January 28, 2026

FCC FACT SHEET[*]
Review of the Commission's Rules Governing the 896–901/935–940 MHz Band
Report and Order – WT Docket No. 24-99

Background: The Report and Order would maximize the potential of the 896–901/935–940 MHz band (900 MHz band) by enabling broadband deployment on all ten megahertz of the band. If adopted, the new rules would facilitate additional spectrum access by utilities, critical infrastructure, and other enterprises for private wireless broadband deployments that drive innovation and stimulate the American economy. The Report and Order would build upon a 2020 Report and Order that established 3/3 megahertz paired broadband channels in the 900 MHz band and respond to a February 2024 Petition for Rulemaking requesting that the Commission provide an option for 5/5 megahertz broadband networks in the 900 MHz band through a voluntary transition process.

What the Report and Order Would Do:

- Enable all ten megahertz of the 900 MHz band to be used for broadband while maintaining options for narrowband and 3/3 megahertz broadband use.
- Provide for a largely voluntary relocation process for the expanded broadband opportunities in the 900 MHz band. The transition of narrowband operations in the 896–897.5/935–936.5 MHz and 900.5–901/939.5–940 MHz portions of the band must be completely voluntary, while prospective 5/5 megahertz broadband licensees would be permitted to mandatorily relocate other 900 MHz narrowband licensees in limited circumstances.
- Apply the preexisting 900 MHz 3/3 megahertz broadband technical rules to 5/5 megahertz broadband licenses.
- Apply the preexisting 900 MHz 3/3 megahertz broadband construction and licensing rules to 5/5 megahertz broadband licenses, except in instances in which a 3/3 megahertz broadband licensee is expanding to a 5/5 megahertz broadband license. In those cases, there would be an abbreviated buildout timeframe.
- Impose an anti-windfall payment on prospective 5/5 broadband licensees that are unable to exchange ten megahertz of 900 MHz spectrum, and thus require assignment of spectrum from the Commission's available inventory for issuance of a 5/5 megahertz broadband license.

[*] This document is being released as part of a "permit-but-disclose" proceeding. Any presentations or views on the subject expressed to the Commission or its staff, including by email, must be filed in WT Docket No. 24-99, which may be accessed via the Electronic Comment Filing System (https://www.fcc.gov/ecfs/). Before filing, participants should familiarize themselves with the Commission's ex parte rules, including the general prohibition on presentations (written and oral) on matters listed on the Sunshine Agenda, which is typically released a week prior to the Commission's meeting. *See* 47 CFR § 1.1200 *et seq*.

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

In the Matter of	)	
	)	
Review of the Commission's Rules Governing the	)	WT Docket No. 24-99
896–901/935–940 MHz Band	)	RM-11977
	)	
	)	

REPORT AND ORDER*

Adopted: [] **Released: []**

By the Commission:

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Heading Paragraph #

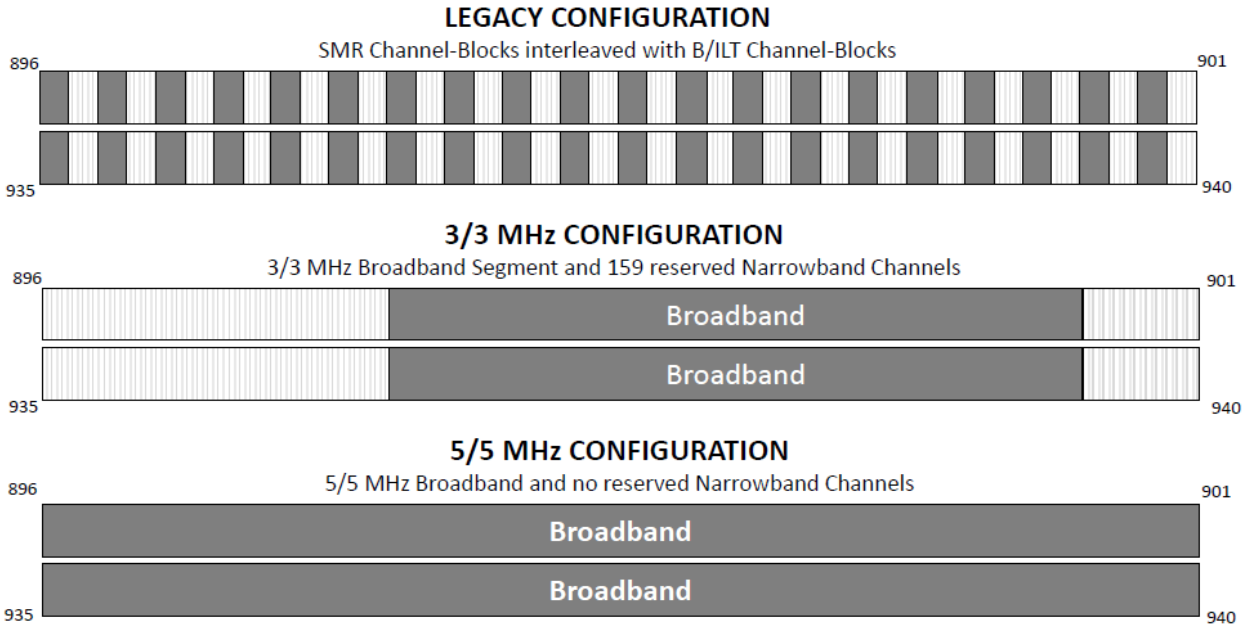
* This document has been circulated for tentative consideration by the Commission at its February 18, 2026 Open Meeting. The issues referenced in this document and the Commission's ultimate resolution of those issues remain under consideration and subject to change. This document does not constitute any official action by the Commission. However, the Chair has determined that, in the interest of promoting the public's ability to understand the nature and scope of issues under consideration, the public interest would be served by making this document publicly available. The FCC's *ex parte* rules apply and presentations are subject to "permit-but-disclose" *ex parte* rules. *See, e.g.,* 47 C.F.R. §§ 1.1206, 1.1200(a). Participants in this proceeding should familiarize themselves with the Commission's *ex parte* rules, including the general prohibition on presentations (written and oral) on matters listed on the Sunshine Agenda, which is typically released a week prior to the Commission's meeting. *See* 47 CFR §§ 1.1200(a), 1.1203.

I. INTRODUCTION

1. In this *Report and Order*, we maximize the potential of the 896–901/935–940 MHz band (900 MHz band) by enabling broadband deployment on all ten megahertz of the band. This effort will facilitate additional spectrum access by utilities, critical infrastructure, and other enterprises for private wireless broadband deployments that drive innovation by these businesses and stimulate the American economy.

2. In particular, the rules we adopt today allow for eligible existing 900 MHz licensees to transition to a paired five-megahertz broadband channel license (5/5 broadband license). The revised 900 MHz regulatory framework also provides opportunities to maintain narrowband and paired three-megahertz broadband segment uses in the band to meet the needs of incumbents. This *Report and Order* builds upon the Commission's previous efforts to realign the band for paired three megahertz broadband channel licenses through a market-driven transition.[1]

[1] *See Review of the Commission's Rules Governing the 896–901/935–940 MHz Band*, WT Docket No. 17-200, Report and Order, Order of Proposed Modification, and Orders, 35 FCC Rcd 5183 (2020) (*3/3 900 MHz R&O*) (establishing 3/3 broadband in the 900 MHz band).



3. Under the rules we adopt today, the 900 MHz band can be used in a given county in any of three configurations: (1) a "legacy" configuration consisting of ten megahertz of 12.5 kHz frequency pairs grouped into ten-channel blocks that alternate between the Specialized Mobile Radio (SMR) and site-based Business and Industrial/ Land Transportation (B/ILT) services;[2] (2) one six-megahertz broadband segment consisting of two paired three-megahertz channels and two narrowband segments with a total of 159 narrowband channels; or (3) ten megahertz of broadband consisting of two paired five-megahertz channels and no reserved narrowband channels.

II. BACKGROUND

A. Allocation and Use

4. *900 MHz Band*. The 900 MHz band is currently allocated for Fixed, Land Mobile, and Mobile Except Aeronautical Mobile.[3] Specifically, the 897.5–900.5/936.5–939.5 MHz portion of the band—commonly referred to as the 3/3 broadband segment—is allocated on a co-primary basis for Fixed and Mobile Except Aeronautical Mobile and is governed by parts 27 and 90 of the Commission's rules.[4] The 896–897.5/935–936.5 MHz and 900.5–901/939.5–940 MHz portions of the band—also referred to as the narrowband segments—are allocated on a co-primary basis for Fixed and Land Mobile and are governed by part 90 of the Commission's rules.[5]

[2] As reflected in the configuration illustration, the legacy configuration comprises 20 wideband channels interleaved with 200 narrowband channels. More specifically, the legacy configuration consists of ten megahertz of 399 narrowband (12.5 kilohertz) frequency pairs grouped into 10-channel blocks that alternate between SMR blocks that are site-based or geographically licensed by Major Trading Area and B/ILT blocks in which channels are assigned on a site-by-site basis. The licensee may use the wideband channels in a narrowband configuration or may combine contiguous channels to create one or more wideband channels. Although these channels are predominantly used in narrowband configurations at this time, their use in a wideband configuration would likewise be maintained under the legacy configuration. Any references to maintaining narrowband operations or opportunities herein should therefore be read as inclusive of maintaining the use of wideband channels under the legacy configuration.

