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Paragraph #

Before the **Federal Communications Commission** Washington, D.C. 20554

In the Matter of)
Implementing Public Safety Broadband Provisions of the Middle Class Tax Relief and Job Creation Act of 2012) PS Docket No. 12-94)
Implementing a Nationwide, Broadband, Interoperable Public Safety Network in the 700 MHz Band) PS Docket No. 06-229
Service Rules for the 698-746, 747-762 and 777-792 MHz Bands) WT Docket No. 06-150

NOTICE OF PROPOSED RULEMAKING

Adopted: March 7, 2013

Heading

I.

Comment Date: (30 days after date of publication in the Federal Register) Reply Comment Date: (45 days after date of publication in the Federal Register)

By the Commission: Commissioners Rosenworcel and Pai issuing separate statements.

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I. INTRODUCTION

1. In this *Notice of Proposed Rulemaking (Notice)* we seek comment on certain proposals to implement provisions of the Middle Class Tax Relief and Job Creation Act of 2012 ("Public Safety Spectrum Act" or "Act")¹ governing deployment of a nationwide public safety broadband network in the 700 MHz band. The Public Safety Spectrum Act establishes the First Responder Network Authority (FirstNet) to oversee the construction and operation of this network as licensee of both the existing public safety broadband spectrum (763-769/793-799 MHz) and the spectrally adjacent D Block spectrum (758-763/788-793 MHz).² The Act directs the Federal Communications Commission (FCC or Commission) to reallocate the D Block for public safety services,³ to license the D Block and the existing public safety broadband spectrum to FirstNet⁴ and to take other actions necessary to "facilitate the transition" of such existing spectrum to FirstNet.⁵

2. In this *Notice*, we consider the adoption of initial rules to protect against harmful radio frequency interference in the spectrum designated for public safety services, as well as other requirements related to FirstNet's license and to facilitating the transition directed under the Public Safety Spectrum Act.⁶ Our proposals in this *Notice* are intended to provide a solid foundation for FirstNet's operations, taking into account FirstNet's need for flexibility in carrying out its statutory duties under the Public Safety Spectrum Act to establish a nationwide public safety broadband network.

II. BACKGROUND

3. The D Block and the existing public safety broadband spectrum are part of the Upper 700 MHz Band (746-806 MHz), which was made available for wireless services as a result of the digital television transition (DTV transition).⁷ Pursuant to the Balanced Budget Act of 1997,⁸ the Commission designated twenty-four megahertz of Upper 700 MHz spectrum for public safety services and the remaining thirty-six megahertz for commercial services to be assigned through competitive bidding.⁹ The public safety segment included two six-megahertz narrowband segments (764-767 MHz/794-797 MHz

¹ Middle Class Tax Relief and Job Creation Act of 2012, Pub. L. No. 112-96, 126 Stat. 156 (2012).

² See id. § 6204.

³ See id. § 6101.

⁴ See id. § 6201(a).

⁵ See id. § 6201(c).

⁶ We intend to initiate additional proceedings as appropriate to address the Commission's additional responsibilities in connection with its licensing of FirstNet and other provisions of the Act.

⁷ See Service Rules for the 698-746, 747-762 and 777-792 Bands; Implementing a Nationwide, Broadband, Interoperable Public Safety Network in the 700 MHz Band, WT Docket No. 06-150, PS Docket No. 06-229, Second Report and Order, 22 FCC Rcd 15289, 15291 ¶ 1 (2007) (Second Report and Order).

⁸ See Balanced Budget Act of 1997, Pub. L. No. 105-33, 111 Stat. 251 § 3004 (1997) (adding new Section 337 of the Communications Act).

⁹ See Relocation of Television Channels 60-69, the 746-806 MHz Band, ET Docket 97-157, *Report and Order*, 12 FCC Rcd 22953, 22955 ¶ 5 (1997) (*Upper 700 MHz Reallocation Order*).

and 773-776 MHz/803-806 MHz) that abutted a twelve megahertz wideband segment (767-773 MHz/797-803 MHz) on either side.¹⁰

4. In the *Second Report and Order*, the Commission reconfigured the public safety segment of the Upper 700 MHz Band to eliminate the wideband segment, consolidate narrowband channels within a single band segment (769-775 MHz/799-805 MHz) at the upper end of the public safety spectrum, and establish at the lower end a ten megahertz broadband segment (763-768 MHz/793-798 MHz). Between the broadband and narrowband segments the Commission placed a two megahertz internal guard band (768-769 MHz/798-799 MHz).¹¹ The Commission also reconfigured the commercial segment of the Upper 700 MHz band, in part by establishing a ten megahertz commercial "D Block" of spectrum directly adjacent to the public safety broadband spectrum (758-763 MHz/788-793 MHz).¹²

5. These revisions to the Upper 700 MHz band plan were made to facilitate a public-private partnership for the development of a nationwide interoperable public safety broadband network in the 700 MHz band. The Commission created a single nationwide license for the public safety broadband spectrum to be granted to a Public Safety Broadband Licensee (PSBL).¹³ The D Block was then designated for auction under the condition that its licensee enter into a Network Sharing Agreement (NSA) with the PSBL to construct and operate a nationwide, interoperable broadband network across both the D Block and the 700 MHz public safety broadband spectrum.¹⁴ The Commission also required that the future D Block licensee fund the relocation of incumbent public safety narrowband operations from the public safety broadband spectrum to the consolidated public safety narrowband segment established at the upper end of the band.¹⁵

6. In order to effectuate this plan, the Commission established requirements regarding the nature of the shared wireless broadband network and the respective rights and obligations of the D Block licensee and the PSBL regarding their partnership and the network. The Commission adopted rules requiring the parties to execute the NSA prior to the award of the D Block license.¹⁶ In addition, the Commission placed certain other conditions on the D Block license "to protect services to the public safety community and facilitate the success of the 700 MHz Public/Private Partnership, including requirements relating to the organization and structure of the partnership, reporting requirements, and a prohibition on the discontinuance of public safety operations."¹⁷ The Commission also put in place "a means for public safety entities to: (1) obtain an earlier build-out of broadband networks than provided for in the NSA; (2) build their own broadband networks in areas not included in the NSA; and (3) conduct wideband operations via a limited and conditioned waiver process."¹⁸

7. Soon after the release of the Second Report and Order, the Commission selected the

 $^{^{10}}$ See Second Report and Order, 22 FCC Rcd at 15302 fig. 6. The narrowband channels were designated for "voice and low speed data" communications while the wideband channels were designated for "image/high speed data and slow scan video." *Id.* at 15301 ¶ 30.

¹¹ See id. at 15294-95 ¶ 10, fig. 2.

¹² See id. at 15316-17 ¶ 62, fig. 8.

¹³ See id. at 15419 ¶ 366.

¹⁴ See id. at 15431-32 ¶¶ 395-402.

¹⁵ See id. at 15411 ¶ 336.

 $^{^{16}}$ See id. at 15447-49 $\P\P$ 446-454

¹⁷ *Id.* at 15428 ¶ 387.

¹⁸ See id. at 15295 ¶ 13.

Public Safety Spectrum Trust (PSST) to serve as PSBL.¹⁹ However, an auction of the D Block in early 2008 failed to produce a bid that met the reserve price. Later in 2008 the Commission issued a *Second*²⁰ and *Third Further Notice of Proposed Rulemaking*²¹ that re-examined various options for achieving an interoperable nationwide public safety network.²² The D Block was never re-auctioned.

8. In January 2011, the Commission adopted a *Third Report and Order*, which codified the use of LTE technology for the public safety broadband spectrum and stayed certain Part 90 rules that were designed to implement the mandatory public-private partnership that never came to fruition.²³ An accompanying *Fourth Further Notice of Proposed Rulemaking* considered further technical rules for ensuring the operability and interoperability of the nationwide public safety broadband network.²⁴

9. The Public Safety Spectrum Act prescribes a detailed plan for the development of this long-awaited network. The Act establishes FirstNet as an independent authority within the National Telecommunications and Information Administration (NTIA), and requires the Commission to grant a license to FirstNet for the use of both the existing public safety broadband spectrum and the spectrally adjacent D Block, which the Commission must reallocate for public safety use.²⁵ The Act charges FirstNet with the responsibility for establishing and overseeing "a nationwide, interoperable public safety broadband network,"²⁶ by taking "all actions necessary to ensure the building, deployment, and operation of the ... network, in consultation with Federal, State, tribal, and local public safety entities, the Director of NIST, the Commission, and the public safety advisory committee [that section 6205 of the Act requires FirstNet to establish]."²⁷ Among its more specific duties, FirstNet is responsible for issuing Requests for Proposals (RFPs) and entering into contracts for the construction, operation and management of the network on a nationwide basis, using funds allocated for these purposes under the Act.²⁸

10. The Act also established within the Commission a Technical Advisory Board for First Responder Interoperability (Interoperability Board) charged with the development of recommended minimum technical requirements to ensure nationwide interoperability for the public safety broadband

²¹ Service Rules for the 698-746, 747-762 and 777-792 Bands; Implementing a Nationwide, Broadband, Interoperable Public Safety Network in the 700 MHz Band, WT Docket No. 06-150, PS Docket No. 06-229, *Third Further Notice of Proposed Rulemaking*, 23 FCC Rcd 14301 (2008) (*Third Further Notice*).

²² See Service Rules for the 698-746, 747-762 and 777-792 Bands Implementing a Nationwide, Broadband, Interoperable Public Safety Network in the 700 MHz Band, WT Docket 06-150, PS Docket 06-229, Order, FCC 09-8 (2009).

²³ See Implementing a Nationwide, Broadband, Interoperable Public Safety Network in the 700 MHz Band, PS Docket No. 06-229, *Third Report and Order and Fourth Further Notice of Proposed Rulemaking*, 26 FCC Red 733 (2011) (*Third Report and Order and Fourth Further Notice*, respectively).

²⁴ See id.

²⁶ Id. § 6202(a). See generally id. § 6206 (setting out FirstNet's powers, duties and responsibilities).

²⁷ *Id.* § 6206(b).

²⁸ Id. § 6206.

¹⁹ See Implementing a Nationwide, Broadband, Interoperable Public Safety Network in the 700 MHz Band, PS Docket 06-229, Order, FCC 07-199 (2007).

²⁰ See Service Rules for the 698-746, 747-762 and 777-792 Bands; Implementing a Nationwide, Broadband, Interoperable Public Safety Network in the 700 MHz Band, WT Docket No. 06-150, PS Docket No. 06-229, Second Further Notice of Proposed Rulemaking, 23 FCC Rcd 8047 (2008) (Second Further Notice).

²⁵ Public Safety Spectrum Act, §§ 6101(a), 6201(a), 6204(a). On August 20, 2012, the Department of Commerce announced the appointment of the non-Federal members to the Board of Directors of FirstNet. See Acting U.S. Commerce Secretary Rebecca Blank Announces Board of Directors for the First Responder Network Authority, Press Release (Aug. 20, 2012) available at http://www.commerce.gov/news/press-releases/2012/08/20/acting-us-commerce-secretary-rebecca-blank-announces-board-directors- (last visited Aug. 31, 2012).

network based on "commercial standards for Long Term Evolution (LTE) service."²⁹ On May 22, 2012, the Interoperability Board submitted its recommendations to the Commission, and on June 21, 2012, the Commission approved for transmittal to FirstNet these recommendations.³⁰ The Act requires FirstNet to incorporate the transmitted recommendations into its RFPs "without materially changing" them.³¹

11. On July 31, 2012, the Commission issued an order terminating the previously-granted waivers for early deployment in the public safety broadband spectrum held by a number of state and local jurisdictions, and established criteria for evaluating requests by public safety entities for Special Temporary Authority (STA) to operate in this spectrum.³² In doing so, the Commission determined such action to be consistent with the Commission's obligation to "facilitate the transition" of the spectrum to FirstNet.³³

12. On September 7, 2012, the Public Safety and Homeland Security Bureau adopted, on delegated authority, a *Report and Order* implementing clear directives of the Public Safety Spectrum Act concerning the deployment of a nationwide public safety broadband network.³⁴ In particular, the *Report and Order* reallocates the D Block for "public safety services" and deletes Commission rules that are plainly inconsistent with this revised allocation.³⁵ It also deletes the rules establishing, providing license authority with respect to, and governing operations under the Public Safety Broadband License in the existing public safety broadband spectrum.³⁶ In their place, the *Report and Order* adopts rules implementing the clear mandate of the Public Safety Spectrum Act to grant a license with respect to this spectrum and the D Block to FirstNet.³⁷

 31 Id. § 6206(b)(1)(B). The Act also requires States electing to "opt out" and deploy their own State network to submit to the Commission for approval construction plans that comply with the recommendations. See id. § 6302(e)(3)(C)(i)(I).

³² See Implementing Public Safety Broadband Provisions of the Middle Class Tax Relief and Job Creation Act of 2012, PS Docket No. 12-94, *Order*, FCC 12-85 (July 31, 2012) (*STA Order*). See also Requests for Waiver of Various Petitioners to Allow the Establishment of 700 MHz Interoperable Public Safety Wireless Broadband Networks, PS Docket 06-229, *Order*, 25 FCC Red 5145 (2010) (*Waiver Order*); see also Requests for Waiver of Various Petitioners to Allow the Establishment of 700 MHz Interoperable Public Safety Wireless Broadband Networks, PS Docket 06-229, *Order*, 26 FCC Red 6783 (PSHSB 2011) (*Texas Waiver Order*).

³³ STA Order at ¶ 22; see also, Implementing Public Safety Broadband Provisions of the Middle Class Tax Relief and Job Creation Act of 2012, PS Docket No. 12-94, Order on Reconsideration, FCC 12-96 (rel. Aug. 29, 2012). To date, the Bureau has granted one STA, to the State of Texas. See, Implementing Public Safety Broadband Provisions of the Middle Class Tax Relief and Job Creation Act of 2012, PS Docket No. 12-94, Order, DA 12-1432 (PSHSB Aug. 31, 2012).

³⁴ See Implementing Public Safety Broadband Provisions of the Middle Class Tax Relief and Job Creation Act of 2012; Implementing a Nationwide, Broadband, Interoperable Public Safety Network in the 700 MHz Band; Service Rules for the 698-746, 747-762 and 777-792 MHz Bands, PS Docket 12-94; PS Docket 06-229; WT Docket 06-150, *Report and Order*, DA 12-1462 (PSHSB rel. Sept. 7, 2012).

³⁵ Id. at Section III.A.

³⁶ Id. at Section III.B.1.

²⁹ Id. § 6203(a)

³⁰ See Recommendations of the Technical Advisory Board for First Responder Interoperability, PS Docket No. 12-74, Order of *Transmittal*, FCC 12-68 (June 21, 2012). The Interoperability Board terminated fifteen days after this transmittal, *i.e.*, on July 6, 2012. See Public Safety Spectrum Act § 6203(f).

³⁷ *Id.* at Section III.B.2. On March 1, 2012, the Commission also dismissed as moot several petitions for reconsideration challenging certain aspects of the public/private partnership and certain determinations regarding relocation of narrowband incumbent operations, and indicated that a rulemaking on narrowband relocation would be forthcoming. *See*, Service Rules for the 698-746, 747-762 and 777-792 Bands; Implementing a Nationwide, Broadband, Interoperable Public Safety Network in the 700 MHz Band, WT Docket No. 06-150, PS Docket No. 06-229, *Memorandum Opinion and Order and Order on Reconsideration*, FCC 13-29 (rel. Mar. 1, 2013).

