce, separately from the Task Force process, shall, in accordance with applicable law, conduct public meetings that will assist with that Department's development of a detailed set of recommendations for improving policies and procedures for use of spectrum by State and local governments and the private sector, as well as the spectrum management process as a whole. These meetings will involve public events to provide an opportunity for the input of the communications industry and other interested parties. Participants may include spectrum users, wireless equipment vendors, financial and industry analysts, economists, technologists, and consumer groups. Interested Federal, State,

and local government agencies will be welcome to attend and participate. The Federal Communications Commission is also encouraged to participate in these activities and to provide input to the National Telecommunications and Information Administration at the Department of Commerce on these issues.

Sec. 5. Reports. The Secretary of Commerce, or the Secretary's designee, shall present to me, through the Assistant to the President for Economic Policy and Director of the National Economic Council and the Assistant to the President for National Security Affairs, in consultation with the Assistant to the President for Homeland Security, two separate reports no later than 1 year from the date of this memorandum, one of which shall contain recommendations developed under section 3 of this memorandum by the Task Force and the other containing recommendations developed under section 4.

Sec. 6. General Provisions.

(a) The heads of Federal Government departments and agencies shall assist the Chairman of the Task Force established by section 3 and provide information to the Task Force consistent with applicable law as may be necessary to carry out the functions of the Task Force. Each Federal department and agency shall bear its own expense for participating in the Task Force. To the extent permitted by law and within existing appropriations, the Department of Commerce shall provide funding and administrative support for the Task Force.

(b) Nothing in this memorandum shall be construed to impair or otherwise affect the functions of the Director of the Office of Management and Budget relating to budget, administrative, or legislative proposals.

Sec. 7. Judicial Review. This memorandum is intended only to improve the internal management of the Federal Government and is not intended to, and does not, create any right or benefit, substantive or

procedural, enforceable at law or equity by a party against the United States, its departments, agencies, instrumentalities or entities, its officers or employees, or any other person. Sec. 8. Publication. The Secretary of Commerce is authorized and directed to publish this memorandum in the Federal Register.

GEORGE W. BUSH

Appendix 3



For Immediate Release
Office of the Press Secretary
November 30, 2004

Presidential Determination: Memorandum for the Heads of Executive Departments and Agencies

MEMORANDUM FOR THE HEADS OF EXECUTIVE DEPARTMENTS AND AGENCIES

SUBJECT: Improving Spectrum Management for the 21st Century

In May 2003, I established the Spectrum Policy Initiative to promote the development and implementation of a U.S. spectrum management policy for the 21st century. This initiative will foster economic growth; promote our national and homeland security; maintain U.S. global leadership in communications technology; and satisfy other vital U.S. needs in areas such as public safety, scientific research, Federal transportation infrastructure, and law enforcement.

The existing legal and policy framework for spectrum management has not kept pace with the dramatic changes in technology and spectrum use. Under the existing framework, the Federal Government generally reviews every change in spectrum use. This process is often slow and inflexible and can discourage the introduction of new technologies. Some spectrum users, including Government agencies, have argued that the existing spectrum process is insufficiently responsive to the need to protect current critical uses.

As a result, I directed the Secretary of Commerce to prepare recommendations for improving spectrum management. The Secretary of Commerce then established a Federal Government Spectrum Task Force and initiated a series of public meetings to address improvements in policies affecting spectrum use by the Federal Government, State, and local governments, and the private sector. The recommendations resulting from these activities were included 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 Presidents Spectrum Policy Initiative (Reports).

Therefore, to the extent permitted by law and within existing appropriations, I hereby direct the heads of executive departments and agencies (agencies) to implement the recommendations in the Reports as follows:

Section 1. Office of Management and Budget.

Within 6 months of the date of this memorandum, the Office of Management and Budget (OMB) shall provide guidance to the agencies for improving capital planning and investment control procedures to better identify spectrum requirements and the costs of investments in spectrum-dependent programs and systems. Within 1 year of the date of this memorandum, agencies shall implement methods for improving capital planning and investment control procedures consistent with the OMB guidance, including making any modifications to agency capital planning procedures necessary to ensure greater consideration of more efficient and cost-effective spectrum use.

Section 2. Other Executive Departments and Agencies.

