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February 27, 2024

VIA ECFS

Mobility Division
Wireless Telecommunications Bureau
Federal Communications Commission
45 L Street, NE
Washington, DC 20554

Re: Petition for Rulemaking
800 MHz Pool Designations

Wireless Telecommunications Bureau:

At the request of the Wireless Telecommunications Bureau, the Enterprise Wireless Alliance ("EWA") is refiling its Petition for Rulemaking originally submitted on October 26, 2022. The Petition was identified as follows:

> Amendment of Certain Part 90 Subpart S) 800 MHz Rules (809-816/854-861 MHz) to Promote More Efficient Use of Spectrum) Within that Band Segment

The Petition is being refiled to include proposed rules consistent with the rule changes requested.

Sincerely,

ENTERPRISE WIRELESS ALLIANCE

Robin J. Cohen

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Attachment

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	
Amendment of Certain Part 90 Subpart S	)	
800 MHz Rules (809-816/854-861 MHz) to	)	RM _____
Promote More Efficient Use of Spectrum	)	
Within that Band Segment	)	

To: The Commission

PETITION FOR RULEMAKING
OF THE
ENTERPRISE WIRELESS ALLIANCE

Respectfully submitted,

ENTERPRISE WIRELESS ALLIANCE

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October 26, 2022

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EXECUTIVE SUMMARY

Designating individual frequencies in the 809-816/854-861 MHz[1] portion of the Part 90 Subpart S 800 MHz band for use by certain classes of eligible entities and continuing to protect so-called "Sprint-vacated" spectrum no longer serves the public interest or the FCC's policy objectives. Both result in the balkanization, and therefore underutilization, of valuable spectrum unless overcome through unnecessary demonstrations of frequency depletion or, in some instances, waiver requests. Since all 800 MHz frequencies in this range are subject to identical technical and operational rules, EWA urges that they be classified as General Category and made available to all qualified Subpart S applicants. Eliminating the multi-decade hyper-subclassification of entirely fungible frequencies will promote optimal utilization of this spectrum while also doing away with unnecessary application review responsibilities for FCC staff and the associated processing delays, as well as cost and administrative burdens on applicants. The FCC should also terminate the rule reserving Sprint-vacated spectrum for use by certain classes of entities so those frequencies can be placed into productive use as demand dictates without further delay. The changes recommended would be consistent with the Commission's general policy of promoting flexibility in its licensing processes and its preference for modifying outdated rules rather than relying on waiver relief.

[1] 809-813.5/854-858.5 MHz in the southeastern United States and Atlanta, Georgia as defined in §90.617.

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
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Amendment of Certain Part 90 Subpart S	)	
800 MHz Rules (809-816/854-861 MHz) to	)	RM _____
Promote More Efficient Use of Spectrum	)	
Within that Band Segment	)	

To: The Commission

PETITION FOR RULEMAKING
OF THE
ENTERPRISE WIRELESS ALLIANCE

The Enterprise Wireless Alliance ("EWA"), pursuant to Section 1.401 of the Federal Communications Commission ("FCC" or "Commission") rules and regulations, respectfully requests that the Commission initiate a rulemaking proceeding modifying Part 90 Subpart S rules to eliminate the provisions assigning frequencies within the 809-816/854-861 MHz portion of the band ("800 MHz Band Segment") to specific "pools" of eligible entities.[2] Despite being subject to identical technical and operational rules, frequencies within the 800 MHz Band Segment are assigned to either the Public Safety Pool, the Business/Industrial/Land Transportation ("B/ILT") Pool, the Specialized Mobile Radio ("SMR") Category, or the General Category. As discussed herein, EWA urges that all channels within the 800 MHz Band Segment be classified instead as General Category and made available to all qualified Subpart S applicants. Eliminating this outdated hyper-subclassification of entirely fungible frequencies will promote optimal utilization of this spectrum, while also doing away with unnecessary application review responsibilities for FCC staff and the associated processing delays, as well as cost and administrative burdens on applicants. For the reasons detailed *infra*, the FCC should also terminate the rule reserving so-

[2] Excluding the southeastern United States and Atlanta, Georgia as defined in FCC Rule Section §90.617. In these two regions, the proposed elimination of the pool allocation is only applicable to 809-813.5/854-858.5 MHz.

called "Sprint-vacated" spectrum for use by certain classes of entities so those frequencies can be placed into productive use as demand dictates without further delay. The changes recommended would be consistent with the Commission's general policy of promoting flexibility in its licensing processes and its preference for modifying outdated rules rather than relying on waiver relief.

I. BACKGROUND

The 800 MHz spectrum in Subpart S of the Part 90 FCC rules was allocated for land mobile use in the mid-1970s.[3] The initial allocation was subdivided by technology, with a portion designated for single-channel conventional operations and a portion for more advanced multi-channel trunked systems.[4] The FCC did not make all the allocated spectrum available immediately, but held some in reserve while the Commission evaluated market developments.

By the early 1980s, when the FCC proposed to release the 800 MHz reserve spectrum, it was evident that the more spectrally efficient trunked systems had become the preferred mode of operation. Having seen the success of this band as a new spectrum opportunity for private land mobile entities, the FCC wished to ensure that all categories of eligible applicants had a reasonable opportunity to secure channels. Also, at that time, both conventional and trunked 800 MHz systems used analog technology. With rare exceptions, communications were unencrypted analog voice transmissions. Certain conventional systems were required to monitor for co-channel traffic prior to transmitting in something akin to a party-line telephone system. In this environment, the Commission believed it would be preferable to have similar types of users

[3] *See* Inquiry Relative to the Future Use of the Frequency Band 806-960 MHz and Amendment of Parts 2, 18, 21, 73, 74, 89, 91, and 93 of the Rules Relative to Operations in the Land Mobile Service Between 806 and 960 MHz, Docket No. 18262, *First Report and Order and Second Notice of Inquiry*, 19 Rad. Reg. 2d (P&F) 1663 (1970). *See also* Inquiry Relative to the Future Use of the Frequency Band 806-960 MHz and Amendment of Parts 2, 18, 21, 73, 74, 89, 91, and 93 of the Rules Relative to Operations in the Land Mobile Service Between 806 and 960 MHz, Docket No. 18262, *Second Report and Order*, 46 FCC 2d 752 (1974), *reconsidered, Memorandum Opinion and Order*, 51 FCC 2d 945 (1975).

[4] *Id*.

sharing channels in the same or in adjacent market areas as they likely would be more tolerant of one another's operational needs.

Therefore, rather than maintaining the trunked/conventional delineation, and in response to industry input, the Commission in a series of actions designated four "pools" of channels based on user eligibility: Public Safety, Business, Industrial/Land Transportation,[5] and Specialized Mobile Radio, (collectively "Pools").[6] (The FCC later reclassified 150 800 MHz frequencies for General Category use, available to all eligible applicants.)[7] The FCC explained its decision as follows:

> By grouping eligibles into categories of like users who are operationally compatible, and by setting aside some frequencies for each broad category [of] eligibility, we assure that all classes of private land mobile eligibles will have an opportunity to maximize their options in selecting how they wish to satisfy their communications requirements…and will have the time necessary to apply for and implement their systems.[8]

This approach closely resembled the Part 90 licensing system in the VHF and UHF bands with which the FCC and Part 90 applicants were familiar. Channels in those bands are assigned to the Public Safety Pool or the Industrial/Business Pool (which also includes private carriers, the below-800 MHz equivalent of SMR licensees) and applicants are limited to spectrum in the Pool in which they can establish eligibility.[9]

Even in 1982, however, the 800 MHz Pool allocations were not intended as a permanent approach but were to be reviewed at the end of three years:[10]

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[5] The Business and ILT Pools were consolidated into a combined B/ILT pool in the 800 MHz Rebanding process. *See* n. 19 *infra*.

[6] *See* In the Matter of Amendment of Part 90 of the Commission's Rules to Release Spectrum in the 806-821/851-866 MHz Band and to Adopt Rules and Regulations Which Govern Their Use, PR Docket No. 79-191, *Second Report and Order*, 90 FCC2d 1281 (1982) ("800 MHz Second Report and Order").

[7] In the Matter of Trunking in the Private Land Mobile Radio Services for More Effective and Efficient Use of the Spectrum, PR Docket No. 87-123, *Report and Order* 5 FCC Rcd 4016 (1990).

[8] 800 MHz Second Report and Order at ¶ 49.

[9] Applicants may request access to out-of-pool frequencies in those bands through the waiver process.

[10] 800 MHz Second Report and Order at ¶ 52.

> The question of sharing other pools' frequencies…of course, will be revisited as part of our general review of frequencies used in each pool after three years. It is our predisposition now to have all of the barriers disappear after three years. However, this is a situation which will require monitoring between now and 1985.[11]

That re-evaluation did not occur in 1985 or in any subsequent year. Four decades have passed and all user categories have had ample time to apply for and implement 800 MHz systems. EWA submits that time and intervening changes in the 800 MHz Band Segment make retention of the pool allocations not only unnecessary but contrary to sound spectrum management and operational efficiency, while imposing needless costs on certain applicants. They also require the allocation of significant FCC licensing staff resources devoted to confirming that Frequency Advisory Committee ("FAC") certifications comply with the rules governing the 800 MHz regulatory maze.[12]

II. THE 800 MHz BAND SEGMENT POOLS ADD COST AND COMPLEXITY TO FREQUENCY ASSIGNMENTS WITH NO COUNTERVAILING PUBLIC INTEREST BENEFIT

Except in the rarest of instances, 800 MHz frequencies are assigned on an exclusive basis. All licenses are subject to the same power, antenna height, loading where applicable, and out-of-band emission rules irrespective of whether the licensee is a Public Safety entity, a utility, an airline, or a commercial SMR operator. Co-channel assignments are determined based on a defined distance between base station locations, with some provisions for closer spacing upon a contour showing.[13] The rules were modified recently to allow the licensing of systems with maximum 12.5 kHz bandwidths between the original 25 kHz bandwidth channels and the

[11] *Id*. at ¶ 86.
[12] The FCC has certified certain organizations, including EWA, to review applications and recommend appropriate frequencies for use before the application is submitted to the FCC. *See* 47 C.F.R. § 90.175
[13] 47 C.F.R. § 90.621(b).

technical rules governing them are identical as well, irrespective of the eligibility of the parties.[14] The required separation between co-channel and adjacent frequencies, whether determined by distance or contour, is identical if the parties involved are all Public Safety, all B/ILT, all SMR, all General Category, or a combination of some or all of these categories of users.[15] These co-channel separation standards have been in place since the band was first authorized and have a multi-decade history of delivering interference-free operations. Even in urban markets where frequencies are reused as intensively as the rules permit, systems enjoy protected service areas and are unaffected by the operations of co-channel licensees whether they have the same or different eligibility. In sum, frequency assignments at 800 MHz have nothing to do with who will be operating on the frequencies but are determined exclusively by where, at what power and antenna height they will be transmitting, and the proposed emission designator.

The General Category Pool confirms that licensees with different eligibility can coexist on the same frequencies as long as the separation criteria are met. All categories of eligible entities operate on General Category frequencies. There is no evidence that this intermingling has discouraged applicants from requesting these frequencies or that it has resulted in operational incompatibility, interference, or any outcome that might warrant maintaining the Pools.

A. Inter-Category Sharing

The FCC has permitted inter-category sharing between B/ILT entities and Public Safety from the outset.[16] An applicant can request an "out-of-pool" frequency if it can demonstrate that there are no available frequencies in any Pool for which it is eligible. But even that seeming flexibility has a price tag and is not a simple process. A B/ILT applicant requesting a Public

[14] 47 C.F.R. § 90.621(d). Each 12.5 kHz bandwidth frequency is assigned to the eligibility Pool of the lower adjacent 25 kHz frequency and may require out-of-pool concurrence and/or waiver if requested by an applicant with different eligibility.

[15] This intermingling of licensees occurred pursuant to inter-category sharing but has become much more common as a result of 800 MHz Rebanding. *See* n. 19 *infra*.

[16] 47 C.F.R. § 90.621(e) permits inter-category sharing between certain classes of entities under certain conditions.

Safety frequency must pay its "in-pool" FAC for performing the initial analysis and then pay a Public Safety FAC for concurring in the availability of the requested Public Safety frequency. Of course, the Public Safety FAC repeats the same analysis that the B/ILT FAC conducted when identifying the frequency in the first place, since both analyses are based on the FCC's ULS database and the information about proposed applications that all FACs share on a daily basis. The reverse is also true for Public Safety applicants seeking a B/ILT frequency. Applicants pay two FACs for identifying the same frequency. These costs add no value to the outcome yet can run into the hundreds and sometimes thousands of dollars, depending on the number of frequencies and sites involved.

Setting aside unnecessary cost, inter-category sharing is available only upon a showing of complete depletion of the applicant's "in-pool" frequencies. Recent experience indicates that the frequency depletion criterion is inviolable. Florida Power & Light Company ("FPL") submitted an inter-category request to add two Public Safety frequencies to an existing system because there were no B/ILT frequencies available with the required effective radiated power ("ERP"). That request included concurrence from a Public Safety FAC. Although there were no B/ILT frequencies with the requisite ERP, the FCC did not consider the B/ILT Pool to have been depleted and denied the inter-category request stating: "The rule does not provide for exceptions due to equipment or technical limitations."[17] FPL could have pursued a waiver, but the cost and time involved, as well as the FCC's rejection of the inter-category request, dictated against that action. Instead, FPL abandoned the two Public Safety frequencies and settled for a B/ILT frequency at significantly reduced power. It was not obvious then, nor is it obvious today how the public interest was served by denying a utility additional capacity while Public Safety frequencies remained unused.

[17] *See* FCC File No. 0009969013.

