MEMORANDUM FOR:  Richard F. Mangogna  
Chief Information Officer  
Office of the Chief Information Officer (OCIO)  

THROUGH:  Michael C. Brown  
Executive Director  
Information Technology Services Office  

FROM:  Kenneth J. Reynolds  
Director  
Enterprise Services Division  

SUBJECT:  National Telecommunications and Information Administration (NTIA) Fourth Annual Progress Report on the Implementation of the President’s Spectrum Policy Initiative  

On November 30, 2004, the President released the Executive Memorandum titled “Improving Spectrum Management for the 21st Century.” Prior to the release of this memorandum, the President directed the Secretary of Commerce to develop recommendations for improving spectrum management. Based on the findings of the June 2004 Department of Commerce Spectrum reports titled Spectrum Policy for the 21st Century—The President’s Spectrum Policy Initiative, the President outlined specific recommendations to be implemented by various Federal departments and agencies. One such recommendation requires the Secretary of Commerce to submit an annual report on the progress of the implementation of recommendations outlined in the Department of Commerce’s June 2004 Spectrum Reports.

The Department of Homeland Security (DHS) is fully committed to supporting and improving the efficiency and effectiveness of spectrum use within the Department, and has made considerable progress over the past year in implementing the recommendations of the June 2004 Spectrum Report. In response to the November 28, 2008 memorandum from Assistant Secretary Meredith Atwell Baker, the enclosed DHS Fourth Annual Progress Report is provided for your review and approval.
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**Document Overview:**

**Enclosures:** NTIA Fourth Annual Progress Report, FY 2008 Progress Report Memorandum Request

**REMARKS:**

As prescribed in the enclosed document, DHS Wireless Services (WS) has compiled the Department response to the NTIA Fourth Annual Progress Report on the implemention of the President’s Spectrum Policy Initiative. The following Annual Progress report for FY2008 details the progress made with respect to spectrum efficiency and effectiveness within the Department.

The original request from NTIA for the Fourth Annual Report was for submission by December 1, 2008. Since DHS OCIO received the request on November 31, 2008, DHS requested an extension till January 9th, 2009 for completion of this report.

**Next Steps:**

Due Date: January 9, 2009

POC: DAVID CAMPBELL
MANAGER, WIRELESS SERVICES DIVISION – RM 6518
PHONE: 202-447-0210
RESPECTFULLY SUBMITTED BY:
Yvonne Contee, Executive Assistant, ITSO
Room No.: Headquarters, 4656-27
Phone No.: 447-0286

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2009-01-10
MEMORANDUM FOR: Karl Nebbia  
Associate Administrator  
National Telecommunications and Information Administration (NTIA)

FROM: Richard F. Mangona  
Chief Information Officer  
Department of Homeland Security (DHS)

SUBJECT: NTIA Fourth Annual Progress Report on the Implementation of the President's Spectrum Policy Initiative

In response to the memorandum from Assistant Secretary Meredith Atwell Baker, DHS is providing a consolidated summary of the accomplishments made by the Department during the past year towards implementing the President's Spectrum Policy Initiative. DHS is fully committed to support and improve the efficiency and effectiveness of spectrum usage within the Department, and has made considerable progress over the past year in implementing the recommendations of the June 2004 Spectrum Reports.

Assistant Secretary Baker’s memorandum specifically requested the Department’s status with regards to the following:

- Implementation of the June 2004 Spectrum Reports
- Improvements to Capital Planning and Investment Control Procedures
- Development of the Second Agency-Specific Strategic Spectrum Plan (SSP)
- Process to Evaluate Proposed Needs for Spectrum.

Implementation of the June 2004 Spectrum Reports

Based on recommendations set forth by the June 2004 Spectrum Reports, DHS has made considerable efforts to increase and improve spectrum management efficiency and effectiveness within the Department. DHS has actively participated in the NTIA Working Level Groups (WLG). Through the WLGs, the Department has contributed comments to the Third Annual Progress Report on the Presidential Initiative and the Federal SSP.

DHS continues to support the ongoing transition of the Department’s land mobile radio systems from wideband analog to narrowband digital channels through Component upgrade and modernization efforts. DHS is currently developing a consolidated FY11-15 Wireless Spend Plan to define the status of the Department’s existing systems and the funding required to meet both mission and spectrum efficiency requirements.
To promote interoperability and spectrum sharing among the Federal law enforcement community, DHS sponsors the Inter-Agency Technical Operations Working Group, which is comprised of Federal law enforcement agencies with a wireless electronic surveillance mission. The group takes a leadership role in coordination among the law enforcement community in the development of advanced covert audio/video wireless surveillance equipment. In fiscal year 2008, the group focused on the development of interoperable and common video surveillance equipment requirements to enhance spectral efficiencies by converting to narrowband digital channel operations.

