



6712-01

FEDERAL COMMUNICATIONS COMMISSION

47 CFR Part 90

[WT Docket Nos. 12-64 and 11-110; FCC 12-55]

Channel Spacing and Bandwidth Limitations for Certain Economic Area (EA)-based 800 MHz Specialized Mobile Radio (SMR) Licensees

AGENCY: Federal Communications Commission

ACTION: Final rule.

SUMMARY: In this document the Commission amends its rules to allow Economic Area (EA)-based 800 MHz Specialized Mobile Radio (SMR) licensees to exceed a legacy channel spacing and bandwidth limitation, subject to conditions to protect 800 MHz public safety licensees from harmful interference. Licensees are permitted to exceed the channel spacing and bandwidth limitation in the 813.5-824/858.5-869 MHz band segment in National Public Safety Planning Advisory Committee (NPSPAC) regions where 800 MHz reconfiguration is complete. In areas where 800 MHz reconfiguration is incomplete, EA-based 800 MHz licensees only are permitted to exceed the channel spacing and bandwidth limitation in the 813.5-821/858.5-866 MHz band segment. Any EA-based 800 MHz SMR licensee that intends to exceed the channel spacing and bandwidth limitation of the Commission's rules must provide 30 days written notice to public safety licensees with base stations in an affected NPSPAC region and within 113 kilometers (70 miles) of the border of an affected NPSPAC region. This rule change is necessary to allow EA-based 800 MHz SMR licensees to deploy advanced wireless services to effectively compete in the wireless marketplace.

DATES: Effective [INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

FOR FURTHER INFORMATION CONTACT: Brian Regan, Mobility Division, Wireless Telecommunications Bureau, brian.regan@fcc.gov, (202) 418-2849.

SUPPLEMENTARY INFORMATION: This is a summary of the Commission's Report and Order in WT Docket Nos. 12-64 and 11-110; FCC 12-55, adopted and released May 24, 2012. The full text of this document is available for inspection and copying during normal business hours in the FCC Reference Center, 445 12th Street, SW, Washington, DC 20554. The complete text may be purchased from the Commission's copy contractor, Best Copy and Printing, Inc., 445 12th Street, SW, Room CY-B402, Washington, DC 20554, (202) 488-5300, facsimile (202) 488-5563, or via email at fcc@bcpweb.com. The full text may also be downloaded at: www.fcc.gov. Alternative formats are available to persons with disabilities by sending an e-mail to fcc504@fcc.gov or by calling the Consumer & Governmental Affairs Bureau at 202-418-0530 (voice), 202-418-0432 (tty).

Summary

I. Introduction and Background

1. As part of our ongoing efforts to reduce barriers to innovation and investment in new technologies and to promote greater spectrum efficiency, we adopt this Report and Order to amend a legacy regulatory requirement in part 90 and provide certain spectrum licensees with increased regulatory and technical flexibility to deploy advanced wireless services in portions of the 800 MHz band. By removing a legacy channelization scheme and bandwidth limitation, this Report and Order will allow Economic Area (EA)-based 800 MHz Specialized Mobile Radio (SMR) licensees in the 813.5-824/858.5-869 MHz portion of the

800 MHz band to more efficiently utilize their spectrum resources to deploy competitive wireless services. Consumers will benefit from this flexibility through improved access to advanced wireless services, including in rural, unserved, and underserved areas. We are also mindful of the need to protect 800 MHz public safety licensees from harmful interference, and take action in this Report and Order to help ensure that the flexibility provided to EA-based 800 MHz SMR licensees does not cause harmful interference to 800 MHz public safety licensees.

2. The Commission revised its part 90 rules to create a new geographic-licensing framework for 800 MHz SMR in 1995. In doing so, the Commission transitioned the 800 MHz SMR service from a site-by-site licensing process that required licensees to seek prior authorization to add or modify individual frequency channels and transmitter sites to a geographic-based licensing mechanism that provides licensees with the flexibility to add transmitters or modify operations within their licensed market and licensed spectrum as market conditions dictate.

3. The Commission determined that wide-area licensing would “give licensees the flexibility to use technologies that can operate on either contiguous or non-contiguous spectrum” and that large spectrum blocks were necessary for “broadband technologies such as CDMA and GSM.” With wide-area licenses, the Commission indicated licensees would be able to “compete effectively with other CMRS providers, such as cellular and broadband PCS systems.” Further, the Commission stated its intent in the Executive Summary of the 800 MHz SMR First Report and Order, at 61 FR 6138, Feb. 16, 1996, that EA-based licensees would have “full discretion over channelization of available spectrum within the block.” The Commission also adopted an out-of-band emission (OOBE) requirement that

applies to the outer channels of the spectrum block and to spectrum adjacent to interior channels used by incumbents.

4. In 2004, the Commission initiated a process to reconfigure the 800 MHz band in the 800 MHz Reconfiguration Report and Order, at 69 FR 67823, Nov. 22, 2004, to “address the [then] ongoing and growing problem of interference to public safety communications in the 800 MHz band.” The interference problem was caused “by a fundamentally incompatible mix of two types of communications systems: cellular-architecture multi-cell systems . . . and high-site non-cellular systems.” To provide immediate relief, the Commission implemented technical standards that defined unacceptable interference in the 800 MHz band, while also reconfiguring the band to separate commercial wireless systems from public safety and other high site systems. Under the reconfiguration plan, SMR and other cellular-system operators including Sprint Nextel were required to vacate the 806-817/851-862 MHz band segment and relocate to the 817-824/862-869 MHz band segment.

