



May 25, 2010

The Honorable Lawrence E. Strickling  
Assistant Secretary for Communications and Information  
Department of Commerce  
1401 Constitution Avenue N.W.  
Washington, D.C. 20554

Dear Assistant Secretary Strickling:

3G Americas, LLC, the leading industry association in the Americas representing the GSM family of technologies, including HSPA and LTE, writes to encourage the National Telecommunications and Information Administration (“NTIA”) to repurpose the 1755-1780 MHz government band for the deployment of mobile broadband services. Specifically, 3G Americas encourages NTIA to allocate 1755-1780 MHz for uplink use by advanced wireless services to be paired with the 2155-2180 MHz “extended” AWS-3 band for downlink use.<sup>1</sup> 3G Americas has a broad membership of leading wireless operators and vendors promoting, facilitating, and advocating the deployment of the GSM family of technologies including Long-Term Evolution (“LTE”) throughout the Americas.<sup>2</sup>

3G Americas previously commented to NTIA about the benefits of including mobile wireless in the broadband projects funded pursuant to the American Recovery and Reinvestment Act (“ARRA”).<sup>3</sup> To achieve the goals of the ARRA’s broadband provisions, additional commercial spectrum is necessary. As observers have noted, once “mobile broadband penetration [] surpass[es] fixed penetration globally[, c]ountries that are behind the curve in spectrum allocation will lag behind as a lack of spectrum will delay the launch of broadband services.”<sup>4</sup> In light of this, 3G Americas encourages NTIA to repurpose the 1755-1780 MHz government band for commercial uplink use in providing advanced wireless services paired with the 2155-2180 MHz “extended” AWS-3 band for downlink use.

<sup>1</sup> For mobile operations, downlink is synonymous with base station transmission and uplink is synonymous with mobile transmission.

<sup>2</sup> 3G Americas Board of Governor members include Alcatel-Lucent, Andrew, AT&T, Cable & Wireless, Ericsson, Gemalto, HP, Huawei, Motorola, Nortel Networks, Nokia, Openwave, Research in Motion, Rogers, T-Mobile USA, Telcel, Telefónica, and Texas Instruments.

<sup>3</sup> Comments of 3G Americas, NTIA Docket Docket No. 090309298–9299–01, at 2-10 (April 13, 2009).

<sup>4</sup> Chetan Sharma Consulting, *Managing Growth and Profits in the Yottabyte Era* 16 (2009), <http://www.chetansharma.com/yottabyteera.htm>.

Nearly a decade ago, NTIA presented as a feasible option for accommodating third generation mobile systems the use of the 1755-1780 MHz band as part of a pairing arrangement similar to that recommended today by 3G Americas. Under the Clinton Administration, NTIA conducted a technical study on the potential for accommodating advanced wireless services in the 1755-1850 MHz band.<sup>5</sup> The report on that study presented the option of pairing the 1755-1780 MHz band for 3G mobiles (for shared use with the federal government) with a band above 2110 MHz for base station use.<sup>6</sup> The report acknowledged that sharing issues would need to be resolved<sup>7</sup> and that protection areas might need to be established.<sup>8</sup> However, the option was presented after consideration of the Department of Defense's ("DoD") analysis of the electromagnetic compatibility between major DoD systems in the 1755-1850 MHz band and advanced wireless systems, as well as relocation costs, operational impacts of DoD migration, and the time requirements should DoD systems move from the band.<sup>9</sup>

But just one year after NTIA presented this recommendation, after the election of a new Administration and in conjunction with an executive-branch task force, NTIA altered its position and reported that the 1755-1770 MHz band was not viable for 3G use because of DoD's operations in the band.<sup>10</sup>

In 3G Americas' view, this band can still be repurposed for the uplink portion of commercial provision of advanced wireless services. Given the Administration's goal of ensuring that all Americans have affordable access to broadband services,<sup>11</sup> it is time to consider whether this spectrum should be allocated for the deployment of commercial mobile broadband. Reallocating this spectrum for commercial mobile broadband would help meet many of the social and economic goals of the ARRA, as well as support U.S. policy goals of competitive provision of broadband services. "Given the potential of wireless services to reach underserved

---

<sup>5</sup> *The Potential for Accommodating Third Generation Mobile Systems in the 1710-1850 MHz Band: Federal Operations, Relocation Costs, and Operational Impacts*, Final Report, NTIA Special Publication 01-46 (March 2001) available at <http://www.ntia.doc.gov/ntiahome/threeg/33001/3g33001.pdf> ("2001 Final Report").