13. On September 25, 2012, FirstNet submitted a request for issuance of its license as contemplated in the *Report and Order*.³⁸ The Bureau granted the license on November 15, 2012, under call sign WQQE234.³⁹

III. NOTICE OF PROPOSED RULEMAKING

14. In this *Notice*, we consider the adoption of initial rules to implement the Public Safety Spectrum Act's framework for deployment and operation of a nationwide public safety broadband network. We seek comment on the development of a unified set of technical parameters for the D Block spectrum and existing public safety broadband spectrum to protect against harmful radio frequency interference. We also consider additional measures that may be necessary to "facilitate the transition" required under the Public Safety Spectrum Act.⁴⁰

15. In commenting, we ask that commenters address both the costs and benefits of any proposal or alternative. We request that commenters provide specific data and information, such as actual or estimated dollar amounts for each specific cost or benefit addressed, including a description of how commenters calculated or obtained that information, and any supporting documentation or other evidentiary support. We also seek comment on possible alternatives to our proposals that may reflect greater benefits, lower costs, or both.

16. This *Notice* seeks comment in three areas. First, we address technical service rules for the new public safety broadband network to be established pursuant to the Public Safety Spectrum Act. We next seek comment on the exercise of the Commission's statutory responsibilities as they relate to oversight of FirstNet's operations. Finally, we ask how to address different classes of incumbents now occupying portions of the spectrum licensed to FirstNet. These proposals are based on our established authority under the Communications Act to regulate use of the spectrum consistent with the public interest, convenience and necessity, including the authority to prescribe power limits and prevent interference between stations licensed by the Commission,⁴¹ as well as our licensing authority over FirstNet provided by the Public Safety Spectrum Act,⁴² and our authority under that Act "to take all actions necessary to facilitate the transition" of the existing public safety broadband spectrum to FirstNet.⁴³ We seek comment on the scope of our authority as it relates to these proposals, and how such authority can most appropriately accommodate the Public Safety Spectrum Act's delegation to FirstNet of the responsibility to develop "the technical and operational requirements of the network."⁴⁴ In offering these proposals, we acknowledge the crucial importance of FirstNet's endeavor and its need for flexibility in carrying out its obligations under the Public Safety Spectrum Act.

³⁸ See Letter from Samuel Ginn, Chairman of the Board, First Responder Network Authority, to David S. Turetsky, Chief, Public Safety and Homeland Security Bureau (dated Sept. 25, 2012).

³⁹ See Universal Licensing System, License Call Sign WQQE234 (Nov. 15, 2012).

⁴⁰ See Public Safety Spectrum Act § 6201(c).

⁴¹ See, e.g., 47 U.S.C. §§ 303(c), 303(e)-(g), 303(r), 337(d); see also id. §§ 151, 154(i).

⁴² See Public Safety Spectrum Act § 6201(a)-(b); see also id. § 6206(b)(3) (requiring rural coverage milestones for FirstNet, "consistent with the license granted under section 6201").

⁴³ See Public Safety Spectrum Act § 6201(c); see also id. § 6213 (authority of Commission to "take any action necessary to assist [FirstNet] in effectuating its duties and responsibilities" under Public Safety Spectrum Act).

⁴⁴ See id. § 6206(c)(1)(B).

A. Rules Governing the Public Safety Broadband Network

17. In this section we consider proposals for unifying the technical service requirements applicable to the existing public safety broadband spectrum and D Block spectrum, as well for ensuring that this spectrum resource is utilized in a manner that protects other spectrum users from harmful interference. As an initial matter, we observe that rules governing 700 MHz commercial wireless spectrum, including the D Block, are codified primarily in Part 27 ("Miscellaneous Wireless Communications Services"), while rules governing the existing public safety broadband spectrum generally fall under Part 90. A number of proposals considered below would have the effect of removing the service rules for the D Block from Part 27 and placing them in Part 90. We believe that, as a general matter, such revisions are appropriate to ensure that the D Block and existing public safety broadband spectrum are subject to a common set of rules and that such actions are consistent with the D Block reallocation the Bureau carried out in the *Report and Order* pursuant to the Public Safety Spectrum Act. We seek comment on this general approach.

1. Technical Service Rules for the Public Safety Broadband Network

18. We first consider possible modifications to the Part 27 technical service rules governing the D Block spectrum and parallel Part 90 rules governing the public safety broadband spectrum (763-768/793-798 MHz). These rules were developed in part to implement the *Second Report and Order* public-private partnership, which reallocation of the D Block has rendered obsolete. These rules also predate the emergence of LTE as the technology for a 700 MHz public safety broadband network.⁴⁵ We seek comment below on the development of a unified set of rules for the expanded public safety broadband allocation that takes into account these developments. We also seek comment on whether technical rules established for this public safety broadband spectrum and D Block spectrum should be extended to the internal public safety guard band (768-769/798-799 MHz), which is also licensed to FirstNet.

a. Power Limits

19. Power and Antenna Height Limits. In this section we seek comment on implementing power and antenna height limits for the public safety broadband network, which could mitigate the potential for co-channel and adjacent channel radiofrequency (RF) interference with operations in other frequency bands. Sections 90.542(a) and 27.50(b) establish power and antenna height limits, including power measurement techniques, governing the public safety broadband spectrum and the D Block spectrum, respectively.⁴⁶ These rule provisions set forth substantively identical requirements, but they were codified in separate rule parts consistent with the respective allocations of the spectrum bands they govern. With the D Block reallocated for public safety broadband services, it appears appropriate to consolidate these requirements into a single Part 90 rule section. Accordingly, we propose to modify Section 90.542(a) to bring the D Block frequencies within its purview and to delete as redundant the parallel provisions of Section 27.50(b). We seek comment on this proposal. Are the power strength and antenna heights limits prescribed in Section 90.542(a), including the power measurement techniques set forth in Section 90.542(a)(8), appropriate for the expanded public safety broadband allocation, or should the Commission modify these requirements? Are the county-level population density thresholds in Section 90.542(a) appropriate for the nationwide public safety broadband network? Are there different factors that are relevant to establishing appropriate power limits and antenna heights for this spectrum?

⁴⁵ See Public Safety Spectrum Act § 6203(c)(2); see also Third Report and Order, 26 FCC Rcd at 737 ¶ 9 (describing the consensus that has developed in support of LTE as a common technology platform for the public safety broadband network).

⁴⁶ See 47 C.F.R. §§ 90.542(a), 27.50(b).

What costs and benefits would be associated with any proposed modification of the existing power limits?

20. We observe that Sections 90.542(a) and 27.50(b) establish a 3 watt power limit for portable stations, *i.e.*, hand-held devices.⁴⁷ We seek comment in particular on whether this power limit remains appropriate for devices operated in the expanded public safety broadband allocation. In seeking comment on this matter, we observe that the LTE standard currently prescribes a limit of 23 dBM, *i.e.*, 200 milliwatts, with a minimum measurement period of 1 millisecond,⁴⁸ on transmissions from user devices. The 3GPP standards body is considering proposals to raise this limit to a value as high as 33 dBm, *i.e.*, 2 watts,⁴⁹ but this value remains considerably lower than the limit established in the Commission's rules. We thus seek comment on whether a more restrictive power limit should be established for user devices operated on the public safety broadband network, which is likely to incorporate LTE technology.⁵⁰ Are there additional technical factors affecting interference protection and the spectral efficiency of the nationwide public safety broadband network that the Commission should consider in making such a determination?

21. *Power Strength Limits (Power Flux Density).* Power flux density limits can protect against radio interference by limiting RF power density on the ground in the vicinity of a base or fixed station. Sections 90.542(b) and 27.55(c) set forth parallel power flux density limits for the public safety broadband spectrum and D Block spectrum.⁵¹ We propose to consolidate these requirements into a single Part 90 provision. Specifically, we seek comment on expanding the frequency ranges governed by Section 90.542(b) to include the D Block frequencies and to remove these frequencies from the purview of Section 27.55(c). Are the power flux density requirements prescribed in Section 90.542(b) appropriate for the expanded public safety broadband allocation, or should the Commission modify these requirements? What costs and benefits would be associated with any such modification?

b. Emission Limits

22. In this section, we seek comment on the out-of-band emission (OOBE) limits governing the expanded public safety broadband spectrum allocation. Appropriate OOBE limits can ensure that operations in this spectrum do not cause harmful interference to the users of spectrally adjacent bands or other frequency bands. The OOBE limits already in place for the D Block and the public safety broadband spectrum were developed on the assumption that the D Block would be designated for commercial operations within the confines of the public-private partnership. We seek comment in this section on the development of OOBE rules appropriate for an expanded public safety broadband allocation that encompasses the D Block.

23. We first consider limits on emissions into the 700 MHz public safety narrowband spectrum (769-775/799-805 MHz). In the *Second Report and Order*, the Commission adopted substantively identical OOBE limits on transmissions from both the D Block and the public safety

⁴⁷ See id.

⁴⁸ 3GPP TS 36.101,"3rd Generation Partnership Project; Technical Specification Group Radio Access Network; Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) radio transmission and reception" (Release 8) December 2010.

⁴⁹ See 3GPP TR 36.837, Public safety broadband high power User Equipment (UE) for band 14, http://www.3gpp.org/ftp/Specs/html-info/36837.htm.

⁵⁰ See Public Safety Spectrum Act § 6206(b)(1)(B) (requiring FirstNet to incorporate recommended technical requirements based on LTE technology into its RFPs "without materially changing [the requirements]"); see also id. § 6203(c)(2).

⁵¹ See 47 C.F.R. §§ 90.542(b), 27.55(c).

broadband spectrum into this band.⁵² The respective Part 27 and Part 90 rule provisions, Sections 27.53(d) and 90.543(e), require emissions into the narrowband spectrum to adhere to a minimum power attenuation of 76 + 10logP for base and fixed stations, and 65 + 10logP for mobile and portable stations, both in a 6.25 KHz band segment.⁵³ We seek comment on these existing OOBE limits. Should we preserve the limits applicable to both bands by simply consolidating them into Section 90.543(e)? Should we instead consider the adoption of more or less stringent OOBE limits on emissions from the expanded public safety broadband spectrum into the narrowband segment? What would be the justification and the costs and benefits associated with implementing more or less stringent limits? Are there particular factors the Commission should consider in evaluating the various alternatives? We request that commenters addressing this issue provide relevant technical data or analysis to support their assertions.

24. The D Block and public safety broadband spectrum are also subject to limits on emissions into the 1559-1610 MHz band, which supports the operation of Global Positioning Satellite (GPS) L1 receivers. These emission limits are codified in Sections 27.53(f) and 90.543(f) respectively.⁵⁴ The two provisions establish numerically identical limits on emissions into this band, although only the latter provision explicitly applies to emissions "including harmonics."⁵⁵ Consistent with our proposals above, we propose to consolidate the requirements governing both segments of the combined public safety broadband allocation into Section 90.543(f) and to retain the phrase "including harmonics." We seek comment on this proposal. What costs and benefits would be associated with implementing this proposal?

25. We next consider limits on emissions into commercial spectrum bands adjacent to the expanded 700 MHz public safety spectrum allocation. Section 27.53(d)(3) requires D Block spectrum emissions into frequencies below 758 MHz, between 775 and 788 MHz, and above 806 MHz to be attenuated by at least $43 + 10\log (P)$.⁵⁶ The Commission has not established analogous limits with respect to operations in the public safety broadband spectrum. Should the Commission apply to the public safety broadband spectrum (763-768/793-798 MHz) the emission limits established in Section 27.53(d)(3) for the D Block and codify the requirements governing both bands in Section 90.543? Are there alternative proposals the Commission should consider? What costs and benefits are associated with the various alternatives?

c. Field Strength Limits

26. Commission rules establish for various types of services a field strength limit at the geographic border of an operator's service area. Such limits are designed to mitigate the potential for harmful interference with geographically adjacent operations in the same frequency band. Section 27.55(a)(2) establishes a 40 dBuV/m limit for operations in 700 MHz commercial band segments excluding the D Block, which is not subject to a field strength limit. Similarly, Part 90 specifies field strength limits for public safety narrowband operations, but not for the public safety broadband spectrum because as originally considered, it would have operated jointly with the D block. However, the "State Network" provision set forth in Section 6302(e) of the Public Safety Spectrum Act contemplates the potential deployment of more than one radio access network in this band.⁵⁷ Accordingly, we seek

⁵² See 47 C.F.R. §§ 90.543(e), 27.53(d).

⁵³ See id.

⁵⁴ See 47 C.F.R. §§ 90.543(f), 27.53(f).

⁵⁵ See id.

⁵⁶ See 47 C.F.R. § 27.53(d)(3).

⁵⁷ See Public Safety Spectrum Act § 6203(e).

comment on whether a field strength limit should be established for the expanded public safety broadband allocation to limit interference between the FirstNet network and any potential State networks. Should the Commission adopt for this band the field strength limit specified in Section 27.55(a)(2) for 700 MHz commercial wireless services? Is there an alternative limit or approach the Commission should consider?

d. Interference Coordination

27. Interference coordination, both in advance of deployment and after a network enters service, is an important tool for ensuring that geographically and spectrally adjacent operations can coexist without causing each other interference. In this section, we seek comment on whether we should impose interference coordination requirements with respect to the expanded public safety broadband spectrum in two general regards. The first involves the potential for harmful interference with 700 MHz commercial wireless networks. Are there additional requirements the Commission should put in place to protect such commercial band operations from harmful interference? Are there potential base station deployment configurations, *i.e.*, geographic locations and antenna heights, under which the potential for harmful interference between coordination requirements on public safety operators to protect against harmful interference between commercial and public safety mobile and base stations? Should coordination requirements vary depending on the type of environment, *e.g.*, rural, urban or suburban, in which services are provided? What would be the costs and benefits associated with any coordination requirements the Commission might establish? Would any such requirements serve the objectives of the Public Safety Spectrum Act?

28. A second focus for coordination involves the potential for harmful interference with the incumbent public safety narrowband operations, which may occur during the period before such operations are relocated out of the existing public safety broadband spectrum to be occupied by FirstNet. Are there interim interference coordination requirements that should be considered to protect such narrowband operations from interference? Should particular requirements be put in place with respect to incumbent public safety narrowband operations in the public safety broadband spectrum? What would be the costs and benefits associated with any such requirements?

e. International Considerations

29. Sections 90.533 and 27.57(b) set conditions on the use of 700 MHz public safety spectrum and commercial spectrum respectively within specified distances of the U.S.-Canada and U.S.-Mexico borders.⁵⁸ Consistent with our reallocation of the D Block for public safety services, we propose to amend these sections by removing the D Block from the reach of Section 27.57(b) and including it within the frequencies governed by Section 90.533. We seek comment on this proposal, and on international considerations more generally.