DHS and the Federal Partnership for Interoperable Communications have also formed Federal, State, and local partnerships within multiple regions of the United States—including Arizona, Wyoming, and Virginia—to promote interoperability and spectrum efficiency. These partnerships enable the sharing of standards-based infrastructure and spectrum and can serve as a model for developing spectrally efficient, interoperable solutions in other regions.

Improvements to Capital Planning and Investment Control Procedures

DHS is utilizing a variety of integrated governance processes and initiatives to incorporate spectrum planning into the Department’s capital planning and investment control activities. Within the DHS Office of the Chief Information Officer (OCIO), the Enterprise Services Division (ESD) oversees all spectrum management activities throughout the Department, including submitting new frequency requests to NTIA and representing the Department on the Interdepartment Radio Advisory Committee and its subcommittees. ESD also chairs the DHS Wireless Working Group, (WWG) an internal coordination body established to enable effective integration and sharing of Departmental resources, including spectrum, among DHS Components and wireless programs. As part of the DHS Information Technology Acquisition Review (ITAR) process mandated by DHS Management Directive Management Directive MD 0007.1 Information Technology Integration and Management and conducted by the OCIO for all information technology (IT) acquisitions over $2.5 million, ESD reviews the Department’s wireless acquisitions and provides recommendations based in part on the efficient and effective use of spectrum resources.

In early fiscal year 2009, DHS revised Management Directive MD 4100.1 Wireless Services to better define the roles and responsibilities of ESD and the WWG members in promoting efficiencies in the use of spectrum and other Departmental resources in attaining and maintaining tactical wireless communications capabilities. The revised directives is currently under review at this time. ESD is currently working with the Components to revise the WWG Charter to better reflect the mission of enhancing spectrum and other resource efficiencies.

DHS actively participates in the NTIA-led WLG G to help improve long-term planning and promote the use of market-based economic mechanisms in spectrum management throughout the Federal government.

Development of the Second Agency-Specific SSP
Per the November 30, 2004 Presidential Directive, DHS is currently updating its agency specific SSP. The updated SSP will identify three major goals for spectrum management within the Department—(1) leverage DHS OneNet efforts to increase spectrum efficiency and effectiveness within the Department, (2) continue to integrate spectrum into the Department’s enterprise architecture and planning process, and (3) increase interoperability and partnerships with other Federal and non-Federal agencies. DHS will increase its role in the development of the Federal 2009 SSP to ensure it accurately reflects current and future activities of its Components. The Department will use the (WWG) to reach out the Components to capture requirements, challenges, and strategies for improving spectrum efficiency and effectiveness.

In addition to identifying efforts to increase spectrum efficiency within the Department, the 2009 DHS SSP will discuss the Department’s success in transitioning all DHS systems out of the 1710-1755 MHz (i.e., Advanced Wireless Services) band. The Department worked closely with commercial carriers and the DHS Components to meet the March 26, 2008 deadline set by Congress, while minimizing impact to DHS mission-critical operations. The Department is currently working with the Components to restore any capabilities that were lost due to the 1710-1755 MHz transition.

**Process to Evaluate Proposed Needs for Spectrum**

ESD continues to provide centralized spectrum management services to the DHS Components. Services include propagation, coverage, and interference analyses, electronic warfare de-confliction, communication system engineering support, five-year license reviews, and spectrum certification training. The Department also continues to increase its use of spectrum management tools including ATDI HTZ warfare, Spectrum XII, and the Equipment Location – Certification Information Database.

To further assist in improving the Spectrum efficiency of new and existing wireless systems, ESD is working with the Components through the WWG to develop the DHS Wireless Infrastructure Common Operational Picture (WICOP). The WICOP will link Component infrastructure and spectrum information into a geospatial database to help identify opportunities for the sharing of spectrum and other resources. The WICOP project is currently in the initial planning stages, with a goal of completing the initial project plan, scope, and schedule by the end of fiscal year 2009.

As part of the ITAR process, IT equipment to be purchased must be included in the DHS Technical Reference Model (TRM) to ensure alignment with the DHS Enterprise Architecture. ESD is working with the Components through the WWG to identify spectrally efficient wireless equipment for insertion into the TRM. As a first step in this process, the WWG is compiling a list of commonly used wireless equipment and potential alternatives, and intends to complete the initial list by the end of the second quarter of fiscal year 2009.
The Honorable Paul A. Schneider  
Under Secretary for Management  
Department of Homeland Security  
3801 Nebraska Avenue, NW  
Mail Stop 300  
Washington, DC 20258

Dear Mr. Schneider:

I am writing to ask for your agency’s assistance in what will be the FY2008 Progress Report on the President’s Spectrum Policy Initiative. Pursuant to the 2004 Executive Memorandum on improving spectrum management, the Secretary of Commerce submits annual reports to the President describing the progress achieved in implementing the goals of the initiative. Input from your agency is essential to preparation of these reports.