[3] 47 CFR § 2.106.

[4] *Id.*

[5] *Id.*

5. The current use of the 900 MHz band varies by county, depending on whether the band has transitioned from the legacy configuration to 3/3 broadband. In non-transitioned counties, the band encompasses interleaved Specialized Mobile Radio (SMR) and Business and Industrial/Land Transportation (B/ILT) blocks. In counties that have transitioned, one licensee holds a 3/3 broadband license while others operate on two narrowband segments.[6] Over 400 counties across the country have been transitioned to include a 3/3 900 MHz broadband segment, including counties in California, Kansas, and Florida. Anterix, Inc. holds most of these broadband licenses.[7] Other parts of the country have retained the legacy configuration depicted herein, while Guam, the Northern Mariana Islands, and American Samoa have no apparent 900 MHz licensees at all.[8] In addition, the Association of American Railroads (AAR) holds a nationwide ribbon license in the narrowband segments at 896–896.125/935–935.125 MHz to support railroad safety systems surrounding railroad rights-of-way in the Continental United States (CONUS).[9]

6. *Adjacent Bands*. The 900 MHz band is situated immediately above spectrum that is divided between the commercial Air-Ground Radiotelephone Service, which uses the 894–896 MHz segment as the downlink for high-speed communications services to the public onboard aircraft,[10] and common carrier and private fixed point-to-point links in the 932.5–935 MHz segment.[11] The 900 MHz band is immediately below the Narrowband Personal Communications Service (Narrowband PCS), which uses spectrum at 901–902/940–941 MHz, most commonly for two-way paging and telemetry.[12] The Table of Allocations also indicates limited adjacent federal spectrum use.[13]

B. Procedural History

7. *900 MHz Licensing Freeze*. In 2018, the Wireless Telecommunications Bureau (Bureau or WTB) announced a freeze on the acceptance of applications for new or expanded 900 MHz band operations in order to maintain a stable spectral landscape while the Commission determined how to

[6] *3/3 900 MHz R&O*, 35 FCC Rcd at 5192, para. 21. WTB began accepting applications for 900 MHz broadband segment licenses in 2021. *See Wireless Telecommunications Bureau to Accept 900 MHz Broadband Segment Applications Beginning May 27, 2021*, WT Docket No. 17-200, Public Notice, 36 FCC Rcd 7377 (WTB 2021).

[7] Anterix uses the name PDV Spectrum Holding Company, LLC, for its 900 MHz licenses.

[8] *See* ULS License Search for American Samoa, Guam, and Northern Mariana Islands for the BS, YU, GI, YD, GU, YI, GR, and YS service codes in the 896–901 MHz and 935–940 MHz frequency ranges (showing zero results).

[9] *See* Association of American Railroads, call sign WPSF894; *Review of the Commission's Rules Governing the 896–901/935–940 MHz Band*, WT Docket No. 17-200, Report and Order, Order of Proposed Modification, and Orders, 35 FCC Rcd 5183, 5225, para. 99 (2020) (*2020 900 MHz Order of Proposed Modification*). AAR's nationwide ribbon license was modified in order to transition its operations out of the 3/3 broadband segment. *See id.* Following license modification, AAR was licensed for use of a paired wideband 125 kilohertz channel in the narrowband segments at 896–896.125/935–935.125 MHz and was required to transition to its new frequencies within five years of license modification. *See id.* at 5225, para. 99 & n.299; *id.* at 5226–27, para. 105; ULS File No. 0011749141, Attach. A (verifying that the railroads have successfully transitioned operations out of the 3/3 broadband segment).

[10] *See* 47 CFR pt. 22, subpt. G.

[11] *See id.* § 101.101.

[12] *See id.* § 24.129.

[13] *Id.* § 2.106. The Federal Table for the 932–935 MHz band includes a fixed primary allocation as well as footnote US268 regarding radiolocation service for federal ship stations in off-shore ocean areas and footnote G2 regarding the use of federal radiolocation service for military services. *Id.* US268, G2. The Federal Table for the 890–902MHz and 935–941 MHz bands includes the same footnotes, plus a footnote limiting federal use to case-by-case experimental stations since July 10, 1970, but no allocations. *Id.* US116, US268, G2.

proceed with respect to the band.[14] WTB modified the freeze in 2019 to permit incumbents to exchange frequencies at the same location (i.e., acquire proposed narrowband segment frequencies to replace proposed vacated broadband segment frequencies), provided the modification did not increase that incumbent's net number of licensed frequencies.[15] In 2020, the Commission partially lifted the freeze to permit covered incumbents to file applications to relocate their operations to different frequencies or locations and transition 900 MHz narrowband operations.[16]

8. *2020 Report and Order*. In the *3/3 900 MHz R&O*, the Commission realigned the 900 MHz band to make available six of the band's ten megahertz for the deployment of broadband services and technologies.[17] Although the Commission had sought comment on establishing a paired 5/5 broadband segment,[18] it found that adopting a paired 5/5 broadband segment was premature and that the public interest would be best served by providing 900 MHz licensees with the option of continuing long-standing narrowband operations.[19] The Commission stated that it would monitor the progress of 3/3 broadband deployments and any continuing narrowband requirements before addressing whether future authorization of a 5/5 broadband segment is in the public interest.[20]

9. To facilitate a rapid transition to 3/3 broadband deployment, the *3/3 900 MHz R&O* established a negotiation-based mechanism that, where private agreements are reached, would make available on a county-by-county basis six megahertz of low-band spectrum for the development of broadband technologies and services, while reserving the remaining four megahertz of the band for continued narrowband operations.[21] The Commission implemented a framework whereby it would issue new 3/3 broadband licenses to applicants meeting certain eligibility requirements.[22] The Commission also created rules that permit a 900 MHz broadband licensee to relocate mandatorily a limited percentage of covered incumbents[23]—except those with complex systems—from the new broadband segment by

[14] *See Wireless Telecommunications Bureau Announces Temporary Filing Freeze on the Acceptance of Certain Part 90 Applications for 896–901/935–940 MHz (900 MHz Band) Spectrum*, WT Docket No. 17-200, Public Notice, 33 FCC Rcd 8735, 8735–36 (WTB 2018) (*900 MHz Freeze Public Notice*). WTB also noted that an entity could seek relief from the freeze through the Commission's waiver provisions. *Id.* at 8736, n.4.

[15] *See Review of the Commission's Rules Governing the 896–901/935–940 MHz Band; pdv Wireless, Inc. d/b/a Anterix, Request for Modification of 900 MHz Temporary Filing Freeze*, WT Docket No. 17-200, Order, 34 FCC Rcd 9369, 9369–71, paras. 1, 5–7 (WTB 2019) (*900 MHz Freeze Modification*). To facilitate incumbent transitions without significant service interruption, the *900 MHz Freeze Modification* provided that licensees granted a modified license were permitted to continue operating on both the proposed narrowband and to-be-vacated broadband segment frequencies during a transition period. *Id.* at 9371, para. 7. The incumbent licensee was required to cancel its authorization for the proposed broadband segment frequencies no later than 180 days after the grant of the modification application. *Id.*

[16] *3/3 900 MHz R&O*, 35 FCC Rcd at 5251, paras. 175–76; *see also id.* at 5206, para. 50 (defining "Covered incumbent" as "any 900 MHz site-based licensee in the broadband segment that under section 90.621(b) is required to be protected by a broadband licensee that locates a base station anywhere within the county, or any 900 MHz geographic-based SMR licensee in the broadband segment whose license area completely or partially overlaps the county."); 47 CFR § 27.1501 (Definitions).

[17] *3/3 900 MHz R&O,* 35 FCC Rcd at 5192–227, paras. 22–107; *see* 47 CFR pt. 27, subpt. P.

[18] *Review of the Commission's Rules Governing the 896–901/935–940 MHz Band*, WT Docket No. 17-200, Notice of Proposed Rulemaking, 34 FCC Rcd 1550, 1557, para. 20 (2019) (*3/3 900 MHz NPRM*).

[19] *Id.* at 5198, para. 33.

[20] *Id.*

[21] *Id.* at 5201–06, paras. 38–52.

[22] *Id*. at 5207–11, 5227–29, paras. 53–62, 108–13; *see* 47 CFR § 27.1503.