5. In part due to the reconfiguration of the 800 MHz band, Sprint Nextel holds the majority of EA-based 800 MHz SMR licenses, and reports that it “has or will soon have access to 14 MHz of spectrum in the ESMR band . . . across much of the nation.” In June 2010, Sprint Nextel announced its Network Vision initiative, under which it will “deploy next-generation base station technology that will operate across all of Sprint’s licensed spectrum.” As part of its Network Vision initiative, Sprint Nextel reports it will incorporate its 800 MHz SMR spectrum into its CDMA network and forthcoming LTE deployment. However, Sprint Nextel is unable to aggregate its EA-based 800 MHz SMR channels to deploy CDMA or LTE because of the channel spacing and bandwidth limitation in § 90.209

of the Commission's rules. Sprint Nextel reports that CDMA requires contiguous spectrum and occupies a 1.25 MHz bandwidth, and that other wireless carriers are deploying LTE using 10 megahertz or 20 megahertz channel pairs. Specifically, § 90.209 limits EA-based 800 MHz SMR licensees to 25 kHz channels with a bandwidth of 20 kHz. Therefore, in June 2011, Sprint Nextel filed a petition for declaratory ruling, or rulemaking in the alternative, that would allow EA-based 800 MHz SMR licensees (commonly referred to as Enhanced SMR or ESMR) to exceed the channel spacing and bandwidth limitation under § 90.209. The Wireless Telecommunications Bureau released a Public Notice, WT Docket No. 11-110, DA 11-1152, June 30, 2011, seeking comment on Sprint Nextel's petition.

6. Prior to Sprint Nextel filing the petition, and subsequently while the petition has been pending, the Commission has granted waivers and special temporary authorizations to allow Sprint Nextel to deploy and test CDMA in several markets on its EA-based 800 MHz SMR licenses. Sprint Nextel filed for additional waivers in March 2012, and the Wireless Telecommunications Bureau issued a Public Notice, WT Docket No. 12-82, DA 12-506, Mar. 30, 2012, seeking comment on the request.

7. Based on the record developed in response to the Public Notice seeking comment on Sprint's petition for declaratory ruling or rulemaking in the alternative and our analysis of the relevant part 90 rules and the underlying 800 MHz proceeding, we concluded that while the Commission may have intended to provide EA-based 800 MHz SMR licensees with discretion over channelization within their channel blocks, the Commission did not amend the applicable channel spacing and bandwidth limitation in § 90.209 to allow licensees to exercise such discretion. We therefore denied Sprint Nextel's request for a declaratory ruling and issued a Notice of Proposed Rulemaking, (NPRM) at 77 FR 18991,

Mar. 29, 2012, proposing to allow EA-based 800 MHz SMR licensees to exceed the channel spacing and bandwidth limitation in § 90.209, subject to proposed conditions to protect against potential harmful interference with 800 MHz public safety licensees.

8. Commenters generally support our proposal to provide flexibility to EA-based 800 MHz SMR licensees to exceed the channel spacing and bandwidth limitation in § 90.209. Similarly, many commenters support or do not oppose the proposed conditions to protect 800 MHz public safety licensees from harmful interference. As discussed below, we adopt the proposals from the NPRM with a minor modification.

I. Report and Order

9. We amend § 90.209 of the Commission's rules to allow EA-based 800 MHz SMR licensees operating in the 813.5-824/858.5-869 MHz portion of the 800 MHz band to provide wireless services across aggregated channels, without unnecessary bandwidth or channelization limitations. We note that, pursuant to § 90.614(c) of the Commission's rules, the band segment 813.5-817/858.5-862 MHz is available for SMR operations only in the Southeastern United States. We conclude that the public interest will be served by allowing EA-based 800 MHz SMR licensees to exceed the existing channel spacing and bandwidth limitation in § 90.209, subject to conditions designed to protect neighboring public safety operations. We find strong support in the record for this conclusion. As Motorola Solutions, Inc. asserts, the proposals in the NPRM "strike the right balance . . . by allowing EA-based 800 MHz SMR licensees to introduce more advanced wideband technologies on their licensed spectrum in situations where there is little risk to public [safety] operations."

10. We also find that the proposals from the NPRM will balance the benefits of providing channel spacing and bandwidth flexibility to EA-based 800 MHz SMR licensees

with the need to continue to prevent harmful interference to 800 MHz public safety licensees. As described below, the record shows that with the flexibility we adopt today, EA-based 800 MHz SMR licensees will be able to invest in the deployment of new wireless technologies, such as CDMA and LTE, while incurring little additional compliance costs. The record also shows that consumers will benefit from access to these advanced technologies. Further, the record demonstrates little additional costs to 800 MHz public safety licensees from such operation relative to the status quo, which may be incurred through increased monitoring for harmful interference for a time following an EA-based 800 MHz SMR licensee's transition to a wideband technology. We find that, based on the record, the minimal costs incurred by EA-based 800 MHz SMR licensees or 800 MHz public safety licensees are far outweighed by the benefits gained through the efficient utilization of spectrum resources and the deployment and availability of advanced wireless services.