30. The requirements of Section 90.533 apply to border-area 700 MHz public safety operations only in the continued absence of international agreements that take into account the 2007 reorganization of the 700 MHz band.⁵⁹ The United States government is actively negotiating agreements

⁵⁸See 47 C.F.R. §§ 90.533, 27.57(b). The requirements of these sections apply to border-area 700 MHz public safety operations in the continued absence of international agreements that take into account the 2007 re-organization of the 700 MHz public safety band. The Commission may need to modify these requirements to implement any future agreements.

⁵⁹ Section 90.533 was adopted in accordance with existing agreements that take into account the pre-2007 band plan. *See* Sharing Arrangement Between the Department of Industry of Canada and the Federal Communications Commission of the United States of America Concerning the Use of the Frequency Bands 764 to 776 MHz and 794 To 806 MHz by the Land Mobile Service Along the Canada-United States Border (Jun 2005) (Arrangement G); Protocol Between the Department of State of the United States of America and the Secretariat of Communications and Transportation of the United Mexican States Concerning the Allotment and Use of the 698-806 MHz Band for Terrestrial Non-Broadcasting Radiocommunication Services Along the (continued....)

that address these issues, but the timeframe for completion of these negotiations is uncertain.

f. 700 MHz Public Safety Guard Band

The Public Safety Spectrum Act directs the Commission to license to FirstNet the D 31. Block and the "existing public safety broadband spectrum," the latter of which Congress defined to include the 700 MHz public safety guard band (768-769/798-799 MHz).⁶⁰ The guard band is not designated for an operational use under our rules, but was previously entrusted to the PSBL to serve "as a buffer between surrounding broadband and narrowband operations."⁶¹ We adopted this guard band in the Second Report and Order upon finding that it was "needed between broadband and narrowband operations to minimize interference potential."⁶² As the Public Safety Spectrum Act directs, the Bureau included these guard bands under the license issued to FirstNet. However, there is no apparent reason that the transfer of the broadband spectrum from the PSST to FirstNet would mitigate the interference concerns that gave rise to the Commission's adoption of this guard band. Accordingly, we propose to keep in place the associated restrictions on its use that exist currently under our rules. We seek comment on this proposal. Are the operational restrictions now in place for the guard band spectrum necessary to protect public safety narrowband operations from interference? Is the use of the guard band a matter over which FirstNet should have greater discretion? What would be the costs and benefits associated with our proposal to retain the guard band and its associated restrictions or with any alternative proposal?

32. We note that the Public Safety Spectrum Act specifically recognizes the Commission's discretion to permit the adjacent narrowband spectrum (769-775 MHz/799-805 MHz) to be used for public safety broadband communications, "subject to such technical and interference protection measures as the Commission may require."⁶³ What impact would such flexible use have on the interference protection criteria applicable to FirstNet's operation in this guard band?

g. Equipment Certification

33. In the *Waiver Order*, the Commission noted that it had not yet adopted final technical rules for the public safety broadband spectrum. Accordingly, as long as the Waiver Recipients and manufacturers adhered to the use of 3GPP Release 8 as specified therein, we waived the equipment authorization rule in Part 90 (47 C.F.R. § 90.203) pending adoption of such final technical rules.⁶⁴ Shortly thereafter, the Bureau sought further comment on the impact of future rule changes on equipment deployed prior to such changes.⁶⁵ In its *Report and Order*, the Bureau eliminated Part 27 rules governing the D Block now allocated for use by FirstNet; thus, Section 27.51 of those rules, relating to equipment authorizations for use of equipment in that band, no longer applies to such equipment. In that *Report and Order*, we have also replaced our Part 90 rules governing the existing public safety broadband spectrum with new rules, and in this *Further Notice* we have proposed technical rules that would apply to

⁽Continued from previous page) -

Common Border (Nov 2006) (700 MHz Mexico Protocol). The agreement with Canada pertains only to the former public safety spectrum block while the existing agreement with Mexico covers terrestrial non-broadcasting radiocommunication services throughout the 698-806 MHz band.

⁶⁰ See Public Safety Spectrum Act §§ 6201(a), 6001(14)(B), (D).

⁶¹ See Second Report and Order, 22 FCC Rcd at 15415 ¶ 348.

⁶² Id.

⁶³ Public Safety Spectrum Act § 6102.

⁶⁴ *Waiver Order*, 25 FCC Rcd at 5157 ¶ 38 n.88.

⁶⁵ Public Safety and Homeland Security Bureau Seeks Comment on Interoperability, Out of Band Emissions, and Equipment Certification for 700 MHz Public Safety Broadband Networks, *Public Notice*, 25 FCC Red 5486 (PSHSB 2010).

operations in these two bands. Under Section 2.1033(c) of our rules,⁶⁶ equipment authorizations for transmitters for use in the newly expanded public safety broadband spectrum will be subject to the technical rules we adopt for service in that spectrum in response to this *Further Notice*. Pending the adoption of such rules, we direct the Office of Engineering and Technology (OET) to suspend its acceptance and processing of any new equipment authorizations in this band.⁶⁷

34. Section 90.549 mandates the certification of any equipment operated in the existing public safety broadband spectrum "as required by § 90.203,"⁶⁸ subsection (p) of which provides that applications for equipment certification in this band must demonstrate support for required LTE interfaces.⁶⁹ Because the *Report and Order* has deleted the underlying rule provisions that required "Public Safety Broadband Network Operators" to implement these LTE interfaces,⁷⁰ we propose to delete the associated certification requirement contained in Section 90.203(p). We seek comment on this proposal.

35. We further propose, consistent with our proposals above to consolidate into Part 90 the technical provisions that govern the combined public safety broadband allocation, to modify Section 90.549 of our rules to place the D Block under its purview. We seek comment on this proposal, under which all equipment operated in the combined public safety broadband allocation would be subject to a certification process based on the unified technical rules ultimately established for this band. Should equipment operated in this band be made subject to certification requirements that augment the general requirements of Section 90.203?⁷¹ If so, how should any such additional requirements be applied to equipment that had been certified prior to such requirements becoming effective? How should any other of the rules we adopt in response to this *Further Notice* be applied to equipment that has been subject to the waiver described in paragraph 32?

2. Further Proposed Rule Revisions to Implement the Public Safety Spectrum Act

36. In this section, we propose further rule revisions that reflect actions taken by the Commission in the *Report and Order* to implement the Public Safety Spectrum Act. In particular, this section includes proposals that would eliminate reference to the defunct Public Safety Broadband License and others that would further situate the D Block under the regulatory purview of Part 90.

a. Proposed Rule Revisions to Eliminate Reference to the Public Safety Broadband License

37. *Federal User Access to the Network*. Section 2.103(c) permits Federal users to access the public safety broadband spectrum with "the prior approval of the Public Safety Broadband Licensee."⁷²

⁶⁶⁴⁷ C.F.R. § 2.1033(c).

⁶⁷ Our procedures for the acceptance and processing these applications concern "agency organization, procedure, or practice." For the reasons stated above, good cause also exists for suspending the processing of such applications until such time as we implement technical and service rules against which such equipment may be tested. *See* 5 U.S.C. §§ 553(b)(A)-(B); *Kessler v. FCC*, 326 F.2d 673, 680-82 (D.C. Cir. 1963).

^{68 47} C.F.R. § 90.549.

^{69 47} C.F.R. § 90.523(p).

⁷⁰ See Report and Order, Section III.A.

⁷¹ 47 CFR § 90.203(a)

^{72 47} C.F.R. § 2.103.

We propose to amend this rule section to identify FirstNet as the entity charged with administering Federal access to both the existing public safety broadband spectrum and the D Block spectrum. We seek comment on this proposal.

38. Sharing of Part 90 Radio Stations. Section 90.179 governs the sharing of radio stations licensed under Part 90.⁷³ Subsection (g) provides that sharing arrangements with Federal users are subject to the requirements of Section 2.103 "concerning approval of the Public Safety Broadband Licensee for Federal operations in the 763-768 MHz and 793-798 MHz bands."⁷⁴ We propose to amend this provision to eliminate the reference to the public safety broadband licensee. We seek comment on this proposed rule modification.

39. *Eligibility*. Section 90.523 sets forth eligibility criteria for holding authorizations to operate in the 700 MHz public safety spectrum.⁷⁵ Subsection (e) defines minimum eligibility requirements for the public safety broadband licensee.⁷⁶ We propose to amend this subsection to clarify that FirstNet is the holder of a nationwide license for both the existing public safety broadband spectrum and the D Block. Moreover, because such licensing is directed under the statute, we propose to amend the more general eligibility requirements set forth in subsections (a)-(d) of Section 90.523 to restrict their purview to the public safety narrowband segment of the band (769-775 MHz/799-805 MHz). We seek comment on these proposed modifications to Section 90.523.

b. Proposed Rule Revisions to Bring the D Block Under the Purview of Part 90

40. Several Part 27 rules established for commercial wireless services were made applicable to the D Block, which was previously allocated for commercial assignment through competitive bidding. In light of our reallocation of the D Block for public safety services and assignment of that spectrum to FirstNet, we propose to modify these Part 27 rules to remove the D Block frequencies from their purview. The rules we propose to modify include Sections 27.1 ("Basis and Purpose."), 27.5 ("Frequencies."), 27.6 ("Service Areas."), 27.11 ("Initial Authorization"), 27.13 ("License Period."), 27.14 ("Construction requirements; Criteria for Renewal."), 27.15 ("Geographic partitioning and spectrum disaggregation."), 27.60 ("TV/DTV interference protection criteria"), 27.70 ("Information exchange."), 27.303 ("Upper 700 MHz commercial and public safety coordination zone."), and 27.501 ("746-763 MHz, 775-793 MHz, and 805-806 MHz bands subject to competitive bidding."). We also propose similar modifications to Section 1.9005(k) ("Included services.") We seek comment on these proposed rule modifications, which are set forth Appendix A. Are there additional rule modifications the Commission should consider to remove the D Block from the purview of Part 27 rules or of other rules established for commercial wireless services? What considerations should the Commission take into account in determining whether to adopt any such proposed rule modifications?

41. Similarly, we propose to modify a Part 90 provision applicable to the public safety broadband spectrum, Section 90.555 ("Information Exchange"), to bring the D Block within its purview. We seek comment on this proposed rule modification, also set forth in Appendix A. Are there any additional rule modifications the Commission should consider to bring the D Block within the purview of Part 90 or other rules established for the public safety broadband spectrum? What considerations should

⁷³ See id.

⁷⁴ Id. § 2.103(g).

⁷⁵ See 47 C.F.R. § 90.523.

⁷⁶ See id. § 90.523(e).

the Commission take into account in determining whether to adopt any such proposed rule modifications?

B. FirstNet License Renewal and Interference Management

42. On November 15, 2012, the Bureau issued a license to FirstNet as contemplated in the *Report and Order*. In this Section we seek comment on how to ensure that the Commission has sufficient information to assess whether FirstNet has met its duties and obligations under the Public Safety Spectrum Act and otherwise met the terms of the license issued under Section 6201 of the Spectrum Act at the time of renewal.

43. Under the Public Safety Spectrum Act, FirstNet has been licensed by the Commission for an initial ten-year term. Prior to the expiration of this term or the expiration of any subsequent renewal of the license, FirstNet is required to submit a renewal application to the Commission that demonstrates that it has met its duties and obligations as set forth in the Public Safety Spectrum Act.⁷⁷ The Public Safety Spectrum Act, however, does not provide guidance to the Commission on how to evaluate whether FirstNet has met its duties and obligations. Therefore, the Commission seeks comment on how it should assess FirstNet's compliance with its duties and obligations and the terms of its license at the time of renewal.

44. The Commission notes that it should be able to obtain considerable information about FirstNet's performance during the license term, given the Commission's opportunities to consult with and provide technical assistance to FirstNet, and assuming access to reports that are required under the Public Safety Spectrum Act, ⁷⁸ which promise to detail FirstNet's operations, activities, financial conditions, and accomplishments.⁷⁹ While it appears that this may be sufficient over the course of FirstNet's license term, we ask for comment on whether any additional information would further assist the Commission.⁸⁰

45. We also seek comment on whether information and reports already required of FirstNet by the Public Safety Spectrum Act would be sufficient to enable the Commission to discharge its interference management obligations under Title III of the Communications Act. For example, to the extent FirstNet's report to Congress details its build out, this information may allow the Commission and other licensees to know where FirstNet is operating if an interference issue arises. We seek comment on all these issues.

46. Finally, we also recognize that the Act suggests that one of FirstNet's obligations under the Act includes "deployment phases with substantial rural coverage milestones" that are "consistent with the license granted" by the Commission.⁸¹ We do not believe the Commission should specify rural milestones as a condition of FirstNet's license at this time. Rather, we recognize that at this early stage, the success of FirstNet requires flexibility with respect to deployment and planning, including deployment in rural areas. Moreover, FirstNet has an independent legal obligation under the Act to

⁷⁷ Id. § 6201(b)(2).

⁷⁸ See Public Safety Spectrum Act §§ 6209 (independent auditor annual reports) and 6210 (FirstNet annual reports).

⁷⁹ We note that FirstNet released the first of its annual reports to Congress (which are required by Section 6210 of the Public Safety Spectrum Act) on February 12, 2013. This report has been made public. *See* First Responder Network Authority Annual Report to Congress for Fiscal Year 2012 (Feb. 2013), *available at* http://www.ntia.doc.gov/files/ntia/publications/firstnet_report_to_congress_fy2012_02122013.pdf. We also note that FirstNet's set for the first of the public set of the pu

Board meetings are open to the public. Public Safety Spectrum Act, § 6201(b)(2).

⁸⁰ See, e.g., 47 USC §§ 154(i), 303(r), 308(b), 403; Public Safety Spectrum Act § 6003(a). The Commission also has authority to request additional information from licensees when needed.

⁸¹ See Public Safety Spectrum Act §§ 6201(b)(2), 6206(b)(3).

develop requests for proposals with appropriate timetables for construction, taking into account the time needed to build out in rural areas, and coverage areas, including coverage in rural and nonurban areas.⁸² In addition, in light of the Congressional oversight that will be exercised over FirstNet and its other transparency, reporting and consultation obligations, we do not believe it is necessary for the Commission to set specific benchmarks in this regard in these rules. We seek comment on this view.

C. Actions to Address Other Existing or Planned Operations in the Spectrum Licensed to FirstNet

47. The spectrum licensed to FirstNet under the Public Safety Spectrum Act is currently occupied by three classes of incumbents: (1) jurisdictions operating narrowband systems that predate the Commission's 2007 *Second Report and Order*,⁸³ some of which received waivers for continued deployment;⁸⁴ (2) two jurisdictions operating wideband systems pursuant to waiver or Special Temporary Authority (STA);⁸⁵ and (3) one commercial incumbent in the D Block spectrum, PTPMS II, licensed in the 761-763/791-793 band in the Des Moines-Quad Cities and El Paso-Albuquerque Major Economic Areas (MEAs).⁸⁶

1. Incumbent Narrowband Operations in the Existing Public Safety Broadband Spectrum

48. To facilitate the public-private partnership described previously, the Commission prohibited any further authorizations after August 30, 2007, to conduct public safety narrowband operations in the broadband spectrum then licensed to the PSST.⁸⁷ Licensees operating existing narrowband systems in this spectrum were required to certify to the Commission the scope of their operations as of that date, and were slated to be relocated.⁸⁸ This included both operations on both a local basis, and those carried out pursuant to a statewide license.

