



AUG 17 2012

The Honorable Julius Genachowski
Chairman
Federal Communications Commission
445 12th Street SW
Washington, DC 20554

Re: Implementing Public Safety Broadband Provisions of the Middle Class Tax Relief and Job Creation Act of 2012, PS Docket No. 12-94

Dear Chairman Genachowski:

The National Telecommunications and Information Administration (NTIA) hereby requests the Federal Communications Commission (Commission) to reconsider an aspect of the *Order* in the above-referenced docket. The *Order* clarifies the regulatory status of jurisdictions that were in various stages of implementing 700 MHz public safety broadband service prior to the passage of the Middle Class Tax Relief and Job Creation Act of 2012 (Act).¹ The *Order* permits limited deployment of public safety broadband services to first responders in the existing public safety broadband spectrum (763-768/793-798 MHz) pursuant to the Commission's Special Temporary Authority (STA) rules.² NTIA commends the Commission for taking timely action to facilitate the transition of the public safety broadband spectrum to the First Responder Network Authority (FirstNet), but requests that the Commission only provide STA authority for the entire 20 MHz of spectrum (763-768/793-798 MHz and 758-763/788-793 MHz) allocated to FirstNet under the Act.³ NTIA believes that such action would further the critical goal of advancing interoperability as well as mitigating cost concerns associated with the deployment of a nationwide public safety broadband network.

¹ *Order*, Implementing Public Safety Broadband Provisions of the Middle Class Tax Relief and Job Creation Act of 2012, PS Docket No. 12-94 (released July 31, 2012) available at http://transition.fcc.gov/Daily_Releases/Daily_Business/2012/db0802/FCC-12-85A1.pdf. The Middle Class Tax Relief and Job Creation Act of 2012, Pub. L. No. 112-96, 126 Stat. 156 (2012), to be codified at 47 U.S.C. § 1401 *et seq.*

² The Federal Communications Commission (Commission) granted these jurisdictions waivers of existing rules to deploy this spectrum. Requests for Waiver of Various Petitioners to Allow the Establishment of 700 MHz Interoperable Public Safety Wireless Broadband Networks, PS Docket No. 06-229, *Order*, 25 FCC Rcd 17156 (PSHSB 2010). Requests for Waiver of Various Petitioners to Allow the Establishment of 700 MHz Interoperable Public Safety Wireless Broadband Networks, *Order*, PS Docket 06-229, 26 FCC Rcd 6783 (PSHSB 2011). For purposes of this letter, the term "waiver recipients" encompasses the State of Texas.

³ NTIA is the Executive Branch agency principally responsible for the development of telecommunications policies pertaining to the Nation's economic and technological advancement and to the regulation of the communications industry, for the coordination of the telecommunications activities of the Executive Branch, and for the effective presentation of the views of the Executive Branch to the Commission. See 47 U.S.C. § 902(b) (2).

As noted above, the *Order* addresses jurisdictions' use of the 763-768 MHz and 793-798 MHz. That 5 x 5 MHz band is the public safety broadband allocation that existed before the creation of FirstNet.⁴ The Act adds the adjacent D Block (758-763 MHz and 788-793 MHz) to the public safety broadband allocation.⁵ The *Order* permits public safety jurisdictions to operate temporarily only in the original 5 x 5 MHz band after making a five-point facts-and-circumstances showing.⁶ Based on the record before it, the Commission declined to extend this short-term relief to the entire 10 x 10 MHz allocation.⁷

NTIA urges the Commission to reconsider this decision. First, effective state-of-the-art public safety broadband communications require the entire 10 x 10 MHz of spectrum the Act allocated.⁸ Public safety will need the 10 x 10 capacity in the nationwide network, particularly in the case of an extraordinary national security event likely to require large capacity of the type the *Order* suggests could merit the Commission's consideration as it evaluates requests for individual STAs.⁹

Second, NTIA shares the Commission's concern with facilitating a transition to the "truly interoperable" public safety broadband network the Act envisions.¹⁰ 3GPP standards provide a mechanism whereby user equipment can transition from 5 MHz to 10 MHz channel size.¹¹

⁴ The convention "5 x 5" refers to a five MHz uplink and a five MHz downlink channel. FirstNet is an independent authority within NTIA charged with "ensur[ing] the establishment of a nationwide, interoperable public safety broadband network." 47 U.S.C. 1422(a); *see also* 47 U.S.C. 1424(a).

⁵ 47 U.S.C. 1411, 1421(a). The Act also adds 1 MHz, at 769 MHz and at 799 MHz, the former guard band between public safety broadband and narrowband spectrum. Third Generation Partnership (3GPP) standards define the allowable channel bandwidth within a given spectrum allocation. *See* 3GPP TS 36.521-1, Table 5.4.2.1-1, E-UTRA channel bandwidth (Release 10) (June 2012), *available at* <http://www.3gpp.org/ftp/Specs/html-info/36-series.htm>. The maximum (usable) channel bandwidth allowed under these standards within the current public safety broadband allocation at 700 MHz is 10 MHz.

⁶ The *Order* permits interim operations for two jurisdictions, Texas and Charlotte. The *Order* also specifies case-by-case showings permitting immediate, temporary deployment in this band. *Order*, ¶¶ 22-26, 30.

⁷ *Order*, ¶ 27.

⁸ *See generally*, Testimony of New York City Deputy Police Chief Charles Dowd before the House Committee on Energy and Commerce, Subcommittee on Communications and Technology at 2 (Apr. 12, 2011), *available at* <http://republicans.energycommerce.house.gov/Media/file/Hearings/Telecom/041211/Dowd.pdf>.