11. Below we explain the conditions under which EA-based 800 MHz SMR licensees may exceed the channel spacing and bandwidth limitation in § 90.209, take steps to protect 800 MHz public safety licensees from harmful interference, and discuss the continued applicability and sufficiency of other part 90 rules. We also discuss and decline to adopt additional protections proposed by commenters and decline to take other actions that we find are outside of the scope of this proceeding.

A. Channel Spacing and Bandwidth Flexibility for EA-based 800 MHz SMR Licensees

12. We find that there are substantial benefits to revising our part 90 rule regarding channel spacing and bandwidth limits. The record demonstrates that providing EA-based 800 MHz SMR licensees the flexibility to exceed the channel spacing and

bandwidth limitation in § 90.209 effectively eliminates a barrier to the deployment of advanced wireless technologies, promotes spectrum efficiency, and improves regulatory parity between commercial wireless licensees, to consumers' benefit. Under this rule change, EA-based 800 MHz SMR licensees will no longer be forced to comply with an inefficient channelization scheme that prevents licensees from utilizing multiple contiguous channels to provide service. With flexibility regarding channelization and bandwidth utilization, as Sprint Nextel and SouthernLINC Wireless (SouthernLINC) assert, EA-based 800 MHz SMR licensees will be able to deploy CDMA, LTE, and other advanced wireless technologies. Licensees will therefore be able to transition networks deployed using EA-based 800 MHz SMR licenses from legacy narrowband technologies to 3G as well as other advanced technologies including LTE, in order to better compete in the commercial wireless marketplace. We agree with Sprint Nextel that this will allow EA-based 800 MHz SMR licensees to "respond to consumer demand for innovative wireless services" including, as SouthernLINC argues, through the deployment of advanced wireless services to "rural, unserved, and underserved areas." Southern also argues that when SouthernLINC transitions its network to more advanced wireless technologies, SouthernLINC will be able to provide innovative services to Southern Company Services' electric company affiliates.

13. Based on the record, we therefore find that it is in the public interest to amend § 90.209 to allow EA-based 800 MHz SMR licensees to exceed the channel spacing and bandwidth limitation in § 90.209 in the 813.5-824/858.5-869 MHz band segment in National Public Safety Planning Advisory Committee (NPSPAC) regions where all 800 MHz public safety licensees in the region have completed band reconfiguration. In NPSPAC regions where reconfiguration is incomplete, we amend § 90.209 to allow EA-based 800 MHz SMR

licensees to exceed the channel spacing and bandwidth limitation only in the 813.5-821/858.5-866 MHz band segment. Consistent with this Report and Order, EA-based 800 MHz SMR licensees will only be able to exceed the channel spacing and bandwidth limitation utilizing frequencies in 821-824/866-869 MHz once 800 MHz public safety licensees have vacated this portion of the 800 MHz band in a given NPSPAC region. Upon all 800 MHz public safety licensees in a region completing band reconfiguration, EA-based 800 MHz SMR licensees in the 821-824/866-869 MHz band would then be allowed to exceed the channel spacing and bandwidth limitation. As noted, pursuant to § 90.614(c), the band segment 813.5-817/858.5-862 MHz is available for SMR operations only in the Southeastern United States.

B. Protection of 800 MHz Public Safety Licensees

14. We recognize that the affected portion of the 800 MHz band is currently subject to an ongoing reconfiguration process to protect 800 MHz public safety users from interference from incompatible commercial networks. We seek to ensure that the progress made to protect public safety licensees from interference is not affected by the flexibility we provide today, and adopt additional protections for 800 MHz public safety licensees.

15. We find based on the record that the 30-day notification condition we proposed in the NPRM, with a minor modification, will help protect 800 MHz public safety licensees from the risk of harmful interference. We require all EA-based 800 MHz SMR licensees that seek to exceed the channel spacing and bandwidth limitation in § 90.209 to provide at least 30 days written notice to public safety licensees with base stations in a NPSPAC region where the EA-based 800 MHz SMR licensee intends to exceed the channel spacing and bandwidth limitation, and to public safety licensees with base stations within 113

kilometers (70 miles) of an affected NPSPAC region border. Further, pursuant to a request by Concepts to Operations, Inc. (CTO), we modify our original proposal to require that the notice include the estimated date on which the EA-based 800 MHz SMR licensee will begin operations that exceed the channel spacing and bandwidth limitation. We find that by requiring EA-based 800 MHz SMR licensees to include the estimated date of operation in the notice, 800 MHz public safety licensees will be better able to monitor their networks for harmful interference on and around the date of a SMR licensee's expected transition from operations within the channel spacing and bandwidth limitation of § 90.209 to operations that exceed the channel spacing and bandwidth limitation.

16. We agree with commenters that the 30-day notice requirement will allow EA-based 800 MHz SMR licensees to use their spectrum more efficiently, while continuing to protect 800 MHz public safety licensees. Pursuant to this notice requirement, in the event that an 800 MHz public safety licensee experiences harmful interference subsequent to receiving the required notice from an EA-based 800 MHz SMR licensee, the public safety licensee can more quickly identify or eliminate EA-based 800 MHz SMR operations as the source of interference. While this requirement will result in certain costs to EA-based licensees who must identify and timely notify affected public safety entities, we find that the resulting benefits – efficient resolution of interference to a public safety entity – offsets such costs. As SouthernLINC states, this condition “will impose only a modest burden on ESMR licensees and will ensure that 800 MHz public safety licensees are fully informed, thus making it easier to swiftly resolve any issues or concerns that may arise.”