⁸² See id. § 6206(c)(1)(A).

⁸³ See Service Rules for the 698-746, 747-762 and 777-792 Bands; Implementing a Nationwide, Broadband, Interoperable Public Safety Network in the 700 MHz Band, WT Docket No. 06-150, PS Docket No. 06-229, Second Report and Order, 22 FCC Rcd 15289, 15291 ¶ 1 (2007) (Second Report and Order).

⁸⁴ See, e.g. Implementing a Nationwide, Broadband Interoperable Public Safety Network in the 700 MHz Band, Development of Operational, Technical and Spectrum Requirements for Meeting Federal, State and Local Public Safety Communications Requirements through the Year 2010, Commonwealth of Virginia Request for Waiver, Order, 22 FCC Rcd 20290, 20293 ¶ 7 (2007); Request for Waiver of Pierce Transit, Order, 23 RCC Rcd 443 (PSHSB 2008); State of New York Request for Waiver, Order, 23 FCC Rcd 9610 (PSHSB 2008); State of Arkansas Request for Waiver, Order, 23 FCC Rcd 11068 (PSHSB 2008); State of Illinois, Illinois State Police Request for Waiver, Order, 23 FCC Rcd 11064 (PSHSB 2008); State of Hawaii Request for Waiver, Order, 23 FCC Rcd 11264 (PSHSB 2008); State of Maiver, Order, 23 FCC Rcd 11660 (PSHSB 2008); State of Maiver, Order, 23 FCC Rcd 11666 (PSHSB 2008); State of Maiver, Order, 23 FCC Rcd 11666 (PSHSB 2008); State of Maiver, Order, 23 FCC Rcd 11666 (PSHSB 2008); State of Maiver, Order, 23 FCC Rcd 11666 (PSHSB 2008); State of Waiver, Order, 23 FCC Rcd 11666 (PSHSB 2008); State of Maiver, Order, 23 FCC Rcd 11666 (PSHSB 2008); State of Maiver, Order, 23 FCC Rcd 11666 (PSHSB 2008); State of Maiver, Order, 23 FCC Rcd 11666 (PSHSB 2008); County of Ada, Idaho Request for Waiver, Order, 23 FCC Rcd 16665 (PSHSB 2008); Harris County, Texas Request for Waiver, Order, 23 FCC Rcd 16661 (PSHSB 2008);

⁸⁵See Call Sign WQIW915; Call Sign WQIR243.

⁸⁶ See Second Report and Order, 22 FCC Rcd at 15338-40 ¶¶ 128-134.

⁸⁷ Second Report and Order, 22 FCC Rcd at 15412 ¶ 339.

⁸⁸ Due to the shift in the overall public safety spectrum down 1 MHz to accommodate operations along the Canadian border, narrowband operations in upper 1 MHz of TV channels 64 and 69 (775-776/805-806) were also slated for relocation. See Second Report and Order 22 FCC Rcd at 15428-32 ¶ 388-402. Appendix A hereto lists those jurisdictions that hold site-based licenses authorizing narrowband operations in the public safety broadband spectrum. Also listed are states that filed narrowband certifications. These latter jurisdictions may be continuing to operate incumbent narrowband systems deployed prior to the August 30, 2007 deadline under "state licenses", for which individual site licensing is not required. States are not permitted to deploy new narrowband facilities in the public safety broadband spectrum, however, without first seeking a waiver of the August 30, 2007 deadline.

49. Based on these certifications and comments filed in response to the Commission's initial relocation proposal, the Commission sought comment on the costs associated with relocating these operations.⁸⁹ Funding for the transition was to be provided by the D Block auction winner and administered by the PSST.⁹⁰ Initially, the Commission estimated relocation would cost \$10 million and later upwardly revised this estimate and proposed to cap the D Block license winner's liability at \$27 million.⁹¹ Parties subsequently asserted costs would be approximately \$74 million.⁹²

50. Following the Commission's 2007 order, a number of jurisdictions sought waivers to continue to deploy narrowband systems in the existing public safety broadband spectrum. Generally, these parties argued that they had existing plans and investments that would otherwise be stranded absent permission from the Commission to complete deployment.⁹³ The Commission and the Bureau granted a number of these waivers, finding limited relief warranted where there was a showing of potential public harm, and where there was evidence of a comprehensive deployment plan that predated the August 30, 2007 deadline.⁹⁴

51. In granting these waivers, the Commission and Bureau deferred for future consideration whether facilities deployed under waiver would be eligible for cost reimbursement from the D Block licensee. This reimbursement mechanism, however, is no longer tenable given the enactment of the Public Safety Spectrum Act and the Bureau's subsequent reallocation of the D Block. Accordingly, to the extent the issue of cost reimbursement from the D Block licensee remains pending with respect to waiver petitions filed to support continued narrowband deployment, we dismiss the petitions as moot.⁹⁵ For the same reason, we dismiss as moot a pending request from the Georgia State Patrol seeking relief from the O Block licensee's expense.⁹⁶ These dismissals do not preclude the Commission from adopting policies consistent with the Act to support the relocation of incumbent narrowband operations. As the

⁹⁴ See, e.g., Virginia Order, 22 FCC Rcd at 20293 ¶ 7.

⁸⁹ Third Further Notice, 23 FCC Rcd 14444-45 ¶¶ 444-445.

⁹⁰ Second Report and Order, 22 FCC Rcd at 15412-14 ¶¶ 340-344.

⁹¹ *Id.* at 15412 ¶ 341; *Third Further Notice*, 23 FCC Rcd at 14445 ¶ 445.

⁹² See, e.g., Comments of the Public Safety Spectrum Trust, PS Docket No. 06-229 at 41 (filed Nov. 3, 2008).

⁹³ See, e.g., Implementing a Nationwide, Broadband Interoperable Public Safety Network in the 700 MHz Band, Development of Operational, Technical and Spectrum Requirements for Meeting Federal, State and Local Public Safety Communications Requirements through the Year 2010, Commonwealth of Virginia Request for Waiver, Order, 22 FCC Rcd 20290, 20293 ¶ 7 (2007)(Virginia Order); Request for Waiver of Pierce Transit, Order, 23 RCC Rcd 443 (PSHSB 2008); State of New York Request for Waiver, Order, 23 FCC Rcd 9610 (PSHSB 2008); State of Arkansas Request for Waiver, Order, 23 FCC Rcd 11068 (PSHSB 2008); State of Illinois, Illinois State Police Request for Waiver, Order, 23 FCC Rcd 11064 (PSHSB 2008); State of Hawaii Request for Waiver, Order, 23 FCC Rcd 11264 (PSHSB 2008); State of Mississippi Request for Waiver, Order, 23 FCC Rcd 16665 (PSHSB 2008); State of Maiver, Order, 23 FCC Rcd 16665 (PSHSB 2008); Harris County, Texas Request for Waiver, Order, 23 FCC Rcd 16661 (PSHSB 2008).

⁹⁵ See Commonwealth of Virginia Request for Waiver, PS Docket 06-229 (filed Aug. 30, 2007); Pierce Transit Request for Waiver, PS Docket 06-229 (filed Aug. 30, 2007); State of Arkansas Request for Waiver, PS Docket 06-229 (filed Sept. 28, 2007); Illinois State Police Request for Waiver, PS Docket 06-229 (filed Oct. 23, 2007); State of Hawaii Request for Waiver, PS Docket 06-229 (filed Oct. 23, 2007); State of Mississippi Request for Waiver, PS Docket 06-229 (filed Sept. 13, 2007); City of Phoenix Request for Waiver, PS Docket 06-229 (filed Oct. 17, 2007); County of Ada, Idaho Request for Waiver, PS Docket 06-229 (filed Oct. 10, 2007); County of Harris, Texas Request for Waiver, PS Docket 06-229 (filed Oct. 17, 2007).

⁹⁶ See Letter from Daniel R. Brown, Chief Information Officer, Georgia State Patrol, to Chief, Public Safety and Homeland Security Bureau (dated June 9, 2008) (Waiver Request). Our dismissal of Georgia State Patrol's petition as moot does not limit its authority to continue operating incumbent narrowband facilities deployed under State License that were in place as of August 30, 2007.

Commission develops such policies, any existing authority granted under waiver to operate facilities deployed after the August 30, 2007 deadline remains in effect.

52. Public safety narrowband systems support mission-critical voice services essential to protecting the safety of life, health and property, but their continued presence in the public safety broadband spectrum will unduly constrain deployment of the nationwide broadband network.⁹⁷ Pursuant to our mandate under Section 6201(c) of the Public Safety Spectrum Act to facilitate the transition of this spectrum to FirstNet, we seek comment on the appropriate mechanism to transition incumbent narrowband operators out of the band and on the timeframe by which such a transition should be accomplished.

53. Initially, the Commission required the PSST to manage this relocation, as funded by the D Block commercial auction winner.⁹⁸ In light of the Public Safety Spectrum Act, which directs the Commission to reallocate this spectrum and license it for use by FirstNet, should FirstNet be responsible for this transition? Can the Commission require FirstNet to manage this process, or require FirstNet to provide funds for it? To what extent would such requirements be consistent with FirstNet's authority under Section 6206(a)(6) of the Public Safety Spectrum Act to take actions that "it may from time to time determine necessary, appropriate, or advisable to accomplish the purposes" of that Act? Would fees collected by FirstNet be available for such funding as a way of "constructing, maintaining, operating or improving the network" under Section 6208 of the Act? Is there a third party source that could fund relocation? Absent funding from FirstNet or another third party source, can and should the Commission require these incumbents to transition operations at their own expense? If no source of funding is available, should that impact the timing for relocation? Are there other ways to provide incumbents with an incentive to transition their operations?

54. In terms of the timing of such a transition, should the Commission establish a hard deadline by which relocation should be accomplished? If a hard deadline is set for mandatory relocation, are there incentives that could be established for earlier voluntary relocation? Should relocation be dependent on the plans made by FirstNet for deployment in a particular jurisdiction? If so, how would such a "rolling" transition work? In this regard, we note that existing narrowband operations are present only in the 763-768/793-798 MHz band, and not in the D Block. Is it feasible for FirstNet to pursue deployment of the nationwide network solely using the D Block in those areas where incumbent narrowband operators have yet to be relocated? How long could such an arrangement feasibly be maintained? What would be the impact on interoperability, either for the incumbent narrowband systems or for the new broadband operations? Would pursuing such a course of action result in additional costs to the nationwide network? What interference protections would need to be imposed to protect narrowband operations?

55. We seek comment on whether there is adequate spectrum available to support the relocation of these incumbent narrowband operations. What spectrum is available to support them? Is there sufficient spectrum in the state or general narrowband allocations in the consolidated 700 MHz public safety narrowband spectrum?

56. Can or should the Commission defer addressing timing for incumbent relocation until a state chooses whether or not to opt out of the nationwide network? If narrowband operations are present in the existing broadband spectrum in a state that chooses to opt out of the nationwide network, how should the narrowband operations be treated? Should we allow the state to determine whether or not to

⁹⁷ Second Report and Order, 22 FCC Rcd at 15410 ¶ 332.

⁹⁸ *Id.* at 15411-13 ¶¶ 336-343.

relocate these operations, or to pursue an additional waiver to allow their continued operation? Does allowing such continued operation endanger narrowband interoperability with adjacent jurisdictions operating in the consolidated narrowband spectrum? Does it endanger broadband interoperability with adjacent jurisdictions or with FirstNet? How should interference protection be structured?

2. Incumbent Wideband Operations

57. There are two jurisdictions with small wideband public safety deployments in the 700 MHz public safety spectrum: (1) Wasilla, Alaska; and (2) Post Falls, Idaho. Wasilla has been operating pursuant to special temporary authority (STA) for wideband operations on frequency pairs 769.100/799.100 and 774.900/804.900 MHz on a secondary, non-interference basis.⁹⁹ Wasilla's most recently granted STA expired on June 6, 2012, but it has an application on file seeking an additional sixmonth extension.¹⁰⁰ The STA includes a special condition stating that termination is at the Bureau's discretion, without a hearing, if conditions warrant.¹⁰¹ Post Falls is operating pursuant to a license which expired on June 1, 2012, for wideband operations on frequency pair 768.525/798.525 MHz.¹⁰² Post Falls' license is specifically conditioned on the outcome of the 700 MHz rulemakings under consideration by the Commission.¹⁰³ On March 23, 2012, Post Falls filed an application seeking renewal of this authorization for a period of one year.

58. As noted above, the Public Safety Spectrum Act includes within the spectrum to be assigned to FirstNet the spectrum currently designated as a guard band between the public safety broadband and public safety narrowband segments of the band (768-769/798-799 MHz).¹⁰⁴ As with respect to the incumbent narrowband operations, we seek comment on the best method to transition these operations. Given that these systems are wideband systems, is there viable spectrum to which they could be relocated? Is there an appropriate way to transition these systems coincident to their expiration? Should the Commission leave its rules and policies on renewal intact in such situations? Alternatively, should we modify our licensing approach by precluding renewal under the unusual circumstances presented by the Public Safety Spectrum Act, but permit operations pursuant to STA until such time as FirstNet is established? Should we allow these wideband systems to persist until the nationwide or state network is built in the area? Are there additional conditions that should be placed on any continued operation, including interference protections?

3. Commercial Operations in the D Block

59. With respect to PTPMS II's licenses (761-763/791-793 MHz), the Commission previously found that allowing PTPMS II to operate indefinitely within the D Block was not in the public interest and that such operation would impede the provision of broadband public safety services.¹⁰⁵ Accordingly, the Commission specifically declined to provide a renewal expectancy and did not extend

⁹⁹ See Call Sign WQIW915. The upper pair of frequencies is not located within the spectrum designated for FirstNet, and accordingly we focus here on the lower frequency pair that is subject to transition.

¹⁰⁰ See Universal Licensing System, Application No. 0005226514 (filed May 21, 2012). In its application, Wasilla asserts that a six-month extension will not interfere with any of FirstNet's early-stage activities, and that FirstNet can evaluate the status of Wasilla's deployment at a later date once it is more fully operational.

¹⁰¹ See Call Sign WQIW915.

¹⁰² See Call Sign WQIR243.

¹⁰³ Id.

¹⁰⁴ See Public Safety Spectrum Act §§ 6001(14); 6201(a).

¹⁰⁵ Second Report and Order, 22 FCC Rcd at 15340, 15389 ¶¶ 133, 273.

the terms of PTPMS II's licenses, which expire April 27, 2015.¹⁰⁶ We seek comment on whether to permit the licenses to expire in 2015 under the license terms, or whether steps are necessary to accommodate the transition of the D Block spectrum to FirstNet prior to the expiration of PTPMS II's licenses. If so, what steps should the Commission take? In this respect, we also note that according to PTPMS II's most recent guard band manager report, it has no operations and no customers in its licensed areas.¹⁰⁷

IV. PROCEDURAL MATTERS

A. Regulatory Flexibility Act

60. As required by the Regulatory Flexibility Act (RFA),¹⁰⁸ the Commission has prepared an Initial Regulatory Flexibility Analysis (IRFA) relating to the *Notice of Proposed Rulemaking*, set forth in Appendix B.

