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## THE FEDERAL COMMUNICATIONS COMMISSION AND THE NATIONAL TELECOMMUNICATIONS AND INFORMATION ADMINISTRATION – COORDINATION PROCEDURES IN THE 1710-1755 MHz BAND

## WTB Docket No. 02-353

By the Commission: Chairman Martin and Commissioners Copps, Adelstein and Tate.

By this joint Public Notice, the Federal Communications Commission (Commission) and the National Telecommunications and Information Administration (NTIA) provide information to assist coordination in the 1710-1755 MHz band, to facilitate the transition of this band from federal government use to non-federal use. Specifically, we provide guidance to assist the Commission's Advanced Wireless Service (AWS) licensees in this band to begin implementing service during the transition of federal operations from the band while providing interference protection to incumbent federal government operations until they have been relocated to other frequency bands or technologies.

In 2002, NTIA released a Viability Assessment report which concluded that the 1710-1755 MHz band could be reallocated from federal government use to non-federal use to accommodate AWS. As a result, the Commission conducted a proceeding in which it allocated spectrum for AWS in the 1710-1755 MHz, 2110-2150 MHz and 2150-2155 MHz bands. The Commission subsequently adopted service rules for AWS in these bands, including application, licensing, operating and technical rules. The 1710-1755 MHz band is currently used for federal

<sup>&</sup>lt;sup>1</sup> See NTIA Report, "An Assessment of the Viability of Accommodating Advanced Mobile Wireless (3G) Systems in the 1710-1770 MHz and 2110-2170 MHz Bands" (July 22, 2002) (available at <a href="http://www.ntia.doc.gov/ntiahome/threeg/va7222002/3Gva072202web.htm">http://www.ntia.doc.gov/ntiahome/threeg/va7222002/3Gva072202web.htm</a>).

<sup>&</sup>lt;sup>2</sup> Amendment of Part 2 of the Commission' Rules to Allocate Spectrum Below 3 GHz for Mobile and Fixed Services to Support the Introduction of New Advanced Wireless Services, including Third Generation Wireless Systems, ET Docket No. 00-258, *Second Report and Order*, 17 FCC Rcd 23193 (2002).

<sup>&</sup>lt;sup>3</sup> See Service Rules for Advanced Wireless Services in the 1.7 GHz and 2.1 GHz Bands, Report and Order, WT Docket No. 02-353, 18 FCC Rcd 25162 (2003); modified by Service Rules for Advanced Wireless Services in the 1.7 GHz and 2.1 GHz Bands, WT Docket No. 02-353, Order on

government operations for fixed and transportable microwave and aviation-related safety communications, and by the Department of Defense (DOD) for fixed microwave, tactical radio relay, and aeronautical mobile stations.

On December 23, 2004, the President signed into law Public Law No. 108-494, the Commercial Spectrum Enhancement Act (CSEA).<sup>4</sup> The CSEA provides a funding mechanism to relocate incumbent federal government operations in certain bands, including the 1710-1755 MHz band.<sup>5</sup> The CSEA requires NTIA to provide to the Commission relocation cost and timeline estimates "by the geographic location of the Federal entities' facilities or systems and the frequency bands used by such facilities or systems ... [t]o the extent practicable and consistent with national security considerations . . . ."<sup>6</sup> On December 27, 2005, NTIA provided the Commission with the following information<sup>7</sup> for each federal station in the 1710-1755 MHz band:

- Serial Number
- Longitude/Latitude of Transmitter and Receiver sites
- Frequency Center Channel
- Bureau Code (Agency Identifier)
- Service Type (e.g., fixed microwave, aeronautical)
- Relocation Timeline
- Cost Estimate
- Agency Point of Contact.

The CSEA permits the Commission to grant commercial licenses in these bands prior to relocation of federal government operations and the termination of a federal entity's authorization. However, the CSEA requires the Commission to condition such licenses by requiring that commercial licensees "cannot cause harmful interference to such Federal entity until such entity's authorization has been terminated by [NTIA]." Harmful radiofrequency interference could cause systems or networks to experience catastrophic outages affecting critical missions, such as the operation of electric grids. Moreover, catastrophic outages can result in loss of life, property, and power at the local, state, interstate and international levels. In order to

Reconsideration, 20 FCC Rcd 14058 (2005) (codified at 47 C.F.R. Part 27, Subpart L) (AWS Service Rules R&O).