Pool limitations also impose barriers on entirely voluntary and publicly beneficial network sharing by licensees in different pools. In particular there has been increased interest in sharing 800 MHz network infrastructure, including spectrum, by Public Safety entities and utilities that seek to work collaboratively. Yet the 800 MHz rules require waivers in each such instance because both entities would be operating on "out-of-pool" frequencies As explained in a recent decision:

> We have previously granted [the State of Michigan Department of Technology, Management, and Budget] several waivers of Section 90.179(a) to allow other [critical infrastructure] CI providers to share the MPSCS's [Michigan Public Safety Communications System] 800 MHz frequencies to achieve enhanced coverage, capacity, and interoperability. Because each waiver is based on the specific facts presented, we require each additional CI provider that seeks shared access to the MPSCS network to file a separate waiver request.[18]

The 2021 MPSCS Order goes on to explain that this voluntary sharing of spectrum warranted waiver relief because the sharing arrangement was on a cost-shared, not-for-profit basis and thereby complied with Rule Section 90.179. Of course, if the frequencies were classified as General Category and thereby licensable by both the MPSCS and Consumers Energy, the utility in this instance, no waiver would have been required.

Another barrier that serves no public interest purpose is the exclusion of frequencies in the SMR Pool from the inter-category sharing option. This not only means that SMR applicants cannot request available frequencies from other Pools[19] but produces the nonsensical result that a B/ILT or even Public Safety applicant that can demonstrate depletion of all other Pool options

[18] *State of Michigan Department of Technology, Management, and Budget*, Order, 36 FCC Rcd 14387 (PLD/PSHSB 2021) ("2021 MPSCS Order"); citing *State of Michigan*, Order, 27 FCC Rcd 214 (PSHSB 2012); *State of Michigan*, Order, 30 FCC Rcd 10054 (PSHSB 2015); *State of Michigan*, Order, 32 FCC Rcd 4133 (PSHSB 2017); *State of Michigan*, Order, 32 FCC Rcd 7351 (PSHSB 2017). Each of these requests required a waiver that FCC staff needed to review and staff then had to prepare a document granting waiver relief. Adding these tasks to the normal workloads of the staff means that processing times of months or longer are the norm when waivers are involved.

[19] SMR entities originally were allowed to apply for B/ILT frequencies. The prohibition against inter-category sharing for SMR applicants, even for access into the B/ILT Pool, was due to a concern that their appetite for spectrum would deplete that Pool and cause B/ILT entities to seek Public Safety Pool frequencies. Changes in the commercial wireless marketplace, as well as the fact that most Public Safety Pool frequencies have been assigned in the intervening four decades in markets of any spectrum scarcity, suggest that possibility should no longer be a concern.

cannot secure an unused frequency from the SMR Pool without requesting a waiver, a waiver that, again, requires an additional filing fee for non-Public Safety applicants and review by FCC staff.

A waiver is required even if an SMR licensee agrees to assign an SMR frequency to a non-SMR entity. The non-SMR applicant must file one application requesting consent to assignment of the frequency, retaining the SMR designation since eligibility cannot be changed in the assignment process. It then must file a second application requesting modification of the license to its correct regulatory status, which application must be supported by a waiver request and FAC certification that no B/ILT or General Category or Public Safety Pool frequencies are available.[20] If there still is a public purpose served by maintaining rules that require qualified licensees to jump through these regulatory hoops when pursuing an entirely voluntary transaction that will keep spectrum in productive use, that purpose eludes EWA.

B. 800 MHz Rebanding

While inflexible Pool allocations presented inter-category sharing issues prior to 800 Rebanding,[21] that ultimately successful process has muddled the Pools considerably. It has imposed additional limitations and costs on 800 MHz applicants, and requires FCC staff to review waiver requests that serve no public interest. The purpose of that proceeding was to allow Sprint (then Nextel) to move Public Safety licensees away from cellular systems operating above 817/862 MHz. This was accomplished by Sprint assigning its primarily SMR and some B/ILT frequencies below 815/860 MHz to incumbents to replace their frequencies higher in the band, in particular the Public Safety National Public Safety Planning Advisory Committee ("NPSPAC") spectrum that had been assigned the 821-824/866-869 MHz band. Because many

[20] *See, e.g.*, Citgo Petroleum Corporation, WNSM965, FCC File No. 0009855729.
[21] Improving Public Safety Communications in the 800 MHz Band, WT Docket No. 02-55, *Report and Order, Fifth Report and Order, Fourth Memorandum Opinion and Order, and Order*, 19 FCC Rcd 14969 (2004) ("800 MHz Rebanding").

Sprint frequencies came from the SMR Pool, the great majority of relocated incumbents, both Public Safety and B/ILT, were assigned at least some replacement SMR frequencies. Additionally, as part of its reshuffling of the 800 MHz band, the FCC reclassified twelve previously SMR frequencies between 811-813/856-858 MHz as Public Safety frequencies. At the same time, it reclassified twelve previously Public Safety frequencies in the 815-816/860-861 MHz band ("Expansion Band") as SMR frequencies, while allowing Public Safety incumbents to remain on those frequencies.

This scrambling of frequencies means the concept that 800 MHz licensees are assigned spectrum based on compatibility of eligibility has become a fiction. More important, it imposes inequitable, sometimes costly, and often nonsensical limitations on their use of the frequencies on which they now are licensed.

For example, incumbents had little ability to control the frequencies to which they were relocated provided they met the four "comparable facilities" criteria in Rule Section 90.699(d). That analysis looked only at the system as it existed at the time of 800 MHz Rebanding. The result is that any incumbent relocated to Sprint's geographically licensed SMR spectrum, whether Public Safety or B/ILT, becomes subject to FCC Rule Section 90.693. That rule freezes the incumbent's contour. It prohibits adding or modifying sites, increasing ERP or antenna height, or taking any other steps dictated by changed operating requirements if those actions result in an extension of their original contour. It even prevents licensees from reducing their overall contour if that involves shifting it and extending it in one direction that falls outside the original contour.

That rule applies only to SMR frequencies that had been licensed on a geographic basis and was intended to prevent site-based incumbents from impinging on the territory of the geographic licensees. However, the majority of Sprint's replacement frequencies came from

such licenses. By the involuntary process of being relocated to geographic SMR spectrum, incumbents lost the ability to modify their systems according to their needs. That rule still requires them to protect the prior geographic licensee – Sprint – that vacated all 800 MHz spectrum below 818/863 MHz by 2013.[22]

Retention of the Pools not only is unnecessary but is costly both in time and resources for the industry and the FCC. Incumbents whose frequencies all had come from the same Pool, and therefore could be coordinated by a single FAC, may need to seek certification from, and pay, multiple FACs when rebanded to frequencies with different Pool classifications. In EWA's opinion, the only theoretical justification for maintaining these barriers would be a desire to reserve frequencies for "unborn applicants" from a particular Pool category, an argument that cannot be supported in a band as mature as 800 MHz. That rationale simply is not sound spectrum policy forty years after this spectrum was made available.

III. ALL "SPRINT-VACATED" SPECTRUM IN ALL NPSPAC REGIONS SHOULD BE RELEASED AND ALL CONTOUR PROTECTION OF PREVIOUS SPRINT LICENSES SHOULD BE ELIMINATED

The FCC rules adopted in the 2004 800 MHz Rebanding decision included provisions governing what has come to be called "Sprint-vacated" spectrum.[23] Those rules specify that spectrum surrendered by Sprint (then Nextel) as part of the overall frequency exchange would be reserved in each NPSPAC region for three years for Public Safety applicants and for an additional two years for Public Safety and Critical Infrastructure Industry ("CII") applicants as CII is currently defined in Rule Section 90.7. The three- and five-year periods begin once the FCC releases a Public Notice announcing that band reconfiguration has been completed in a

[22] *See, e.g.*, FCC File No. 000938818. Baltimore Gas and Electric Company in 2020 was required to demonstrate that the additional sites at which it proposed to use the SMR frequencies to which it had been Rebanded did not expand its existing contour. Volusia County, Florida elected to remain on frequencies in the Expansion Band that were reclassified from Public Safety to SMR status in the 800 MHz Rebanding decision. That election meant the County was required to demonstrate in 2015 that additional sites on those frequencies did not expand its original contours, although Sprint had vacated those frequencies at least two years earlier. *See* FCC File No. 0006880421.
[23] 47 C.F.R. §§ 90.617(g), (h).

NPSPAC Region. At the end of five years, the reserved frequencies are considered "released," revert to their original pool allocation, and may be requested by any eligible 800 MHz applicant.

Whatever the merits of those spectrum set-asides almost twenty years ago, in NPSPAC regions where they still exist they add considerable complexity to the frequency coordination process. Applications for 800 MHz spectrum must be analyzed not only vis-à-vis granted licenses and pending applications in the ULS database, but against the now entirely theoretical contours associated with abandoned Sprint site-based licenses and the contours of no longer operational Sprint geographic licenses. Indeed, the FCC has created a separate database of these ghost licenses for just this purpose. Unfortunately, issues have arisen with that database. Frequencies in some regions are shown with multiple release dates and the FCC licensing staffs consider the most recent release date as determinative for purpose of the three- and five-year clocks. As a result, frequencies remain protected years past the time contemplated in the 800 MHz Rebanding decision. EWA continues to work with the FCC in trying to correct the erroneous, sequential release dates but the issue not only is not resolved but continues, with multiple release dates added to previously released frequencies as recently as 2021.

Extending these timelines beyond the FCC's original intention and making a complex coordination process even more complicated are reason enough to terminate Sprint-vacated protection almost two decades after it was adopted. But the most unfortunate consequence, the one most contrary to the public interest, is that legitimate applicants are not allowed to make productive use of these frequencies even though they have not been claimed by those for whom they were reserved. Use of a frequency can be prevented, not because a Public Safety or CII entity has placed it into productive use, but because the applicant's proposed site-based contour has even a *de minimis* overlap with the contour of a geographic license that Sprint may have abandoned a decade ago. That is the case even if Sprint had never deployed the frequency

anywhere near the applicant's proposed site. Applicants in NPSPAC regions in growth areas such as California, Arizona, and Nevada are still waiting for the Sprint-vacated clock to expire, nine years after Sprint stopped using this spectrum nationwide. Sprint-vacated spectrum, like all 800 Band Segment spectrum, should be made available to all qualified applicants throughout the country.

IV. CONCLUSION

For the reasons described herein, EWA requests that the FCC initiate a rulemaking proceeding to eliminate the Pools in the 800 MHz Band Segment and to release all Sprint-Vacated spectrum in all NPSPAC Regions of the country.

Respectfully submitted,

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October 26, 2022

§ 90.175 Frequency coordinator requirements.

(j) The following applications need not be accompanied by evidence of frequency coordination:

(1) Applications for frequencies below 25 MHz.

(2) Applications for a Federal Government frequency.

(3) Applications for frequencies in the 72–76 MHz band except for mobile frequencies subject to § 90.35(c)(77).

(4) [Reserved]

(5) Applications in the Industrial/Business Pool requesting a frequency designated for itinerant operations.

(6) Applications in the Radiolocation Service.

(7) Applications filed exclusively to modify channels in accordance with band reconfiguration in the 806–824/851–869 band.

~~(8) Applications for SMR frequencies contained in §§ 90.617(d) Table 4A, 90.617(e), 90.617(f) and 90.619(b)(2).~~

(9) Applications indicating license assignments such as change in ownership, control or corporate structure if there is no change in technical parameters.

(10) Applications for mobile stations operating in the 470–512 MHz band, 799–805 MHz band, or above 800 MHz if the frequency pair is assigned to a single system on an exclusive basis in the proposed area of operation.

(11) Applications for add-on base stations in multiple licensed systems operating in the 470–512 MHz, 769–775 MHz band, or above 800 MHz if the frequency pair is assigned to a single system on an exclusive basis.

(12) Applications for control stations operating below 470 MHz, 769–775/799–805 MHz, or above 800 MHz and meeting the requirements of § 90.119(b).

(13) Except for applications for the frequencies set forth in § 90.719(c) and § 90.720, applications for frequencies in the 220–222 MHz band.

(14) Applications for a state license under § 90.529.

(15) Applications for narrowband low power channels listed for itinerant use in § 90.531(b)(4).

(16) Applications for DSRCS licenses (as well as registrations for Roadside Units) under subpart M of this part in the 5895–5925 MHz band.

(17) Applications for the deletion of a frequency and/or transmitter site location.

(18) Applications for base, mobile, or control stations in the 763–768 MHz and 793–798 MHz bands.

(19) Applications filed exclusively to return channels that had been authorized for commercial operation pursuant to § 90.621(e) or (f) to non-commercial operation (including removal of the authorization to interconnect with the public switched telephone network).

(20) Applications for a reduction in the currently authorized emission bandwidth or a deletion of an existing emission designator.

(21) Applications for a reduction in antenna height or authorized power.

(22) [Reserved]

§ 90.615 Individual channels available in the General Category in ~~806~~809–824/~~851~~854–869 MHz band.

The General Category will consist of channels 231~~–260a and 511~~–550 at locations farther than 110 km (68.4 miles) from the U.S./Mexico border and 140 km (87 miles) from the U.S./Canadian border with the exceptions described in paragraphs (e) and (f) of this section. All entities will be eligible for licensing on these channels~~, except as described in paragraphs (a) and (b) of this section.~~

~~(a) In a given 800 MHz NPSPAC region, any channel in the 231–260 range which is vacated by a licensee relocating to channels 551–830 and which remains vacant after band reconfiguration will be available as follows:~~

~~(1) Only to eligible applicants in the Public Safety Category until three years after the release of a public notice announcing the completion of band reconfiguration in that region;~~

~~(2) Only to eligible applicants in the Public Safety or Critical Infrastructure Industry Categories from three to five years after the release of a public notice announcing the completion of band reconfiguration in that region;~~

~~(3) To all entities five years after release of a public notice announcing the completion of band reconfiguration in that region.~~

~~(b) In a given 800 MHz NPSPAC region, any channel in the 231–260 range which is vacated by a licensee relocating to channels 511–550 and remains vacant after band reconfiguration will be available as follows:~~

~~(1) Only to eligible applicants in the Public Safety Category until three years after the release of a public notice announcing the completion of band reconfiguration in that region;~~

~~(2) Only to eligible applicants in the Public Safety or Critical Infrastructure Industry Categories from three to five years after the release of a public notice announcing the completion of band reconfiguration in that region;~~

~~(3) To all entities five years after release of a public notice announcing the completion of band reconfiguration in that region.~~

(c) Spectrum Block F1 consists of channels 236–260.