B. Paperwork Reduction Act of 1995

61. *Paperwork Reduction Act of 1995.* This document does not contain proposed information collection(s) subject to the Paperwork Reduction Act of 1995 (PRA), Public Law 104-13. In addition, therefore, it does not contain any new or modified information collection burden for small business concerns with fewer than 25 employees, pursuant to the Small Business Paperwork Relief Act of 2002, Public Law 107-198, *see* 44 U.S.C. 3506(c)(4).

C. Other Procedural Matters

1. Ex Parte Presentations

62. The proceeding this *Notice* initiates shall be treated as a "permit-but-disclose" proceeding in accordance with the Commission's *ex parte* rules.¹⁰⁹ Persons making *ex parte* presentations must file a copy of any written presentation or a memorandum summarizing any oral presentation within two business days after the presentation (unless a different deadline applicable to the Sunshine period applies). Persons making oral *ex parte* presentations are reminded that memoranda summarizing the presentation must (1) list all persons attending or otherwise participating in the meeting at which the *ex parte* presentation. If the presentation consisted in whole or in part of the presentation of data or arguments already reflected in the presenter's written comments, memoranda or other filings in the proceeding, the presenter may provide citations to such data or arguments in his or her prior comments, memoranda, or other filings (specifying the relevant page and/or paragraph numbers where such data or arguments can be found) in lieu of summarizing them in the memorandum. Documents shown or given to Commission staff during *ex parte* meetings are deemed to be written *ex parte* presentations and must be filed consistent with rule 1.1206(b). In proceedings governed by rule 1.49(f) or for which the Commission has made available a method of electronic filing, written *ex parte* presentations and memoranda summarizing

¹⁰⁶ See id.; see also PTPMS II Communications, L.L.C., Radio Station Authorizations, Call Signs WPRV448, WPRV449.

¹⁰⁷ See PTPMS II Communications, L.L.C., Guard Band/Band Manager Report (filed Feb. 29, 2012), *available at* http://wireless.fcc.gov/services/index.htm?job=guardband_reports&id=700_guard.

¹⁰⁸ See 5 U.S.C. § 604.

¹⁰⁹ 47 C.F.R. §§ 1.1200 et seq.

oral *ex parte* presentations, and all attachments thereto, must be filed through the electronic comment filing system available for that proceeding, and must be filed in their native format (*e.g.*, .doc, .xml, .ppt, searchable .pdf). Participants in this proceeding should familiarize themselves with the Commission's *ex parte* rules.

2. Comment Filing Procedures

63. Pursuant to sections 1.415 and 1.419 of the Commission's rules, 47 CFR §§ 1.415, 1.419, interested parties may file comments and reply comments on or before the dates indicated on the first page of this document. Comments may be filed using the Commission's Electronic Comment Filing System (ECFS). *See Electronic Filing of Documents in Rulemaking Proceedings*, 63 FR 24121 (1998).

- Electronic Filers: Comments may be filed electronically using the Internet by accessing the ECFS: <u>http://fjallfoss.fcc.gov/ecfs2/</u>.
- Paper Filers: Parties that choose to file by paper must file an original and one copy of each filing. If more than one docket or rulemaking number appears in the caption of this proceeding, filers must submit two additional copies for each additional docket or rulemaking number.

Filings can be sent by hand or messenger delivery, by commercial overnight courier, or by firstclass or overnight U.S. Postal Service mail. All filings must be addressed to the Commission's Secretary, Office of the Secretary, Federal Communications Commission.

- All hand-delivered or messenger-delivered paper filings for the Commission's Secretary must be delivered to FCC Headquarters at 445 12th St., SW, Room TW-A325, Washington, DC 20554. The filing hours are 8:00 a.m. to 7:00 p.m. All hand deliveries must be held together with rubber bands or fasteners. Any envelopes and boxes must be disposed of before entering the building.
- 2. Commercial overnight mail (other than U.S. Postal Service Express Mail and Priority Mail) must be sent to 9300 East Hampton Drive, Capitol Heights, MD 20743.
- U.S. Postal Service first-class, Express, and Priority mail must be addressed to 445 12th Street, SW, Washington DC 20554.

People with Disabilities: To request materials in accessible formats for people with disabilities (braille, large print, electronic files, audio format), send an e-mail to <u>fcc504@fcc.gov</u> or call the Consumer & Governmental Affairs Bureau at 202-418-0530 (voice), 202-418-0432 (tty).

3. Accessible Formats

64. To request materials in accessible formats for people with disabilities (Braille, large print, electronic files, audio format), send an e-mail to <u>FCC504@fcc.gov</u> or call the Consumer & Governmental Affairs Bureau at 202-418-0530 (voice), 202-418-0432 (TTY). Contact the FCC to request reasonable accommodations for filing comments (accessible format documents, sign language interpreters, CARTS, *etc.*) by e-mail at <u>FCC504@fcc.gov</u> or by phone at 202-418-0530 (voice) or 202-418-0432 (TTY).

V. ORDERING CLAUSES

65. Accordingly, IT IS ORDERED pursuant to sections 1, 2, 4(i), 5(c), 7, 301, 302, 303, 307, 308, 309, 310, 311, 314, 316, 319, 324, 332, 333, 336, 337 and 403 of the Communications Act of 1934, as amended, 47 U.S.C. §§ 151, 152, 154(i), 155(c), 157, 301, 302, 303, 307, 308, 309, 310, 311,

314, 316, 319, 324, 332, 333, 336, 337 and 403, as well as Title VI of the Middle Class Tax Relief and Job Creation Act of 2012, Pub. L. No. 112-96, 126 Stat. 156, that this *Notice of Proposed Rulemaking* in PS Docket No. 12-94 IS ADOPTED.

66. IT IS FURTHER ORDERED that the Commission's Consumer and Governmental Affairs Bureau, Reference Information Center, SHALL SEND a copy of this *Notice of Proposed Rulemaking*, including the Initial Regulatory Flexibility Analysis, to the Chief Counsel for Advocacy of the Small Business Administration.

67. IT IS FURTHER ORDERED that the Office of Engineering and Technology SHALL SUSPEND its acceptance and processing of applications for equipment authorization in the 758-769 MHz and 788-799 MHz bands.

68. IT IS FURTHER ORDERED that the petitions for waiver identified in footnotes 95 and 96 of this *Notice of Proposed Rulemaking* are DISMISSED AS MOOT to the extent indicated herein.

FEDERAL COMMUNICATIONS COMMISSION

Marlene H. Dortch Secretary

APPENDIX A

Proposed Rules

For the reasons discussed in the preamble, the Federal Communications Commission amends 47 CFR parts 1, 2, 27 and 90 as follows:

PART 1 – PRACTICE AND PROCEDURE

1. The authority citation for Part 1 continues to read as follows:

AUTHORITY: 15 U.S.C. 79 *et seq*.;47 U.S.C. 151, 154(i), 154(j), 155, 157, 225, 227, 303(r), and 309.

2. Section 1.9005 is amended by revising paragraph (k) to read as follows:

§ 1.9005 Included services.

* * * * *

(k) The Wireless Communications Service in the 746 – 758 MHz, 775 – 788 MHz, and 805 – 806 MHz bands (part 27 of this chapter);

* * * * *

PART 2 – FREQUENCY ALLOCATIONS AND RADIO TREATY MATTERS; GENERAL RULES AND REGULATIONS

3. The authority citation for Part 2 continues to read as follows:

AUTHORITY: 47 U.S.C. 154, 302(a), 303, and 336, unless otherwise noted.

4. Section 2.103 is amended by revising paragraphs (a) and (c) to read as follows:

§ 2.103 Federal Use of non-Federal frequencies.

(a) Federal stations may be authorized to use non-Federal frequencies in the bands above 25 MHz (except the 758-775 MHz and 788-805 MHz public safety bands) if the Commission finds that such use is necessary for coordination of Federal and non-Federal activities: Provided, however, that * * *

* * * * *

(c) Federal stations may be authorized by the First Responder Network Authority to use channels in the 758-769 MHz and 788-799 MHz public safety bands.

PART 27 – MISCELLANEOUS WIRELESS COMMUNICATIONS SERVICES

5. The authority citation for Part 27 continues to read as follows:

AUTHORITY: 47 U.S.C. 154, 301, 302, 303, 307, 309, 332, 336, and 337 unless otherwise noted.

6. Section 27.6 is amended by revising paragraph (b) to read as follows:

§ 27.6 Service Areas.

* * * * *

(b) 746–758 MHz, 775–788 MHz, and 805-806 MHz bands. WCS service areas for the 746-758 MHz, 775-788 MHz, and 805-806 MHz bands are as follows.

* * * * *

7. Section 27.11 is amended by revising paragraph (c) to read as follows:

§ 27.11 Initial authorization.

* * * * *

(c) 746–758 MHz, 775–788 MHz, and 805-806 MHz bands. Initial authorizations for the 746–758 MHz, 775–788 MHz, and 805-806 MHz bands shall be for paired channels of 1, 5, 6, or 11 megahertz of spectrum in accordance with §27.5(b).

* * * * *

8. Section 27.13 is amended by revising paragraph (b) to read as follows:

§ 27.13 License Period.

* * * * *

(b) 698-758 MHz and 776-788 MHz bands. Initial authorizations for the 698-758 MHz and 776-788 MHz bands will extend for a term not to exceed ten years from February 17, 2009, except that initial authorizations for a Part 27 licensee that provides broadcast services, whether exclusively or in combination with other services, will not exceed eight years. * * *

9. Section 27.14 is amended by revising paragraphs (a) and (e), by deleting paragraphs (m) and (n), and by redesignating paragraphs (o) and (p) as paragraphs (m) and (n) to read as follows:

§ 27.14 Construction requirements; Criteria for Renewal.

(a) AWS and WCS licensees, with the exception of WCS licensees holding authorizations for Block A in the 698-704 MHz and 728-734 MHz bands, Block B in the 704-710 MHz and 734-740 MHz bands, Block E in the 722-728 MHz band, Block C, C1 or C2 in the 746-757 MHz and 776-787 MHz bands, Block A in the 2305-2310 MHz and 2350-2355 MHz bands, Block B in the 2310-2315 MHz and 2355-2360 MHz bands, Block C in the 2315-2320 MHz band, and Block D in the 2345-2350 MHz band, must, as a performance requirement, make a showing of "substantial service" in their license area within the prescribed license term set forth in § 27.13.* * *

* * * * *

(e) Comparative renewal proceedings do not apply to WCS licensees holding authorizations for

Block A in the 698-704 MHz and 728-734 MHz bands, Block B in the 704-710 MHz and 734-740 MHz bands, Block C in the 710-716 MHz and 740-746 MHz bands, Block D in the 716-722 MHz band, Block E in the 722-728 MHz band, or Block C, C1 or C2 in the 746-757 MHz and 776-787 MHz bands. * * * .

* * * * *

- (m) [deleted]
- (n) [deleted]
- * * * * *
- 10. Section 27.15 is amended by revising paragraphs (d)(1)(i) and (d)(2)(i) to read as follows:

§ 27.15 Geographic partitioning and spectrum disaggregation.

* * * * * (d) * * * (1) * * *

(i) Except for WCS licensees holding authorizations for Block A in the 698-704 MHz and 728-734 MHz bands, Block B in the 704-710 MHz and 734-740 MHz bands, Block E in the 722-728 MHz band, and Blocks C, C1, and C2 in the 746-757 MHz and 776-787 MHz bands, the following rules apply to WCS and AWS licensees holding authorizations for purposes of implementing the construction requirements set forth in §27.14. * * *

* * * * *

(2) ***

(i) Except for WCS licensees holding authorizations for Block A in the 698-704 MHz and 728-734 MHz bands, Block B in the 704-710 MHz and 734-740 MHz bands, Block E in the 722-728 MHz band, and Blocks C, C1, and C2 in the 746-757 MHz and 776-787 MHz bands, the following rules apply to WCS and AWS licensees holding authorizations for purposes for purposes of implementing the construction requirements set forth in §27.14. * * *

* * * * *

11. Section 27.50 is amended by revising paragraphs (b) and (c) and the tables at the end of the section to read as follows:

§ 27.50 Power and antenna height limits.

* * * * *

(b) The following power and antenna height limits apply to transmitters operating in the 746-758 MHz, 775-788 MHz and 805-806 MHz bands:

(1) * * *

(2) Fixed and base stations transmitting a signal in the 746-757 MHz and 776-787 MHz bands with an emission bandwidth of 1 MHz or less must not exceed an ERP of 1000 watts and an antenna height of 305 m HAAT, except that antenna heights greater than 305 m HAAT are permitted if power levels are reduced below 1000 watts ERP in accordance with Table 1 of this section.

(3) Fixed and base stations located in a county with population density of 100 or fewer persons per square mile, based upon the most recently available population statistics from the Bureau of the Census, and transmitting a signal in the 746-757 MHz and 776-787 MHz bands with an emission bandwidth of 1 MHz or less must not exceed an ERP of 2000 watts and an antenna height of 305 m HAAT, except that antenna heights greater than 305 m HAAT are permitted if power levels are reduced below 2000 watts ERP in accordance with Table 2 of this section.

(4) Fixed and base stations transmitting a signal in the 746-757 MHz and 776-787 MHz bands with an emission bandwidth greater than 1 MHz must not exceed an ERP of 1000 watts/MHz and an antenna height of 305 m HAAT, except that antenna heights greater than 305 m HAAT are permitted if power levels are reduced below 1000 watts/MHz ERP accordance with Table 3 of this section.

(5) Fixed and base stations located in a county with population density of 100 or fewer persons per square mile, based upon the most recently available population statistics from the Bureau of the Census, and transmitting a signal in the 746-757 MHz and 776-787 MHz bands with an emission bandwidth greater than 1 MHz must not exceed an ERP of 2000 watts/MHz and an antenna height of 305 m HAAT, except that antenna heights greater than 305 m HAAT are permitted if power levels are reduced below 2000 watts/MHz ERP in accordance with Table 4 of this section.

(6) Licensees of fixed or base stations transmitting a signal in the 746-757 MHz and 776-787 MHz bands at an ERP greater than 1000 watts must comply with the provisions set forth in paragraph (b)(8) and §27.55(c).

(7) Licensees seeking to operate a fixed or base station located in a county with population density of 100 or fewer persons per square mile, based upon the most recently available population statistics from the Bureau of the Census, and transmitting a signal in the 746-757 MHz and 776-787 MHz bands at an ERP greater than 1000 watts must:

(i) coordinate in advance with all licensees authorized to operate in the 698-758 MHz, 775-788, and 805-806 MHz bands within 120 kilometers (75 miles) of the base or fixed station;

(ii) ***

(8) Licensees authorized to transmit in the 746-757 MHz and 776-787 MHz bands and intending to operate a base or fixed station at a power level permitted under the provisions of paragraph (b)(6) of this section must provide advanced notice of such operation to the Commission and to licensees authorized in their area of operation. Licensees who must be notified are all licensees authorized to operate in the 758-775 MHz and 788-805 MHz bands under Part 90 of this chapter within 75 km of the base or fixed station and all regional planning committees, as identified in §90.527 of this chapter, with jurisdiction within 75 km of the base or fixed station. Notifications must provide the location and operating parameters of the base or fixed station, including the station's ERP, antenna coordinates, antenna height above ground, and vertical antenna pattern, and such notifications must be provided at least 90 days prior to the commencement of station operation.