[23] *3/3 900 MHz R&O*, 35 FCC Rcd at 5206, para. 50.

paying reasonable relocation costs, including providing comparable facilities.[24] In addition, the Commission adopted operational and technical rules to minimize harmful interference to narrowband operations.[25] The Commission also issued an accompanying *Order of Proposed Modification* related to AAR's 900 MHz nationwide ribbon license to prevent disruptions to the railways, enhance rail safety, and fully clear a virtually nationwide incumbent from the 3/3 broadband segment.[26]

10. *Petition for Rulemaking*. On February 28, 2024, ten entities filed a petition for rulemaking asking the Commission to adopt a framework that would increase the existing broadband allocation in the 900 MHz band by providing an option for 5/5 broadband networks in the band.[27] Petitioners asserted that giving certain users the option to apply for a new 5/5 broadband license or expand upon an existing 3/3 broadband license in the 900 MHz would support the band users' growing demand for wide-area, private, and secure wireless broadband networks.[28] In addition, Petitioners stated that this ten-megahertz broadband spectrum opportunity would aid in ensuring that utilities, critical infrastructure, and business enterprise entities have access to additional capacity to support their 900 MHz private wireless broadband deployments.[29] Under their proposed plan, Petitioners maintained that narrowband incumbents would remain protected under the existing framework in the Commission's rules and would only vacate an existing narrowband segment to allow 5/5 broadband operations if the relevant parties made a private agreement to do so.[30] Petitioners suggested that no changes are necessary to the current harmful interference, technical, or performance requirement rules to implement 5/5 broadband operations.[31] Likewise, Petitioners proposed that, as with the current rules, the licensee of an authorization for a 5/5 broadband segment could be required to make any necessary anti-windfall payments to the general fund of the U.S. Treasury.[32]

11. *WTB Public Notice*. On April 2, 2024, WTB sought comment on the Petition and the request that the Commission provide an option for 5/5 broadband networks in the 900 MHz band through a voluntary transition process.[33] In particular, WTB sought comment on whether existing rules would be sufficient to protect incumbent narrowband operations from harmful interference, as well as whether those rules would be sufficient to protect operations in adjacent spectrum bands.[34] The Commission

[24] *Id.* at 5192, 5211–21, paras. 21, 63–88; *see also* 47 CFR §§ 27.1503–27.1504. The Commission adopted the following definition of "Complex system": "A covered incumbent's system that consists of 45 or more functionally integrated sites." It further noted that "[s]uch systems are of considerable size and technical complexity and are often deployed over wide areas with sites that are functionally reliant on each other." *3/3 900 MHz R&O*, 35 FCC Rcd at 5217, para. 79. In section III.F.3 below, we discuss a revision to this definition, which we adopt herein.

[25] *3/3 900 MHz R&O*, 35 FCC Rcd at 5231–47, paras. 118–165; 47 CFR §§ 27.1505–27.1510.

[26] *2020 900 MHz Order of Proposed Modification*, 35 FCC Rcd at 5225–27, paras. 99–106.

[27] Petition of Ameren Services Company et al. for Rulemaking, RM-11977, at 1–2 (filed Feb. 28, 2024), https://www.fcc.gov/ecfs/search/search-filings/filing/10229148220602 (Petition). The petitioners are Ameren Services Company; Anterix, Inc.; Enterprise Wireless Alliance; Evergy, Inc.; Lower Colorado River Authority; Portland General Electric; San Diego Gas & Electric; Southern Communications Services, Inc.; Utility Broadband Alliance; and Xcel Energy Services, Inc. (collectively, Petitioners).

[28] Petition at 1–2, 6, 11; *see also* 47 CFR § 27.1503.

[29] *Id.* at 1–2, 6, 11.

[30] *Id.* at 11.

[31] *Id.*

[32] *Id.*

[33] *Wireless Telecommunications Bureau Seeks Comment on Petition for Rulemaking to Expand Wireless Broadband in 900 MHz Band*, WT Docket No. 24-99; RM-11977, Public Notice, 39 FCC Rcd 3113, 3114 (WTB 2024) (*Petition Comment PN*).

[34] *Id.*

received 31 comments and reply comments and 16 *ex parte* filings. Commenting parties generally support the proposal, noting the benefits that additional broadband could bring to licensees in the band, including increasing the use of standard LTE and 5G technologies and allowing for potential new use cases, such as smart-grid technologies.[35]

12. *5/5 900 MHz Notice of Proposed Rulemaking*. On January 16, 2025, the Commission released the *5/5 900 MHz NPRM*, which sought comment on a proposed voluntary, negotiation-based process to transition the entire ten megahertz in the 900 MHz band for broadband.[36] The proposal would allow the entire band to transition to broadband in counties where a prospective broadband licensee and incumbent licensees reach private agreements to do so. In counties where no such agreement was reached, the proposed framework would maintain the option of narrowband or six-megahertz broadband segment operations pursuant to the legacy and 3/3 configurations to meet the needs of incumbents in the band. Specifically, the Commission sought comment on whether the rules governing the 3/3 broadband segment—including eligibility criteria, application requirements and procedures, licensing and operating rules, and technical requirements—would be appropriate for effectuating a ten-megahertz broadband licensing framework. The Commission proposed that the 900 MHz band would have three options, depending on the license(s) held and the state of transition of the band in a particular county: (1) continued narrowband operations across the band; (2) continued narrowband operations in the narrowband segments (896–897.5/935–936.5 MHz and 900.5–901/939.5–940 MHz) and broadband operations in the 3/3 broadband segment (897.5–900.5/936.5–939.5 MHz); or (3) broadband operations throughout the entire 900 MHz band.[37] Finally, the Commission sought comment on whether the Commission should continue the 900 MHz band freeze and, in an order accompanying the 5/5 900 MHz NPRM, the Commission delegated authority to WTB to modify or terminate the freeze.[38]

13. *Record*. The Commission received 21 comments and 10 reply comments from utilities, railroad industry stakeholders, equipment manufacturers, and critical infrastructure organizations. Several commenters, including Anterix, support the Commission's proposal to transition to a 5/5 MHz broadband band plan, emphasizing that it is vital for utilities and critical infrastructure sectors to meet increasing demands for secure, private wireless networks capable of supporting advanced telecommunications needs and innovative applications.[39] Anterix and various utility stakeholders

[35] *See, e.g.*, Dominion Energy Inc. Petition Comments at 4–7 (Dominion Petition Comments) (expanding 900 MHz broadband "will further advance and facilitate the integration of distributed energy resources ('DER'), enhance physical grid reliability and security, and enhance real-time system monitoring and situational awareness and grid operations," will help with the adoption of voice over LTE, drone applications, enhanced wildfire prevention and mitigation solutions, "synchrophasor sensors," direct transfer trip function that disconnects distributed generation, Dominion's offshore windfarm project, and support the ecosystem of companies developing solutions for private wireless broadband networks); Ericsson Petition Comments at 2–3 (expanding 900 MHz broadband will support a variety of uses, including remote monitoring, proactive maintenance, and drones); National Rural Electric Cooperative Association Petition Comments at 2 (NRECA Petition Comments) (stating that expanding 900 MHz broadband will enable rural cooperatives to participate in "ongoing grid modernization"); The Utility Broadband Alliance Petition Reply Comments at 1–4 (UBBA Petition Reply) (stating that expanded 900 MHz broadband would support utility applications like advanced metering infrastructure 2.0, integration of distributed energy resources, voice over LTE, and mission critical push-to-talk, among other applications).

[36] *Review of the Commission's Rules Governing the 896–901/935–940 MHz Band*, WT Docket No. 24-99, RM-11977, Notice of Proposed Rulemaking and Order, 40 FCC Rcd 818, 819, para. 2 (*5/5 900 MHz NPRM* or *5/5 900 MHz Order*).

[37] *Id.* at 825, para. 13.

[38] *Id.* at 819, 851–53, paras. 2, 71–75; *5/5 900 MHz Order*, 40 FCC Rcd at 854, para. 79.

[39] Anterix, Anterix Active Ecosystem (Advantech Corporation, Allen Vanguard Wireless, Atomation, Inc., et al.), Ameren; Dominion, Edison Electric Institute (EEI), Lower Colorado River Authority (LCRA), Portland General Electric (PGE), Southern Linc, the Utilities Technology Council (UTC), and Utility Broadband Alliance (UBBA) all support the 5/5 proposal. *See, e.g.*, Anterix Comments at 1–4.

underscore the necessity of maintaining narrowband options and voluntary transitions without mandatory relocations.[40] Stakeholders including the Edison Electric Institute (EEI) and Lower Colorado River Authority (LCRA) highlight the potential benefits of the proposed 5/5 MHz allocation, particularly for enhancing mission-critical communications, grid modernization efforts, and security.[41]

14. In contrast, some commenters raise concerns with the prospect of 5/5 broadband licenses in the 900 MHz band. AAR expresses unease regarding the impact of the proposed broadband expansion on railroad communications and emphasizes the need for railroads to transition out of the band altogether in order for the 5/5 expansion to proceed.[42] AAR notes the significant financial and operational burdens associated with its ongoing relocation of existing narrowband operations, and it estimates relocation costs upwards of $41 million, and an additional $69 million for implementing next-generation services.[43] In its reply (submitted with the American Short Line and Regional Railroad Association (ASLRRA)), AAR urges the Commission not to finalize the rule without providing equivalent spectrum for the railroads to continue operations (configured by the Commission into a single nationwide geographic ribbon license), full compensation for transition costs, and reasonable timelines for implementation, plus a 20-year guarantee against further relocation.[44] Ondas and Siemens also express concerns about the potential

[40] *See, e.g.*, Anterix Comments at 8–9, 13–14.