~~(d) Applicants may begin to license interstitial channels (denoted with an "a" after the channel number) only after the Wireless Telecommunications Bureau and the Public Safety and Homeland Security Bureau jointly release a public notice announcing the availability of those channels for licensing in a National Public Safety Planning Advisory Committee region.~~

(e) The channels 231-410 are available in the counties listed in § 90.614(c) to eligible General Category applicants. 800 MHz high density cellular systems as defined in § 90.7 are prohibited on these channels.

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(f) The channels 231-410 are available within 113 km (70 mi) of the center city coordinates of Atlanta, GA, to eligible applicants in the General Category Pool. The center city coordinates of Atlanta, GA—for the purposes of the rule—are defined as 33°44′55″ NL, 84°23′17″ WL. 800 MHz high density cellular systems as defined in § 90.7 are prohibited on these channels.

[70 FR 6759, Feb. 8, 2005, as amended at 70 FR 76708, Dec. 28, 2005; 83 FR 61100, Nov. 27, 2018]

§ 90.617 Frequencies in the ~~809.750–824/854.750–869~~806-824 / 851-869 MHz, and 896–901/935–940 MHz bands available for trunked, conventional or cellular system use in non-border areas.

The following channels will be available at locations farther then 110 km (68.4 miles) from the U.S./Mexico border and 140 km (87 miles) from the U.S./Canadian border ("non-border areas").

(a) Unless otherwise specified, the channels 1-230 ~~listed~~ in ~~Table 1 and~~ paragraph (a)(1) of this section are available ~~for~~ to eligible applicants in the Public Safety Category which consists of licensees eligible in the Public Safety Pool of subpart B of this part. 800 MHz high density cellular systems as defined in § 90.7 are prohibited on these channels. These frequencies are available in non-border areas. Specialized Mobile Radio Systems will not be authorized in this category. ~~These channels are available for intercategory sharing as indicated in § 90.621(e).~~

Table 1—Public Safety Pool 806–816809/851–861 854 MHz Band Channels

[139 Channels]

Group No.	Channel Nos.
269	269, 289, 311, 399, 439.
269a	269a, 289a, 311a, 399a, 439a.
270	270, 290, 312, 400, 440.
270a	270a, 290a, 312a, 400a, 440a.
279	279, 299, 319, 339, 359.
279a	279a, 299a, 319a, 339a, 359a.
280	280, 300, 320, 340, 360.
280a	280a, 300a, 320a, 340a, 360a.
309	309, 329, 349, 369, 389.
309a	309a, 329a, 349a, 369a, 389a.
310	310, 330, 350, 370, 390.
310a	310a, 330a, 350a, 370a, 390a.
313	313, 353, 393, 441, 461.
313a	313a, 353a, 393a, 441a, 461a.
314	314, 354, 394, 448, 468.
314a	314a, 354a, 394a, 448a, 468a.
321	321, 341, 361, 381, 419.
321a	321a, 341a, 361a, 381a, 419a.
328	328, 348, 368, 388, 420.
328a	328a, 348a, 368a, 388a, 420a.
351	351, 379, 409, 429, 449.
351a	351a, 379a, 409a, 429a, 449a.
352	352, 380, 410, 430, 450.
332a	352a, 380a, 410a, 430a, 450a.
Single Channels	391, 392, 401, 408, 421, 428, 459, 460, 469, 470. 391a, 392a, 401a, 408a, 421a, 428a, 459a, 460a, 469a.

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(1) Channels numbers 1–230 are ~~also~~ available to eligible applicants in the Public Safety Category in non-border areas. The assignment of these channels will be done in accordance with the policies defined in the Report and Order in Gen. Docket No. 87–112 (See § 90.16). The following channels are available only for mutual aid purposes as defined in Gen. Docket No. 87–112: Channels 1, 39, 77, 115, 153. Mobile and portable radios operating on the mutual aid channels shall employ analog FM emission.

(2) Except as provided in paragraph (a)(3) of this section, the channels listed in Table 1A are available in the counties listed in § 90.614(c) to eligible applicants in the Public Safety Category. 800 MHz high density cellular systems as defined in § 90.7 are prohibited on these channels. These channels are available for intercategory sharing as indicated in § 90.621(e).

Table 1A—Public Safety Pool 806–813.5/851–858.5 MHz Band Channels for Counties in Southeastern U.S.

[138 Channels]

Group No.	Channel Nos.
261	261, 313, 324, 335, 353
261a	261a, 313a, 324a, 335a, 353a
262	262, 314, 325, 336, 354
262a	262a, 314a, 325a, 336a, 354a
265	265, 285, 315, 333, 351
265a	265a, 285a, 315a, 333a, 351a
266	266, 286, 316, 334, 352
266a	266a, 286a, 316a, 334a, 352a
269	269, 289, 311, 322, 357
269a	269a, 289a, 311a, 322a, 357a
270	270, 290, 312, 323, 355
270a	270a, 290a, 312a, 323a, 355a
271	271, 328, 348, 358, 368
271a	271a, 328a, 348a, 358a, 368a
279	279, 299, 317, 339, 359
279a	279a, 299a, 317a, 339a, 359a
280	280, 300, 318, 340, 360
280a	280a, 300a, 318a, 340a, 360a
309	309, 319, 329, 349, 369
309a	309a, 319a, 329a, 349a, 369a
310	310, 320, 330, 350, 370
310a	310a, 320a, 330a, 350a
321	321, 331, 341, 361, 372
321a	321a, 331a, 341a, 361a
Single Channels	326, 327, 332, 337, 338, 342, 343, 344, 345, 356, 326a, 327a, 332a, 337a, 338a, 342a, 343a, 344a, 345a, 356a

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(3) The channel numbers 1-230 listed in Table 1B are available within 113 km (70 mi) of the center city coordinates of Atlanta, GA to eligible applicants in the Public Safety Category. The center city coordinates of Atlanta, GA—for the purposes of the rule—are defined as

33°44′55″ NL, 84°23′17″ WL. 800 MHz high density cellular systems as defined in § 90.7 are prohibited on these channels. These channels are available for intercategory sharing as indicated in § 90.621(e).

Table 1B—Public Safety Pool 806–813.5/851–858.5 MHz Band Channels for Atlanta, GA

[138 Channels]

Group No.	Channel Nos.
261	261, 313, 324, 335, 353
261a	261a, 313a, 324a, 335a, 353a
262	262, 314, 325, 336, 354
262a	262a, 314a, 325a, 336a, 354a
269	269, 289, 311, 322, 357
269a	269a, 289a, 311a, 322a, 357a
270	270, 290, 312, 323, 355
270a	270a, 290a, 312a, 323a, 355a
279	279, 299, 319, 339, 359
279a	279a, 299a, 319a, 339a, 359a
280	280, 300, 320, 340, 360
280a	280a, 300a, 320a, 340a, 360a
285	285, 315, 333, 351, 379
285a	285a, 315a, 333a, 351a, 379a
286	286, 316, 334, 352, 380
286a	286a, 316a, 334a, 352a, 380a
309	309, 329, 349, 369, 389
309a	309a, 329a, 349a, 369a, 389a
310	310, 330, 350, 370, 390
310a	310a, 330a, 350a, 370a
321	321, 331, 341, 361, 381
321a	321a, 331a, 341a, 361a, 381a
328	328, 348, 358, 368, 388
328a	328a, 348a, 358a, 368a, 388a
Single Channels	317, 318, 326, 327, 332, 337, 338, 356, 371, 372 317a, 318a, 326a, 327a, 332a, 337a, 338a, 356a, 371a

(b) Unless otherwise specified, the channels listed in Table 2 are available to applicants eligible in the Industrial/Business Pool of subpart C of this part but exclude Special Mobilized Radio Systems as defined in § 90.603(c). 800 MHz high density cellular systems as defined in § 90.7 are prohibited on these channels. These frequencies are available in non-border areas.

Specialized Mobile Radio (SMR) systems will not be authorized on these frequencies. These channels are available for inter-category sharing as indicated in § 90.621(e).

Table 2—Business/Industrial/Land Transportation Pool 806–816/851–861 MHz Band Channels

[200 Channels]

Group No.	Channel Nos.
322	322, 362, 402, 442, 482.
322a	322a, 362a, 402a, 442a, 482a.
323	323, 363, 403, 443, 483.
323a	323a, 363a, 403a, 443a, 483a.
324	324, 364, 404, 444, 484.
324a	324a, 364a, 404a, 444a, 484a.
325	325, 365, 405, 445, 485.
325a	325a, 365a, 405a, 445a, 485a.
326	326, 366, 406, 446, 486.
326a	326a, 366a, 406a, 446a, 486a.
327	327, 367, 407, 447, 487.
327a	327a, 367a, 407a, 447a, 487a.
342	342, 382, 422, 462, 502.
342a	342a, 382a, 422a, 462a, 502a.
343	343, 383, 423, 463, 503.
343a	343a, 383a, 423a, 463a, 503a.
344	344, 384, 424, 464, 504.
344a	344a, 384a, 424a, 464a, 504a.
345	345, 385, 425, 465, 505.
345a	345a, 385a, 425a, 465a, 505a.
346	346, 386, 426, 466, 506.
346a	346a, 386a, 426a, 466a, 506a.
347	347, 387, 427, 467, 507.
347a	347a, 387a, 427a, 467a, 507a.
Single Channels	261, 271, 281, 291, 301, 262, 272, 282, 292, 302, 263, 273, 283, 293, 303, 264, 274, 284, 294, 304, 265, 275, 285, 295, 305, 266, 276, 286, 296, 306, 267, 277, 287, 297, 307, 268, 278, 288, 298, 308.
	261a, 271a, 281a, 291a, 301a, 262a, 272a, 282a, 292a, 302a, 263a, 273a, 283a, 293a, 303a, 264a, 274a, 284a, 294a, 304a, 265a, 275a, 285a, 295a, 305a, 266a, 276a, 286a, 296a, 306a, 267a, 277a, 287a, 297a, 307a, 268a, 278a, 288a, 298a, 308a.

(1) Except as provided in paragraph (b)(2) of this section, the channels listed in Table 2A are available in the counties listed in § 90.614(c) to eligible applicants in the Industrial/Business Pool of subpart C of this part but exclude Special Mobilized Radio Systems as defined in § 90.603(c). 800 MHz high density cellular systems as defined in § 90.7 are prohibited on these channels. These channels are available for intercategory sharing as indicated in § 90.621(e).

Table 2A—Business/Industrial/Land Transportation Pool 806–813.5/851–858.5 MHz Band for Channels in Southeastern U.S.

[137 Channels]

	Channel Nos.
Single Channels	263, 264, 267, 268, 272, 273, 274, 275, 276, 277, 278, 281, 282, 283, 284, 287, 288, 291, 292, 293, 294, 295, 296, 297, 298, 301, 302, 303, 304, 305, 306, 307, 308, 346, 347, 362, 363, 364, 365, 366, 367, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410
	263a, 264a, 267a, 268a, 272a, 273a, 274a, 275a, 276a, 277a, 278a, 281a, 282a, 283a, 284a, 287a, 288a, 291a, 292a, 293a, 294a, 295a, 296a, 297a, 298a, 301a, 302a, 303a, 304a, 305a, 306a, 307a, 308a, 346a, 347a, 362a, 363a, 364a, 365a, 366a, 367a, 379a, 380a, 381a, 382a, 383a, 384a, 385a, 386a, 387a, 388a, 389a, 390a, 391a, 392a, 393a, 394a, 399a, 400a, 401a, 402a, 403a, 404a, 405a, 406a, 407a, 408a, 409a

(2) The channels listed in Table 2B are available within 113 km (70 mi) of the center city coordinates of Atlanta, GA, to eligible applicants in the Industrial/Business Pool of subpart C of this part but exclude Special Mobilized Radio Systems as defined in § 90.603(c). The center city coordinates of Atlanta, GA—for the purposes of the rule—are defined as 33°44′55″ NL, 84°23′17″ WL. 800 MHz high density cellular systems as defined in § 90.7 are prohibited on these channels. These channels are available for intercategory sharing as indicated in § 90.621(e).

Table 2B—Business/Industrial/Land Transportation Pool 806–813.5/851–858.5 MHz Band for Channels in Atlanta, GA

[137 Channels]

	Channel Nos.
Single Channels	263, 264, 265, 266, 267, 268, 271, 272, 273, 274, 275, 276, 277, 278, 281, 282, 283, 284, 287, 288, 291, 292, 293, 294, 295, 296, 297, 298, 301, 302, 303, 304, 305, 306, 307, 308, 342, 343, 344, 345, 346, 347, 362, 363, 364, 365, 366, 367, 382, 383, 384, 385, 386, 387, 391, 392, 393, 394, 399, 400, 401, 402, 403, 404, 405, 406, 407, 409, 410
	263a, 264a, 265a, 266a, 267a, 268a, 271a, 272a, 273a, 274a, 275a, 276a, 277a, 278a, 281a, 282a, 283a, 284a, 287a, 288a, 291a, 292a, 293a, 294a, 295a, 296a, 297a, 298a, 301a, 302a, 303a, 304a, 305a, 306a, 307a, 308a, 342a, 343a, 344a, 345a, 346a, 347a,

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~~Channel Nos.~~

~~362a, 363a, 364a, 365a, 366a, 367a, 382a, 383a, 384a, 385a, 386a, 387a, 391a, 392a, 393a, 394a, 399a, 400a, 401a, 402a, 403a, 404a, 405a, 406a, 407a, 409a~~

~~(e) Except as specified in § 90.616, the channels listed in Table 3 of this section are available to applicants eligible in the Industrial Business Pool of subpart C of this part but exclude Specialized Mobile Radio Systems as defined in § 90.603(e). These frequencies are available in non-border areas. Specialized Mobile Radio (SMR) systems will not be authorized on these frequencies. These channels are available for intercategory sharing as indicated in § 90.621(e).~~

~~For multi-channel systems, channels may be grouped vertically or horizontally as they appear in the following table.~~