(a) Within 1 year of the date of this memorandum, the heads of agencies selected by the Secretary of Commerce shall provide agency-specific strategic spectrum plans (agency plans) to the Secretary of Commerce that include: (1) spectrum requirements, including bandwidth and frequency location for future technologies or services; (2) the planned uses of new technologies or expanded services requiring spectrum over a period of time agreed to by the selected agencies; and (3) suggested spectrum efficient approaches to meeting identified spectrum requirements. The heads of agencies shall update their agency plans biennially. In addition, the heads of agencies will implement a formal process to evaluate their proposed needs for spectrum. Such process shall include an analysis and assessment of the options available to obtain the associated communications services that are most spectrum-efficient and the effective alternatives available to meet the agency mission requirements. Heads of agencies shall provide their analysis and assessment to the National Telecommunications and Information Administration (NTIA) for review when seeking spectrum certification from the NTIA.

(b) Within 6 months of the date of this memorandum, the Secretary of Homeland Security, in coordination with the Secretary of Commerce and, as appropriate, the Chairman of the Federal Communications Commission, and considering the views of representatives from: (1) the public safety community, (2) State, local, tribal, and regional governments; and (3) the private sector, shall identify public safety spectrum needs.

(c) Within 1 year of the date of this memorandum, the Secretary of Homeland Security, in consultation with the Secretary of Commerce, the Director of the Office of Science and Technology Policy, the Director of the Office of Management and Budget, the Attorney General, the Secretaries of State, Defense, Transportation, Agriculture, and the Interior, the heads of other appropriate agencies, and, as appropriate, the Chairman of the Federal Communications Commission, shall develop a comprehensive plan, the Spectrum Needs Plan, to address issues related to communication spectrum used by the public safety community, as well as the continuity of Government operations. The Spectrum Needs Plan shall be submitted to the President through the Assistant to the President for Homeland Security, in coordination with the Assistant to the President for Economic Policy and other relevant components of the Executive Office of the President.

Section 3. Department of Commerce.

(a) Within 6 months after receiving the agency plans developed in section 2(a) of this memorandum, the Secretary of Commerce shall integrate the agency plans and Spectrum Needs Plan, based upon a Department of Commerce framework, into a Federal Strategic Spectrum Plan and shall assist in the formulation of a National Strategic Spectrum Plan. The Secretary of Commerce, in consultation with the Chairman of the Federal Communications Commission, as appropriate, shall update the National Strategic Spectrum Plan on a biennial basis thereafter.

(b) Within 1 year of the date of this memorandum, the Secretary of Commerce, in coordination with other relevant Federal agencies identified by the Secretary, shall develop a plan for identifying and implementing incentives that promote more efficient and effective use of the spectrum while protecting national and homeland security, critical infrastructure, and Government services.

(c) Within 6 months of the date of this memorandum, the Secretary of Commerce shall establish a plan for the implementation of all other recommendations included in the Reports. Not more than 1 year from the date of this memorandum, the Secretary of Commerce shall provide to the President a report describing the progress on implementing the recommendations in the Reports. The report shall include a section prepared by the Secretary of Homeland Security that describes the progress made with respect to public safety spectrum issues. This report shall be updated on an annual basis, until completion of the actions required by this memorandum. The heads of agencies shall provide the Secretary of Commerce and the Secretary of Homeland Security with any assistance or information required in the preparation of the annual report.

(d) The plans in sections 3(a)-(c) and the annual report developed in section 3(c) of this memorandum shall be submitted to the President through the Assistant to the President for Economic Policy, in coordination with

the Assistant to the President for National Security Affairs and other relevant components of the Executive Office of the President.

(e) As appropriate, the Secretary of Commerce and heads of other agencies shall consult with the Chairman of the Federal Communications Commission regarding the implementation of the recommendations in the Reports.

Section 4. General.

(a) Nothing in this memorandum shall be construed to impair or otherwise affect the functions of the Director of the Office of Management and Budget relating to budget, administrative, or legislative proposals.

(b) This memorandum is intended only to improve the internal management of the Federal Government and is not intended to, and does not, create any right or benefit, substantive or procedural, enforceable at law or in equity, by a party against the United States, its departments, agencies, entities, instrumentalities, its officers or employees, or any other person.

(c) This order shall be implemented in a manner consistent with existing statutes, treaties, Executive Agreements, and Executive Orders affecting the operation of any of the departments, agencies, or instrumentalities of the Federal Government.

GEORGE W. BUSH

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