<sup>6</sup> *Id.* at xv, 4-17. ("In Phase 2, the 1755-1780 MHz band would be added for sharing with mobiles, paired with base stations above 2110 MHz (e.g., in the 2500-2690 MHz band)").

<sup>7</sup> *Id.* at xxi, 4-18 – 4-19.

<sup>8</sup> *Id.* at 4-17 – 4-18.

<sup>9</sup> *Id.*

<sup>10</sup> *An Assessment of the Viability of Accommodating Advanced Mobile Wireless (3G) Systems in the 1710-1770 MHz and 2110-2170 MHz Bands*, 4 (July 22, 2002) available at [http://www.ntia.doc.gov/reportsarchive2000\\_2003.html](http://www.ntia.doc.gov/reportsarchive2000_2003.html).

<sup>11</sup> NTIA's recently released report, *Digital Nation: 21<sup>st</sup> Century America's Progress Toward Universal Broadband Internet Access – An NTIA Research Preview*, foreword (Feb. 2010), "confirms that and the end of the first decade of the 21st Century, too many Americans still rely on slow, narrowband Internet access or do not use the Internet at all. This fact and other revealed in the report underscore the importance of the Administration's policy objective to ensure that all Americans have affordable access to broadband Internet Services."

areas and to provide an alternative to wireline broadband providers in other areas, the [] primary tool for promoting broadband competition should be freeing up spectrum.”<sup>12</sup>

Among other benefits of allocating 1755-1780 MHz for mobile broadband, pairing it with 2155-2180 MHz would be consistent with recommendations from the International Telecommunication Union (“ITU”), the Organization of American States’ Committee on Telecommunications (“CITEL”), and Third Generation Partnership Project (“3GPP”) for globally harmonized spectrum. Specifically, the ITU recommends as an option in implementing advanced wireless services, administrations pair 2110-2170 MHz as a downlink band with an uplink band at 1710-1770 MHz.<sup>13</sup> In Region 2, the Americas, CITEL has also endorsed pairing the 2110-2170 MHz band as a downlink band with the 1710-1770 MHz uplink band.<sup>14</sup> 3GPP has recommended international allocation of 2110-2170 MHz as a downlink band paired with 1710-1770 MHz as an uplink band.<sup>15</sup>

As NTIA has stated, “since [the World Radiocommunication Conference] 2000 identified these candidate bands for IMT-2000 operations, promoting worldwide harmonization of spectrum is a desired long-term goal.”<sup>16</sup> Nonstandard banding leads to delays in device ability and increased costs. With harmonization, U.S. consumers will benefit from lower-cost handsets because manufacturers will be able to take advantage of global economies of scale of producing devices that operate on that range of frequencies. Indeed, manufacturers have already based design plans on the spectrum identified for AWS at the World Radiocommunication Conferences (“WRCs”) and have looked to the ITU and CITEL recommendations for guidance in the

---

<sup>12</sup> Letter from Christine A. Varney, Ass’t Atty. General, U.S. Department of Justice, to Marlene H. Dortch, Secretary, FCC, FCC GN Docket No. 09-51, 4 (Jan 4, 2010).

<sup>13</sup> International Telecommunication Union, *Frequency arrangements for implementation of the terrestrial component of International Mobile Telecommunications-2000 (IMT-2000) in the bands 806-960 MHz, 1710-2025 MHz, 2110-2200 MHz and 2500-2690 MHz*, Recommendation ITU-R M.1036-3 at 6-7 (2007).