<sup>&</sup>lt;sup>4</sup> Pub. L. No. 108-494, 118 Stat. 3896, 3992 (2004).

<sup>&</sup>lt;sup>5</sup> Title II of Pub. L. No. 108-494, 118 Stat. 3986, 3991 (2004) (codified at 47 U.S.C. § 928).

<sup>&</sup>lt;sup>6</sup> 118 Stat. at 3992-93 (codified at 47 U.S.C. §§ 923(g)(4)(A), (C)).

<sup>&</sup>lt;sup>7</sup> The most current version of this information can be found at the NTIA website at <a href="http://www.ntia.doc.gov/osmhome/reports/specrelo/index.htm">http://www.ntia.doc.gov/osmhome/reports/specrelo/index.htm</a>.

<sup>&</sup>lt;sup>8</sup> 118 Stat. 3994 (codified at 47 U.S.C. § 309(j)(15)(c)).

<sup>&</sup>lt;sup>9</sup> *Id.*; see also 47 C.F.R. § 27.1134 (Protection of Federal Government Operations).

effectuate the CSEA's prohibition against harmful interference against federal incumbent operations, the Commission will condition AWS licenses on licensees coordinating frequency usage with known co-channel and adjacent channel incumbent federal users operating in the 1710-1755 MHz band. The condition will apply prior to licensees initiating operations from base or fixed stations where such operations may impact incumbent federal users.

Operational sharing of spectrum by federal government and non-federal stations is subject to the interference regulations prescribed by the Commission. The *AWS Service Rules R&O* prescribed in-band protection for federal government DOD stations at 16 protected sites based on use of coordination zones around those sites. The Commission prescribed in-band protection for other federal government stations pending their relocation, based on the same technical standard (TIA Telecommunications Systems Bulletin 10-F) that has been used for clearance of microwave service from the Broadband Personal Communications Service (PCS) and other bands. 12

Operational sharing of spectrum by federal government and non-federal stations is also subject to coordination procedures that the Commission and NTIA jointly establish and implement to ensure against harmful interference. In this regard, the Commission, in consultation with NTIA, will require all AWS licensees to coordinate AWS use of the 1710-1755 MHz band during the transition so that licensees can deploy their systems in a timely and efficient manner without causing harmful interference to existing federal operations during the transition. Coordination will assist new licensees in determining when new systems can be deployed without causing harmful interference to federal incumbents. At the same time, coordination will provide federal incumbents with some assurance that critical operations will not be interrupted due to harmful interference.

The Commission's Part 24 and Part 101 rules contain coordination rules applicable to shared use of the PCS band which may provide guidance regarding similar procedures that could be used in the AWS band. These rules require licensees to coordinate their frequency usage with the cochannel or adjacent channel incumbent fixed microwave licensees before initiating operations. In engineering a system or modification thereto, the applicant must, by appropriate studies and analyses, select sites, transmitters, antennas and frequencies that will avoid interference in excess of permissible levels to other users. All applicants and licensees must cooperate fully and make reasonable efforts to resolve technical problems and conflicts that may inhibit the most effective and efficient use of the radio spectrum; however, the party being coordinated with is not obligated to suggest changes or re-engineer a proposal in cases involving conflicts.

<sup>&</sup>lt;sup>10</sup> 47 U.S.C. § 923(b)(2)(C).

<sup>&</sup>lt;sup>11</sup> 47 C.F.R. § 27.1134(a).

<sup>&</sup>lt;sup>12</sup> 47 C.F.R. § 27.1134(b). Protection of non-DoD operations in the 1710–1755 MHz and 1755–1761 MHz bands. Until such time as non-DoD systems operating in the 1710–1755 MHz and 1755–1761 MHz bands are relocated to other spectrum, AWS licensees shall protect such systems by satisfying the appropriate provisions of TIA Telecommunications Systems Bulletin 10–F, "Interference Criteria for Microwave Systems," May, 1994 (TIA 10–F).