17. The Association of Public-Safety Communications Officials-International, Inc. (APCO) and CTO suggest additional conditions that they argue will help protect 800

MHz public safety licensees from harmful interference caused by EA-based 800 MHz SMR licensees that exceed the channel spacing and bandwidth limitation. APCO urges us to require EA-based 800 MHz SMR licensees that seek to exceed the channel spacing and bandwidth limitation in NPSPAC regions bordering Mexico to provide 30 days prior written notification to all public safety licensees in the border area, and that such notice should include a 24-hour contact number in case interference occurs.

18. We decline to modify the notice requirement as requested by APCO. APCO describes a scenario in which an EA-based 800 MHz SMR licensee exceeds the channel spacing and bandwidth limitation in a NPSPAC region that includes the Mexico border area, and is operating co-channel with an 800 MHz public safety licensee with a base station in the Mexico border area within the same NPSPAC region. In this scenario, the EA-based 800 MHz SMR licensee would be required under this Report and Order to transmit the 30-day notification to the public safety licensee in the Mexico border area because the licensees would be in the same NPSPAC region. We also note that, as described below, EA-based 800 MHz SMR licensees will still be obligated to meet all other technical requirements under Part 90, including co-channel separation distances, further protecting 800 MHz public safety licensees operating in the Mexico border area. We find that the notice requirement adopted herein is sufficient to provide additional protection to all 800 MHz public safety licensees from any harmful interference caused by wideband EA-based 800 MHz SMR operations, and find no reason to modify the notice requirement for 800 MHz public safety operations in the Mexico border area.

19. Further, with respect to APCO's request that the notice be accompanied by a 24-hour contact number, Sprint Nextel notes that the 24-hour reporting capability is currently

available on the CMRS/public safety interference reporting website, required by the 800 MHz Reconfiguration Report and Order, in order to implement the interference resolution procedures set forth in § 90.674 of the Commission's rules. Under that procedure, EA-based 800 MHz SMR licensees are required to respond to any notification of harmful interference reported by public safety licensees to that website within 24 hours. Although the procedure in § 90.674 is not identical to APCO's proposal, we find that it is adequate to address APCO's concerns, as this website will enable public safety licensees to report any harmful interference events at any time, 24 hours a day, and licensees are required to respond to any notification of harmful interference within 24 hours of receipt. Further, we do not anticipate that permitting EA-based 800 MHz SMR licensees to operate with wider channel bandwidths than currently permitted under § 90.209 will result in an increase in harmful interference to public safety licensees. Accordingly, we decline to impose additional, largely duplicative requirements on EA-based 800 MHz SMR licensees.

20. CTO urges us to adopt an additional condition requiring EA-based 800 MHz SMR licensees to transmit a second notice to affected 800 MHz public safety licensees that would include the date on which operations will begin, the specific locations of antenna sites, and effective radiated power (ERP) for each antenna site. CTO argues that the additional notice would ensure that public safety entities continue to be notified of changes near their operations. While we find it appropriate to require licensees to include the approximate date of operation in their notifications, we decline to adopt the additional notice suggested by CTO. The notice requirement we adopt today is designed to provide notice to public safety licensees so that they may monitor their networks for any increase in harmful interference caused by EA-based 800 MHz SMR licensees that exceed the standard channel spacing and

bandwidth limitation and take appropriate steps to initiate a process to remedy such interference should it occur. A notification requirement that includes antenna location or ERP would not further this goal. Therefore, we find that adopting a second notice requirement would result in little added benefit to public safety entities while imposing undue costs on EA-based 800 MHz SMR licensees.

21. The NPRM also sought comment on proposals by the National Public Safety Telecommunications Council (NPSTC) and APCO seeking to impose a one megahertz separation between public safety operations and EA-based 800 MHz SMR operations that exceed the channel spacing and bandwidth limitation. In response to the NPRM, however, APCO acknowledges that the one megahertz separation is not warranted as the use of 1.25 MHz CDMA channels will result in a de facto buffer of one megahertz. We therefore decline to adopt these proposed conditions.

22. We conclude that the 30-day notice condition, in combination with the limitation preventing EA-based 800 MHz SMR licensees from exceeding the channel spacing and bandwidth limitation in NPSPAC regions where reconfiguration is incomplete, adequately protects 800 MHz public safety licensees from harmful interference.

C. Applicability and Sufficiency of Existing Part 90 Rules

23. We note that, while we find that the 30-day notice requirement and the continued application of the channel spacing and bandwidth limitation in 821-824/866-869 MHz in NPSPAC regions where reconfiguration is incomplete will help protect public safety operations from harmful interference, these measures are supplements to the existing technical rules in part 90 governing EA-based 800 MHz SMR operations. We continue to believe that our current rules provide appropriate safeguards against harmful interference,

and we emphasize that, in providing greater flexibility with respect to the channel spacing and bandwidth limitation, we are not removing or revising any other technical rules that enable licensees to coexist within the 800 MHz band.