(9) Control stations and mobile stations transmitting in the 746–757 MHz, 776–788 MHz, and 805-806 MHz bands and fixed stations transmitting in the 787–788 MHz and 805-806 MHz bands are limited to 30 watts ERP.

(10) Portable stations (hand-held devices) transmitting in the 746–757 MHz, 776–788 MHz, and 805-806 MHz bands are limited to 3 watts ERP.

* * * * *

(12) For transmissions in the 746-757 and 776-787 MHz bands, licensees may employ equipment operating in compliance with either the measurement techniques described in paragraph (b)(11) or a Commission-approved average power technique. In both instances, equipment employed must be authorized in accordance with the provisions of 27.51.

(c) * * *
* * * * *
(5) * * *

(i) coordinate in advance with all licensees authorized to operate in the 698-758 MHz, 775-788, and 805-806 MHz bands within 120 kilometers (75 miles) of the base or fixed station;

* * * * *

Table 1 - Permissible Power and Antenna Heights for Base and FixedStations in the 757-758 and 775-776 MHz Bands and for Base and FixedStations in the 698-757 MHz and 776-787 MHz Bands Transmitting a Signalwith an Emission Bandwidth of 1 MHz or Less	
Antenna height (AAT) in meters (feet)	Effective radiated power (ERP) (watts)
Above 1372 (4500)	65
Above 1220 (4000) To 1372 (4500)	70
Above 1067 (3500) To 1220 (4000)	75
Above 915 (3000) To 1067 (3500)	100
Above 763 (2500) To 915 (3000)	140
Above 610 (2000) To 763 (2500)	200
Above 458 (1500) To 610 (2000)	350
Above 305 (1000) To 458 (1500)	600
Up to 305 (1000)	1000

Table 2 – Permissible Power and Antenna Heights for Base and Fixed Stations in the 698-757 MHz and 776-787 MHz Bands Transmitting a Signal with an Emission Bandwidth of 1 MHz or Less	
Antenna height (AAT) in meters (feet)	Effective radiated power (ERP) (watts)
Above 1372 (4500)	130
Above 1220 (4000) To 1372 (4500)	140
Above 1067 (3500) To 1220 (4000)	150
Above 915 (3000) To 1067 (3500)	200
Above 763 (2500) To 915 (3000)	280
Above 610 (2000) To 763 (2500)	400
Above 458 (1500) To 610 (2000)	700
Above 305 (1000) To 458 (1500)	1200
Up to 305 (1000)	2000

Table 3 – Permissible Power and Antenna Heights for Base and Fixed Stations in the 698-757 MHz and 776-787 MHz Bands Transmitting a Signal with an Emission Bandwidth Greater than 1 MHz

Antenna height (AAT) in meters (feet)	Effective radiated power (ERP) per MHz (watts/MHz)
Above 1372 (4500)	65
Above 1220 (4000) To 1372 (4500)	70
Above 1067 (3500) To 1220 (4000)	75
Above 915 (3000) To 1067 (3500)	100
Above 763 (2500) To 915 (3000)	140
Above 610 (2000) To 763 (2500)	200
Above 458 (1500) To 610 (2000)	350

Above 305 (1000) To 458 (1500)	600
Up to 305 (1000)	1000

Table 4 – Permissible Power and Antenna Heights for Base and Fixed Stations in the 698-757 MHz and 776-787 MHz Bands Transmitting a Signal with an Emission Bandwidth Greater than 1 MHz	
Antenna height (AAT) in meters (feet)	Effective radiated power (ERP) per MHz (watts/MHz)
Above 1372 (4500)	130
Above 1220 (4000) To 1372 (4500)	140
Above 1067 (3500) To 1220 (4000)	150
Above 915 (3000) To 1067 (3500)	200
Above 763 (2500) To 915 (3000)	280
Above 610 (2000) To 763 (2500)	400
Above 458 (1500) To 610 (2000)	700
Above 305 (1000) To 458 (1500)	1200
Up to 305 (1000)	2000

12. Section 27.53 is amended by deleting paragraph (d), redesignating paragraphs (e) through (n) as paragraphs (d) through (m), and revising new paragraphs (d) and (e) to read as follows:

§ 27.53 Emission limits.

* * * * *

(d) For operations in the 775–776 MHz and 805–806 MHz bands, transmitters must comply with either paragraphs (e)(1) to (e)(5) of this section or the ACP emission limitations set forth in paragraphs (e)(6) to (e)(9) of this section.

(1) On all frequencies between 758 to 775 MHz and 788 to 805 MHz, the power of any emission outside the licensee's frequency bands of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, by a factor not less than $76 + 10 \log 10^{-10}$ (P) dB in a 6.25 kHz band segment, for base and fixed stations;

(2) On all frequencies between 758 to 775 MHz and 788 to 805 MHz, the power of any emission outside the licensee's frequency bands of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, by a factor not less than 65 + 10 log (P) dB in a 6.25 kHz band segment, for mobile and portable stations;

* * * * *

(e) For operations in the 746–758 MHz, 775–788 MHz, and 805-806 MHz bands, emissions in the band 1559–1610 MHz shall be limited to -70 dBW/MHz equivalent isotropically radiated power (EIRP) for wideband signals, and -80 dBW EIRP for discrete emissions of less than 700 Hz bandwidth. For the purpose of equipment authorization, a transmitter shall be tested with an antenna that is representative of the type that will be used with the equipment in normal operation.

* * * * *

13. Section 27.55 is amended by revising paragraph (c) to read as follows:

§ 27.55 Power strength limits.

* * * * *

(c) *Power flux density limit for stations operating in the 746-757 MHz and 776-787 MHz bands.* For base and fixed stations operating in the 746-757 MHz and 776-787 MHz bands in accordance with the provisions of §27.50(b)(6) of this chapter, the power flux density that would be produced by such stations through a combination of antenna height and vertical gain pattern must not exceed 3000 microwatts per square meter on the ground over the area extending to 1 km from the base of the antenna mounting structure.

14. Section 27.57 is amended by revising paragraph (b) to read as follows:

§ 27.57 International coordination.

* * * * *

(b) Operation in the 698–758 MHz, 775–788 MHz, and 805-806 MHz bands is subject to international agreements between Mexico and Canada. Unless otherwise modified by international treaty, licenses must not cause interference to, and must accept harmful interference from, television broadcast operations in Mexico and Canada.

* * * * *

15. Section 27.60 is amended by revising the introductory paragraph, paragraph (a)(3) and paragraph (b) to read as follows:

§ 27.60 TV/DTV interference protection criteria.

Base, fixed, control, and mobile transmitters in the 698–758 MHz, 775–788 MHz, and 805-806 MHz frequency bands must be operated only in accordance with the rules in this section to reduce the potential for interference to public reception of the signals of existing TV and DTV broadcast stations transmitting on TV Channels 51 through 68.

(a) * * *

(1) * * *

* * * * *

(iii) For transmitters operating in the 746–758 MHz, 775–788 MHz, and 805-806 MHz frequency bands, 17 dB at the equivalent Grade B contour (41 dB μ V/m) (88.5 kilometers (55 miles)) of the DTV station.

* * * * *

(b) *TV stations and calculation of contours*. The methods used to calculate TV contours and antenna heights above average terrain are given in §§73.683 and 73.684 of this chapter. Tables to determine the necessary minimum distance from the 698–758 MHz, 775–788 MHz, and 805-806 MHz station to the TV/DTV station, assuming that the TV/DTV station has a hypothetical or equivalent Grade B contour of 88.5 kilometers (55 miles), are located in §90.309 of this chapter and labeled as Tables B, D, and E. Values between those given in the tables may be determined by linear interpolation.* * *

(1) * * *

* * * * *

(2) ***

(i) Base and fixed stations that operate in the 746–758 MHz and 775–787 MHz bands having an antenna height (HAAT) less than 152 m. (500 ft.) shall afford protection to co-channel and adjacent channel TV/DTV stations in accordance with the values specified in Table B (co-channel frequencies based on 40 dB protection) and Table E (adjacent channel frequencies based on 0 dB protection) in \$90.309 of this chapter.* **

(ii) Control, fixed, and mobile stations (including portables) that operate in the 787-788 MHz and 805-806 MHz bands and control and mobile stations (including portables) that operate in the 698–757 MHz and 776–787 MHz bands are limited in height and power and therefore shall afford protection to co-channel and adjacent channel TV/DTV stations in the following manner:

(A) For control, fixed, and mobile stations (including portables) that operate in the 787-788 MHz and 805–806 MHz bands and control and mobile stations (including portables) that operate in the 746-757 MHz and 776-787 MHz co-channel protection shall be afforded in accordance with the values specified in Table D (co-channel frequencies based on 40 dB protection for TV stations and 17 dB for DTV stations) in §90.309 of this chapter.

(B) ***

(C) For control, fixed, and mobile stations (including portables) that operate in the 787-788 MHz and 805–806 MHz bands and control and mobile stations (including portables) that operate in the 698-757 MHz and 776-787 MHz bands adjacent channel protection shall be afforded by providing a minimum distance of 8 kilometers (5 miles) from all adjacent channel TV/DTV station hypothetical or equivalent Grade B contours (adjacent channel frequencies based on 0 dB protection for TV stations and –23 dB for DTV stations).

* * * * *

16. Section 27.70 is amended by revising paragraphs (a) and (b) to read as follows:

§ 27.70 Information exchange.

(a) *Prior notification*. Public safety licensees authorized to operate in the 758-775 MHz and 788-805 MHz bands may notify any licensee authorized to operate in the 746-757 or 776-787 MHz bands that they wish to *receive* prior notification of the activation or modification of the licensee's base or fixed stations in their area. Thereafter, the 746-757 or 776-787 MHz band licensee must provide the following information to the public safety licensee at least 10 business days before a new base or fixed station is activated or an existing base or fixed station is modified:

* * * * *

(b) ***

(1) Allow a public safety licensee to advise the 746-757 or 776-787 MHz band licensee whether it believes a proposed base or fixed station will generate unacceptable interference;

(2) Permit 746-757 and 776-787 MHz band licensees to make voluntary changes in base or fixed station parameters when a public safety licensee alerts them to possible interference; and,

* * * * *

17. Section 27.303 (a) is amended to read as follows:

§ 27.303 Upper 700 MHz commercial and public safety coordination zone.

(a) General. CMRS operators are required, prior to commencing operations on fixed or base station transmitters on the 776–787 MHz band that are located within 500 meters of existing or planned public safety base station receivers, to submit a description of their proposed facility to a Commission-approved public safety coordinator.

* * * * *

18. Section 27.501 is amended by revising the title and amending the section to read as follows:

§ 27.501 746 – 758 MHz, 775 – 788 MHz, and 805 – 806 MHz bands subject to competitive bidding.

Mutually exclusive initial applications for licenses in the 746 - 758 MHz, 775 - 788 MHz, and 805 - 806 MHz bands are subject to competitive bidding. The general competitive bidding procedures set forth in part 1, subpart Q of this chapter will apply unless otherwise provided in this subpart.

PART 90 - PRIVATE LAND MOBILE RADIO SERVICES

19. The authority citation for Part 90 continues to read as follows:

Authority: Sections 4(i), 11, 303(g), 303(r), and 332(c)(7) of the Communications Act of 1934, as amended, 47 U.S.C. 154(i), 161, 303(g), 303(r), and 332(c)(7), and Title VI of the Middle Class Tax Relief and Job Creation Act of 2012, Pub. L. No. 112-96, 126 Stat. 156.

20. Section 90.179 is amended by revising paragraph (g) to read as follows:

§ 90.179 Shared use of radio stations.

* * * * *

(g) Notwithstanding paragraph (a) of this section, licensees authorized to operate radio systems on Public Safety Pool frequencies designated in § 90.20 may share their facilities with Federal Government entities on a non-profit, cost-shared basis. Such a sharing arrangement is subject to the provisions of paragraphs (b), (d), and (e) of this section, and § 2.103(c) concerning operations in the 758-769 MHz and 788-799 MHz bands. State governments authorized to operate radio systems under § 90.529 may share the use of their systems (for public safety services not made commercially available to the public) with any entity that would be eligible for licensing under § 90.523 and Federal government entities.

* * * * *

- 21. Section 90.203 is amended by deleting paragraph (p).
- 22. Section 90.205 is amended by revising paragraph (j) to read as follows:

§ 90.205 Power and antenna height limits.

* * * * *

(j) 758-775 MHz and 788-805 MHz. Power and height limitations are specified in §§ 90.541 and 90.542.

* * * * *

23. Section 90.523 is amended by revising the introductory paragraph, revising paragraph (e), and deleting subsections (e)(1) through (e)(4) to read as follows:

§ 90.523 Eligibility.

This section implements the definition of public safety services contained in 47 U.S.C. § 337(f)(1). The following are eligible to hold Commission authorizations for systems operating in the 769-775 MHz and 799-805 MHz frequency bands:

* * * * *

(e) A nationwide license for the 758-769 MHz and 788-799 MHz bands shall be issued to the First Responder Network Authority.

24. Section 90.533 is amended by revising the section to read as follows:

§ 90.533 Transmitting sites near the U.S./Canada or U.S./Mexico border.

This section applies to each license to operate one or more public safety transmitters in the 758-775 MHz and 788-805 MHz bands, at a location or locations North of Line A (see § 90.7) or within 120 kilometers (75 miles) of the U.S.-Mexico border, until such time as agreements between the government of the United States and the government of Canada or the government of the United States and the government of Mexico, as applicable, become effective governing border area nonbroadcast use of these bands. Public safety licenses are granted subject to the following conditions:

(a) Public safety transmitters operating in the 758-775 MHz and 788-805 MHz bands must conform to the limitations on interference to Canadian television stations contained in agreement(s) between the United States and Canada for use of television channels in the border area.

(b) ***

(c) Conditions may be added during the term of the license, if required by the terms of international agreements between the government of the United States and the government of Canada or the government of the United States and the government of Mexico, as applicable, regarding non-broadcast use of the 758-775 MHz and 788-805 MHz bands.

25. Section 90.542 is amended to read as follows:

§ 90.542 Broadband transmitting power limits.

(a) The following power limits apply to the 758-768/788-798 MHz band:

(1) Fixed and base stations transmitting a signal in the 758-768 MHz band with an emission bandwidth of 1 MHz or less must not exceed an ERP of 1000 watts and an antenna height of 305 m HAAT, except that antenna heights greater than 305 m HAAT are permitted if power levels are reduced below 1000 watts ERP in accordance with Table 1 of this section.

(2) Fixed and base stations located in a county with population density of 100 or fewer persons per square mile, based upon the most recently available population statistics from the Bureau of the Census, and transmitting a signal in the 758-768 MHz band with an emission bandwidth of 1 MHz or less must not exceed an ERP of 2000 watts and an antenna height of 305 m HAAT, except that antenna heights greater than 305 m HAAT are permitted if power levels are reduced below 2000 watts ERP in accordance with Table 2 of this section.