(d) Unless otherwise specified, the channels listed in Tables 4A ~~and 4B~~ are available only to eligibles in the SMR category—which consists of Specialized Mobile Radio (SMR) stations and eligible end users. 800 MHz high density cellular systems, as defined in § 90.7, are prohibited on these channels. These frequencies are available in non-border areas. The spectrum blocks listed in Table 4A are available for EA-based services (as defined by § 90.681) prior to January 21, 2005. No new EA-based services will be authorized after January 21, 2005. EA-based licensees who operate non-high-density cellular systems prior to January 21, 2005, may choose to remain on these channels in the non-high-density cellular portion of the 800 MHz band (as defined in § 90.614). These licensees may continue to operate non-high-density cellular systems and will be grandfathered indefinitely. ~~The channels listed in Table 4B will be available for site-based licensing after January 21, 2005, in any Economic Area where no EA-based licensee is authorized for these channels.~~

Table 4A—EA-Based SMR Category 806–816/851–861 MHz Band Channels, Available Prior to January 21, 2005

[80 Channels]

Spectrum block	Channel Nos.
G	311–351–391–431–471
H	312–352–392–432–472
I	313–353–393–433–473
J	314–354–394–434–474
K	315–355–395–435–475
L	316–356–396–436–476
M	317–357–397–437–477
N	318–358–398–438–478
O	331–371–411–451–491
P	332–372–412–452–492
Q	333–373–413–453–493

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Spectrum block	Channel Nos.
R	334–374–414–454–494
S	335–375–415–455–495
T	336–376–416–456–496
U	337–377–417–457–497
V	338–378–418–458–498

~~Table 4B—SMR Category 806–816/851–861 MHz Band Channels, Available After January 21, 2005, for Site-Based Licensing~~

~~[160 Channels]~~

~~Group No.~~	~~Channel Nos.~~
~~315~~	~~315–355–395–435–475.~~
~~315a~~	~~315a–355a–395a–435a–475a.~~
~~316~~	~~316–356–396–436–476.~~
~~316a~~	~~316a–356a–396a–436a–476a.~~
~~317~~	~~317–357–397–437–477.~~
~~317a~~	~~317a–357a–397a–437a–477a.~~
~~318~~	~~318–358–398–438–478.~~
~~318a~~	~~318a–358a–398a–438a–478a.~~
~~331~~	~~331–371–411–451–491.~~
~~331a~~	~~331a–371a–411a–451a–491a.~~
~~332~~	~~332–372–412–452–492.~~
~~332a~~	~~332a–372a–412a–452a–492a.~~
~~333~~	~~333–373–413–453–493.~~
~~333a~~	~~333a–373a–413a–453a–493a.~~
~~334~~	~~334–374–414–454–494.~~
~~334a~~	~~334a–374a–414a–454a–494a.~~
~~335~~	~~335–375–415–455–495.~~
~~335a~~	~~335a–375a–415a–455a–495a.~~
~~336~~	~~336–376–416–456–496.~~
~~336a~~	~~336a–376a–416a–456a–496a.~~
~~337~~	~~337–377–417–457–497.~~
~~337a~~	~~337a–377a–417a–457a–497a.~~
~~338~~	~~338–378–418–458–498.~~
~~338a~~	~~338a–378a–418a–458a–498a~~
~~Single Channels~~	~~431, 432, 433, 434, 471, 472, 473, 474, 479, 480, 481, 488, 489, 490, 499, 500, 501, 508, 509, 510.~~

Group No.	Channel Nos.
	431a, 432a, 433a, 434a, 471a, 472a, 473a, 474a, 479a, 480a, 481a, 488a, 489a, 490a, 499a, 500a, 501a, 508a, 509a, 510a.

(1) Except as provided in paragraph (d)(2) of this section, the channels listed in Table 4C are available in the counties listed in § 90.614(c) for non-high-density cellular operations only to eligibles in the SMR category—which consists of Specialized Mobile Radio (SMR) stations and eligible end users. 800 MHz high density cellular systems as defined in § 90.7 are prohibited on these channels. These channels are available for intercategory sharing as indicated in § 90.621(e).

Table 4C—SMR Category 806–813.5/851–858.5 MHz Band Channels Available for Site-Based Licensing in Southeastern U.S. After January 21, 2005

[22 Channels]

	Channel Nos.
Single Channels	371, 373, 374, 375, 376, 377, 378, 395, 396, 397, 398.
	371a, 373a, 374a, 375a, 376a, 377a, 378a, 395a, 396a, 397a, 398a.

(2) The channels listed in Table 4D are available within 113 km (70 mi) of the center city coordinates of Atlanta, GA, only to eligibles in the SMR category—which consists of Specialized Mobile Radio (SMR) stations and eligible end users. The center city coordinates of Atlanta, GA—for the purposes of this rule—are defined as 33°44′55″ NL, 84°23′17″ WL. 800 MHz high density cellular systems as defined in § 90.7 are prohibited on these channels. These channels are available for intercategory sharing as indicated in § 90.621(e). 800 MHz high density cellular systems as defined in § 90.7 are prohibited on these channels. These channels are available for intercategory sharing as indicated in § 90.621(e).

Table 4D—SMR Category 806–813.5/851–858.5 MHz Band Channels Available for Site-Based Licensing in Atlanta, GA after January 21, 2005

[22 Channels]

	Channel Nos.
Single Channels	373, 374, 375, 376, 377, 378, 395, 396, 397, 398, 408.
	373a, 374a, 375a, 376a, 377a, 378a, 395a, 396a, 397a, 398a, 408a.

(e) The Channels listed in § 90.614(b) and (c) are available to eligibles in the SMR category—which consists of Specialized Mobile Radio (SMR) stations and eligible end users. ESMR licensees which employ an 800 MHz high density cellular system, as defined in § 90.7, are permitted to operate on these channels in non-border areas. ESMR licensees authorized prior to January 21, 2005, may continue to operate, if they so choose, on the channels listed in Table 5. These licensees will be grandfathered indefinitely.

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Table 5—ESMR Category 816–821 MHz Band Channels for Cellular Operations in Non-Border Areas Available Prior to January 21, 2005

[200 Channels]

Spectrum block	Channel Nos.
A	511 through 530.
B	531 through 590.
C	591 through 710.

(f) Except as specified in § 90.616, the channels listed in Table 6 of this section are available for operations only to eligibles in the SMR category—which consists of Specialized Mobile Radio (SMR) stations and eligible end users. These frequencies are available in non-border areas. The spectrum blocks listed below are available for EA-based services according to § 90.681.

Table 6—SMR Category 896–901/935–940 MHz Band Channels

[200 channels]

Block	Channel Nos.
A	1–2–3–4–5–6–7–8–9–10
B	21–22–23–24–25–26–27–28–29–30
C	41–42–43–44–45–46–47–48–49–50
D	61–62–63–64–65–66–67–68–69–70
E	81–82–83–84–85–86–87–88–89–90
F	101–102–103–104–105–106–107–108–109–110
G	121–122–123–124–125–126–127–128–129–130
H	141–142–143–144–145–146–147–148–149–150
I	161–162–163–164–165–166–167–168–169–170
J	181–182–183–184–185–186–187–188–189–190
K	201–202–203–204–205–206–207–208–209–210
L	221–222–223–224–225–226–227–228–229–230
M	241–242–243–244–245–246–247–248–249–250
N	261–262–263–264–265–266–267–268–269–270
O	281–282–283–284–285–286–287–288–289–290
P	301–302–303–304–305–306–307–308–309–310
Q	321–322–323–324–325–326–327–328–329–330
R	341–342–343–344–345–346–347–348–349–350
S	361–362–363–364–365–366–367–368–369–370
T	381–382–383–384–385–386–387–388–389–390

(g) In a given NPSPAC region, channels below 471 listed in Tables 2 and 4B which are vacated by licensees relocating to channels 551–830 and which remain vacant after band reconfiguration will be available as indicated in § 90.617(g)(1 through 3). The only exception will be for the counties listed in § 90.614(c). At locations greater then 113 km (70 mi) from the center city coordinates of Atlanta, GA within the counties listed in § 90.614(c), the channels listed in Tables 2A and 4C which are vacated by licensees relocating to channels 411–830 and which remain vacant after band reconfiguration will be available as indicated in § 90.617(g)(1 through 3). At locations within 113 km (70 mi) of the center city coordinates of Atlanta, GA, the channels listed in Tables 2B and 4D which are vacated by licensees relocating to channels 411–830 and which remain vacant after band reconfiguration will be available as follows:

(1) Only to eligible applicants in the Public Safety Category until three years after the release of a public notice announcing the completion of band reconfiguration in that region;

(2) Only to eligible applicants in the Public Safety or Critical Infrastructure Industry Categories from three to five years after the release of a public notice announcing the completion of band reconfiguration in that region;

(3) Five years after the release of a public notice announcing the completion of band reconfiguration in that region, these channels revert back to their original pool categories.

(h) In a given 800 MHz NPSPAC region—except for the counties listed in § 90.614(c)—channels below 471 listed in Tables 2 and 4B which are vacated by a licensee relocating to channels 511–550 and remain vacant after band reconfiguration will be available as follows:

(1) Only to eligible applicants in the Public Safety Category until three years after the release of a public notice announcing the completion of band reconfiguration in that region;

(2) Only to eligible applicants in the Public Safety or Critical Infrastructure Industry Categories from three to five years after the release of a public notice announcing the completion of band reconfiguration in that region;

(3) Five years after the release of a public notice announcing the completion of band reconfiguration in that region, these channels revert back to their original pool categories.

(i) Special Mobilized Radio Systems licensees who operate systems, other than 800 MHz high density cellular systems, on any of the public safety channels listed in Table 1 prior to January 21, 2005, are grandfathered and may continue to operate on these channels indefinitely. These grandfathered licensees will be prohibited from operating 800 MHz high density cellular systems as defined in § 90.7. Site-based licensees who are grandfathered on any of the public safety channels listed in Table 1 may modify their license only if they obtain concurrence from a certified public safety coordinator in accordance with § 90.175(c). Grandfathered EA-based licensees, however, are exempt from any of the frequency coordination requirements of § 90.175 as long as their operations remain within the Economic Area defined by their license in accordance with the requirements of § 90.683(a).

(j) Licensees operating 800 MHz high density cellular systems on the channels listed in § 90.614(a), prior to January 21, 2005, may elect to continue operating on these channels and will be permitted to continue operating 800 MHz high density cellular systems (as defined in § 90.7) in this portion of the band. These licensees will be grandfathered indefinitely subject to the provisions of §§ 90.673, 90.674 and 90.675.

(k) Licensees may operate systems other than 800 MHz high density cellular systems (as defined in § 90.7) on Channels 511–550 at any location vacated by an EA-based SMR licensee. For operations on these channels, unacceptable interference (as defined in § 22.970 of this chapter and § 90.672) will be deemed to occur only at sites where the following median desired signals are received (rather than those specified in § 22.970(a)(1)(i) of this chapter and § 90.672(a)(1(i). The minimum required median desired signal, as measured at the R.F. input of the receiver, will be as follows:

(1) Mobile units (except in Puerto Rico and the U.S. Virgin Islands):

(i) For channels 511 to 524—the minimum median desired signal levels specified in § 22.970(a)(1)(i) of this chapter and § 90.672(a)(1)(i) shall apply;

(ii) For channels 524 to 534—the minimum median desired signal level shall increase linearly from the values specified in § 22.970(a)(1)(i) of this chapter and § 90.672(a)(1)(i) to −70 dBm;

(iii) For channels 534 to 550—the minimum median desired signal level shall increase linearly from −70 dBm to −65 dBm.

(2) Portable units (except in Puerto Rico and the U.S. Virgin Islands):

(i) For channels 511 to 524—the minimum median desired signal levels specified in § 22.970(a)(1)(i) of this chapter and § 90.672(a)(1)(i) shall apply;

(ii) For channels 524 to 530—the minimum median desired signal level shall increase linearly from the values specified in § 22.970(a)(1)(i) of this chapter and § 90.672(a)(1)(i) to −80 dBm;

(iii) For channels 530 to 534—the minimum median desired signal level shall increase linearly from −80 dBm to −70 dBm;

(iv) For channels 534 to 550—the minimum median desired signal level shall increase linearly from −70 dBm to −65 dBm.

(3) Mobile units operating in Puerto Rico and the U.S. Virgin Islands:

(i) For channels 511 to 530—the minimum median desired signal levels specified in § 22.970(a)(1)(i) of this chapter and § 90.672(a)(1)(i) shall apply;

(ii) For channels 531 to 534—the minimum median desired signal level shall increase linearly from −80.2 dBm to −70 dBm;

(iii) For channels 534 to 550—the minimum median desired signal level shall increase linearly from −70 dBm to −65 dBm.

(4) Portable units operating in Puerto Rico and the U.S. Virgin Islands:

(i) For channels 511 to 530—the minimum median desired signal levels specified in § 22.970(a)(1)(i) of this chapter and § 90.672(a)(1)(i) shall apply;

(ii) For channels 531 to 534—the minimum median desired signal level shall increase linearly from −80 dBm to −70 dBm;

(iii) For channels 534 to 550—the minimum median desired signal level shall increase linearly from −70 dBm to −65 dBm.

~~(l) Applicants may begin to license interstitial pool channels (denoted with an "a" after the channel number) listed in paragraphs (a) through (d) of this section only after the Wireless Telecommunications Bureau and the Public Safety and Homeland Security Bureau jointly release a public notice announcing the availability of those channels for licensing in a National Public Safety Planning Advisory Committee region.~~

~~(m) Incumbent licensees in the 470–512 MHz band in the urban areas specified in § 90.303 of the Commission's rules are given priority access over mutually exclusive applicants for a three-year period to all interstitial channel pairs in the public safety pool or the business/industrial/land transportation pool listed above for which they are eligible, provided that any relocating T-Band incumbent must commit to surrendering an equal amount of 470–512 MHz spectrum on a channel-for-channel basis. The three-year period begins on the date these channel pairs become available for licensing in a National Public Safety Planning Advisory Committee region. Priority access applies to any applicant seeking to license a base station within 80 kilometers (50 miles) or mobile units or control stations within 128 kilometers (80 miles) of the geographic center of the urbanized areas listed in § 90.303 of the Commission's rules.~~

[69 FR 67843, Nov. 22, 2004, as amended at 70 FR 6760, Feb. 8, 2005; 70 FR 76708, Dec. 28, 2005; 72 FR 39760, July 20, 2007; 75 FR 35317, June 22, 2010; 76 FR 11683, Mar. 3, 2011; 81 FR 30201, May 16, 2016; 83 FR 61100, Nov. 27, 2018; 85 FR 41417, July 10, 2020; 85 FR 43140, July 15, 2020]

§ 90.619 Operations within the U.S./Mexico and U.S./Canada border areas.

