

Testimony of John M. R. Kneuer
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U.S. Department of Commerce
before the
Committee on Commerce, Science and Transportation
United States Senate
on
Wireless Issues/Spectrum Reform
March 14, 2006

Thank you, Chairman Stevens, Senator Inouye, and Members of the Committee, for inviting me here to testify about the National Telecommunications and Information Administration's (NTIA) role in spectrum management and reform. My name is John Kneuer, and I serve as the Acting Assistant Secretary for Communications and Information and Acting Administrator of NTIA.

Among its responsibilities, NTIA is the principal telecommunications policy advisor to the Secretary of Commerce and the President, and the manager of federal government use of the radio spectrum. Throughout the Bush Administration this intersection of telecommunications policy and spectrum management has been the key focus of NTIA.

By identifying new spectrum for both licensed and unlicensed services, and working with the Federal Communications Commission (FCC) to authorize entirely new services, NTIA has worked to ensure that commercial wireless services have adequate access to spectrum to compete with incumbents and provide new services to consumers, while at the same time preserving spectrum access for critical federal systems and public safety services. Achieving this balance between commercial and government interests, while critical, has not always been easy in the current regulatory environment.

Three recent experiences underscore this challenge: 1) identifying 90 MHz of spectrum to be auctioned for licensed advanced wireless services; 2) finding a technical solution that allow unlicensed broadband systems to share spectrum with critical government systems in the 5 GHz band; and 3) working with the FCC to accommodate Ultrawideband devices that operate across huge bands of both federal and non-federal frequency bands. While ultimately successful, the effort required to introduce these technologies exposed the limits of our spectrum management system.

Based on these experiences, in 2003, President Bush stated that "the existing legal and policy framework for spectrum management has not kept pace with the dramatic changes in technology and spectrum use." As a result, and in order to ensure that America has a spectrum policy for the 21st Century, President Bush established his Spectrum Policy Initiative. The objectives of this inter-agency Initiative are to:

- (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.

This morning I will highlight the progress that the Administration is making in spectrum management reform in implementing the President's Spectrum Policy Initiative.

The President's Spectrum Policy Initiative

The Secretary of Commerce chairs and directs the work of the President's Spectrum Policy Initiative, which consists of two broad courses of activity: an inter-agency Spectrum Task Force, and regular public outreach. In June 2004, the Secretary of Commerce submitted two reports to the President, one with recommendations of the Spectrum Task Force, and one including recommendations submitted during public forums and in response to a public notice of inquiry.

In November 2004, the President issued his second Executive Memorandum on spectrum reform and directed the Department of Commerce, the Office of Management and Budget, and the Department of Homeland Security and other agencies to implement the recommendations included in the two reports. The following is a summary of the activities that the Department of Commerce, and certain other Executive Branch Offices and Departments, have undertaken to implement the recommendations.

Progress in Implementing the President's Spectrum Policy Initiative

Capital Planning and Investment Control Procedures

The President directed the Office of Management and Budget (OMB) to "provide guidance to the agencies for improving capital planning and investment control procedures to better identify spectrum requirements and the costs of investment in spectrum-dependent programs and systems." In June 2005, OMB instructed the federal agencies to consider the economic value of radio spectrum when developing justifications for new spectrum-dependent systems, beginning with fiscal year 2007 budget requests. The Secretary of Commerce asked each agency to report on its progress on this directive.

Several agencies identified a number of potential improvements to capital planning and investment control procedures related to spectrum-dependent technologies. Each has begun the process of implementing these improvements. NTIA is now working with OMB and the federal agencies to review the individual agency capital planning processes as they relate to spectrum-dependent investments. This review will identify best practices with the objective of defining a consistent approach for including spectrum in the federal capital planning process.

Department of Commerce Progress

Pursuant to the November 2004 Executive Memorandum the Department of Commerce is directed to complete various tasks to implement the recommendations set forth in the June 2004 Reports. These tasks include: (a) developing a plan to implement recommendations for which it is responsible; (b) producing a Federal Strategic Spectrum Plan; and (c) developing a plan to identify and implement incentives for more efficient spectrum use. There have been numerous accomplishments to date in meeting these tasks.

Implementation Plan: The President directed the Secretary of Commerce to establish a plan for the implementation of all other recommendations included in its June 2004 Reports. On May 30, 2005, the Department of Commerce transmitted this plan to the Executive Office of the President and has commenced working on the recommendations it set forth. This plan sets forth milestones and timelines for implementation of the Initiative over several years. Milestones and accomplishments to date include:

Policy and Plans Steering Group: In order to enlist the leadership of federal agencies in the resolution of spectrum policy matters, the Department of Commerce established the Policy and Plans Steering Group, or PPSG, in January 2005. This advisory group is composed of top leadership officials, at an Assistant Secretary-level or equivalent, from the federal agencies that are major users of radio spectrum. The PPSG advises NTIA's Administrator on spectrum policy and strategic plans. The PPSG has committed to resolve major contentious spectrum issues affecting federal and non-federal spectrum users. The PPSG first met in January 2005 and will hold its third meeting at the end of this month to provide input on the implementation of the Spectrum Policy Initiative's recommendations.

Commerce Spectrum Management Advisory Committee: The Department of Commerce chartered the Commerce Spectrum Management Advisory Committee in 2005. This Committee, organized pursuant to the Federal Advisory Committee Act, will consist of private sector experts in spectrum and spectrum policy. It will advise the Assistant Secretary for Communications and Information on a broad range of issues regarding spectrum policy and on needed reforms to domestic spectrum policies and management. This advice will include suggested reforms to facilitate the identification of spectrum for new technologies and services.