24. To the contrary, EA-based 800 MHz SMR licensees subject to this Report and Order must continue to comply with all other applicable rules in part 90. For example, licensees must continue to meet the OOB requirement in § 90.691 on the outer channels of the licensee's block and the interior channels of the licensee's block adjacent to channels occupied by incumbent licensees. EA-based 800 MHz SMR licensees also must abide by strict protections against unacceptable interference to non-cellular 800 MHz licensees under § 90.672. SouthernLINC argues this rule effectively establishes an even more stringent out-of-band emission requirement than § 90.691. As noted, EA-based 800 MHz SMR licensees must continue to meet the co-channel separation requirements in § 90.621. Additionally, EA-based 800 MHz SMR licensees are strictly responsible for abating any unacceptable interference under § 90.673, and must comply with the interference resolution procedures under § 90.674.

25. The Enterprise Wireless Alliance (EWA) states its assumption that because the Commission will allow EA-based 800 MHz SMR licensees to exceed the channel spacing and bandwidth requirement in 813.5-824/858.5-869 MHz, such operation will not "present interference concerns for future users of the Guard Band spectrum [817-818/861-862 MHz] either." The NPRM limited the applicability of the proposals to EA-based 800 MHz SMR operations and the record demonstrates no specific concern regarding potential interference issues to hypothetical future users of the guard band. To the extent that the guard band is

licensed in the future, the Commission will establish applicable technical and service rules as necessary at that time.

26. EWA also suggests we clarify the applicability of the rule change adopted in this Report and Order in the Canada border area, because the existing protection from EA-based 800 MHz SMR licensees to adjacent site-based systems “has always been calculated on a frequency-specific, co-channel contour basis.” We reiterate that EA-based 800 MHz licensees that exceed the channel spacing and bandwidth limitation are required to continue to comply with all other applicable Part 90 rules, including co-channel separation requirements. As Sprint Nextel acknowledges, any action permitting operations on bandwidths greater than 25 kHz does not change the interference protection requirements applicable to public safety and other non-ESMR licensees in and adjacent to the U.S.-Canada border areas. EA-based 800 MHz SMR licensees must continue to comply with part 90 rules regarding operation in the Canada and Mexico border areas, including any international agreements.

27. Several commenters agree that, as a general matter, EA-based 800 MHz SMR licensees’ continued compliance with the part 90 rules will serve to protect all other 800 MHz licensees from harmful interference. For example, SouthernLINC argues that “the ongoing obligation of 800 MHz ESMR licensees to operate in strict compliance with these rules will continue to serve as yet another form of protection from interference for 800 MHz public safety licensee.” RCA—The Competitive Carriers Association notes that the Commission “has done much to ensure 800 MHz public safety licensees receive ample protection from broadband operations,” specifically citing EA-based 800 MHz SMR

licensees' obligation to abate interference to public safety systems and other 800 MHz licensees.

28. In this regard, Sprint Nextel argues that it has taken steps beyond what the Commission's rules require to minimize the risk of interference to public safety licensees. Sprint Nextel asserts that it will incorporate "extremely tight" OOB requirements into its CDMA equipment to minimize the risk of harmful interference in areas where reconfiguration is complete, as well as provide aggressive OOB roll-off protection for public safety systems operating in 821-824/866-869 MHz. Sprint Nextel also asserts that numerous tests confirm that its CDMA deployment "should further reduce the already-low risk of intermodulation interference to 800 MHz band public safety systems."

29. A group of nine public safety entities (Public Safety Licensees) argues that the technical analysis provided by Sprint Nextel on the record is an "Intermodulation Interference test," and that without filtering specifications, the Public Safety Licensees are unable to verify Sprint Nextel's claimed OOB protections. The Public Safety Licensees argue that without certainty regarding OOB levels, the Commission should require a greater demonstration of non-interference before revising the channel spacing and bandwidth limitation. In response, Sprint Nextel states that it has previously provided detailed information regarding its OOB base station emissions mask requirements, as well as statements from each of its three equipment vendors affirming that Sprint Nextel's base stations are being designed to meet that mask. Sprint Nextel argues that the risk of interference to public safety or other non-ESMR 800 MHz operators from Sprint Nextel's planned 800 MHz broadband operations will be the same or less than its current iDEN deployment.

30. We find no basis to conclude that EA-based 800 MHz SMR operations using bandwidths wider than 25 kHz must be subject to more stringent technical requirements than our rules in part 90 currently impose. We believe that our existing part 90 technical rules are sufficient to protect 800 MHz public safety licensees or other 800 MHz licensees from harmful interference from EA-based 800 MHz SMR operations that exceed the channel spacing and bandwidth limitation in § 90.209. We believe that revising the part 90 channel spacing and bandwidth limitation is unlikely to cause 800 MHz public safety licensees to experience increased harmful intermodulation interference due in part to the fact that, other things being equal, the use of wider channels generally spreads the available power across a much wider bandwidth than narrowband technologies, thereby lowering the level of intermodulation interference that might occur. As Sprint Nextel affirms on the record, its CDMA operations may decrease intermodulation interference relative to its iDEN operations. We note that Sprint Nextel is permitted under waiver or special temporary authority to exceed the channel spacing and bandwidth limitation prescribed by § 90.209 in nine different markets covering large population centers. Sprint Nextel has been able to exceed the channel spacing or bandwidth limitation in five of the markets for 11 months. We have not received any complaints of interference from any 800 MHz licensee as a result of Sprint Nextel's operations in any of the markets to date. Accordingly, we believe 800 MHz public safety licensees will not be subject to increased harmful interference when EA-based 800 MHz SMR licensees comply with or exceed the protections under existing technical requirements in part 90.