(a) ***Use of frequencies in 800 MHz band in Mexico border region.*** All operations in the 806–824/851–869 MHz band within 110 km (68.35 miles) of the U.S./Mexico border ("Sharing Zone") shall be in accordance with international agreements between the U.S. and Mexico.

(1) The U.S. and Mexico divide primary access to channels in the Sharing Zone as indicated in Table A1 below.

Table A1—U.S. and Mexico Primary Channels in Sharing Zone

Channels	Primary access
1–360	U.S.
361–610	Mexico.
611–830	U.S.-Mexico Co-Primary.

(2) Stations authorized on U.S. primary channels in the Sharing Zone are subject to the effective radiated power (ERP) and antenna height limits listed below in Table A2.

Table A2—Limits on Effective Radiated Power (ERP) and Antenna Height

Average of the antenna height above average terrain on standard radials in the direction of the common border (meters)[1]	Maximum ERP in any direction toward the common border per 25 kHz (watts)
0 to 503	500
Above 503 to 609	350
Above 609 to 762	200
Above 762 to 914	140
Above 914 to 1066	100
Above 1066 to 1219	75
Above 1219 to 1371	70
Above 1371 to 1523	65
Above 1523	5

[1] Standard radials are 0°, 45°, 90°, 135°, 180°, 225°, 270° and 315° to True North. The height above average terrain on any standard radial is based upon the average terrain elevation above mean sea level.

(3) Stations may be authorized on channels primary to Mexico in the Sharing Zone provided the maximum power flux density (PFD) at any point at or beyond the border does not exceed −107 db(W/m^2) per 25 kHz of bandwidth. Licensees may exceed this value only if all potentially affected counterpart operators in the other country agree to a higher PFD level.

(4) Stations authorized on U.S.-Mexico co-primary channels in the Sharing Zone are permitted to exceed a maximum power flux density (PFD) of −107 db(W/m^2) per 25 kHz of bandwidth at any point at or beyond the border only if all potentially affected counterpart operators of 800 MHz high density cellular systems, as defined in § 90.7, agree.

(5) Channels in the Sharing Zone are available for licensing as indicated in Table A3 to this paragraph (a)(5).

Table A3—Eligibility Requirements for Channels in Sharing Zone

Channels	Eligibility requirements
1–230	Report and Order in Gen. Docket No. 87–112.
~~231–315a~~	~~Public Safety Pool.~~
~~316~~231–550	General Category~~.~~
551–830	Special Mobilized Radio for 800 MHz High Density Cellular.

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(i) Channel numbers 1–230 are also available to eligible applicants in the Public Safety Category in the Canada Border Regions. The assignment of these channels will be done in accordance with the policies defined in the Report and Order of Gen. Docket No. 87–112 (See § 90.16). The following channels are available only for mutual aid purposes as defined in Gen. Docket No. 87–112: Channels 1, 39, 77, 115, 153. Mobile and portable radios operating on the mutual aid channels shall employ analog FM emission.

~~(ii) Channels 231–315a are available to applicants eligible in the Public Safety Category which consists of licensees eligible in the Public Safety Pool of subpart B of this part. 800 MHz high density cellular systems as defined in § 90.7 are prohibited on these channels.~~

(ii~~i~~) Channels ~~316~~231–550 are available in the General Category. All entities are eligible for licensing on these channels. 800 MHz high density cellular systems as defined in § 90.7 are prohibited on these channels.

(iv) Channels 551–830 are available to applicants eligible in the SMR category—which consists of Specialized Mobile Radio (SMR) stations and eligible end users. ESMR licensees who employ 800 MHz high density cellular systems, as defined in § 90.7, are permitted to operate on these channels.

(6) Stations located outside the Sharing Zone (*i.e.* greater than 110 km from the border) are subject to the channel eligibility requirements and provisions listed in §§ 90.615 and 90.617 except that stations in the following counties are exempt from the requirements of paragraph (k) of § 90.617:

California: San Luis Obispo, Kern, San Bernardino, Santa Barbara, Ventura, Los Angeles, Orange and Riverside.

(c) ***Use of 800 MHz Band in Canada Border Region.*** All operations in the 806–824/851–869 MHz band within 140 km (87 miles) of the U.S./Canada border ("U.S./Canada border area") shall be in accordance with international agreements between the U.S. and Canada.

(1) The U.S./Canada border area is divided into the following geographical regions ("Canada Border Regions"). U.S. primary channels are shown in the table by region. The remaining channels are primary to Canada ("Canada Primary channels").

Table C1—Geographical Regions

Region	Location (longitude)	U.S. primary channels
1	66° W–71° W (0–100 km from border)	1–260, 561–710, 772–790 and 792–830.
2	71° W–80°30′ W (0–100 km from border)	1–170, 621–710 and 795–830.
3	80°30′ W–85° W (0–100 km from border)	1–320, 501–710, 729–730, 732–750, 752–770, 772–790 and 792–830.
4	85° W–121°30′ W (0–100 km from border)	1–260, 561–710, 772–790 and 792–830.
5	121°30′ W–127° W (0–140 km from border)	1–260, 561–710, 772–790 and 792–830.
6	127° W–143° W (0–100 km from border)	1–260, 561–710, 772–790 and 792–830.
7A	66° W–71° W (100–140 km from border)	1–830.
7A	80°30′ W–121°30′ W (100–140 km from border)	1–830.
7B	71° W–80°30′ W (100–140 km from border)	1–830.
8	127° W–143° W (100–140 km from border)	1–830.

(2) Stations authorized on U.S. primary channels in all Canada Border Regions, except Region 5, will be subject to the Effective Radiated Power (ERP) and Effective Antenna Height (EAH) limitations listed in Table C2. The Effective Antenna Height is calculated by subtracting the Assumed Average Terrain Elevation (AATE) listed in Table C3 from the antenna height above mean sea level.

Table C2—Limits of Effective Radiated Power (ERP) Corresponding to Effective Antenna Heights (EAH) for Regions 1, 2, 3, 4, 6, 7 and 8

Effective Antenna Height (EAH)		ERP watts (maximum)
Metres	Feet	
0–152	0–500	500
153–305	501–1000	125
306–457	1001–1500	40
458–609	1501–2000	20
610–914	2001–3000	10
915–1066	3001–3500	6
Above 1967	Above 3501	5

Table C3—Assumed Average Terrain Elevation (AATE) Along the U.S.-Canada Border

Longitude (Φ) (°West)	Latitude (Ω) (°North)	Assumed average terrain elevation			
		United States		Canada	
		Feet	Metres	Feet	Metres
65 ≤Φ <69	Ω <45	0	0	0	0
”	45 ≤Ω <46	300	91	300	91
”	Ω ≥46	1000	305	1000	305
69 ≤Φ <73	All	2000	609	1000	305
73 ≤Φ <74	”	500	152	500	152
74 ≤Φ <78	”	250	76	250	76
78 ≤Φ <80	Ω <43	250	76	250	76
”	Ω ≥43	500	152	500	152
80 ≤Φ <90	All	600	183	600	183
90 ≤Φ <98	”	1000	305	1000	305
98 ≤Φ <102	”	1500	457	1500	457
102 ≤Φ <108	”	2500	762	2500	762
108 ≤Φ <111	”	3500	1066	3500	1066
111 ≤Φ <113	”	4000	1219	3500	1066
113 ≤Φ <114	”	5000	1524	4000	1219
114 ≤Φ <121.5	”	3000	914	3000	914
121.5 ≤Φ <127	”	0	0	0	0
Φ ≥127	54 ≤Ω <56	0	0	0	0
”	56 ≤Ω <58	500	152	1500	457
”	58 ≤Ω <60	0	0	2000	609
”	60 ≤Ω <62	4000	1219	2500	762
”	62 ≤Ω <64	1600	488	1600	488
”	64 ≤Ω <66	1000	305	2000	609

Longitude (Φ) (°West)	Latitude (Ω) (°North)	Assumed average terrain elevation			
		United States		Canada	
		Feet	Metres	Feet	Metres
”	66 ≤Ω <68	750	228	750	228
”	68 ≤Ω <69.5	1500	457	500	152
”	Ω ≥69.5	0	0	0	0

(3) Stations authorized on U.S. primary channels in Canada Border Region 5 will be subject to the Effective Radiated Power (ERP) and Antenna Height Above Mean Sea Level limitations listed in Table C4.

Table C4—Limits of Effective Radiated Power (ERP) Corresponding to Antenna Height Above Mean Sea Level for Region 5

Antenna Height Above Mean Sea Level		ERP Watts (maximum)
Metres	Feet	
0–503	0–1650	500
504–609	1651–2000	350
610–762	2001–2500	200
763–914	2501–3000	140
915–1066	3001–3500	100
1067–1219	3501–4000	75
1220–1371	4001–4500	70
1372–1523	4501–5000	65
Above 1523	Above 5000	5

(4) Stations may be authorized on Canada Primary channels in the Canada Border Regions provided the maximum power flux density (PFD) per 25 kHz at or beyond the border does not exceed −107 dB(W/m2). Stations authorized on Canada Primary channels will be secondary to stations in Canada unless otherwise specified in an international agreement between the U.S. and Canada.

(5) Stations authorized to operate within 30 kilometers of the center city coordinates listed in Table C5 may operate according to the band plan for Canadian Border Regions 7A and 7B as indicated below.

Table C5—Cities That Are Considered To Fall Within Candian Border Region 7

Location	Coordinates		Canadian border region
	Latitude	Longitude	
Akron, Ohio	41°05′00.2″ N	81°30′39.4″ W	7A
Youngstown, Ohio	41°05′57.2″ N	80°39′01.3″ W	7A

Location	Coordinates		Canadian border region
	Latitude	Longitude	
Syracuse, New York	43°03′04.2″ N	76°09′12.7″ W	7B

(6) The channels listed in Table C6 and paragraph (c)(6)(i) of this section are available in the Canada Border Regions for non-cellular operations to eligible applicants in the ~~Public Safety~~General Category pool which consists of licensees eligible in the Industrial Business, Public Safety and SMR Pool of subpart B of this part. 800 MHz high density cellular systems as defined in § 90.7 are prohibited on these channels.

Table C6—~~Public Safety~~General Category Pool 806–816/851–861 MHz Band Channels in the Canada Border Regions

Canada border region	Channel Nos.	Total (channels)
Regions~~ 1, 4, 5 and 6~~	231–260a, 561-602	~~60~~ 102
Region 2	See ~~paragraph~~ paragraph (c)(6)(i) of this section	
Region 3	231–320a, 501–~~508a, 509-~~587	~~180~~ 316
Regions 4, 5	231-260a, 561-636	136
Region 6	231-260a	60
Regions 7A, 7B and 8	231-550 ~~269, 289, 311, 399, 439, 270, 290, 312, 400, 440, 279, 299, 319, 339, 359, 280, 300, 320, 340, 360, 309, 329, 349, 369, 389, 310, 330, 350, 370, 390, 313, 353, 393, 441, 461, 314, 354, 394, 448, 468, 321, 341, 361, 381, 419, 328, 348, 368, 388, 420, 351, 379, 409, 429, 449, 352, 380, 410, 430, 450, 391, 392, 401, 408, 421, 428, 459, 460, 469, 470~~	~~139~~ 639
	~~269a, 289a, 311a, 399a, 439a, 270a, 290a, 312a, 400a, 440a, 279a, 299a, 319a, 339a, 359a, 280a, 300a, 320a, 340a, 360a, 309a, 329a, 349a, 369a, 389a, 310a, 330a, 350a, 370a, 390a, 313a, 353a, 393a, 441a, 461a, 314a, 354a, 394a, 448a, 468a, 321a, 341a, 361a, 381a, 419a, 328a, 348a, 368a, 388a, 420a, 351a, 379a, 409a, 429a, 449a, 352a, 380a, 410a, 430a, 450a, 391a, 392a, 401a, 408a, 421a, 428a, 459a, 460a, 469a~~	
~~Region 7B~~	~~231, 260, 269, 289, 311, 399, 439, 270, 290, 312, 400, 440, 279, 299, 319, 339, 359, 280, 300, 320, 340, 360, 309, 329, 349, 369, 389, 310, 330, 350, 370, 390, 313, 353, 393, 441, 461, 314, 354, 394, 448, 468, 315, 355, 395, 435, 475, 316, 356, 396, 436, 476, 317, 357, 397, 437, 477, 318, 358, 398, 438, 478, 321, 341, 361, 381, 419, 328, 348, 368, 388, 420, 331, 371, 411, 451, 491, 332, 372, 412, 452, 492, 333, 373, 413, 453, 493, 334, 374, 414, 454, 494, 335, 375, 415, 455, 495, 336,~~	~~339~~ 639

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Canada border region	Channel Nos.	Total (channels)
	~~376, 416, 456, 496, 337, 377, 417, 457, 497, 338, 378, 418, 458, 498, 351, 379, 409, 429, 449, 352, 380, 410, 430, 450, 391, 392, 401, 408, 421, 428, 459, 460, 469, 470, 431, 432, 433, 434, 471, 472, 473, 474, 479, 480~~	
	~~231a, 260a, 269a, 289a, 311a, 399a, 439a, 270a, 290a, 312a, 400a, 440a, 279a, 299a, 319a, 339a, 359a, 280a, 300a, 320a, 340a, 360a, 309a, 329a, 349a, 369a, 389a, 310a, 330a, 350a, 370a, 390a, 313a, 353a, 393a, 441a, 461a, 314a, 354a, 394a, 448a, 468a, 315a, 355a, 395a, 435a, 475a, 316a, 356a, 396a, 436a, 476a, 317a, 357a, 397a, 437a, 477a, 318a, 358a, 398a, 438a, 478a, 321a, 341a, 361a, 381a, 419a, 328a, 348a, 368a, 388a, 420a, 331a, 371a, 411a, 451a, 491a, 332a, 372a, 412a, 452a, 492a, 333a, 373a, 413a, 453a, 493a, 334a, 374a, 414a, 454a, 494a, 335a, 375a, 415a, 455a, 495a, 336a, 376a, 416a, 456a, 496a, 337a, 377a, 417a, 457a, 497a, 338a, 378a, 418a, 458a, 498a, 351a, 379a, 409a, 429a, 449a, 352a, 380a, 410a, 430a, 450a, 391a, 392a, 401a, 408a, 421a, 428a, 459a, 460a, 469a, 431a, 432a, 433a, 434a, 471a, 472a, 473a, 474a, 479a, 480a~~	

(i) Channel numbers 1–230 are ~~also~~ only available to eligible applicants in the Public Safety Category in the Canada Border Regions. The assignment of these channels will be done in accordance with the policies defined in the Report and Order of Gen. Docket No. 87–112 (See § 90.16). The following channels are available only for mutual aid purposes as defined in Gen. Docket No. 87–112: Channels 1, 39, 77, 115, 153. Mobile and portable radios operating on the mutual aid channels shall employ analog FM emission.