Improvement of Spectrum Management Processes: NTIA has laid out a program for the next five years to modernize and improve spectrum management processes. The program includes: (1) a review and improvement of our international spectrum management policies including the improvement of our World Radiocommunication Conference preparation process and the international policy and framework that could become barriers to the implementation of new spectrum efficient technologies; (2) standardization and implementation of methods and analysis tools to assess new technologies to reduce the time it takes to provide access to spectrum; (3) adopt a spectrum management career development program to maintain our expertise in adapting new technologies and using the spectrum more efficiently and effectively; and (4) application of modern information technology (IT) to provide more rapid access to spectrum and make the spectrum management process more effective and efficient.

Federal/Non-Federal Public Safety Demonstration Program: The Department of Commerce has identified a number of candidate pilot programs to test the operational and cost effectiveness of sharing spectrum and communications infrastructure among federal, state and/or local governments. NTIA coordinated with federal agencies to consider existing demonstration programs for use in the pilot program. NTIA is evaluating seven programs in accordance with selection criteria that include factors such as whether the program demonstrates cost-effectiveness of sharing, whether the program is in existence and funded, and whether the program operates within existing allocations.

Federal Strategic Spectrum Plan: As directed by the President, the Department of Commerce requested spectrum plans from 15 agencies. The agency plans include: (1) current and future spectrum

requirements 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 approaches to meeting identified spectrum requirements in a spectrally efficient way.

NTIA is integrating these individual agency plans into the foundation for the development of a comprehensive Federal Strategic Spectrum Plan. It will address the fragmentation, shortage, interference and security issues related to spectrum used by public safety organizations. Additionally, the President called for the Department of Homeland Security's Spectrum Needs Plan in the Federal Strategic Spectrum Plan.

The President directed this plan to be completed within six months after receiving the agency plans. It will be completed this summer and will lay the foundation for spectrum management for the 21st Century.

Plan to Identify and Implement Incentives: The President also directed the Secretary of Commerce to develop a plan identifying and implementing incentives to promote more efficient and effective use of the spectrum, while protecting national and homeland security, critical infrastructure, and government services. NTIA's Incentives Plan is organized around projects at several stages:

Public Outreach: NTIA identified two tasks as part of its public outreach- - a public workshop on economic and other incentives that it sponsored at the National Academy of Sciences, and a review of the use, or proposed use of, economic incentives in other counties. NTIA's workshop was held on February 28 and March 1, 2006. This forum brought together world-renowned experts and spectrum managers to present and discuss ideas on how incentives could apply to federal government and commercial spectrum users. NTIA will use the information gained from this workshop to guide and inform development of further studies identified as part of the plan.

Spectrum Valuation: Economic incentives for more efficient spectrum use are based on the premise that spectrum rights have measurable value. NTIA plans to study methods to estimate the economic value for spectrum used by federal agencies and the opportunity cost of government spectrum versus other uses.

Federal User Fees: NTIA proposes to study the possible effectiveness of user fees designed specifically to encourage Federal agencies to make more efficient use of spectrum, as well as questions regarding whether such fees would be effective or appropriate for federal government spectrum use.

Non-Fee Incentives: On the premise that positive incentives through the granting of greater rights are basic to economic approaches to spectrum management, NTIA plans to examine incentives other than fees for federal users, including, for example, the feasibility of granting agencies tradable rights and allowing agencies to accept payment for, or otherwise benefit from, allowing others to access their spectrum.

Sharing: With new technologies offering advances in spectrum sharing, NTIA plans to examine increased sharing of spectrum among federal agencies or between agencies and other uses. This inquiry will look at such issues as frequency availability for such systems, different dynamic spectrum access techniques, and preemptive spectrum rights.

Spectrum Rights and Secondary Markets: On a broader level, NTIA plans to study spectrum rights and how they apply to all spectrum users, including how the FCC and NTIA define rights, and what changes, if any, would be beneficial and practical. 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.

This Incentives Plan also reflects NTIA's efforts to support the President's legislative proposals on spectrum. The President in his fiscal year 2007 budget recommended: (1) the FCC's auction authority, which was extended through fiscal year 2011 in the Deficit Reduction Act of 2005, be made permanent; and (2) new authority be given to the FCC to charge fees for unauctioned spectrum licenses and construction permits.

Spectrum Relocation Fund: The Department of Commerce is implementing the Commercial Spectrum Enhancement Act, which was passed by Congress and signed by the President in December 2004. This Act establishes a spectrum relocation fund for federal agencies from the proceeds of an auction that is scheduled to be held by the FCC in June 2006. The fund streamlines the process for reimbursing Federal agencies that must relocate from Federal spectrum that is being reallocated to commercial use. NTIA has worked with the federal agencies that operate microwave radio-relay communications systems in the 1710-1755 MHz band to identify the systems requiring relocation, to identify new microwave bands or non-spectrum options, such as fiber optics, and to make the relocation cost estimates. NTIA led the multi-agency activity, which resulted in identifying 2,240 microwave radio-relay systems that will be relocated, at a relocation cost of nearly \$936 million. The relocation-fund process has worked very well thus far, and the auction, referred to as the "Advanced Wireless Services" or "AWS" auction, is expected raise several billion dollars. New spectrum will become available by this process, and American consumers and businesses will reap the benefits of more bandwidth for mobile technologies. For business, this means greater productivity; and for the consumer, more choices and improved services. At the same time, federal agencies will also benefit as they are able to upgrade their services and equipment.

Conclusion

Thank you again for inviting me to testify. I welcome any questions that you may have for me.