[41] *See* EEI Comments at 3; LCRA Comments at 8; *see also* Anterix Comments at iii (stating the adoption of this proposal will "will provide utilities and other enterprise entities with the spectrum needed for networks with improved latency and the ability to support known and yet-to-be-identified use cases."); Advantech Corporation, Altairis Technology Partners, LLC, BEC Technologies, Inc., et al. (Anterix Active Ecosystem) Reply at 2–3 (highlighting that this "will be instrumental in supporting the growing demand for secure, private, wide-area wireless networks, benefiting utilities and critical infrastructure as well as business enterprises" and that in providing this option to providers the Commission will be a "catalyst for the development and implementation of even more innovative applications, . . . leading to significant benefits and opportunities for utilities, critical infrastructure sectors, and the citizens of the United States."); Ameren Services Comments at 3 (noting this expansion in available broadband spectrum "would provide additional capacity for [its] escalating use of mobility and mutual aid applications" and for "future use cases including mission critical push-to-talk, distributed energy resource management systems (DERMS), advanced metering infrastructure (AMI) 2.0, and artificial intelligence."); Dominion Energy Comments at 3 (expressing the growing agreement in this industry that it needs "exclusive, licensed broadband spectrum" and this expansion "represents a critical step toward meeting the growing and evolving spectrum needs of utilities."); Portland General Electric (PGE) Comments at 2 (stating that adoption of this proposal will "increase capacity to support [grid] technologies" as they are evolving); Southern Communications Services, Inc. d/b/a Southern Linc Comments at 1, 3 (noting this expansion is beneficial as service providers currently cannot meet the needs of "coverage, capacity, reliability, and security required by utilities and other operators of critical infrastructure."); UTC Comments at 2 (stating that "broadband spectrum is increasingly necessary to support smart grid and other emerging utility applications" and that expansion is critical to allow utilities to "increase communications capacity as necessary to meet increasing requirements"); UBBA Comments at 5 (highlighting the many use cases this expansion would aid in supporting including "video surveillance of critical infrastructure and assets, transmission synchrophasors, and connectivity for uncrewed aircraft system . . . inspection of substation, transmission, and generating facilities" (footnote omitted)).

[42] *See* AAR Comments at 1–2.

[43] *See id.* at 9.

[44] *See* AAR/ASLRRA Reply at 7.

impact of a 5/5 broadband license option on railroad operations.[45] Adjacent band users Gogo and Space Data raise concerns about the effects of 5/5 broadband on their operations.[46]

III. DISCUSSION

A. Enabling Increased Broadband Deployment in the 900 MHz Band

15. Today we enable broadband on all ten megahertz of the 900 MHz band, providing enhanced spectrum capacity to meet a wider range of broadband needs. We adopt a negotiation-based mechanism that, where private agreements are reached, will make available on a county-by-county basis a full ten megahertz of spectrum for the deployment of broadband technologies and services. The expansion adopted today has strong support from the enterprise community and energy utilities that have been the predominant users of narrowband spectrum in the 900 MHz band and are increasingly transitioning to 900 MHz broadband networks.[47]

16. The successful transition of the band to accommodate a 3/3 broadband segment demonstrates the significant demand for leveraging underutilized 900 MHz spectrum for broadband technology. Implementation of the 3/3 transition has been underway since 2021 and has resulted in the deployment of private wireless broadband networks in the 900 MHz band across 23 states.[48] In fact, 900 MHz broadband spectrum has been so highly sought after that Anterix and a number of utilities with broadband networks petitioned the Commission, requesting the removal of regulatory barriers to deploy broadband across the entire ten megahertz in the band.[49] Many commenters express enthusiasm for the Commission's proposal to allow for broadband across the full ten megahertz of the 900 MHz band.[50] Commenters suggest that increasing broadband opportunities would provide utilities and other enterprise entities with the spectrum needed for higher speed and lower latency networks that have the ability to support known and yet-to-be-identified use cases.[51] Enterprise wireless entity Southern Linc believes that commercial service providers are currently limited in the "coverage, capacity, [and] reliability" they can provide.[52] Ericsson notes the "growing demand for wide-area, private, and secure wireless broadband networks for utilities, critical infrastructure, and enterprise entities" will be supported by this additional 900 MHz broadband spectrum.[53]

17. Dominion notes that "5/5 private LTE broadband systems can support integrated distributed energy resources ('DER'), enhanced physical grid reliability and security, real-time system

[45] Ondas Comments at 2 (stating that"[t]he proposed 5x5 broadband operations in the 900 MHz A-Block would likely cause harmful interference to the narrowband 900 MHz channels and compromise safety critical railroad systems"); Siemens Comments at 1 (expressing concern that "[a]brupt policy reversal under the current NPRM would compromise railroad operational safety, undermine years of R&D and discourage future innovation in safety-enhanced railroad wireless technologies").

[46] *See* Space Data Comments at 1–2 (noting that Space Data is a licensee in the adjacent Narrowband Personal Communications Service band, and asking the Commission to ensure the protection of adjacent band users from harmful interference, primarily through a new reorganization of band); Gogo Comment at 3 (positing that "[b]roadband operations adjacent to Gogo's 894–896 MHz transmissions could endanger Gogo's ability to provide reliable service to its customers.").

[47] *See* Anterix Reply at 1–4; *see also supra* note 39.

[48] Anterix Comments at 2.

[49] *See Petition Comment PN*, 39 FCC Rcd at 3113.

[50] *See supra* note 41.

[51] *See, e.g.*, Anterix Reply at iii.

[52] Southern Communications Services, Inc. d/b/a Southern Linc May 2025 Comments at 1, 3 (Southern Linc Comments).

[53] Ericsson Comments at 2.

monitoring and situational awareness and grid operations, and Voice over LTE solutions ('VoLTE')."[54] Utility Broadband Alliance (UBBA) states that "utility use cases that would be supported by a 5/5 allocation include video surveillance of critical infrastructure and assets, transmission synchrophasors, and connectivity for uncrewed aircraft system . . . inspection of substation, transmission, and generating facilities."[55] Moreover, as Dominion notes, there is a "growing consensus within the industry that utilities need exclusive, licensed broadband spectrum and that the adoption and promotion of private wireless broadband networks solutions are necessary to support evolving communications requirements and grid modernization demands."[56] EEI states that "[t]he current 3/3 MHz segment is often insufficient to meet evolving [utility broadband] needs."[57] It also indicates that "meaningful advancements in coverage, capacity, and reliability" are fostered by a 5/5 segment in the band.[58]

1. Band Realignment to Create a 5/5 900 MHz Broadband Segment on a County-by-County Basis

18. We find it in the public interest to adopt the proposal to amend the Commission's rules and expand the existing 900 MHz broadband allocation to the full ten megahertz of spectrum.[59] This revised allocation will enable paired five megahertz channels at 896–901/935–940 MHz on a county-by-county basis. The transition to 5/5 broadband will be optional and in a manner that ensures the protection of incumbent and adjacent band licensees. We conclude that our action furthers important goals of the Communications Act of 1934, as amended (the Act), including improving the efficiency of spectrum use.[60] Specifically, we believe that expansion of the broadband capacity available can address the critical demand and growing need for private broadband networks in the 900 MHz band, allowing users to leverage broadband capacity for more advanced and robust networks. We further conclude that the flexible use of the 900 MHz band remains appropriate under section 303(y) of the Act.[61]

19. We acknowledge the concerns expressed by AAR, ASLRRA, Motorola Solutions, Inc. (MSI), Ondas, and Siemens regarding the impact of a 5/5 900 MHz option on the railroads' ongoing deployment of mission-critical safety applications in their nationwide license in the narrowband segments (at 896–896.125/935–935.125 MHz).[62] Further, AAR and ASLRRA urge that the final rules for the 5/5 broadband segment "should not be adopted until broadband licensees and incumbents reach agreements that include specific, necessary assurances."[63] We find it impractical to delay the adoption of the final *5/5 900 MHz R&O* for private party negotiations, and decline to do so. We note that the Commission's

[54] Dominion Energy Comments at 2.

[55] UBBA Comments at 5 (footnote omitted).

[56] Dominion Energy Comments at 3.

[57] EEI Comments at 3.

[58] *Id.*

[59] *See 5/5 900 MHz NPRM*, 40 FCC Rcd at 827, para. 16.

[60] *See 47 U.S.C.* § 332(a)(2); *5/5 900 MHz NPRM,* 40 FCC Rcd at 827, para. 16 (seeking comment on the Commission's tentative conclusion that establishing 5/5 broadband in the 900 MHz band furthers important goals of the Act).

[61] *See* 47 U.S.C. § 303(y); *5/5 900 MHz NPRM,* 40 FCC Rcd at 828, para.18. Here, the allocation is in the public interest; it does not deter investment in communications services and systems, or development of technologies; and such use is not anticipated to result in harmful interference among users—thus meeting section 303(y)'s test for circumstances in which a flexible use allocation is appropriate. The Commission sought comment on this conclusion and no commenters disagreed with the analysis or the conclusion that flexible use is appropriate here.