(ii) [Reserved]

(7) The channels listed in Table C7 are available in the Canada Border Regions for the General Category. All entities will be eligible for licensing on these channels. 800 MHz high density cellular systems as defined in § 90.7 are permitted on these channels only as indicated in Table C7. The channels noted for Regions 1, 2, 3, 4, 5 and 6 where high density cellular systems are prohibited are all frequencies that are primary to Canada. Stations may be licensed on these Canada Primary channels according to paragraph (c)(4) of this section.

Table C7—General Category 806–821/851–866 MHz Band Channels in the Canada Border Regions

Canada border region	General category channels where 800 MHz high density cellular systems are prohibited	General category channels where 800 MHz high density cellular systems are permitted
Regions 1, 4, 5 and 6	261–560	561–710
Region 2	231–620	621–710
Region 3	321–500a	509–710
Regions 7A and 8	231–260a, 511–550	None
Region 7B	511–550	None

~~(8) The channels listed in Table C8 are available in the Canada Border Regions to applicants eligible in the Industrial/Business Pool of subpart C of this part but exclude Special Mobilized Radio Systems as defined in § 90.603(c). 800 MHz cellular high density systems as defined in § 90.7 are prohibited on these channels.~~

~~Table C8—Business/Industrial/Land Transportation Pool 806–816/851–861 MHz Band Channels in the Canada Border Regions~~

~~Canada border region~~	~~Channel Nos.~~	~~Total (channels)~~
~~Regions 1, 2, 3, 4, 5 and 6~~	~~None~~	~~0~~
~~Regions 7A, 7B and 8~~	~~261, 271, 281, 291, 301, 262, 272, 282, 292, 302, 263, 273, 283, 293, 303, 264, 274, 284, 294, 304, 265, 275, 285, 295, 305, 266, 276, 286, 296, 306, 267, 277, 287, 297, 307, 268, 278, 288, 298, 308, 322, 362, 402, 442, 482, 323, 363, 403, 443, 483, 324, 364, 404, 444, 484, 325, 365, 405, 445, 485, 326, 366, 406, 446, 486, 327, 367, 407, 447, 487, 342, 382, 422, 462, 502, 343, 383, 423, 463, 503, 344, 384, 424, 464, 504, 345, 385, 425, 465, 505, 346, 386, 426, 466, 506, 347, 387, 427, 467, 507~~ ~~261a, 271a, 281a, 291a, 301a, 262a, 272a, 282a, 292a, 302a, 263a, 273a, 283a, 293a, 303a, 264a, 274a, 284a, 294a, 304a, 265a, 275a, 285a, 295a, 305a, 266a, 276a, 286a, 296a, 306a, 267a, 277a, 287a, 297a, 307a, 268a, 278a, 288a, 298a, 308a, 322a, 362a, 402a, 442a, 482a, 323a, 363a, 403a, 443a, 483a, 324a, 364a, 404a, 444a, 484a, 325a, 365a, 405a, 445a, 485a, 326a, 366a, 406a, 446a, 486a, 327a, 367a, 407a, 447a, 487a, 342a, 382a, 422a, 462a, 502a, 343a, 383a, 423a, 463a, 503a, 344a, 384a, 424a, 464a, 504a, 345a, 385a, 425a, 465a, 505a, 346a, 386a, 426a, 466a, 506a, 347a, 387a, 427a, 467a, 507a~~	~~200~~

(9) The channels listed in Table C9 are available in the Canada Border Regions to applicants eligible in the SMR category—which consists of Specialized Mobile Radio (SMR) stations and eligible end users. 800 MHz high density cellular systems, as defined in § 90.7, are prohibited on these channels.

Table C9—SMR Category 806–816/851–861 MHz Channels Available for Site-Based Licensing in the Canada Border Regions

Canada border region	Channel Nos.	Total (channels)
Regions 1, 2, 3, 4, 5 and 6	None	0
Regions 7A and 8	315, 355, 395, 435, 475, 316, 356, 396, 436, 476, 317, 357, 397, 437, 477, 318, 358, 398, 438, 478, 331, 371, 411, 451, 491, 332, 372, 412, 452, 492, 333, 373, 413, 453, 493, 334, 374, 414, 454, 494, 335, 375, 415, 455, 495, 336, 376, 416, 456, 496, 337, 377, 417, 457, 497, 338, 378, 418, 458, 498, 431, 432, 433, 434, 471, 472, 473, 474, 479, 480, 481, 488, 489, 490, 499, 500, 501, 508, 509, 510 315a, 355a, 395a, 435a, 475a, 316a, 356a, 396a, 436a, 476a, 317a, 357a, 397a, 437a, 477a, 318a, 358a, 398a, 438a, 478a, 331a, 371a, 411a, 451a, 491a, 332a, 372a, 412a, 452a, 492a, 333a, 373a, 413a, 453a, 493a, 334a, 374a, 414a, 454a, 494a, 335a, 375a, 415a, 455a, 495a, 336a, 376a, 416a, 456a, 496a, 337a, 377a, 417a, 457a, 497a, 338a, 378a, 418a, 458a, 498a, 431a, 432a, 433a, 434a, 471a, 472a, 473a, 474a, 479a, 480a, 481a, 488a, 489a, 490a, 499a, 500a, 501a, 508a, 509a, 510a	160
Region 7B	481, 488, 489, 490, 499, 500, 501, 508, 509, 510. 481a, 488a, 489a, 490a, 499a, 500a, 501a, 508a, 509a, 510a.	20

(10) The channels listed in Table C10 are available in the Canada Border Regions to applicants eligible in the SMR category—which consists of Specialized Mobile Radio (SMR) stations and eligible end users. ESMR licensees who employ 800 MHz high density cellular systems, as defined in § 90.7, are permitted to operate on these channels. Some of the channels listed in Table C10 are primary to Canada as indicated in paragraph (e)(1) of this section. ESMR systems may be authorized on these Canada Primary channels according to paragraph (e)(4) of this section.

Table C10—ESMR Category 817–824/862–869 MHz Channels Available for 800 MHz High Density Systems

Canada Border Region	Channel Nos.	Total
Regions 1, 2, 3, 4, 5 and 6	711–830	120 Channels.

Canada Border Region	Channel Nos.	Total
Regions 7A, 7B and 8	551–830	280 Channels.

~~(11) In Canada Border Regions 1, 2, 3, 4, 5 and 6, the following General Category channels are available for licensing to all entities except as described below in paragraphs (c)(11)(i) and (c)(11)(ii): in Regions 1, 4, 5 and 6, channels 261–560; in Region 2, channels 231–620 and in Region 3, channels 321–500.~~

~~(i) In a given 800 MHz NPSPAC region, the General Category channels listed paragraph (c)(11) of this section which are vacated by licensees relocating to channels 711–830 and which remain vacant after band reconfiguration will be available for licensing as follows:~~

~~(A) Only to eligible applicants in the Public Safety Category until three years after the release of a public notice announcing the completion of band reconfiguration in that region;~~

~~(B) Only to eligible applicants in the Public Safety or Critical Infrastructure Industry Categories from three to five years after the release of a public notice announcing the completion of band reconfiguration in that region; and~~

~~(C) To all entities five years after release of a public notice announcing the completion of band reconfiguration in that region.~~

~~(ii) The General Category channels listed in paragraph (c)(11) of this section are primary to Canada. Stations may be authorized on these Canada Primary channels according to paragraph (c)(4).~~

~~(12) In Canada Border Regions 7A, 7B and 8, the following channels will be available as described in paragraphs (c)(12)(i) and (c)(12)(ii) of this section: for Canada Border Regions 7A and 8, channels 231–260 and channels below 471 in Tables C8 and C9; for Canada Border Region 7B all channels in Tables C8 and C9.~~

~~(i) In a given 800 MHz NPSPAC region, the channels listed paragraph (c)(12) of this section which are vacated by licensees relocating to channels 511–830 and which remain vacant after band reconfiguration will be available as follows:~~

~~(A) Only to eligible applicants in the Public Safety Category until three years after the release of a public notice announcing the completion of band reconfiguration in that region; and~~

~~(B) Only to eligible applicants in the Public Safety or Critical Infrastructure Industry Categories from three to five years after the release of a public notice announcing the completion of band reconfiguration in that region.~~

~~(ii) Five years after the release of a public notice announcing the completion of band reconfiguration in a given 800 MHz NPSPAC region, the channels listed in paragraph (e)(12) of this section will revert back to their original pool categories.~~

§ 90.621 Selection and assignment of frequencies.

(a) Public Safety and Business/Industrial/Land Transportation a~~A~~pplicants ~~for frequencies in the Public Safety and Business/Industrial/Land Transportation Categories~~ must specify on the application the frequencies on which the proposed system will operate pursuant to a recommendation by the applicable frequency coordinator. SMR ~~Applicants~~ applicants ~~for frequencies in the SMR Category~~ must request specific frequencies by including in their applications the frequencies requested.

(1) For trunked systems, the assignment of frequencies will be made in accordance with applicable loading criteria and in accordance with the following:

(i) Channels will be chosen and assigned in accordance with §§ 90.615, 90.617, or 90.619.

(ii) A mobile station is authorized to transmit on any frequency assigned to its associated base station.

(iii) There are no limitations on the number of frequencies that may be trunked. Authorizations for non-SMR stations may be granted for up to 20 trunked frequency pairs at a time in accordance with the frequencies listed in §§ 90.615, 90.617, and 90.619.

(2) For conventional systems the assignment of frequencies will be made in accordance with applicable loading criteria. Accordingly, depending upon the number of mobile units to be served, an applicant may either be required to share a channel, or, if an applicant shows a sufficient number of mobile units to warrant the assignment of one or more channels for its exclusive use, it may be licensed to use such channel or channels on an unshared basis in the area of operation specified in its application.

(i) Channels will be chosen and assigned in accordance with §§ 90.615, 90.617, or 90.619.

(ii) A mobile station is authorized to transmit on any frequency assigned to its associated base station.

(b) Stations authorized on frequencies listed in this subpart, except for those stations authorized pursuant to paragraph (g) of this section and EA-based and MTA-based SMR systems, will be assigned co-channel frequencies solely on the basis of distance between fixed stations. In addition, contour overlap as detailed in paragraph (d) of this section will be the basis for geographic separation between fixed stations operating on adjacent-channel frequencies in the 809–817 MHz/854–862 MHz sub-band, except where such fixed stations meet the distance separation criteria set out in this paragraph (b).

(1) Except as indicated in paragraph (b)(4) of this section, no station in Channel Blocks A through V shall be less than 169 km (105 mi) distant from a co-channel station that has been granted channel exclusivity and authorized 1 kW ERP on any of the following mountaintop sites: Santiago Peak, Sierra Peak, Mount Lukens, Mount Wilson (California). Except as indicated in paragraph (b)(4) of this section, no incumbent licensee in Channel Blocks F1 through V that has received the consent of all affected parties or a certified frequency coordinator to utilize an 18 dBμV/m signal strength interference contour shall be less than 229 km (142 mi) distant from a co-channel station that has been granted channel exclusivity and authorized 1 kW ERP on any of the following mountaintop sites: Santiago Peak, Sierra Peak, Mount Lukens, Mount Wilson (California).

(2) The separation between co-channel stations that have been granted exclusivity and that are located at high sites in California north of 35° N Latitude and west of 118° W Longitude shall be determined as follows:

(i) Required co-channel separations between common antenna sites are given by table 1. A channel group assigned to a station on a site listed in the vertical column may not be re-assigned to a station on a site listed in the horizontal column if there is an “X” in the box created by the intersection of the vertical and horizontal lines. The geographic coordinates listed in the table represent an average for each particular site; all locations within 1.6 km (1 mi) of the coordinates will be considered to be at that site.

(ii) Required co-channel separations involving antenna sites not listed in table 1 shall be determined by Commission staff on a case by case basis. The interference potential of proposed assignments will be evaluated considering parameters such as antenna height, effective radiated power, terrain irregularities, and market conditions.