<sup>&</sup>lt;sup>13</sup> 47 U.S.C. § 923(b)(2)(C).

<sup>&</sup>lt;sup>14</sup> See, e.g., 47 C.F.R. §§ 24.237 and 101.103.

To help AWS licensees satisfy the coordination condition that we intend to place on their licenses, the Commission provides the following pre-operational procedures. Adherence to these procedures would constitute a reasonable effort on the part of AWS licensees to comply with the license condition that they coordinate frequency usage with incumbent federal users.

- The AWS licensee, or a third-party coordinator on its behalf, contacts the appropriate federal agency to get information necessary to perform an interference analysis. The AWS licensee enters into Non-Disclosure Agreements, as appropriate, with the subject federal agency.
- If a federal agency does not provide the necessary information within 30 days of a request, AWS licensees may contact NTIA for assistance.
- Using TIA Bulletin 10F, or an alternative method agreed to by the parties in cases in which TIA 10F does not apply, AWS licensees make the interference analysis necessary for determining whether new AWS operations would potentially interfere with nearby incumbent operations.
- The AWS licensee or a third-party coordinator sends the interference analysis to the appropriate designated agency contact for review.
- The federal agency will have 60 days from acknowledgement of receipt of the interference analysis, to review the interference analysis. At the end of 60 days, if the federal agency does not raise an objection, the AWS licensee may commence operations.
- If an agency notifies a licensee that it is experiencing interference, the AWS licensee turns off the offending station immediately and makes any necessary changes to eliminate interference.

In addition, to facilitate coordination, NTIA will require federal agencies to adhere to the following procedures:

- Agencies cooperate with licensees when contacted by providing, within 30 days of a request, site specific technical information necessary to complete the interference analysis.
- If an agency disapproves of an interference analysis submitted by an AWS licensee, the agency will provide the licensee with a detailed rationale for its disapproval.
- Should harmful interference occur, agencies will work in good faith to identify the source of the harmful interference and work with AWS licensees to eliminate or mitigate the interference.

To further facilitate the coordination process, NTIA has published a list of agency contacts on its web site at <a href="http://www.ntia.doc.gov/osmhome/reports/specrelo/pdf/1710-1755MHz\_points\_of\_contact.pdf">http://www.ntia.doc.gov/osmhome/reports/specrelo/pdf/1710-1755MHz\_points\_of\_contact.pdf</a> to enable licensees and federal agencies operating in their license area to coordinate more closely. NTIA has also published information on the federal government operations in the 1710-1755 MHz band at <a href="http://www.ntia.doc.gov/osmhome/reports/specrelo/index.htm">http://www.ntia.doc.gov/osmhome/reports/specrelo/index.htm</a> and will periodically update this

<sup>&</sup>lt;sup>15</sup> This includes federal agencies that are authorized to operate transportable microwave equipment throughout the country on frequencies with which the AWS licensee might potentially interfere, as well as federal agencies with classified operations. Classified information will be handled in accordance with Executive Order 13292.

information as well as provide the relocation status of the stations used for federal government operations throughout the transition.

The Commission and NTIA anticipate that following the above-outlined procedures will enable most AWS stations to be successfully coordinated and to start operations without causing interference to federal operations during the transitional period. However, during the coordination process, AWS licensees unable to reach agreement on the mitigation of interference may seek redress from the Commission. For federal agencies, in the event that the potential for harmful interference cannot be resolved satisfactorily, the matter may be referred to the NTIA, for assistance.

For further information, contact:

## **Federal Communications Commission:**

Wireless Telecommunications Bureau: Peter Corea or Blaise Scinto at (202) 418-0600 Office of Engineering and Technology: Ronald Repasi at (202) 418-2472

## **National Telecommunications and Information Administration:**

Edward Drocella, Office of Spectrum Management, (202) 482-2608

Action by the Commission on April 19, 2006.

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