<sup>14</sup> See CITEL, XXI Meeting of Permanent Consultative Committee III: Radiocommunications, *Final Report 21* (2002) (Option 5, “Mobile transmit band 1710-1770 MHz, paired with the global base transmit band 2110-2170 MHz, consistent with a duplex separation of 400 MHz.”), [http://www.citel.oas.org/pcc3\\_old/final/P3-2371r2\\_i.doc](http://www.citel.oas.org/pcc3_old/final/P3-2371r2_i.doc).

<sup>15</sup> *3GPP Technology Approaches for Maximizing Fragmented Spectrum Allocations*, 3G Americas, 6-7 (July 2009) available at [http://www.3gamericas.org/documents/3GA%20Underutilized%20Spectrum\\_Final\\_7\\_23\\_092.pdf](http://www.3gamericas.org/documents/3GA%20Underutilized%20Spectrum_Final_7_23_092.pdf). 3G Americas previously submitted this paper in full to NTIA as an exhibit to its comments about Relocation of Federal Systems in the 1710-1755 MHz Frequency Band: Review of the Initial Implementation of the Commercial Spectrum Enhancement Act, Docket No. 0906231085-91085-01 (Aug. 21, 2009).

<sup>16</sup> *2001 Final Report* at xiii. Likewise, the EU recognizes the importance of harmonized spectrum plans and recently adopted a decision requiring member states to apply harmonized technical rules to 800 MHz frequencies being freed as part of the conversion to digital broadcasting should member states decide to change the existing frequency allocation for broadcasting. See Radio spectrum: harmonized EU rules to foster high-speed wireless internet services and avoid harmful interference, EC Report IP/10/540 (May 6, 2010), available at [http://ec.europa.eu/information\\_society/policy/ecomm/radio\\_spectrum/documents/legislation/index\\_en.htm#800mhz](http://ec.europa.eu/information_society/policy/ecomm/radio_spectrum/documents/legislation/index_en.htm#800mhz).

manufacture of 3G devices.<sup>17</sup> If manufacturers must build equipment solely for the U.S. market, prices to U.S. consumers would be driven up and time to market delayed because manufacturers would be unable to take advantage of global economies of scale resulting from a harmonized international allocation.<sup>18</sup>

Nonstandard banding also delays the ability of spectrum use to meet our collective broadband aspirations. International harmonization will enable American consumers to benefit sooner from a greater number of innovative applications that will arise from a global development base, offered over lower-incremental-cost handsets. And early alignment of spectrum in various markets will expedite the deployment of LTE/LTE Advanced, thereby benefitting the U.S. public by facilitating the delivery of advanced, high-speed mobile broadband handsets and other mobile devices. This will facilitate the rapid, nationwide deployment of broadband envisioned by Congress in the American Recovery and Reinvestment Act.

These delays and costs would diminish the value of the spectrum, instead of putting it to its highest and best use. This is true both in terms of the proceeds that might be generated from an auction and also with regard to the benefit to the public from use of the spectrum.

For the above reasons, 3G Americas encourages that the NTIA adopt the 1755-1780 MHz band pairing with the AWS-3 band for mobile broadband use to meet the goals of the broadband provisions of the American Recovery and Reinvestment Act.

Respectfully submitted,



Chris Pearson  
1750 112<sup>th</sup> Ave NE, Suite B220  
Bellevue, Washington 98004

*President, 3G Americas LLC*

---

<sup>17</sup> While identification of bands for advanced wireless services by the World Radiocommunications Conferences does not establish priority in the Radio Regulations nor preclude use of the bands for other services to which the bands are allocated, the United States has noted that the identification of this spectrum by WARC-92 “provide[d] uniform guidance to administrations, operators and manufacturers in terms of deploying IMT-2000 and other advanced communication applications[.]” *Proposal for Terrestrial and Satellite Components of IMT-2000*, United States of America Proposals for the Work of the Conference, 15, WRC-2000 (Apr. 17, 2000).

<sup>18</sup> See Comments of Ericsson, Inc., and Sony Ericsson Mobile Communications (USA), Inc., Federal Communications Commission, WT Docket Nos. 07-195 and 04- 356, 7-9 (July 25, 2008).