[62] *See, e.g.*, AAR Comments at 3–4; AAR/ASLRRA Reply at 2–5; MSI Comments at 5–6; Ondas Comments at 2; Siemens Comments at 1.

[63] AAR/ASLRRA Reply at 7.

actions here remove the regulatory barriers that have made a 5/5 broadband license an impossibility. We also make clear that all 5/5 broadband license acquisitions and exchanges in the 896–897.5/935–936.5 MHz and 900.5–901/939.5–940 MHz portions of the band—referred to as the narrowband segments in the 3/3 configuration—will be completely voluntary and market-driven.

20. The record shows that expansion of the 900 MHz broadband allocation will continue to encourage innovation and stimulate investment in new wireless technologies available to utilities, critical infrastructure organizations, and other users of private broadband networks. It will create additional market-driven opportunities for robust broadband networks that fully support critical communication systems and aid in ensuring the low latency and ultra-high reliability required by electric and other utilities while maintaining the narrowband option for B/ILT and SMR spectrum users.[64] The expansion will facilitate the services and applications, such as broadband data, voice services, text messaging, push-to-talk, and the capability to handle communications from large numbers of small Internet of Things (IoT) devices like sensors and actuators.

21. Going forward, 900 MHz licensees will have three options for utilizing spectrum, depending on the license held and the state of transition of the band in a particular county: (1) continued narrowband operations across the band; (2) continued narrowband operations in the narrowband segments (896–897.5/935–936.5 MHz and 900.5–901/939.5–940 MHz) and broadband operations in the 3/3 broadband segment (897.5–900.5/936.5–939.5 MHz) on a county-by-county basis; or (3) broadband operations throughout the entire band on a county-by-county basis.

22. We conclude that it is in the public interest to follow a county-by-county approach to the transition to 5/5 broadband, and that all three band configurations can successfully coexist in adjacent counties, supported by geographic and other interference protection provisions and the transition plans required to obtain a broadband license. Commenters widely support the option for 5/5 broadband on a county-by-county basis.[65] For example, LCRA strongly believes that it is possible for long-standing narrowband operations to continue under the proposed realignment because the transition will be entirely voluntary and only in those markets where all affected parties have reached agreement.[66] As LCRA notes, a county-by-county transition scheme has enabled utilities to obtain 3/3 900 MHz licenses and has facilitated the relocation of narrowband incumbents to appropriate alternative spectrum.[67] Under the rules we adopt today, any transition to 5/5 broadband licenses may only take place after all relevant licensees reach agreements to minimize disruption to services, maintain key safety operations, and establish appropriate interference protection.[68] Further, it will facilitate compliance to follow the path established with the transition to 3/3 broadband licenses in the band.[69] Likewise, as discussed in further detail in III.C.1, to adopt an inconsistent geographic area could create unnecessary hurdles to 5/5 broadband deployment, such as those caused by overlapping license areas.

23. *Adjacent Band Coexistence.* Space Data, Gogo, and MSI raise concerns about how the Commission will ensure that Air-Ground Radiotelephone Service and Narrowband PCS operations are protected from 5/5 broadband operations.[70] Such concerns are addressed in greater detail below, but in short, the technical and operational rules adopted herein have been designed to promote effective coexistence between any new 5/5 900 MHz broadband operations and neighboring incumbents.

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[64] *See supra* note 41.

[65] *See, e.g.*, LCRA Comments at 13; Eversource Comments at 2–3.

[66] LCRA Comments at 6.

[67] *See id.* at 13.

[68] *See* Appx. A (Final Rules).

[69] *See 5/5 900 MHz NPRM*, 40 FCC Rcd at 822.

[70] *See* Space Data Comments at 6; Gogo Comments at 3; MSI Comments at 2.

24. *In Band Coexistence*. We conclude that it is possible for long-standing narrowband operations to both coexist and, if permitted under the freeze, expand operations alongside 5/5 broadband operations in neighboring counties. The technical rules adopted today are designed to prevent harmful interference between users of the 900 MHz band, as well as between users of the 900 MHz band and users of adjacent bands. Balancing the operational requirements of both broadband and narrowband users in the 900 MHz band has been successfully underway for several years. Nevertheless, should harmful interference occur, both the narrowband incumbent and the broadband segment licensee will be required to work in good faith to resolve such interference issues.[71]

25. *Revised Allocation*. We allocate the entire 896–901/935–940 MHz band as Mobile Except Aeronautical Mobile Service and remove the Land Mobile allocation. As stated in the *5/5 900 MHz NPRM*, we believe that this approach is consistent with the Commission's decision in the *3/3 900 MHz R&O*, as well as the allocations in Region 2 of the International Table of Frequency Allocations.[72] We retain the co-primary "Fixed" allocation. This allocation allows for all three configurations of the band. Depending on the status of the band in a given county, service and technical rules will support continued narrowband operations either across the band or in the narrowband segments of the 3/3 configuration. The Mobile Except Aeronautical Mobile Service allocation enables continued narrowband operations, where applicable, because Mobile encapsulates Maritime Mobile, Aeronautical Mobile, and Land Mobile. More specifically, we designate 896–901/935–940 MHz as a Miscellaneous Wireless Communications Service governed by part 27 of the Commission's rules and include informational references to "Wireless Communications (27)" and "Private Land Mobile (90)" in the Table of Frequency Allocations.[73] We also update US footnotes 116 and 268 in the Federal Table so the references in the two footnotes are consistent with the revised allocation we adopt today.

2. Negotiation-Based Transition

26. A market might transition to a 5/5 broadband license configuration in one of two ways: either from a legacy 900 MHz band plan configuration or from a 3/3 broadband configuration. In either case, the transition of narrowband operations in the 896–897.5/935–936.5 MHz and 900.5–901/939.5–940 MHz portions of the band—referred to as the narrowband segments in the 3/3 configuration—must be completely voluntary. In contrast, if a certain threshold is met, a prospective 5/5 broadband licensee may invoke mandatory relocation in the 897.5–900.5/936.5–939.5 MHz portion of the band—referred to as the broadband segment in the 3/3 configuration. We conclude that it is in the public interest to adopt the proposal to authorize a market-driven, voluntary exchange process whereby the 5/5 900 MHz broadband license could be obtained from the Commission after private negotiations between the prospective 5/5 broadband licensee and all relevant incumbents.[74] This method builds on the successful track record of the 3/3 transition.

27. Commenters overwhelmingly support a voluntary relocation process for transitioning the

[71] *See* 47 CFR § 2.102(f).

[72] *5/5 900 MHz NPRM*, 40 FCC Rcd at 828, para. 17. In Region 2 of the International Table of Frequency Allocations, the 890–902 MHz and 928–942 MHz bands are allocated to the Fixed Service and Mobile Except Aeronautical Mobile Service on a co-primary basis and the Radiolocation Service on a secondary basis. 47 CFR § 2.106. The International Table of Frequency Allocations, included in the Commission's rules for informational purposes only, is subdivided into the Region 1 Table, the Region 2 Table, and the Region 3 Table. The U.S. Table is based on the Region 2 Table because the relevant area of jurisdiction is located primarily in Region 2 (i.e., the 50 States, the District of Columbia, the Caribbean insular areas, and some of the Pacific insular areas). *Id.* §§ 2.104, 2.105.

[73] Please note that this allocation differs slightly from the framing of the Commission's proposal. We have also streamlined the way the changes are delineated in the Table of Frequency Allocations to avoid unnecessary duplication.

[74] *See 5/5 900 MHz NPRM*, 40 FCC Rcd at 830, para. 23.

896–897.5/935–936.5 MHz and 900.5–901/939.5–940 MHz portions of the band—referred to as the narrowband segments in the 3/3 configuration—to a 5/5 broadband segment, with minimal exceptions.[75] Anterix highlights that the 900 MHz band transition is unique in that no third party oversight and adjudication has been necessary here and band clearing is completed in a reasonable amount of time based on mutually agreeable negotiated terms.[76] Ameren calls "[t]his voluntary, cost-saving approach to spectrum allocation . . . a hallmark of good policymaking" and believes that "through market-based, arms-length negotiations, the parties involved will be able to reach mutually agreeable terms to create a public good—a win-win-win outcome."[77] Other commenters, including the Utilities Technology Council (UTC) and the Enterprise Wireless Alliance (EWA), agree on the importance of a voluntary framework and express that it should be a key feature of the rules.[78]

28. The starting point for the creation of a 5/5 license in the 900 MHz band is the legacy configuration or the 3/3 configuration. Regardless of the initial configuration of the band in a particular county, we allow prospective 5/5 broadband licensees to invoke mandatory relocation of incumbents in the 897.5–900.5 MHz/936.5–939.5 MHZ portion of the band, consistent with the rights of 3/3 broadband licensees.[79] Under the current rules for 3/3 licenses, an applicant can receive a 3/3 broadband license in a county only if it (1) holds spectrum in the broadband segment, (2) agrees to relocate, or acquire spectrum held by, covered incumbents, and/or (3) demonstrates how it will provide interference protection to covered incumbent licensees' operations collectively totaling at least 90% of the impacted site-based and geographically licensed channels in the broadband segment.[80] With respect to incumbent licensees in channels that did not contribute to the 90% eligibility threshold, a 3/3 broadband licensee then has the right to invoke mandatory relocation from the broadband segment both of covered incumbents' remaining site-based channels in a given county and within 70 miles of the county boundary and of geographically licensed channels where the license area completely or partially overlaps the county, with an exception for complex systems.[81] We find that, in the interests of fairness, a 5/5 broadband applicant starting from the legacy configuration should not be disadvantaged vis-à-vis a 5/5 applicant who holds a 3/3 broadband license. Thus, a 5/5 broadband applicant that does not currently hold a 3/3 broadband license may invoke mandatory relocation of covered incumbents in the 897.5–900.5 MHz/936.5–939.5 MHZ portion of the band consistent with the 3/3 broadband segment mandatory relocation rules.