⁹ *Order*, ¶ 26.

¹⁰ *Order*, ¶ 1.

¹¹ 3GPP TS 36.521-1, Evolved Universal Terrestrial Radio Access (E-UTRA) User Equipment (UE) conformance specification, Radio transmission and reception, Part 1 Conformance testing (Release 10)(June 2012); 3GPP TS 36.521-2, Evolved Universal Terrestrial Radio Access (E-UTRA), User Equipment (UE) conformance specification, Radio transmission and reception, Part 2: Implementation Conformance Statement (ICS)(Release 10)(June 2012); 3GPP TS 36.521-3, Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Packet Core (EPC), User Equipment (UE) conformance specification, Part 3: Test suites (Release 10) (June 2012)(collectively "3GPP Conformance Standards") *available at* <http://www.3gpp.org/ftp/Specs/html-info/36-series.htm>. The eNodeB

However, not all potential public safety user equipment conforms to 3GPP specifications.¹² Thus, STA deployments of 5 MHz channels risk failing to interoperate with FirstNet's 10 MHz bandwidth channels, a result contrary to the intent of the Act.¹³ Moreover, if conforming to 3GPP standards required a software or firmware upgrade, individual STA recipients would likely have to recall and reprogram all devices. This would entail an additional, unplanned cost for waiver recipients.¹⁴

Finally, it is essential that waiver recipients be permitted to upgrade now from 5 MHz to 10 MHz channels to reflect the new configuration of the nationwide public safety broadband network. NTIA believes that it would be costly, time-consuming, and technically challenging to transition a system based on 5 MHz channels to 10 MHz channels as will be required for compatibility with the new nationwide network. The upgrade process at the Public Safety Communications Research (PSCR) program facilities has proven labor-intensive and lengthy.¹⁵ In addition to the added expense in personnel and time, the change could require additional license fees and software charges. A vendor has yet to demonstrate a streamlined path for this upgrade that could possibly be managed for efficient network launch. Furthermore, early STA deployments based on the same 10 x 10 MHz bandwidth that FirstNet will use will reap "lessons learned" more valuable to the overall success of the nationwide network than those based on dissimilar bandwidth.¹⁶

generates a control channel, the Physical Broadcast Channel (PBCH), which carries the Master Information Block (MIB). The MIB contains the parameters for system bandwidth in the middle six resource blocks of a given channel bandwidth. The user equipment then tunes to the appropriate bandwidth as determined by the eNodeB.

¹² The Public Safety Communications Research Program (PSCR), a joint effort of the National Institute of Standards and Technology's Office of Law Enforcement Standards and NTIA's Institute for Telecommunication Sciences, is conducting a demonstration of public safety broadband LTE equipment, in collaboration with the Commission. The Commission has required waiver recipients to participate in this testing program. Requests for Waiver of Various Petitioners to Allow the Establishment of 700 MHz Interoperable Public Safety Wireless Broadband Networks, *Order*, PS Docket No. 06-229, 25 FCC Rcd. 5145, 5165 (2010). See also FCC, "Connecting America: The National Broadband Plan," at 317 (2010), available at <http://download.broadband.gov/plan/national-broadband-plan-chapter-16-public-safety.pdf>. However, unlike commercial carriers that have robust in-house device certification programs, neither the PSCR nor individual waiver recipients have the capability to perform UE certification and validation.

¹³ 47 U.S.C. §1422.

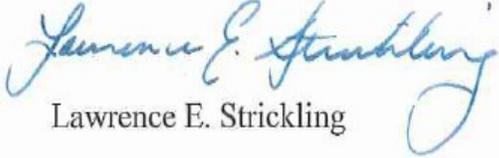
¹⁴ If the Commission modifies its *Order* to permit 10 MHz channels, NTIA will encourage any BTOP public safety LTE broadband grantee that obtains authority to operate under an STA to revise its project to conform to the 20 MHz allocation.

¹⁵ The process can require loading a new software package onto each eNode B. All vendors testing on the PSCR demonstration network have required skilled labor and support staff to make the upgrade. The upgrade—if achievable by the vendor -- may take several weeks for only a four-base station test network.

¹⁶ NTIA's Broadband Technology Opportunities Program (BTOP) plans to work with any BTOP waiver recipients awarded an STA to develop "lessons learned" to assist FirstNet in its network planning. See, e.g., Letter from Lawrence E. Strickling, Assistant Secretary for Communications and Information, Department of Commerce, to Charles Robinson, City of Charlotte (dated May 11, 2012), available at <http://www2.ntia.doc.gov/files/grantees/20120511095904533.pdf>.

In conclusion, authorizing STAs with a 10 x 10 MHz allocation consistent with the new nationwide public safety broadband network will avoid serious pitfalls and yield important benefits in increased performance, long-term usefulness, probability of interoperability, and cost effectiveness. NTIA urges the Commission to reconsider its decision to limit any STA that meets the *Order*'s criteria to 5 MHz bandwidth channels and rather authorize STAs only on a 10 x 10 MHz basis. If there are any questions, please contact me or Deputy Assistant Secretary Anna M. Gomez at 202-482-1840.

Sincerely,



Lawrence E. Strickling

cc: The Honorable Robert M. McDowell, Commissioner
The Honorable Mignon Clyburn, Commissioner
The Honorable Jessica Rosenworcel, Commissioner
The Honorable Ajit Pai, Commissioner
David S. Turetsky, Chief, Public Safety and Homeland Security Bureau
Gene Fullano, Associate Chief, Public Safety and Homeland Security Bureau
Erika Olsen, Special Counsel, Public Safety and Homeland Security Bureau