31. The Public Safety Licensees also assert that the Commission should proactively ensure that interference will not occur, rather than have 800 MHz licensees rely

on the interference abatement process in § 90.673 if interference occurs. They argue that, although the interference may be resolved, the public safety licensee is stuck with the costs of finding, investigating, and participating in resolving interference under § 90.673. As a general matter, our part 90 rules are designed to proactively limit the possibility of harmful interference. Section 90.673 was created to further protect public safety licensees in the unforeseen event that harmful interference does occur, and we find no reason to revisit this rule in this Report and Order. Absent information showing that 800 MHz public safety licensees will experience harmful interference as a result of this rule change, and such interference will result in significant costs, we find the measures taken in this Report and Order reasonably balance the interests of EA-based 800 MHz SMR licensees and 800 MHz public safety entities.

D. Other Issues

32. Finally, CTO and Thomas Michael Roskos, Jr. (Roskos) suggest we afford additional flexibility to licensees other than EA-based 800 MHz SMR licensees. CTO urges us to “treat all [800 MHz commercial] licensee’s [sic] equally and to develop plans which allow ‘contiguous use of spectrum’ to licensees to be able to provide similar and competing services in the Band.” Roskos argues that we should find that any licensee under part 90 with contiguous spectrum should be able to aggregate the channels and use them on a wideband basis so long as the operations do not raise OOB above an unacceptable level. We find insufficient record support for these requests, and we decline to expand the scope of this Report and Order. As explained herein, this Report and Order is based upon the specific proposals in the NPRM and the record developed in response to the NPRM, and applies only

to EA-based 800 MHz SMR operations in the 813.5-824/858.5-869 MHz segment of the 800 MHz band.

E. Conclusion

33. We find that the record strongly supports our decision to provide channel spacing and bandwidth flexibility to EA-based 800 MHz SMR licensees, and that such flexibility will promote the deployment of advanced wireless technologies. The record demonstrates that the minimal costs incurred by EA-based 800 MHz SMR licensees and 800 MHz public safety licensees are far outweighed by the benefits generated through the elimination of this legacy rule, including improving spectrum efficiency and the availability of wireless broadband. We also find that the existing protections in our rules, coupled with the new protections added through this Report and Order are sufficient to limit the potential for harmful interference caused by EA-based 800 MHz SMR licensee operations at greater than 25 kHz channels with greater than 20 kHz bandwidth.

III. Procedural Matters

A. Final Regulatory Flexibility Analysis

34. As required by the Regulatory Flexibility Act of 1980, the Commission has prepared a Final Regulatory Flexibility Analysis (FRFA) of the possible significant economic impact on small entities of the policies and rules addressed in this document.

B. Final Paperwork Reduction Act Analysis

35. This document adopts new or revised information collection requirements subject to the Paperwork Reduction Act of 1995 (PRA). The requirements were submitted to the Office of Management and Budget (OMB) for review under sec. 3507 of the PRA. The Commission published notice of the information collection in the Federal Register, 77 FR

18991, Mar. 29, 2012, and invited comment on the new information collection that we adopt in this document. The requirements will not go into effect until OMB has approved the requirements and the Commission has published a notice announcing the effective date of the information collection requirements. In addition, we note that pursuant to the Small Business Paperwork Relief Act of 2002, we previously sought specific comment on how the Commission might “further reduce the information collection burden for small business concerns with fewer than 25 employees.”

C. Congressional Review Act

36. The Commission will send a copy of this Report and Order to Congress and the Government Accountability Office pursuant to the Congressional Review Act.

IV. Final Regulatory Flexibility Analysis

As required by the Regulatory Flexibility Act of 1980, as amended (RFA), an Initial Regulatory Flexibility Analysis (IRFA) was included in the Notice of Proposed Rulemaking in WT Docket Nos. 11-110 and 12-64. The Commission sought written public comment on the proposals in these dockets, including comment on the IRFA. This Final Regulatory Flexibility Analysis (FRFA) conforms to the RFA.

A. Need for, and Objectives of, the Report and Order

37. The rule adopted in this Report and Order eliminates a legacy channel spacing and bandwidth limitation governing Economic Area (EA)-based 800 MHz specialized mobile radio (SMR) licensees. This rule provides the licensees with the flexibility to deploy competitive wireless services, while also continuing to protect 800 MHz public safety licensees and other 800 MHz licensees from harmful interference.

38. The rule allows EA-based 800 MHz SMR licensees in the 813.5-824/858.5-869 MHz band segment to exceed the channel spacing and bandwidth limits in § 90.209 of the Commission's rules, subject to conditions. EA-based 800 MHz SMR licensees may exceed the channel spacing and bandwidth limitation in the 813.5-824/858.5-869 MHz band segment of the 800 MHz band in National Public Safety Planning Advisory Committee (NPSPAC) regions where 800 MHz reconfiguration is complete. In NPSPAC regions where 800 MHz reconfiguration is incomplete, EA-based 800 MHz licensees may exceed the channel spacing and bandwidth limitation only in 813.5-821/858.5-866 MHz. Upon all 800 MHz public safety licensees in a region completing band reconfiguration, EA-based 800 MHz SMR licensees in 821-824/866-869 MHz may also exceed the channel spacing and bandwidth limitation. We note that, pursuant to § 90.614(c) of the Commission's rules, the band segment 813.5-817/858.5-862 MHz is available for SMR operations only in the Southeastern United States. We also require EA-based 800 MHz SMR licensees to provide 30 days written notice to 800 MHz public safety licensees with base stations in a NPSPAC region where an EA-based 800 MHz SMR licensee intends to exceed the channel spacing and bandwidth limitation, and to public safety licensees with base stations within 113 kilometers (70 miles) of an affected NPSPAC region border. Finally, we require such notice to include the estimated date the EA-based 800 MHz SMR licensee's operations will exceed the channel spacing requirement and bandwidth limitation.