29. We find it in the public interest to adopt a completely voluntary transition for the 896–897.5/935–936.5 MHz and 900.5–901/939.5–940 MHz portions of the band (referred to as the narrowband segments in the 3/3 configuration), consistent with the Commission's proposal and the

[75] *See, e.g.*, Anterix Comment at 8–9. The lone exception among the commenters is San Diego Gas & Electric, which advocates for providing a mandatory relocation for 5/5 licensees similar to that established for the 3/3 broadband, stating that the Commission "should continue to rely on a mandatory relocation mechanism for any 5/5 MHz broadband transition . . . [t]o ensure that the expanded 5/5 MHz broadband transition is completed expeditiously and efficiently, . . . to disincentivize unnecessary incumbent holdouts and facilitate timely spectrum realignment." SDG&E Comments at 3.

[76] Anterix Comments at 5–6.

[77] Ameren Comments at 3.

[78] UTC Comments at 4; EWA Comments at 3.

[79] *See* 47 CFR § 27.1503(a)(2).

[80] *Id.* Under the current rules, for an applicant to be eligible for a broadband license in a county, it also must (1) hold the licenses for more than 50% of the total amount of licensed 900 MHz SMR (site-based or geographically licensed) and B/ILT (site-based) spectrum for the relevant county; and (2) if any site of a complex system is located within the county and/or within 70 miles of the county boundary, either hold the license for that site or reach an agreement to acquire, relocate, or protect that site. *Id.* § 27.1503(a)(1), (3).

[81] *Id.* § 27.1504.

feedback of the majority of commenters in the band.[82] A 5/5 broadband applicant must negotiate a full, voluntary clearing or protection of all incumbents in the 896–897.5/935–936.5 MHz and 900.5–901/939.5–940 MHz portions of the band. While SDG&E argues that mandatory relocation is appropriate because it "ensure[s] that the expanded 5/5 MHz broadband transition is completed expeditiously and efficiently" and "disincentivize[s] unnecessary incumbent holdouts," we decline to deviate from the Commission's proposal to solely establish voluntary relocation in the 896–897.5/935–936.5 MHz and 900.5–901/939.5–940 MHz portions of the band (referred to as the narrowband segments in the 3/3 configuration).[83]

30. In addition, to reflect the existence of both the 3/3 and 5/5 segments in the 900 MHz band, we adopt a revised definition of "covered incumbents." The revised definition will read as follows: "Any 900 MHz site-based licensee in the 900 MHz band that is required under § 90.621(b) to be protected by a 3/3 or 5/5 900 MHz broadband licensee (as applicable) with a base station at any location within the county, or any 900 MHz geographic-based SMR licensee in the 3/3 MHz broadband segment or 5/5 900 MHz frequency range, as applicable, whose license area completely or partially overlaps the county."[84]

31. AAR currently holds a nationwide ribbon license for use of a paired wideband 125-kilohertz channel at 896–896.125/935–935.125 MHz.[85] The frequency range for this AAR nationwide ribbon license is within the 896–897.5/935–936.5 MHz portion of the band—the first of the two narrowband segments in the 3/3 configuration—and, as such, the license can be moved as a result of a voluntary negotiation but mandatory relocation of this license is prohibited. This nationwide ribbon license covers a 140-mile wide swath of the railroad rights-of-way across a majority of CONUS.[86] We believe that there is a clear benefit in removing the regulatory barriers and enabling broadband on all ten megahertz of the 900 MHz band. The rules we adopt today leave it up to the marketplace to determine which licenses, including AAR, may or may not be relocated. If incumbent holdings prevent the creation of a 5/5 broadband license, the existing 900 MHz operations can continue in the legacy or 3/3 broadband configuration of the band. We conclude that it is in the public interest for the Commission to adopt a framework that would allow the transition of the entire 900 MHz band to broadband.

3. Eligibility for a 5/5 900 MHz Broadband License

32. To effectuate the framework we are adopting today, we conclude that the eligibility requirements for a 5/5 broadband license will largely mirror the eligibility requirements for a 3/3 broadband license, with a few distinctions. This framework is supported by commenters, who generally believe that the existing 3/3 requirements have functioned well in advancing the 3/3 broadband transition.[87]

33. The eligibility rule that we adopt for a 5/5 broadband license has three elements. Specifically, we adopt the proposal that in order for an applicant to be eligible for a 5/5 broadband license in a given county, it must: (1) hold the licenses for more than 50% of the total amount of licensed 900 MHz spectrum—900 MHz SMR (site-based or geographically licensed), B/ILT (site-based), or 3/3 900

[82] *5/5 900 MHz NPRM*, 40 FCC Rcd at 830–31, para. 23 (proposing a completely voluntary 5/5 transition while noting the fulsome support for a voluntary approach among Petition commenters); LCRA Comments at 6 (supporting the transition to 5/5 "only in those markets where all affected parties have reached agreement"); Select Spectrum Reply at 7; MSI Comments at 9.

[83] *See* SDG&E Comments at 3.

[84] *See* Appx. A (Final Rules), sec. 27.1501 (Definitions).

[85] *See* Association of American Railroads, call sign WPSF894.

[86] Call Sign WPSF894; *3/3 900 MHz R&O*, 35 FCC Rcd at 5223–24, para. 96.

[87] *See, e.g.*, LCRA Comments at 11; SDG&E Comments at 3.

MHz broadband spectrum—for the relevant county, including credit for spectrum included in an application filed with the Commission to relocate , cancel, or acquire spectrum held by covered incumbents; (2) demonstrate that, as it pertains to the 897.5–900.5/936.5–939.5 MHz portion of the band, the prospective licensee either: (a) holds a 3/3 broadband license in the relevant county; or (b) itself holds, or has reached an agreement to clear through acquisition of spectrum, cancellation of licenses, or relocation of incumbents, or has demonstrated how it will provide harmful interference protection to 90% or more of covered incumbents' site-channels in that portion of the band in the county and within 70 miles of the county boundary and geographically licensed channels where the license area completely or partially overlaps the county; and (3) demonstrate that, as it pertains to the 896–897.5/935–936.5 MHz and 900.5–901/939.5–940 MHz portions of the band, it holds the licenses or has reached an agreement to clear all covered incumbent licenses through acquisition, cancellation, or relocation or demonstrates how it will provide harmful interference protection to all covered incumbent licensees collectively holding licenses in the 896–897.5/935–936.5 MHz and 900.5–901/939.5–940 MHz portions of the band (referred to as narrowband segments in the 3/3 configuration) in the county and within 70 miles of the county boundary and holding geographically licensed channels where the license area completely or partially overlaps the county.[88]

34. *First Element: 50% Threshold.* A 5/5 broadband applicant can rely on either its 3/3 broadband license or its 900 MHz SMR and B/ILT spectrum to meet the 50% threshold in the relevant county. The key difference between the 5/5 and 3/3 900 MHz broadband opportunities is that the starting point for a 5/5 license may be either the legacy configuration or a 3/3 broadband segment configuration.[89] This difference is reflected in the way the 50% threshold eligibility rule is framed. Several commenters expressed their support for this slight variation between the 3/3 and 5/5 eligibility requirements.[90] LCRA and UTC support this framework, which would permit a 3/3 broadband licensee to be eligible meet the 50% spectrum threshold in a relevant county.[91] Allowing a 5/5 broadband applicant to meet this specific eligibility requirement by holding a 3/3 broadband license would ensure that an existing 3/3 broadband licensee could expand its broadband operations if it otherwise met the eligibility criteria. However, we do not require a sequential process whereby a prospective 5/5 broadband applicant would first be required to obtain a 3/3 broadband license. We agree with Anterix that requiring a 3/3 broadband license as a prerequisite would be inefficient and delay overall deployment of broadband facilities.[92]

35. *Second Element regarding the 897.5–900.5/936.5–939.5 MHz portion of the band.* The second element of eligibility requires that a prospective 5/5 broadband licensee either hold a 3/3 broadband license, control (via direct holding of licenses or negotiated relocation), or provide protections for at least 90% of the licensed spectrum in the 897.5–900.5/936.5–939.5 MHz portion of the band, measured by site-channels. The provisions for the 90% threshold are identical to the corresponding 3/3 broadband licensing rules—the prospective 5/5 licensee can hold spectrum directly, or reach an agreement with covered incumbents in the 897.5–900.5/936.5–939.5 MHz portion of the band to acquire or protect covered incumbents.[93] This element also provides for limited instances of mandatory relocation.