TABLE 1: CO-CHANNEL SEPARATIONS BETWEEN COMMON ANTENNA SITES IN THE STATE OF CALIFORNIA NORTH OF 35° NORTH LATITUDE AND WEST OF 118° WEST LONGITUDE

North Latitude	West Longitude	Site Name	Big Rock Ridge	Mt. Tamalpais	Wolfback Ridge	Mt. Diablo	Grizzley Peak	Vollmer Peak	Roundtop	Clay Jones Bldg	San Bruno Mtn	Skeggs Peak	Black Mountain	Mt Umunnum	Mt Chual	Loma Prieta	Toro Peak	Mission Ridge	Tuscan Buttes	Forest Ranch	Sutter Buttes	Wolf Mtn	Chantry Hill	Mt Vaca	Fowler Peak	Mt Oso	Mt Bullion	Meadow Lakes	Bear Mtn	Joaquin Ridge	Blue Ridge	Pheasant Hill	Granite Peak	Elk Hill	McKittrick Peak	McKittrick Peak
38-03-40	122-36-17	Big Rock Ridge	x	x	x	x	x	x	x	x	x	x	x	x	x	x		x			x	x	x	x	x	x									
37-55-44	122-35-11	Mt. Tamalpais	x	x	x	x	x	x	x	x	x	x	x	x	x	x		x			x	x	x	x	x	x									
37-50-57	122-29-56	Wolfback Ridge	x	x	x	x	x	x	x	x	x	x	x	x	x	x		x						x											
37-52-54	121-55-05	Mt. Diablo	x	x	x	x	x	x	x	x	x	x	x	x	x	x		x		x	x	x	x	x	x	x	x	x							
37-51-12	122-12-30	Grizzley Peak	x	x	x	x	x	x	x	x	x	x	x	x	x	x		x			x	x	x	x	x	x									
37-52-58	122-13-11	Vollmer Peak	x	x	x	x	x	x	x	x	x	x	x	x	x	x		x		x	x	x	x	x	x	x	x								
37-51-00	122-11-30	Roundtop	x	x	x	x	x	x	x	x	x	x	x	x	x	x		x		x	x	x	x	x	x	x	x								
37-43-33	122-24-52	Clay Jones Bldg.	x	x	x	x	x	x	x	x	x	x	x	x	x	x		x			x			x											
37-41-21	122-26-08	San Bruno Mtn.	x	x	x	x	x	x	x	x	x	x	x	x	x	x		x						x											
37-24-39	122-18-20	Skeggs Peak	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x						x		x									
37-19-13	122-08-33	Black Mountain	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x						x		x									
37-10-37	121-54-24	Mt. Umunnum	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x						x		x									
37-07-09	121-49-58	Mt. Chual	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x						x		x									
37-06-40	121-50-29	Loma Prieta	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x						x		x									
36-31-45	121-36-24	Toro Peak										x	x	x	x	x	x	x											x						
37-29-15	121-52-03	Mission Ridge	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x						x	x	x	x								
40-15-46	122-05-37	Tuscan Buttes																	x	x	x	x	x	x											
39-51-50	121-41-20	Forest Ranch				x		x	x										x	x	x	x	x	x											
39-12-17	121-49-02	Sutter Buttes	x	x		x	x	x	x	x									x	x	x	x	x	x	x	x									
39-08-01	121-05-58	Wolf Mtn	x	x		x	x	x	x										x	x	x	x	x	x	x	x									
38-52-15	121-07-39	Chantry Hill	x	x		x	x	x	x										x	x	x	x	x	x	x	x	x								
38-24-20	122-06-30	Mt. Vaca	x	x	x	x	x	x	x	x	x	x	x	x	x	x		x	x	x	x	x	x	x	x	x	x								
38-01-15	120-35-06	Fowler Peak	x	x		x	x	x	x				x	x	x	x		x			x	x	x	x	x	x	x	x	x						
37-30-31	121-22-26	Mt. Oso	x	x		x	x	x	x			x	x	x	x	x		x			x	x	x	x	x	x	x	x	x						
37-32-32	120-03-45	Mt. Bullion				x		x	x									x					x	x	x	x	x	x	x						
37-04-10	119-25-39	Meadow Lakes				x																			x	x	x	x	x	x	x	x	x	x	x
36-44-38	119-16-59	Bear Mtn				x																			x	x	x	x	x	x	x	x	x	x	x
36-18-10	120-24-03	Joaquin Ridge															x								x	x	x	x	x	x	x	x	x	x	x
36-17-07	118-50-19	Blue Ridge																								x	x	x	x	x	x	x	x	x	x
35-38-29	118-47-08	Pheasant Hill																										x	x	x	x	x	x	x	x
35-33-09	118-49-20	Granite Peak																										x	x	x	x	x	x	x	x
35-17-17	119-30-55	Elk Hill																										x	x	x	x	x	x	x	x
35-17-27	119-45-48	Mc Kittrick Peak																										x	x	x	x	x	x	x	x
35-16-51	119-44-52	Mc Kittrick Peak																										x	x	x	x	x	x	x	x

(3) Except as indicated in paragraph (b)(4) of this section, stations in Channel Blocks A through V that have been granted channel exclusivity and are located in the State of Washington at the locations listed in the table below shall be separated from co-channel stations by a minimum of 169 km (105 mi). Except as indicated in paragraph (b)(4) of this section, incumbent licensees in Channel Blocks F1 through V that have received the consent of all affected parties or a certified frequency coordinator to utilize an 18 dBμV/m signal strength interference contour, have been granted channel exclusivity and are located in the State of Washington at the locations listed in the table below shall be separated from co-channel stations by a minimum of 229 km (142 mi). Locations within one mile of the geographical coordinates listed in the table below will be considered to be at that site.

Note:

Coordinates are referenced to North American Datum 1983 (NAD83).

Site name	North latitude	West longitude
Mount Constitution	48° 40′ 47.4″	122° 50′ 28.7″
Lyman Mountain	48° 35′ 41.4″	122° 09′ 39.6″
Cultus Mountain	48° 25′ 30.4″	122° 08′ 58.5″
Gunsite Ridge	48° 03′ 22.4″	121° 51′ 41.5″
Gold Mountain	47° 32′ 51.3″	122° 46′ 56.5″
Buck Mountain	47° 47′ 05.3″	122° 59′ 34.6″
Cougar Mountain	47° 32′ 39.4″	122° 06′ 34.4″
Squak Mountain	47° 30′ 14.4″	122° 03′ 34.4″
Tiger Mountain	47° 30′ 13.4″	121° 58′ 32.4″
Devils Mountain	48° 21′ 52.4″	122° 16′ 06.6″
McDonald Mountain	47° 20′ 11.3″	122° 51′ 30.5″
Maynard Hill	48° 00′ 58.3″	122° 55′ 35.6″
North Mountain	47° 19′ 07.3″	123° 20′ 48.6″
Green Mountain	47° 33′ 40.3″	122° 48′ 31.5″
Capitol Peak	46° 58′ 21.3″	123° 08′ 21.5″
Rattlesnake Mountain	47° 28′ 09.4″	121° 49′ 17.4″
Three Sisters Mountain	47° 07′ 19.4″	121° 53′ 34.4″
Grass Mountain	47° 12′ 14.1″	121° 47′ 42.4″
Spar Pole Hill	47° 02′ 51.4″	122° 08′ 39.4″

(4) Upon an applicant's specific request to the Commission or a frequency coordinator, co-channel stations may be separated by less than 113 km (70 mi) by meeting certain transmitter ERP and antenna height criteria. The following table indicates separations assignable to such co-channel stations for various transmitter power and antenna height combinations. The minimum separation permitted is 88 km (55 mi). Applicants will provide the Commission with a statement that the application is submitted for consideration under the table, a list of

all co-channel stations within 113 km (70 mi), and the DHAATs and ERPs for these stations and the applicant's proposed station. Applicants seeking to be licensed for stations located at distances less than those prescribed in the table are required to secure a waiver and must submit with the application, in addition to the above, an interference analysis, based upon any of the generally-accepted terrain-based propagation models, that shows that co-channel stations would receive the same or greater interference protection than provided in the table. Requests for separations less than 88 km (55 mi) must also include an analysis of interference potential from mobile transmitters to existing co-channel base station receivers. Applicants seeking a waiver must submit with their application a certificate of service indicating that concurrent with the submission of the application to the Commission or a coordinator, all co-channel licensees within the applicable area were served with a copy of the application and all attachments thereto. Licensees thus served may file an opposition to the application within 30 days from the date the application is filed with the Commission.

(i) The directional height of the antenna above average terrain (DHAAT) is calculated from the average of the antenna heights above average terrain from 3 to 16 km (2 to 10 mi) from the proposed site along a radial extending in the direction of the existing station and the radials 15 degrees to either side of that radial.

(ii) Except for the sites listed in paragraphs (b)(1), (b)(2), and (b)(3) of this section, additional co-channel distance separation must be afforded to an existing station from an applicant wishing to locate a station less than 113 km (70 mi) from a co-channel station, where either the applicant's or the existing station is located at sites with DHAATs of 458 m (1500 ft) and above. The separation between short-spaced co-channel stations shall be determined as follows:

(A) Calculate the DHAAT in each direction between every existing co-channel station with 113 km (70 mi) and the proposed station.

(B) In the table, locate the approximate ERP and DHAAT values for the proposed and existing stations.

(C) When DHAAT values are greater than 458 m (1500 ft), use the required separation for 305 m (1000 ft) and add 1.6 km (1 mi) for every 30.5 km (100 ft), or increment thereof, of DHAAT above 458 m (1500 ft) to the distance indicated in the table. If both the proposed existing stations have DHAATs of 458 m (1500 ft) or more, the additional distance is separately determined for each station and the combined distance is added to the distance obtained from the table. Protection to existing stations will be afforded only up to 113 km (70 mi).

Short-Spacing Separation Table

Proposed station ERP (watts)/DHAAT(m)[3]	Distance between stations (km)[1 2] Existing station DHAAT (meters)[3]						
	305	**215**	**150**	**108**	**75**	**54**	**37**
1000/305	113	113	113	113	113	113	113
1000/215	113	113	113	113	113	113	110
1000/150	113	113	113	113	112	108	103
1000/108	113	113	113	110	107	103	98
1000/75	113	112	108	103	100	96	91
1000/54	113	109	105	100	97	93	88
1000/37	109	104	100	95	92	88	88
500/305	113	113	113	113	113	113	110
500/215	113	113	113	112	109	105	100
500/150	113	112	108	103	100	96	91
500/108	112	107	103	98	95	91	88
500/75	107	102	98	93	90	88	88
500/54	103	98	94	89	88	88	88
500/37	99	94	90	88	88	88	88
250/305	113	113	113	112	109	105	100
250/215	113	113	107	102	99	95	90
250/150	109	104	100	95	92	88	88
250/108	105	100	96	91	88	88	88
250/75	99	94	90	88	88	88	88
250/54	95	90	88	88	88	88	88
250/37	91	88	88	88	88	88	88
125/305	113	111	107	102	99	95	90
125/215	108	103	99	94	91	88	88
125/150	103	98	94	89	88	88	88
125/108	98	93	89	88	88	88	88
125/75	93	88	88	88	88	88	88
125/54	88	88	88	88	88	88	88
125/37	88	88	88	88	88	88	88
62/305	108	103	99	94	91	88	88
62/215	103	98	94	89	88	88	88
62/150	97	92	88	88	88	88	88
62/108	92	88	88	88	88	88	88
62/75	88	88	88	88	88	88	88

Proposed station ERP (watts)/DHAAT(m)[3]	Distance between stations (km)[1 2] Existing station DHAAT (meters)[3]						
	305	215	150	108	75	54	37
62/54	88	88	88	88	88	88	88
62/37	88	88	88	88	88	88	88

[1] Separations for stations on Santiago Peak, Sierra Peak, Mount Lukens, and Mount Wilson (CA) and the locations in the State of Washington listed in paragraph (b)(3) of this section are 56 km (35 mi) greater than those listed in the table above. In the event of conflict between this table and the table of additional California high elevation sites shown in paragraph (b)(2) of this section, the latter will apply.

[2] Distances shown are derived from the R–6602 curves and are based upon a non-overlap of the 22 dBu (F50,10) interference contour of the proposed station with the 40 dBu (F50,50) contour of the existing station(s). No consideration is given to the 40 dBu service contour of the proposed station and the 22 dBu contour of the existing station(s). The minimum separation of stations will be 88 km (55 mi).

[3] All existing stations are assumed to operate with 1000 watts ERP. When the ERP and/or DHAAT of a proposed station or the DHAAT of an existing station is not indicated in the table, the next higher value(s) must be used.

(5) The separation between co-channel systems may be less than the separations defined above if an applicant submits with its application letters of concurrence indicating that the applicant and each co-channel licensee within the specified separation agree to accept any interference resulting from the reduced separation between their systems. Each letter from a co-channel licensee must certify that the system of the concurring licensee is constructed and fully operational. The applicant must also submit with its application a certificate of service indicating that all concurring co-channel licensees have been served with an actual copy of the application.

(6) A station located closer than the distances provided in this section to a co-channel station that was authorized as short-spaced under paragraph (b)(4) of this section shall be permitted to modify its facilities as long as the station does not extend its 22 dBu contour beyond its maximum 22 dBu contour (i.e., the 22 dBu contour calculated using the station's maximum power and antenna height at its original location) in the direction of the short-spaced station.

~~(7) Offset frequencies in the 811–821/856–866 MHz band for use only within U.S./Mexico border area, as designated in § 90.619(a), shall be considered co-channel with non-offset frequencies in this band as designated in § 90.613. New applications for frequencies in this band for stations adjacent to the U.S./Mexico border area must comply with the co-channel separation provisions of this section.~~

(c) Conventional systems authorized on frequencies in the ~~Public Safety~~800 MHz NPSPAC band ~~(except for those systems~~ that have participated in a formal regional planning process as

described in § 90.16.) ~~and Business/Industrial/Land Transportation categories~~ and ~~which~~ have not met the loading levels necessary for channel exclusivity will ~~not~~ be afforded co-channel protection.

(d) Geographic separation between fixed stations operating on adjacent channels in the 809–817/854–862 MHz Mid-Band segment must be based on lack of contour overlap as detailed in paragraphs (d)(1) through (4), unless the co-channel distance separation criteria in paragraph (b) of this section are met.

(1) ***Forward contour analysis.*** An applicant seeking to license a fixed station on a channel in the 809–817 MHz/854–862 MHz band segment will only be granted if the applicant's proposed interference contour creates no overlap with the 40 dBu F(50,50) contour of an incumbent operating a fixed station on an upper- or lower-adjacent channel. The applicant's interference contour is determined using the dBu level listed in the appropriate table in paragraph (d)(3) of this section. For this analysis the applicant shall plot the interference contour of its proposed fixed station at its proposed ERP but assume that any adjacent-channel incumbent licensee is operating at the maximum permitted ERP for the licensed antenna height.

(2) ***Reciprocal contour analysis.*** In addition to the contour analysis described in paragraph (d)(1) of this section, any applicant seeking to license a fixed station on a channel in the 809–817 MHz/854–862 MHz band segment must also pass a reciprocal contour analysis. Under the reciprocal analysis, the interference contour, F(50,10) of an incumbent operating a fixed station on an upper- or lower-adjacent channel must create no contour overlap with the proposed 40 dBu F(50,50) contour of the applicant's fixed station. The incumbent's interference contour is determined using the dBu level listed in the appropriate table in paragraph (d)(3) of this section. For this analysis the applicant shall plot the coverage contour of its fixed station, F(50,50), at its proposed ERP and antenna height above average terrain but plot the interference contour, F(50,10), of any adjacent-channel incumbent licensee at its maximum permitted ERP for the licensed antenna height.