(3) Fixed and base stations transmitting a signal in the 758-768 MHz band with an emission bandwidth greater than 1 MHz must not exceed an ERP of 1000 watts/MHz and an antenna height of 305 m HAAT, except that antenna heights greater than 305 m HAAT are permitted if power levels are reduced below 1000 watts/MHz ERP accordance with Table 3 of this section.

(4) Fixed and base stations located in a county with population density of 100 or fewer persons per square mile, based upon the most recently available population statistics from the Bureau of the Census, and transmitting a signal in the 758-768 MHz band with an emission bandwidth greater than 1 MHz must not exceed an ERP of 2000 watts/MHz and an antenna height of 305 m HAAT, except that antenna heights greater than 305 m HAAT are permitted if power levels are reduced below 2000 watts/MHz ERP in accordance with Table 4 of this section.

(5) Licensees of fixed or base stations transmitting a signal in the 758-768 MHz band at an ERP greater than 1000 watts must comply with the provisions set forth in paragraph (b).

(6) Control stations and mobile stations transmitting in the 758-768 MHz band and the 788-799 MHz band are limited to 30 watts ERP.

(7) Portable stations (hand-held devices) transmitting in the 758-768 MHz band and the 788-799

MHz band are limited to 3 watts ERP.

(8) For transmissions in the 758-768 MHz and 788-798 MHz bands, licensees may employ equipment operating in compliance with either of the following measurement techniques:

* * * * *

Table 1 - Permissible Power and Antenna Heights for Base and Fixed in the758-768 MHz Band Transmitting a Signal with an Emission Bandwidth of 1MHz or Less	
Antenna height (AAT) in meters (feet)	Effective radiated power (ERP) (watts)
Above 1372 (4500)	65
Above 1220 (4000) To 1372 (4500)	70
Above 1067 (3500) To 1220 (4000)	75
Above 915 (3000) To 1067 (3500)	100
Above 763 (2500) To 915 (3000)	140
Above 610 (2000) To 763 (2500)	200
Above 458 (1500) To 610 (2000)	350
Above 305 (1000) To 458 (1500)	600
Up to 305 (1000)	1000

Table 2 – Permissible Power and Antenna Heights for Base and Fixed
Stations in the 758-768 MHz Band Transmitting a Signal with an Emission
Bandwidth of 1 MHz or Less

Antenna height (AAT) in meters (feet)	Effective radiated power (ERP) (watts)
Above 1372 (4500)	130
Above 1220 (4000) To 1372 (4500)	140
Above 1067 (3500) To 1220 (4000)	150
Above 915 (3000) To 1067 (3500)	200
Above 763 (2500) To 915 (3000)	280

Above 610 (2000) To 763 (2500)	400
Above 458 (1500) To 610 (2000)	700
Above 305 (1000) To 458 (1500)	1200
Up to 305 (1000)	2000

Table 3 – Permissible Power and Antenna Heights for Base and Fixed Stations in the 758-768 MHz Band Transmitting a Signal with an Emission Bandwidth Greater than 1 MHz

Antenna height (AAT) in meters (feet)	Effective radiated power (ERP) per MHz (watts/MHz)
Above 1372 (4500)	65
Above 1220 (4000) To 1372 (4500)	70
Above 1067 (3500) To 1220 (4000)	75
Above 915 (3000) To 1067 (3500)	100
Above 763 (2500) To 915 (3000)	140
Above 610 (2000) To 763 (2500)	200
Above 458 (1500) To 610 (2000)	350
Above 305 (1000) To 458 (1500)	600
Up to 305 (1000)	1000

Table 4 – Permissible Power and Antenna Heights for Base and Fixed Stations in the 758-768 MHz Band Transmitting a Signal with an Emission Bandwidth Greater than 1 MHz

Antenna height (AAT) in meters (feet)	Effective radiated power (ERP) per MHz (watts/MHz)
Above 1372 (4500)	130
Above 1220 (4000) To 1372 (4500)	140
Above 1067 (3500) To 1220 (4000)	150

Above 915 (3000) To 1067 (3500)	200
Above 763 (2500) To 915 (3000)	280
Above 610 (2000) To 763 (2500)	400
Above 458 (1500) To 610 (2000)	700
Above 305 (1000) To 458 (1500)	1200
Up to 305 (1000)	2000

(b) For base and fixed stations operating in the 758-768 MHz band in accordance with the provisions of paragraph (a)(5) of this section, the power flux density that would be produced by such stations through a combination of antenna height and vertical gain pattern must not exceed 3000 microwatts per square meter on the ground over the area extending to 1 km from the base of the antenna mounting structure.

26. Section 90.543 is amended by revising the introductory paragraph and revising paragraphs (e) and (f) to read as follows:

§ 90.543 Emission limitations.

Transmitters designed to operate in 769-775 MHz and 799-805 MHz frequency bands must meet the emission limitations in paragraphs (a) through (d) of this section. Transmitters operating in 758-768 MHz and 788-798 MHz bands must meet the emission limitations in (e) of this section.

* * * * *

(e) For operations in the 758-768 MHz and the 788-798 MHz bands, the power of any emission outside the licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, in accordance with the following:

* * * * *

(f) For operations in the 758-775 MHz and 788-805 MHz bands, all emissions including harmonics in the band 1559-1610 MHz shall be limited to -70 dBW/MHz equivalent isotropically radiated power (EIRP) for wideband signals, and -80 dBW EIRP for discrete emissions of less than 700 Hz bandwidth. For the purpose of equipment authorization, a transmitter shall be tested with an antenna that is representative of the type that will be used with the equipment in normal operation.

* * * * *

27. Section 90.549 is amended to read as follows:

§ 90.549 Transmitter certification.

Transmitters operated in the 758-775 MHz and 788-805 MHz frequency bands must be of a type that have been authorized by the Commission under its certification procedure as required by § 90.203.

28. Section 90.555 is amended to read as follows:

§ 90.555 Information Exchange.

(a) Prior notification. Public safety licensees authorized to operate in the 758-775 MHz and 788-805 MHz bands may notify any licensee authorized to operate in the 746-757 MHz or 776-787 MHz bands that they wish to receive prior notification of the activation or modification of the licensee's base or fixed stations in their area. Thereafter, the 746-757 MHz or 776-787 MHz band licensee must provide the following information to the public safety licensee at least 10 business days before a new base or fixed station is activated or an existing base or fixed station is modified:

* * * * *

(b) * * *

(1) Allow a public safety licensee to advise the 746-757 or 776-787 MHz band licensee whether it believes a proposed base or fixed station will generate unacceptable interference;

(2) Permit 746-757 and 776-787 MHz band licensees to make voluntary changes in base or fixed station parameters when a public safety licensee alerts them to possible interference; and,

* * * * *

(c) Public Safety Information Exchange. (1) Upon request by a 746-757 or 776-787 MHz band licensee, public safety licensees authorized to operate radio systems in the 758-775 and 788-805 MHz bands shall provide the operating parameters of their radio system to the 746-757 or 776-787 MHz band licensee.

(2) Public safety licensees who perform the information exchange described in this section must notify the appropriate 746-757 or 776-787 MHz band licensees prior to any technical changes to their radio system.

APPENDIX B

Initial Regulatory Flexibility Analysis

1. As required by the Regulatory Flexibility Act (RFA),¹ the Commission has prepared this present Initial Regulatory Flexibility Analysis (IRFA) of the possible significant economic impact on small entities by the policies and rules proposed in this *Notice of Proposed Rulemaking (Notice)*. Written public comments are requested on this IRFA. Comments must be identified as responses to the IRFA and must be filed by the deadlines for comments provided in this *Notice*. The Commission will send a copy of this *Notice*, including this IRFA, to the Chief Counsel for Advocacy of the Small Business Administration (SBA).² In addition, the *Notice* and IRFA (or summaries thereof) will be published in the Federal Register.³

A. Need for, and Objectives of, the Proposed Rules

2. The *Notice of Proposed Rulemaking (Notice)* seeks comment on proposals to implement provisions of the Middle Class Tax Relief and Job Creation Act of 2012 ("Public Safety Spectrum Act" or "Act")⁴ governing deployment of a nationwide public safety broadband network in the 700 MHz band.

3. The Public Safety Spectrum Act establishes the First Responder Network Authority (FirstNet) to oversee the construction and operation of this network as licensee of both the existing public safety broadband spectrum (763-769/793-799 MHz) and the spectrally adjacent D Block spectrum (758-763/788-793 MHz).⁵ The Act directs the Federal Communications Commission (FCC or Commission) to reallocate the D Block for public safety services,⁶ to license the D Block and the existing public safety broadband spectrum to FirstNet⁷ and to take other actions necessary to "facilitate the transition" of such existing spectrum to FirstNet.⁸

4. Proposals in the *Notice* are intended to provide a solid foundation for FirstNet's operations, taking into account FirstNet's need for flexibility in carrying out its statutory duties under the Public Safety Spectrum Act to establish a nationwide public safety broadband network.

5. This *Notice* seeks comment in three areas. First, we address technical service rules for the new public safety broadband network to be established pursuant to the Public Safety Spectrum Act. We next seek comment on the exercise of the Commission's statutory responsibilities as they relate to oversight of FirstNet's operations. Finally, we seek comment on the transition of different classes of incumbents now occupying portions of the spectrum to be licensed to FirstNet. These proposals are based on our established authority under the Communications Act to regulate use of the spectrum consistent with the public interest, convenience and necessity, including the authority to prescribe power limits and

¹ See 5 U.S.C. § 603. The RFA, see 5 U.S.C. § 601 *et. seq.*, has been amended by the Contract With America Advancement Act of 1996, Pub. L. No. 104-121, 110 Stat. 847 (1996) (CWAAA). Title II of the CWAAA is the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA).

² See 5 U.S.C. § 603(a).

³ See id.

⁴ Middle Class Tax Relief and Job Creation Act of 2012, Pub. L. No. 112-96, 126 Stat. 156 (2012).

⁵ See id. § 6204.

⁶ See id. § 6101.

⁷ See id. § 6201(a).

⁸ See id. § 6201(c).

prevent interference between stations licensed by the Commission,⁹ as well as our licensing authority over FirstNet provided by the Public Safety Spectrum Act,¹⁰ and our authority under the Public Safety Spectrum Act "to take all actions necessary to facilitate the transition" of the existing public safety broadband spectrum to FirstNet.¹¹ We seek comment on the scope of our authority as it relates to these proposals, and how such authority can most appropriately accommodate the Public Safety Spectrum Act's delegation to FirstNet of the responsibility to develop "the technical and operational requirements of the network."¹² In offering these proposals, we acknowledge the crucial importance of FirstNet's endeavor and its need for flexibility in carrying out its obligations under the Public Safety Spectrum Act.

B. Legal Basis

6. The proposed action is authorized under Sections 1, 2, 4(i), 5(c), 7, 301, 302, 303, 307, 308, 309, 310, 311, 314, 316, 319, 324, 332, 333, 336 337 and 403 of the Communications Act of 1934, as amended, 47 U.S.C. §§ 151, 152, 154(i), 155(c), 157, 301, 302, 303, 307, 308, 309, 310, 311, 314, 316, 319, 324, 332, 333, 336, 337 and 403, and the Middle Class Tax Relief and Job Creation Act of 2012, Pub. L. No. 112-96, 126 Stat. 156 (2012).

C. Description and Estimate of the Number of Small Entities To Which the Proposed Rules Will Apply

7. The RFA directs agencies to provide a description of, and, where feasible, an estimate of, the number of small entities that may be affected by the rules adopted herein.¹³ The RFA generally defines the term "small entity" as having the same meaning as the terms "small business," "small organization," and "small governmental jurisdiction."¹⁴ In addition, the term "small business" has the same meaning as the term "small business concern" under the Small Business Act.¹⁵ A "small business concern" is one which: (1) is independently owned and operated; (2) is not dominant in its field of operation; and (3) satisfies any additional criteria established by the Small Business Administration ("SBA").¹⁶ Below, we further describe and estimate the number of small entity licensees and regulatees that may be affected by the rules changes we propose in this *Notice*.

8. As an initial matter, we observe that the Public Safety Spectrum Act does not contemplate that "small governmental jurisdictions" would be directly authorized to serve as operators of their own 700 MHz public safety broadband networks. Rather, the Spectrum Act charges a single entity, FirstNet, with constructing, operating and maintaining a 700 MHz public safety broadband network on a

⁹ See, e.g., 47 U.S.C. §§ 303(c), 303(e)-(g), 303(r), 337(d). See also id. §§ 151, 154(i).

¹⁰ See Public Safety Spectrum Act § 6201(a)-(b). See also id. § 6206(b)(3) (requiring rural coverage milestones for FirstNet, "consistent with the license granted under section 6201").

¹¹ See Public Safety Spectrum Act § 6201(c). See also id. § 6213 (authority of Commission to "take any action necessary to assist [FirstNet] in effectuating its duties and responsibilities" under Public Safety Spectrum Act).

¹² See id. § 6206(c)(1)(B).

¹³ 5 U.S.C. § 604(a)(3).

¹⁴ 5 U.S.C. § 601(6).

¹⁵ 5 U.S.C. § 601(3) (incorporating by reference the definition of "small-business concern" in the Small Business Act, 15 U.S.C. § 632). Pursuant to 5 U.S.C. § 601(3), the statutory definition of a small business applies "unless an agency, after consultation with the Office of Advocacy of the Small Business Administration and after opportunity for public comment, establishes one or more definitions of such term which are appropriate to the activities of the agency and publishes such definition(s) in the Federal Register." 5 U.S.C. § 601(3).

^{16 15} U.S.C. § 632.

nationwide basis.¹⁷ Accordingly, the technical service rules and other requirements the *Notice* proposes or considers for the combined 700 MHz public safety broadband spectrum—in which FirstNet will operate on a nationwide basis—will not directly affect a substantial number of small entities. The absence of a direct affect on a substantial number of small entities suggests that it is not necessary to prepare a regulatory flexibility analysis in connection with these proposed requirements.¹⁸

9. Small Businesses, Small Organizations, and Small Governmental Jurisdictions. Our action may, over time, affect small entities that are not easily categorized at present. We therefore describe here, at the outset, three comprehensive, statutory small entity size standards.¹⁹ First, nationwide, there are a total of approximately 27.5 million small businesses, according to the SBA.²⁰ In addition, a "small organization" is generally "any not-for-profit enterprise which is independently owned and operated and is not dominant in its field.²¹ Nationwide, as of 2007, there were approximately 1, 621,315 small organizations.²² Finally, the term "small governmental jurisdiction" is defined generally as "governments of cities, towns, townships, villages, school districts, or special districts, with a population of less than fifty thousand.²³ Census Bureau data for 2011 indicate that there were 89,476 local governmental jurisdictions in the United States.²⁴ We estimate that, of this total, as many as 88, 506 entities may qualify as "small governmental jurisdictions.²⁵ Thus, we estimate that most governmental jurisdictions are small.

10. *Public Safety Radio Licensees.* As a general matter, Public Safety Radio Pool licensees include police, fire, local government, forestry conservation, highway maintenance, and emergency medical services.²⁶ Because of the vast array of public safety licensees, the Commission has not

¹⁹ See 5 U.S.C. §§ 601(3)-(6).