36. *Third Element regarding the 896–897.5/935–936.5 MHz and 900.5–901/939.5–940 MHz*

[88] *See 5/5 900 MHz NPRM*, 40 FCC Rcd at 833–34, 862–63, para. 29, Appx. A.

[89] *See id.* at 834, para. 28.

[90] *See* Anterix Comments at 9; LCRA Comments at 11; UTC Comments at 11.

[91] LCRA Comments at 11; UTC Comments at 11.

[92] Anterix Comments at 9.

[93] *See* Appx. A (Final Rules), sec. 27.1505 (Broadband license eligibility and application requirements). In the *3/3 900 MHz R&O*, the Commission discussed the details of the 90% threshold required to trigger mandatory relocation of covered incumbents. *See 3/3 900 MHz R&O*, 35 FCC Rcd at 5209–5211, paras. 58–62.

portions of the band. This third element requires that a prospective 5/5 broadband licensee either hold licenses in the 896–897.5/935–936.5 MHz and 900.5–901/939.5–940 MHz portions of the band or reach agreements with covered incumbents in the 896–897.5/935–936.5 MHz and 900.5–901/939.5–940 MHz portions of the band to facilitate 5/5 broadband operations in the band. The key difference between the second and the third element—other than the frequency range—is that the prospective broadband licensee may not invoke mandatory relocation in the 896–897.5/935–936.5 MHz and 900.5–901/939.5–940 MHz portion of the band. The 896–897.5/935–936.5 MHz and 900.5–901/939.5–940 MHz portions of the band are also commonly referred to as the narrowband segments of the band in the 3/3 configuration.

37. *Cancellation.* For the most part, the second and third elements of the eligibility rule we adopt today mirror the 3/3 broadband segment license eligibility rule.[94] One difference between the existing 3/3 eligibility rule and the 5/5 eligibility rule we adopt today is the inclusion of license cancellation in the second and third elements.[95] Numerous commenters added their support for this additional transition mechanism.[96] Anterix and San Diego Gas & Electric Company (SDG&E) suggest that we include language allowing prospective 3/3 and 5/5 broadband licenses to clear a covered incumbent by negotiating an agreement for that incumbent to cancel its license.[97] Anterix notes that some incumbents want to follow the least complicated path of cancelling their license and being compensated under the terms negotiated.[98] We agree that there are benefits to this approach and add "cancellation" to the list of clearing mechanisms for both the 3/3 and the 5/5 broadband licenses. This will provide 900 MHz broadband applicants with an additional negotiation mechanism to clear a covered incumbent in the relevant county, whereby the incumbent could agree to cancel its 900 MHz license(s) in lieu of selling the license(s) or relocating.

38. *Generally.* In addition, we take this opportunity to make non-substantive editorial changes to the rules adopted by the Commission in the *3/3 900 MHz R&O* and to the rules proposed in the *5/5 900 MHz NPRM*.[99] No substantive change is intended or should result from the revisions; the changes serve to provide further clarity and consistency in the rules. Because these editorial changes are non-substantive, they have no impact on regulated entities or the public, and we find good cause that notice and comment are unnecessary pursuant to 5 U.S.C. § 553(b)(B).

4. Application Requirements and Procedures for a 5/5 900 MHz Broadband License

39. We conclude that 5/5 broadband applicants will be required to submit an Eligibility Certification and Transition Plan in their application, a process similar to the existing requirements for 3/3 broadband licenses.[100] The Commission will require the 5/5 broadband license applicant to submit in its Eligibility Certification and Transition Plan all information necessary to determine the validity of the applicant's eligibility, including information necessary to assess its ability to acquire, cancel, relocate, or protect covered incumbents, which will be used to determine whether grant of a 900 MHz broadband license is in the public interest.[101]

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[94] *See* Appx. A (Final Rules), sec. 27.1505 (Broadband license eligibility and application requirements).

[95] *See* 47 CFR § 27.1503(a)(2) (noting that there is no mention of license cancellation).

[96] Anterix Comments at 9; SDG&E Comments at 3–4; LCRA Comments at 11–12; UTC Comments at 11.

[97] Anterix Comments at 9; SDG&E Comments at 3–4.

[98] Anterix Comments at 9.

[99] *See* Appx. A (Final Rules), secs. 27.1501 *et seq.*

[100] *See* 47 CFR § 27.1503(b); *5/5 900 MHz NPRM*, 40 FCC Rcd at 836, para. 33.

[101] *See 5/5 900 MHz NPRM*, 40 FCC Rcd at 836, para. 33; Appx. A (Final Rules), sec. 27.1503 (Broadband license eligibility and application requirements).

40. We sought comment on whether stricter eligibility requirements, as compared with 3/3 broadband licenses, would be appropriate in the 5/5 broadband context.[102] LCRA noted that imposing stricter requirements on 5/5 broadband licensees, such as requiring a 5/5 applicant to first obtain a 3/3 license or requiring an increased spectrum threshold for eligibility, would "run counter to the Commission's goal . . . of ensuring the band is efficiently and intensively utilized and that the increasing spectrum capacity and private broadband network needs of industries, such as utilities, railroads, critical infrastructure, and business enterprises, are met."[103] We agree that obtaining a 5/5 broadband license, whether by applying for the first time or expanding a current 3/3 system, should be a "simple, streamlined, and efficient" process.[104]

41. *Eligibility Certification Requirements.* We adopt the proposal, with minor modifications, that a 5/5 broadband license application must include an Eligibility Certification that, at a minimum, shows that: (1) the applicant holds the licenses for more than 50% of the total amount of licensed 900 MHz spectrum for the relevant county; (2) as it pertains to the 897.5–900.5 MHz/936.5–939.5 MHz portion of the band, the prospective licensee either: (a) holds a 3/3 broadband license in the relevant county, or (b) itself holds, or has reached an agreement to clear through acquisition, cancellation, or relocation or has demonstrated how it will provide harmful interference protection to 90% or more site-channels held by covered incumbents collectively holding licenses in the 3/3 broadband segment in the county and within 70 miles of the county boundary, and holding geographically licensed channels where the license area completely or partially overlaps the county; and (3) the applicant itself holds, or has either reached an agreement to clear through acquisition, cancellation, or relocation, or demonstrates how it will provide harmful interference protection to, all covered incumbent licensees collectively holding licenses in the 896–897.5/935–936.5 MHz and 900.5–901/939.5–940 MHz portions of the band in the county and within 70 miles of the county boundary and holding geographically licensed channels where the license area completely or partially overlaps the county.[105]

42. We find that these eligibility requirements are best suited to facilitate a transition of the 900 MHz band to 5/5 broadband. As in the 3/3 broadband context, we conclude that the 50% threshold eliminates the potential filing of mutually exclusive applications and facilitates the opportunity for private agreements. The eligibility requirements also serve to identify the applicant best positioned to deploy a 5/5 broadband system in a timely fashion, and are therefore in the public interest.[106] Additionally, we find it in the public interest to maintain the requirement for a 5/5 broadband applicant to reach agreements to clear through acquisition, cancellation, or relocation or to demonstrate how it will provide harmful interference protection to all covered incumbents. This requirement serves to protect covered incumbents in the band, while simultaneously providing an opportunity for market-based, arms-length transition negotiations, thereby maximizing innovation and diversity of spectrum uses in the band, consistent with the mandates of the Act.[107]

43. *Transition Plan Requirements.* We also adopt the proposal to require a 5/5 broadband

[102] *5/5 900 MHz NPRM*, 40 FCC Rcd at 835, para. 31.

[103] LCRA Comments at 12 (quoting *5/5 900 MHz NPRM*, 40 FCC Rcd at 819, para. 2) (internal quotation marks omitted).

[104] LCRA Comments at 12.

[105] *See 5/5 900 MHz NPRM*, 40 FCC Rcd at 836, para. 34; *see generally* 47 CFR § 27.1503(b)(2); *see also 3/3 900 MHz R&O*, 35 FCC Rcd at 5228, para. 109 & n.321 ("For eligibility purposes, an applicant must account for sites from complex systems (if any sites are located within the county and/or within 70 miles of the county boundary), either through an agreement to acquire, relocate, or protect those sites. Complex systems are a subset of covered incumbents and must be accounted for in the application materials.").

[106] *See 3/3 900 MHz R&O*, 35 FCC Rcd at 5207–08, paras. 54, 55.