39. We believe this rule will reduce barriers to innovation and investment and allow EA-based 800 MHz SMR licensees to deploy competitive wireless services, to consumers' benefit. The record demonstrates support for the rule change, and demonstrates

that it will result in significant benefits while imposing minimal costs on EA-based 800 MHz SMR licensees, 800 MHz public safety licensees, or other 800 MHz licensees

B. Statement of Significant Issues Raised by Public Comments in Response to the IRFA

40. There were no public comments filed that specifically addressed the rules and policies proposed in the IRFA.

C. Response to Comments by the Chief Counsel for Advocacy of the Small Business Administration

41. Pursuant to the Small Business Jobs Act of 2010, the Commission is required to respond to any comments filed by the Chief Counsel for Advocacy of the Small Business Administration, and to provide a detailed statement of any change made to the proposed rules as a result of those comments. The Chief Counsel did not file any comments in response to the proposed rules in this proceeding.

D. Description and Estimate of the Number of Small Entities to Which the Rules Will Apply

42. 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 proposed rules, if adopted. The RFA generally defines the term “small entity” as having the same meaning as the terms “small business,” “small organization,” and “small governmental jurisdiction.” In addition, the term “small business” has the same meaning as the term “small-business concern” under the Small Business Act. 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 SBA.

43. 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. First, nationwide, there are a total of approximately 27.5 million small businesses, according to the SBA. 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.” Nationwide, as of 2007, there were approximately 1,621,315 small organizations. 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.” Census Bureau data for 2011 indicate that there were 89,476 local governmental jurisdictions in the United States. We estimate that, of this total, as many as 88,506 entities may qualify as “small governmental jurisdictions.” Thus, we estimate that most governmental jurisdictions are small.

44. Wireless Telecommunications Carriers (except Satellite). Since 2007, the SBA has recognized wireless firms within this new, broad, economic census category. Prior to that time, such firms were within the now-superseded categories of Paging and Cellular and Other Wireless Telecommunications. Under the present and prior categories, the SBA has deemed a wireless business to be small if it has 1,500 or fewer employees. For this category, census data for 2007 show that there were 1,383 firms that operated for the entire year. Of this total, 1,368 firms had 999 or fewer employees, and 15 had 1,000 employees or more. Similarly, according to Commission data, 413 carriers reported that they were engaged in the provision of wireless telephony, including cellular service, Personal Communications Service (PCS), and Specialized Mobile Radio (SMR) Telephony services.

Of these, an estimated 261 have 1,500 or fewer employees, and 152 have more than 1,500 employees. Consequently, the Commission estimates that approximately half or more of these firms can be considered small. Thus, using available data, we estimate that the majority of wireless firms can be considered small.

45. Specialized Mobile Radio. The Commission awards small business bidding credits in auctions for Specialized Mobile Radio (SMR) geographic area licenses in the 800 MHz and 900 MHz bands to entities that had revenues of no more than \$15 million in each of the three previous calendar years. The Commission awards very small business bidding credits to entities that had revenues of no more than \$3 million in each of the three previous calendar years. The SBA has approved these small business size standards for the 800 MHz and 900 MHz SMR Services. The Commission has held auctions for geographic area licenses in the 800 MHz and 900 MHz bands. The 900 MHz SMR auction was completed in 1996. Sixty bidders claiming that they qualified as small businesses under the \$15 million size standard won 263 geographic area licenses in the 900 MHz SMR band. The 800 MHz SMR auction for the upper 200 channels was conducted in 1997. Ten bidders claiming that they qualified as small businesses under the \$15 million size standard won 38 geographic area licenses for the upper 200 channels in the 800 MHz SMR band. A second auction for the 800 MHz band was conducted in 2002 and included 23 BEA licenses. One bidder claiming small business status won five licenses.

46. The auction of the 1,053 800 MHz SMR geographic area licenses for the General Category channels was conducted in 2000. Eleven bidders that won 108 geographic area licenses for the General Category channels in the 800 MHz SMR band qualified as small businesses under the \$15 million size standard. In an auction completed in 2000, a total of

2,800 Economic Area licenses in the lower 80 channels of the 800 MHz SMR service were awarded. Of the 22 winning bidders, 19 claimed small business status and won 129 licenses. Thus, combining all three auctions, 40 winning bidders for geographic licenses in the 800 MHz SMR band claimed status as small business.