²⁰ See SBA, Office of Advocacy, "Frequently Asked Questions," web.sba.gov/faqs (last visited May 6,2011; figures are from 2009).

²¹ 5 U.S.C. § 601(4).

²² INDEPENDENT SECTOR, THE NEW NONPROFIT ALMANAC & DESK REFERENCE (2010).

²³ 5 U.S.C. § 601(5).

²⁴ U.S. CENSUS BUREAU, STATISTICAL ABSTRACT OF THE UNITED STATES: 2011, Table 427 (2007)

¹⁷ See Spectrum Act § 6206(b). The statute contemplates that portions of the network may be deployed by State governments, see Spectrum Act § 6302(e), which are categorically excluded from the definition of "small governmental jurisdictions" for purposes of RFA.

¹⁸ See, e.g., Mid-Tex Elec. Co-op., Inc. v. F.E.R.C., 773 F.2d 327, 334 (D.C. Cir. 1985).

²⁵The 2007 U.S Census data for small governmental organizations indicate that there were 89, 476 "Local Governments" in 2007. (U.S. CENSUS BUREAU, STATISTICAL ABSTRACT OF THE UNITED STATES 2011, Table 428.) The criterion by which the size of such local governments is determined to be small is a population of 50,000. However, since the Census Bureau does not specifically apply that criterion, it cannot be determined with precision how many of such local governmental organizations is small. Nonetheless, the inference seems reasonable that substantial number of these governmental organizations has a population of less than 50, 000. To look at Table 428 in conjunction with a related set of data in Table 429 in the Census's Statistical Abstract of the U.S., that inference is further supported by the fact that in both Tables, many entities that may well be small are included in the 89,476 local governmental organizations, e.g. county, municipal, township and town, school district and special district entities. Measured by a criterion of a population of 50,000 many specific sub-entities in this category seem more likely than larger county-level governmental organizations to have small populations. Accordingly, of the 89,746 small governmental organizations to have small populations in this category is small.

²⁶ See subparts A and B of Part 90 of the Commission's Rules, 47 C.F.R. §§ 90.1-90.22. Police licensees serve state, county, and municipal enforcement through telephony (voice), telegraphy (code), and teletype and facsimile (printed material). Fire licensees are comprised of private volunteer or professional fire companies, as well as units under governmental control. Public Safety Radio Pool licensees also include state, county, or municipal entities that use radio for official purposes. State departments of conservation and private forest organizations comprise forestry service licensees that set up communications networks among fire lookout towers and ground crews. State and local governments are highway maintenance licensees that provide emergency and (continued....)

developed a small business size standard specifically applicable to public safety licensees. The SBA rules contain a definition for Wireless Telecommunications Carriers (except Satellite) which encompasses business entities engaged in radiotelephone communications employing no more that 1,500 persons.²⁷ With respect to local governments, in particular, since many governmental entities comprise the licensees for these services, we include under public safety services the number of government entities affected. According to Commission records, there are a total of approximately 133,870 licenses within these services.²⁸ There are 2,442 licenses in the 4.9 GHz band, based on an FCC Universal Licensing System search of May 23, 2012.²⁹ We estimate that fewer than 2,442 public safety radio licensees hold these licenses because certain entities may have multiple licenses.

Regional Planning Committees. Neither the Commission nor the SBA has developed a 11. small business size standard specifically applicable to Regional Planning Committees (RPCs) and the National Regional Planning Council (NRPC). As described by the NRPC, "[t]he National Regional Planning Council (NRPC) is an advocacy body formed in 2007 that supports public safety communications spectrum management by Regional Planning Committees (RPC) in the 700 MHz and 800 MHz NPSPAC public safety spectrum as required by the Federal Communications Commission."30 The NRPC states that "Regional Planning Committees consist of public safety volunteer spectrum planners and members that dedicate their time, in addition to the time spent in their regular positions, to coordinate spectrum efficiently and effectively for the purpose of making it available to public safety agency applicants in their respective region.³¹ There are 54 formed RPCs and one unformed RPC.³² The Commission has not developed a small business size standard specifically applicable to RPCs and the NRPC. The SBA rules, however, contain a definition for Wireless Telecommunications Carriers (except Satellite) which encompasses business entities engaged in radiotelephone communications employing no more that 1,500 persons.³³ Under this category and size standard, we estimate that all of the RPCs and the NRPC can be considered small.

12. Radio and Television Broadcasting and Wireless Communications Equipment Manufacturing. The Census Bureau defines this category as follows: "This industry comprises establishments primarily engaged in manufacturing radio and television broadcast and wireless communications equipment. Examples of products made by these establishments are: transmitting and receiving antennas, cable television equipment, GPS equipment, pagers, cellular phones, mobile

²⁷ See 13 C.F.R. § 121.201, NAICS code 517210.

³⁰ See Petition for Rulemaking to allow Aircraft voice operations on Secondary Trunking Channels in the 700 MHz band, RM-11433, Comments of the National Regional Planning Council at 1 (filed July 15, 2011).

³¹ *Id*.

⁽Continued from previous page)

routine communications to aid other public safety services to keep main roads safe for vehicular traffic. Emergency medical licensees use these channels for emergency medical service communications related to the delivery of emergency medical treatment. Additional licensees include medical services, rescue organizations, veterinarians, persons with disabilities, disaster relief organizations, school buses, beach patrols, establishments in isolated areas, communications standby facilities, and emergency repair of public communications facilities.

²⁸ This figure was derived from Commission licensing records as of June 27, 2008. Licensing numbers change on a daily basis. We do not expect this number to be significantly smaller today. This does not indicate the number of licensees, as licensees may hold multiple licenses. There is no information currently available about the number of public safety licensees that have less than 1,500 employees.

²⁹ Based on an FCC Universal Licensing System search of May 23, 2012. Search parameters: Radio Service = PA – Public Safety 4940-4990 MHz Band; Authorization Type = Regular; Status = Active.

³² See http://publicsafety.fcc.gov/pshs/public-safety-spectrum/700-MHz/rpc-map.htm.

³³ See 13 C.F.R. § 121.201, NAICS code 517210.

communications equipment, and radio and television studio and broadcasting equipment.³³⁴ The SBA has developed a small business size standard for Radio and Television Broadcasting and Wireless Communications Equipment Manufacturing, which is: all such firms having 750 or fewer employees. According to Census Bureau data for 2007, there were a total of 939 establishments in this category that operated for part or all of the entire year. According to Census bureau data for 2007, there were a total of 919 firms in this category that operated for the entire year. Of this total, 771 had less than 100 employees and 148 had more than 100 employees.³⁵ Thus, under that size standard, the majority of firms can be considered small.

D. Description of Projected Reporting, Recordkeeping, and Other Compliance Requirements

13. The two segments of the spectrum that will be licensed to FirstNet—the D Block and the existing public safety broadband spectrum—are currently regulated under separate FCC rule parts, Parts 27 and 90. The *Notice* proposes the development of a unified set of technical service rules to govern this spectrum, largely by consolidating under Part 90 the requirements applicable to both segments. Because FirstNet will be the nationwide licensee of this spectrum, it will be primarily responsible on a nationwide basis for ensuring compliance with any such requirements that are ultimately adopted. Accordingly, we do not believe that these requirements would have a significant economic impact on a substantial number of small entities.

14. The *Notice* also considers establishing certification requirements for equipment operated in the combined public safety broadband spectrum. These requirements would be applicable to entities, such as RF equipment manufacturers, seeking to certify equipment for operation in this spectrum. We observe that equipment certification is a longstanding Commission practice, widely applicable to equipment marketed for operation in radiospectrum licensed by the Commission. Any certification requirements adopted pursuant to the *Notice* are unlikely to depart significantly from current practice. In fact, a primary purpose of the certification requirements proposed in the *Notice* is to consolidate under a common Part 90 rule provision existing requirements that separately govern the D Block and the public safety broadband spectrum. Such rules are unlikely to have a significant adverse economic impact on any small entities, much less a substantial number of them.

15. The *Notice* also considers rules to govern the transition of incumbent narrowband, wideband and commercial systems currently authorized to operate in the spectrum to be licensed to FirstNet. With respect to the first category only, there may arguably be a significant number of small entities currently operating.³⁶ In considering various transition options—including relocation of existing operations at the operators' expense—the *Notice* seeks comment on ways to minimize the economic burden on incumbent operators. The *Notice* seeks comment on whether FirstNet or some third party source could fund relocation, thereby relieving any incumbent small entities of this potentially substantial economic burden. It also seeks comment on whether FirstNet could accommodate incumbent narrowband operations within a portion of its licensed spectrum, either indefinitely or on a transitional basis. We seek

³⁴ The NAICS Code for this service 334220. See 13 C.F.R 121/201. See also

http://factfinder.census.gov/servlet/IBQTable?_bm=y&-fds_name=EC0700A1&-geo_id=&-_skip=300&ds_name=EC0731SG2&-_lang=en

³⁵ See <u>http://factfinder.census.gov/servlet/IBQTable?_bm=y&-geo_id=&-fds_name=EC0700A1&-_skip=4500&-ds_name=EC07318G3&-_lang=en</u>
³⁶ In addition to a number of state governments, an estimated twenty-five cities and counties are authorized to operate

³⁰ In addition to a number of state governments, an estimated twenty-five cities and counties are authorized to operate narrowband or wideband networks in the existing public safety broadband spectrum. Of these, we estimate that only a small number would qualify as "small government jurisdictions." We nevertheless consider means of minimizing the economic impact that proposals adopted pursuant to the *Notice* might create for such jurisdictions.

comment in this IRFA on whether there are additional steps the Commission should take to minimize any economic burden its proposals might create for small entities operating narrowband systems in the spectrum to be licensed to FirstNet.

E. Steps Taken to Minimize Significant Economic Impact on Small Entities, and Significant Alternatives Considered

16. The RFA requires an agency to describe any significant alternatives that it has considered in developing its approach, which may include the following four alternatives (among others): "(1) the establishment of differing compliance or reporting requirements or timetables that take into account the resources available to small entities; (2) the clarification, consolidation, or simplification of compliance and reporting requirements under the rule for such small entities; (3) the use of performance rather than design standards; and (4) an exemption from coverage of the rule, or any part thereof, for such small entities."³⁷

17. As an initial matter, we find that one possible alternative—to refrain from pursuing the adoption of rules in Docket 12-94—is untenable given the clear directives of the Public Safety Spectrum Act regarding reallocation of the D Block and the licensing of spectrum to FirstNet. This *Notice* is necessary to ensure that a solid regulatory foundation is in place to support FirstNet's operations under the Act.

18. We also do not believe it would be tenable to establish differing requirements for small entities or to exempt such entities from rules adopted pursuant to the *Notice*. Given the importance of ensuring that the public safety broadband network is technically and operationally viable on a nationwide basis, it is important that network be governed by a common set of rules and requirements.

F. Federal Rules that May Duplicate, Overlap, or Conflict With the Proposed Rule

19. None.

³⁷ 5 U.S.C. §§ 603(c)(1)-(c)(4).

APPENDIX C

700 MHz Incumbent Narrowband Operations

Jurisdictions Holding Site-Based Licenses for Narrowband Operation in the Public Safety Broadband Spectrum

Adams County, CO* Anoka County, MN Arapahoe County, CO* Bannock County, ID Bingham County, ID Carver County, MN Chisago County, MN Cinnaminson Township, NJ* Colorado Springs, CO* Dakota County, MN Eagle County, CO* Escanaba, MI* Garfield County, CO* Glendale, AZ* Hennepin County, MN Kalamazoo County, MI* Los Angeles, CA* Maricopa County, AZ* Marshall, MI* Commonwealth of Massachusetts* State of Missouri Monroe County, MI* Pierce Transit (WA) Pueblo, CO* Stamford, CT* St. Clair County, IL* St. Louis (MO) Police Dep't* State of Tennessee* Washington County, MN

*licensed for operation of mobile stations only

States Certifying Operation of 700 MHz Incumbent Narrowband Systems (as of 2007)

Arizona Colorado Georgia** Hawaii Idaho Illinois Louisiana Massachusetts Nebraska New York North Carolina Ohio Oregon Tennessee Texas Virginia

**Georgia State Patrol did not timely file a certification of the scope of its 700 MHz incumbent narrowband operations but filed a petition for waiver of the deadline for doing so. In Section III.C.1. of the *Notice of Proposed Rulemaking* we dismiss the petition as moot.

STATEMENT OF COMMISSIONER JESSICA ROSENWORCEL

Re: Implementing Public Safety Broadband Provisions of the Middle Class Tax Relief and Job Creation Act of 2012, PS Docket No. 12-94; Implementing a Nationwide, Broadband, Interoperable Public Safety Network in the 700 MHz Band, PS Docket No. 06-229; Service Rules for the 698–746, 747–762, and 777–792 MHz Bands, WT Docket No. 06-150.

In the Middle Class Tax Relief and Job Creation Act, Congress created the First Responder Network Authority, known as FirstNet. Congress charged FirstNet with the responsibility to deploy and operate a nationwide, wireless, broadband public safety network—to help our police, firefighters, and other first responders communicate and keep us safe. In the law, Congress was clear about the structure and responsibilities of FirstNet. To this end, it established FirstNet as an independent authority within the National Telecommunications and Information Administration at the Department of Commerce. The Commission was directed to provide technical assistance to help FirstNet realize its statutory mission. Consistent with this direction from Congress, I believe this agency should stand ready to assist FirstNet whenever it calls upon us. At the same time, the Commission must avoid putting unnecessary constraints on FirstNet as it works to deliver on its essential promise to our nation's first responders.

STATEMENT OF COMMISSIONER AJIT PAI

Re: Implementing Public Safety Broadband Provisions of the Middle Class Tax Relief and Job Creation Act of 2012, PS Docket No. 12-94; Implementing a Nationwide, Broadband, Interoperable Public Safety Network in the 700 MHz Band, PS Docket No. 06-229; Service Rules for the 698–746, 747–762, and 777–792 MHz Bands, WT Docket No. 06-150.

Last year, Congress required the Commission to grant a license to the First Responder Network Authority (FirstNet) for the purpose of establishing "a *nationwide*, interoperable public safety network."¹ In order to ensure that this network truly would be nationwide and not leave rural America behind, Congress obligated FirstNet to undertake, "consistent with the license" granted by the Commission, "deployment phases with substantial rural coverage milestones as part of each phase of the construction and deployment of the network."²

Because FirstNet must demonstrate to the Commission in its license renewal application that it "has met the duties and obligations set forth under th[e] Act,"³ I believe that the Commission has the statutory authority to impose rural coverage conditions on FirstNet's license. While today's Notice of Proposed Rulemaking indicates that the Commission currently does not intend to specify any such conditions, I will approach the record that will be compiled on this issue with an open mind and encourage rural stakeholders to weigh in with their views. In reaching a final decision, we must balance the need to provide FirstNet with sufficient flexibility with our responsibility to safeguard fellow citizens who live in rural areas.

¹ Middle Class Tax Relief and Job Creation Act of 2012, Pub. L. No. 112-96, 126 Stat. 156, § 6202(a) (emphasis added).

² *Id.* § 6206(b)(3).

³ *Id.* § 6201(b)(2).