(3) ***Contour matrix.*** Interference contour levels for the contour analysis described in paragraphs (d)(1) and (2) of this section are determined using Table 4 or Table 5 to this paragraph (d)(3). Table 4 is used to determine the interference contour F(50,10) level of a fixed station operating on a 12.5 kilohertz bandwidth channel while Table 5 is used to determine the interference contour F(50,10) level of a fixed station operating on a 25 kilohertz bandwidth channel. The dBu level of the interference contour is determined by cross-referencing the modulation type of the station operating on the 25 kilohertz bandwidth channel with the modulation type of the station operating on the 12.5 kilohertz bandwidth channel.

Table 4 to Paragraph (d)(3) – Interference Contour Level for Fixed Station Operating on 12.5 kilohertz Bandwidth Channel

Interference Contour (12.5 kilohertz into 25 kilohertz channel)		12.5 kilohertz Bandwidth Technology of 12.5 kilohertz Bandwidth Channel				
		Transmitter Emission				
25 kilohertz Technology on 25 kilohertz Bandwidth Channel		11K3F3E or less	8K10F1E 8K10F1D 8K70D1W 9K80D7W	7K60FXE 7K60FXD 7K60F7E 7K60F7D 7K60F7W 8K30F1E 8K30F1D	4K00F1E 4K00F1D	11K0F7E 11K0F7D 11K0F7W
		Transmitter	Transmitter	Transmitter	Transmitter	Transmitter
Transmitter Emission		Interference Contour [dBu F (50,10)]				
16K0F3E or 20K0F3E	Receiver	28	25	28	NA	23
10K0F1E or 10K0F1D	Receiver	40	36	40	NA	28
12K5F9W	Receiver	40	36	40	NA	32
16K0F1E or 16K0F1D	Receiver	70	65	65	NA	NA
18K3D7W or 17K7D7D	Receiver	28	25	28	NA	20
12.5 kilohertz Bandwidth Technology on 25 kilohertz Bandwidth Channel						
Transmitter Emission		Interference Contour [dBu F (50,10)]				
11K3F3E or less	Receiver	65	65	65	NA	70
8K10F1E, 8K10F1D, 8K70D1W, 9K80D7W, 9K80D1E or 9K80D1D	Receiver	NA	75	75	NA	NA
7K60FXE, 7K60FXD, 7K60F7E, 7K60F7D, 7K60F7W, 8K30F1E or 8K30F1D	Receiver	NA	75	75	NA	NA
4K00F1E or 4K00F1D	Receiver	NA	NA	NA	NA	NA
11K0F7E, 11K0F7D or 11K0F7W	Receiver	60	55	60	NA	NA

Section 90.221 Technology on 25 kilohertz Bandwidth Channels						
Transmitter Emission		Interference Contour [dBu F (50,10)]				
22K0D7E, 22K0D7D, 22K0D7W, 22K0DXW or 22K0G1W	Receiver	28	25	28	45	20
21K0D1E, 21K0D1D or 21K0D1W	Receiver	28	25	28	NA	20
21K7D7E, 21K7D7D or 21K0D1W	Receiver	28	25	28	NA	20

Table 5 to Paragraph (d)(3) – Interference Contour Level for Fixed Station Operating on 25 kilohertz Bandwidth Channel

Interference Contour (25 kilohertz into 12.5 kilohertz channel)		12.5 kilohertz Bandwidth Technology of 12.5 kilohertz Bandwidth Channel				
		Transmitter Emission				
25 kilohertz Technology on 25 kilohertz Bandwidth Channel		11K3F3E or less	8K10F1E 8K10F1D 8K70D1W 9K80D7W	7K60FXE 7K60FXD 7K60F7E 7K60F7D 7K60F7W 8K30F1E 8K30F1D	4K00F1E 4K00F1D	11K0F7E 11K0F7D 11K0F7W
		Receiver	Receiver	Receiver	Receiver	Receiver
Transmitter Emission		Interference Contour [dBu F (50, 10)]				
16K0F3E or 20K0F3E	Transmitter	40	50	45	NA	36
10K0F1E or 10K0F1D	Transmitter	50	50	50	NA	50
12K5F9W	Transmitter	40	50	45	NA	36
16K0F1E or 16K0F1D	Transmitter	36	40	40	NA	36
18K3D7W or 17K7D7D	Transmitter	25	45	32	NA	23

12.5 kilohertz Bandwidth Technology on 25 kilohertz Bandwidth Channel						
Transmitter Emission		Interference Contour [dBu F (50,10)]				
11K3F3E or less	Transmitter	65	NA	75	NA	60
8K10F1E, 8K10F1D, 8K70D1W, 9K80D7W, 9K80D1E or 9K80D1D	Transmitter	65	75	70	NA	55
7K60FXE, 7K60FXD, 7K60F7E, 7K60F7D, 7K60F7W, 8K30F1E or 8K30F1D	Transmitter	65	75	75	NA	60
4K00F1E or 4K00F1D	Transmitter	NA	NA	NA	NA	NA
11K0F7E, 11K0F7D or 11K0F7W	Transmitter	70	NA	NA	NA	NA
Section 90.221 Technology on 25 kilohertz Bandwidth Channels						
Transmitter Emission		Interference Contour [dBu F (50,10)]				
22K0D7E,22K0D7D, 22K0D7W, 22K0DXW or 22K0G1W	Transmitter	25	28	25	32	23
21K0D1E, 21K0D1D or 21K0D1W	Transmitter	25	28	25	NA	23
21K7D7E, 21K7D7D or 21K0D1W	Transmitter	23	25	23	NA	20

(4) ***Letters of concurrence.*** Applicants may submit applications which cause overlap under the forward contour analysis described in paragraph (d)(1) of this section provided the applicant includes a letter of concurrence from each incumbent that receives contour overlap. In the letter of concurrence, the incumbent operator must agree to accept any interference that occurs as a result of the contour overlap. Applicants may also submit applications which receive contour overlap under the reciprocal analysis described in paragraph (d)(2) of this section provided the applicant includes a letter of concurrence from each incumbent that causes contour overlap. In this case, the incumbent operator must state in its letter of concurrence that it does not object to the applicant receiving contour overlap from the incumbent's facility.

~~(e) Frequencies in the 809–817/854–862 MHz bands listed as available for eligibles in the Public Safety and Business/Industrial/Land Transportation Categories are available for inter-category sharing under the following conditions:~~

~~(1) Channels in the Public Safety and Business/Industrial/Land Transportation categories will be available to eligible applicants in those categories only if there are no frequencies in their own category and no public safety systems are authorized on those channels under consideration to be shared.~~

~~(2) Notwithstanding paragraph (e)(5) of this section, licensees of channels in the Business/Industrial/Land Transportation category may request a modification of the license, see § 1.947 of this chapter, to authorize use of the channels for commercial operation. The licensee may also, at the same time or thereafter, seek authorization to transfer or assign the license, see § 1.948 of this chapter, to any person eligible for licensing in the General or SMR categories. Applications submitted pursuant to this paragraph must be filed in accordance with the rules governing other applications for commercial channels, and will be processed in accordance with those rules. Grant of requests submitted pursuant to this paragraph is subject to the following conditions:~~

~~(i) A licensee that modifies its license to authorize commercial operations will not be authorized to obtain additional 800 MHz Business/Industrial/Land Transportation category channels for sites located within 113 km (70 mi.) of the station for which the license was modified, for a period of one year from the date the license is modified. This provision applies to the licensee, its controlling interests and their affiliates, as defined in § 1.2110 of this chapter.~~

~~(ii) With respect to licenses the initial application for which was filed on or after November 9, 2000, requests submitted pursuant to paragraph (e)(2) of this section may not be filed until five years after the date of the initial license grant. In the case of a license that is modified on or after November 9, 2000 to add 800 MHz Business/Industrial/Land Transportation frequencies or to add or relocate base stations that expand the licensee's interference contour, requests submitted pursuant to paragraph (e)(2) of this section for these frequencies or base stations may not be filed until five years after such modification.~~

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(iii) Requests submitted pursuant to paragraph (e)(2) of this section must include a certification that written notice of the modification application has been provided to all Public Safety licensees, see § 90.20(a), with base stations within 113 km (70 mi.) of the site of the channel(s) for which authorization for commercial use is sought that operate within 25 kHz of the center of those channel(s). If, pursuant to paragraph (e)(2) of this section, modification and assignment or transfer applications are filed at different times, the written notice required by this paragraph must be provided each time.

(iv) The applicant must certify that it will take reasonable precautions to avoid causing harmful interference to Public Safety licensees, *see* § 90.20(a), and to take such action as may be necessary to eliminate interference to such licensees caused by its operations. (When an assignment or transfer application is filed pursuant to paragraph (e)(2) of this section, this representation is required only of the assignee or transferee.) Licensees of stations suffering or causing harmful interference are expected to cooperate and resolve this problem by mutually satisfactory arrangements. If the licensees are unable to do so, the Commission may impose restrictions including specifying the transmitter power, antenna height, or area or hours of operation.

(3) Licensees granted authorizations pursuant to paragraph (e)(2) of this section may at any time request modification of the license to authorize use of the channels consistent with the rules governing the category to which they are allocated, provided that the licensee meets the applicable eligibility requirements.

(4) [Reserved]

(5) The frequency coordinator must certify that frequencies are not available in the applicant's own category, and coordination is required from the applicable out-of-category coordinator.

(6) The out-of-category licensee must operate by the rules applicable to the category to which the frequency is allocated.

(f) Licensees of channels in the Business/Industrial/Land Transportation Categories in the 896–901/935–940 MHz bands may request a modification of the license, *see* § 1.947 of this chapter, to authorize use of the channels for commercial operation. The licensee may also, at the same time, or thereafter, seek authorization to transfer or assign the license, *see* § 1.948 of this chapter, to any person eligible for licensing in the General or SMR categories. Applications submitted pursuant to this paragraph must be filed in accordance with the rules governing other applications for commercial channels, and will be processed in accordance with those rules.

(g) Applications for Public Safety systems (both trunked and conventional) in the 806–809/851–854 MHz bands will be assigned and protected based on the criteria established in the appropriate regional plan. See § 90.16 and the Report and Order in General Docket 87–112.

(h) [Reserved]

§ 90.631 Trunked systems loading, construction and authorization requirements.

(a) Non-SMR trunked systems will be authorized on the basis of a loading criteria of one hundred (100) mobile stations per channel. For purposes of determining compliance with trunked system loading requirements under this subpart, the term "mobile station" includes vehicular and portable mobile units and control stations.

(b) Each applicant for a non-SMR trunked system must certify that a minimum of seventy (70) mobiles for each channel authorized will be placed into operation within five (5) years of the initial license grant.

(c) Except for SMR applicants and as provided in paragraph(d) of this section, an applicant seeking to expand a trunked system by requesting additional channels from the Commission, ~~or through intercategory sharing,~~ or through an assignment, must have a loading level of seventy (70) mobiles per channel on the existing system that is the subject of the expansion request.

(d) In rural areas, a licensee of a trunked system may request to increase its system capacity by five more channels than it has constructed without meeting the loading requirements specified in paragraphs (b) and (c) of this section. A rural area is defined for purposes of this section as being beyond a 100-mile radius of the following designated centers of the following urban areas: New York, NY; Los Angeles, CA; Chicago, IL; Philadelphia, PA; San Francisco, CA; Detroit, MI; Boston, MA; Houston, TX; Washington, DC; Dallas-Fort Worth, TX; Miami, FL; Cleveland, OH; St. Louis, MO; Atlanta, GA; Pittsburgh, PA; Baltimore, MD; Minneapolis-St. Paul, MN; Seattle, WA; San Diego, CA; and Tampa-St.Petersburg, FL. The coordinates for the centers of these areas are those referenced in § 90. 741, except that the coordinates (referenced to North American Datum 1983 (NAD83)) for Tampa-St. Petersburg are latitude 2800'1.1" N, longitude 8226'59.3 W.

(e) Except as provided in S90.629, licensees of trunked facilities must complete construction within one year.

(f) If a station is not placed in permanent operation, in accordance with the technical parameters of the station authorization, within one year, except as provided in S90.629, its license cancels automatically.

For purposes of this section, a base station is not considered to be placed in operation unless at least two associated mobile stations, or one control station and one mobile station, are also placed in operation.

(g) Wide area systems may be authorized to persons eligible for licensing under subparts B or C of this part upon an appropriate showing of need. Remote or satellite stations of wide area systems in the Public Safety, Special Emergency, Telephone Maintenance, and Power Radio Services may be authorized on a primary basis if such stations are the first to be authorized in their area of operation on the frequency or group of frequencies. Remote or satellite stations of

wide area systems in all other services will be authorized only on a secondary, non-interference basis to cochannel licensees. To determine system loading, the total number of mobile units and control stations operating in the wide-area system shall be counted with respect to the total number of base station frequencies assigned to the system.

(h) Regional, statewide, or ribbon configuration systems may be authorized to persons eligible for licensing under subparts B or C of this part upon an appropriate showing of need. In a ribbon, regional or statewide system, a mobile station will be counted for channel loading purposes only for the base station facility in the geographic area in which it primarily operates. If this cannot be determined, it will be counted fractionally over the number of base station facilities with which it communicates regularly.

[47FR41032, Sept. 16, 1982]

Editorial Note: For FEDERAL REGISTER citations affecting § 90.631_, see the List of CFR Sections Affected, which appears in the Finding Aids section of the printed volume and at www.govinfo.gov.

~~§ 90.687 Special provisions regarding assignments and transfers of authorizations for incumbent SMR licensees in the 809–824/854–869 MHz band.~~

~~An SMR license initially authorized on any of the channels listed in Tables 4 and 5 of § 90.617 may transfer or assign its channel(s) to another entity subject to the provisions of § 1.948 of this chapter and § 90.609(b). If the proposed transferee or assignee is the EA licensee for the spectrum block to which the channel is allocated, such transfer or assignment presumptively will be deemed to be in the public interest. However, such presumption will be rebuttable.~~