The FY2008 Progress Report will provide the President with a summary of the advances during the past year which the Federal agencies as well as NTIA have made implementing the recommendations of the June 2004 Reports. Consequently, your input should address the accomplishments of your agency has made between October 1, 2007 and September 30, 2008 in furtherance of these recommendations.

In the 2004 Executive Memorandum, the President tasked your agency with three important duties. The first was to provide, bi-annually, an agency-specific strategic spectrum plan that addresses: (1) spectrum requirements, including bandwidth and frequency location for future technologies or services; (2) planned uses of new technologies or expanded services requiring spectrum over a period of time; and (3) suggested spectrum efficient approaches for meeting requirements. The second duty is to implement a formal process to evaluate your agency’s proposed needs for spectrum, including an analysis and assessment of the most spectrum efficient options as well as alternatives available to meet these needs. Third, the President directed that your agency implement methods for improving capital planning and investment control procedures consistent with the guidance provided by the Office of  

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12 2004 Executive Memorandum, § 2(a).
Management and Budget (OMB), including making any modifications to agency capital planning procedures necessary to ensure greater consideration of more efficient and cost-effective spectrum use. Consequently, in your submission in support of the FY2008 Progress Report, please provide input on your agency’s progress with respect to these specific directives.

The timely completion of the FY2008 Progress Report to the President requires that your inputs are submitted by December 1, 2008. A suggested template and checklist is attached for your use.\footnote{Id.}

If you have any questions regarding this matter, please contact Byron K. Barker, Chief, Strategic Planning Division, Office of Spectrum Management, at (202) 482-6207.

Thank you for your cooperation.

Sincerely,

M. A. Baker
Meredith Attwell Baker
Acting Assistant Secretary

Enclosures

\footnote{See “Suggested Template and Checklist for Federal Agency Third Annual Report Submission” (Attachment B).}
ATTACHMENT A

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 President's 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

# # #
Attachment B

SUGGESTED TEMPLATE AND CHECKLIST FOR FEDERAL AGENCY
FY2008 REPORT SUBMISSION

-Key Question: What has your agency done to carry out the goals of the President’s Spectrum Policy Initiative this past year?

The President’s Spectrum Policy Initiative has four principal goals: “(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.” (2003 Executive Memorandum)

-It is suggested that agencies address:

- Agency accomplishments toward implementing the June 2004 spectrum reports.
- Improvements to capital planning and investment control procedures consistent with OMB guidance.
- Development of the second agency-specific strategic spectrum plan.
- Process to evaluate proposed needs for spectrum, including an analysis and assessment of the most spectrum-efficient options and effective alternatives

-Agency accomplishments toward implementing the June 2004 Spectrum Reports

- Efforts to increase efficient and effective use of spectrum by increasing possibility of flexible and dynamic spectrum use
- Participation in working level groups and contributions by your agency
- Agency efforts to integrate spectrum management into strategic and capital planning processes
- Sharing with federal or state and local agencies and other non-Federal entities
- Use of commercial services
- Partnerships that allow increased spectrum sharing
- Uses of new technology and examination of new technology
- Use of more efficient systems (e.g., trunking)
- Use of information technology to modernize spectrum management
- Participation in NTIA’s spectrum technology test-bed
- Improvements to capital planning and investment control procedures consistent with OMB guidance (2004 Executive Memorandum)

  - Further implementation of improvements to these procedures
  - Consideration of spectrum efficient technologies, commercial services and conducting cost-benefit analyses
  - Development of tools to assist your agency in taking into account the economic value of spectrum
  - Participation in the NTIA-led Working Level Group G

- Development of second agency-specific strategic spectrum plan (2004 Executive Memorandum)

  - Description of your agency’s planning process and efforts to produce 2007 agency-specific strategic spectrum plan.
  - Description of your agency’s plan itself in a sentence or two. (Major requirements, major vision, major future tasks)
  - Description of the “spectrum-efficient approaches” for meeting agency spectrum requirements your plan described. (2004 Executive Memorandum)

- Process to evaluate proposed needs for spectrum, including an analysis and assessment of the most spectrum-efficient options and effective alternatives, to be reviewed by NTIA in connection with spectrum certifications. (2004 Executive Memorandum)

  - Requirements generation process currently used
  - Development of new tools and processes for evaluating spectrum needs and projecting future requirements

- Activities and progress with respect to use of spectrum for COOP and COG operations