47. In addition, there are numerous incumbent site-by-site SMR licensees and licensees with extended implementation authorizations in the 800 and 900 MHz bands. We do not know how many firms provide 800 MHz or 900 MHz geographic area SMR pursuant to extended implementation authorizations, nor how many of these providers have annual revenues of no more than \$15 million. One firm has over \$15 million in revenues. In addition, we do not know how many of these firms have 1,500 or fewer employees. We assume, for purposes of this analysis, that all of the remaining existing extended implementation authorizations are held by small entities, as that small business size standard is approved by the SBA.

E. Description of Projected Reporting, Recordkeeping, and Other Compliance Requirements for Small Entities

48. The rule provides regulatory flexibility to all EA-based 800 MHz SMR licensees. The rule will impose limited reporting or recordkeeping requirements to the extent an EA-based 800 MHz SMR licensee seeks to exceed the channel spacing and bandwidth limitation in § 90.209 of the Commission's rules. In such cases, the licensee must provide 30 days advanced written notice to all public safety licensees with a base station in an affected NPSPAC region and within 113 kilometers (70 miles) of the border of an affected NPSPAC region. This notice must include the estimated date that the EA-based 800 MHz SMR

licensee's operations will exceed the channel spacing and bandwidth limitation. Otherwise, the rule will impose only a small compliance burden.

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

49. The RFA requires an agency to describe any significant alternatives that it has considered in reaching its proposed 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 or reporting requirements under the rule for 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 small entities.

50. The Report and Order is deregulatory in nature and imposes only a minor compliance requirement on all affected entities, including small entities. In recognition of the resources available to small entities, and in the interest of simplified compliance obligations, the Report and Order does not mandate any specific form or manner in which entities must comply with the reporting requirement. Specifically, the Report and Order requires EA-based 800 MHz SMR licensees to provide written notice to all public safety licensees with a base station in an affected NPSPAC region and within 113 kilometers (70 miles) of the border of an affected NPSPAC region if the licensee intends to exceed the channel spacing and bandwidth limitation. This notice must include the estimated date that the EA-based 800 MHz SMR licensee's operations will exceed the channel spacing and bandwidth limitation. Licensees have the flexibility to provide written notice through whatever means the licensee chooses. We believe this notice is necessary to ensure that

public safety licensees are aware of the operation and can actively monitor for any interference issues that may arise. While we strive to provide flexibility to small entities, because we believe that protection of public safety licensees is essential and in the public interest, we do not adopt any exemption for small entities.

G. Federal Rules that May Duplicate, Overlap, or Conflict with the Rules

51. None.

V. ORDERING CLAUSES

52. Pursuant to the authority contained in sections 1, 2, 4(i), 4(j), 301, 302, 303, 307, and 308 of the Communications Act of 1934, as amended, 47 U.S.C. 151, 152, 154(i), 154(j), 301, 302a, 303, 307, and 308, this Report and Order is adopted and that part 90 of the Commission's rules, 47 CFR part 90, is amended as set forth herein.

53. The rules adopted herein will become effective [INSERT DATE 30 DAYS AFTER THE DATE OF PUBLICATION IN THE FEDERAL REGISTER].

54. The Commission's Consumer & Governmental Affairs Bureau, Reference Information Center, shall send a copy of this Report and Order, including the Final Regulatory Flexibility Analysis, to the Chief Counsel for Advocacy of the Small Business Administration.

List of Subjects in 47 CFR Part 90

Business and industry, Common carriers, Communications equipment, Radio.

FEDERAL COMMUNICATIONS COMMISSION

Marlene H. Dortch,
Secretary.

For the reasons set forth in the preamble, the Federal Communications Commission amends Part 90 of Title 47 of the Code of Federal Regulations (CFR) as set forth below:

PART 90—Private Land Mobile Radio Service

1. 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), 332(c)(7).

2. Section 90.209 is amended by adding paragraph (b)(7) to read as follows:

§ 90.209 Bandwidth limitations.

* * * * *

(b) * * *

(7) Economic Area (EA)-based licensees in frequencies 817-824/862-869 MHz (813.5-824/858.5-869 MHz in the counties listed in § 90.614(c)) may exceed the standard channel spacing and authorized bandwidth listed in paragraph (b)(5) of this section in any National Public Safety Planning Advisory Committee Region when all 800 MHz public safety licensees in the Region have completed band reconfiguration consistent with this part. In any National Public Safety Planning Advisory Committee Region where the 800 MHz band reconfiguration is incomplete, EA-based licensees in frequencies 817-821/862-866 MHz (813.5-821/858.5-866 MHz in the counties listed in § 90.614(c)) may exceed the standard channel spacing and authorized bandwidth listed in paragraph (b)(5) of this section. Upon all 800 MHz public safety licensees in a National Public Safety Planning Advisory Committee Region completing band reconfiguration, EA-based 800 MHz SMR licensees in the

821-824/866-869 MHz band may exceed the channel spacing and authorized bandwidth in paragraph (b)(5) of this section. Licensees authorized to exceed the standard channel spacing and authorized bandwidth under this paragraph must provide at least 30 days written notice prior to initiating such service in the bands listed herein to every 800 MHz public safety licensee with a base station in an affected National Public Safety Planning Advisory Committee Region, and every 800 MHz public safety licensee with a base station within 113 kilometers (70 miles) of an affected National Public Safety Planning Advisory Committee Region. Such notice shall include the estimated date upon which the EA-based 800 MHz SMR licensee intends to begin operations that exceed the channel spacing and authorized bandwidth in paragraph (b)(5) of this section.

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