[107] *See* 47 U.S.C. § 303(y).

license application to include a Transition Plan in which the applicant must show one or more of the following regarding incumbent licensees holding site-based licenses in the 900 MHz band in the county and within 70 miles of the county boundary, and holding geographically licensed channels where the license area completely or partially overlaps the county: (1) agreement by covered incumbents to transition from the 900 MHz band, as applicable; (2) protection of site-based covered incumbents through compliance with minimum spacing criteria;[108] (3) protection of site-based covered incumbents through new or existing letters of concurrence agreeing to lesser base station separations;[109] (4) protection of geographically based covered incumbents through private contractual agreements; and/or (5) evidence that it holds licenses for the site-channels in the county and within 70 miles of the county boundary, and for geographically licensed channels where the license area completely or partially overlaps the county.[110]

44. In addition, we adopt the proposal to require Transition Plans to describe in detail all information and actions necessary to accomplish the realignment to 5/5 broadband, as follows: (1) a description of the agreements reached with covered incumbents and the applications that the parties to the agreements will file for spectrum in the broadband and/or narrowband segments, as applicable, in order to relocate licensees;[111] (2)(a) a description of how the applicant will provide harmful interference protection to, and/or clear through license cancellation, relocation, or acquisition of spectrum held by covered incumbents collectively holding licenses for at least 90% of site-channels in the 3/3 broadband segment and 100% of site-channels in the narrowband segments, as applicable, in the county and within 70 miles of the county boundary and for geographically licensed channels where the license area completely or partially overlaps the county, and/or (b) evidence that it holds licenses for the relevant site-channels and/or geographically licensed channels; (3) any rule waivers or other actions necessary to implement an agreement with a covered incumbent; and (4) any other information required for the Commission to determine whether the grant of an application is in the public interest.[112]

45. To demonstrate that the 5/5 broadband applicant will be able to effectuate the proposed transition and deploy 5/5 broadband operations while adequately protecting covered incumbents, we adopt the proposal that the applicant include in its Transition Plan a certification from an FCC-certified frequency coordinator that the Transition Plan's representations can be implemented consistent with Commission rules.[113] The frequency coordinator's certification must also establish that the proposed relocations consider all relevant covered incumbents and are consistent with the existing part 90 interference protection criteria if the covered incumbent is site-based,[114] and include any private contractual agreements between the prospective broadband licensee and a geographically-licensed

[108] *Id.* § 90.621(b)(4).

[109] *Id.* § 90.621(b)(5).

[110] *See 5/5 900 MHz NPRM*, 40 FCC Rcd at 837, para. 35; *see also* 47 CFR § 27.1503(b)(3).

[111] The Transition Plan must describe in detail the specific frequencies that will be covered by applications filed by covered 5/5 incumbents to relocate and the type of application that will be necessary (e.g., modification of license relocating to new frequencies).

[112] *See 5/5 900 MHz NPRM*, 40 FCC Rcd at 837, para. 36.

[113] *See id.* at 838, para. 37; *see also* 47 CFR § 27.1503(b)(3)(iv) ("A certification from an FCC-certified frequency coordinator that the Transition Plan's representations can be implemented consistent with Commission rules. The certification must establish that the relocations proposed therein take into consideration all relevant covered incumbents and are consistent with the existing part 90 interference protection criteria if the covered incumbent is site-based, and include any private contractual agreements between the prospective broadband licensee and a geographically-licensed covered incumbent."). For a current list of the FCC-certified frequency coordinators, see FCC, *Industrial/Business Licensing*, https://www.fcc.gov/wireless/bureau-divisions/mobility-division/industrial-business/industrial-business-licensing.

[114] *See* 47 CFR § 90.621(b).

covered incumbent.[115]

46. Finally, to increase administrative efficiency and reduce burdens, we adopt the proposal to allow a 5/5 900 MHz broadband applicant seeking to transition multiple counties simultaneously to file a single Transition Plan that covers all of its county-based applications.[116] UTC and LCRA both express their support for this efficiency enhancing measure.[117] We believe that this process will streamline the overall transition, simplify filing requirements, and minimize administrative burdens.

47. In the *3/3 900 MHz R&O*, the Commission explained that a Transition Plan is necessary in order for the Commission to verify a 3/3 broadband applicant's eligibility, as it provides information necessary to assess the applicant's ability to acquire spectrum from, relocate, or protect covered incumbents in the 3/3 broadband segment. We further explained that a Transition Plan requirement furthers the public interest by improving administrative efficiency and lowering the burden on small entities.[118] Both LCRA and UTC express their support for extending this requirement to 5/5 broadband license applications.[119] We find that requiring a Transition Plan, with the modifications described above, will achieve the same goal in the 5/5 broadband context, and that it is in the public interest to adopt a Transition Plan requirement for prospective 5/5 broadband licensees.

48. *Application Grant Procedures.* We adopt the proposal to commence the 5/5 broadband transition by issuing a public notice announcing the date that the Commission will begin accepting applications consistent with the eligibility and application requirements adopted herein, and delegate the authority to WTB to issue that public notice.[120] Consistent with part 1 of the Commission's rules, an application for a new 900 MHz broadband license would be placed on public notice for 30 days, during which time interested parties may file petitions to deny.[121] After review of the required filings, if the Bureau finds that the applicant has satisfied the 5/5 broadband license requirements and that grant of the application is otherwise in the public interest, it would grant the application and issue a 5/5 broadband license. The timeline for complying with the applicable construction obligations will begin immediately upon grant of the new license.

B. Anti-Windfall Provisions

49. To alleviate the risk of an undue windfall to the prospective broadband licensee, we adopt the proposal to impose mandatory anti-windfall provisions for 5/5 broadband licenses.[122] This requirement is similar to the 3/3 broadband provisions,[123] with adjustments made for spectrum valuation and spectrum credits. Specifically, an applicant will be required to return all of its licensed 900 MHz SMR and B/ILT spectrum, as well as its 3/3 broadband license(s), if applicable, for any county in which it seeks a 5/5 broadband license, up to ten megahertz total. In instances where a prospective broadband licensee holds less than ten megahertz of spectrum and is thus unable to return the full ten megahertz, spectrum may be assigned from the Commission's available inventory for issuance of a broadband license

[115] *See 5/5 900 MHz NPRM*, 40 FCC Rcd at 838, para. 37.

[116] *See id.* at 838, para. 38; *see also* 47 CFR § 27.1503(b)(4) ("Applicants seeking to transition multiple counties may simultaneously file a single Transition Plan with each of its county-based applications.").

[117] UTC Comments at 12; LCRA Comments at 13.

[118] *3/3 900 MHz R&O*, 35 FCC Rcd at 5227–28, para. 108 (noting that this requirement will "further the public interest by increasing administrative efficiency and reducing the burden on an applicant, including small entities")

[119] UTC Comments at 12; LCRA Comments at 12.

[120] *See 5/5 900 MHz NPRM*, 40 FCC Rcd at 838, para. 39

[121] 47 CFR §§ 1.933(b), 1.939.

[122] *See 5/5 900 MHz NPRM*, 40 FCC Rcd at 839, para. 40.

[123] *3/3 900 MHz R&O*, 35 FCC Rcd at 5221–23, paras. 89–95.

if the applicant compensates the general fund of the U.S. Treasury via an anti-windfall payment as detailed herein. We believe that applying this anti-windfall requirement to the 5/5 broadband licenses is in the public interest, as it will act as payment for any spectrum provided by the Commission from the inventory and will mitigate any potential unearned benefit that a prospective 5/5 broadband licensee receives as a result of this exchange.

50. To date, the anti-windfall provisions for the 900 MHz 3/3 broadband transition have resulted in payments to the general fund of the United States Treasury of over $11,400,000 for over 370 applications. Commenters generally agree that the existing 3/3 anti-windfall rules have met the Commission's goal of ensuring that the U.S. taxpayers receive the appropriate value for the 900 MHz spectrum in the FCC's inventory, and there is support for the extension of these anti-windfall provisions in the 5/5 broadband transition.[124] As Anterix points out, the anti-windfall provisions have ultimately delivered value to the general fund of the United States Treasury for spectrum that in many cases has been unused for decades.[125] We agree that these provisions provide a benefit to the American public, while also providing fairness across the Commission's processes by ensuring that we do not provide free spectrum from the Commission's available inventory.

51. One commenter, however, suggests that broadband licensees who have already invested in deploying 3/3 broadband spectrum should not be subject to further anti-windfall measures when expanding their operations into the 5/5 broadband segment.[126] SDG&E argues that "licensees may be discouraged from expanding broadband operations due to these potentially significant capital outlays."[127] We are not persuaded by SDG&E's arguments against anti-windfall payments.[128] An applicant that made previous anti-windfall payments when acquiring a 3/3 broadband license would have received the benefit of that investment. While there is some merit to SDG&E's claim that mandatory anti-windfall payments may affect a licensee's decision to expand broadband operations, we find that such concerns do not justify, on balance, exclusion from the anti-windfall provision. We see no benefit to forgoing an anti-windfall provision for the remaining four megahertz of spectrum required to transition a 3/3 broadband license to a 5/5 broadband license. In contrast, we believe that the absence of such an anti-windfall provision could be perceived as a reward to applicants for simply pursuing a prior, optional spectrum transition in accordance with the Commission's rules. The anti-windfall provision, which we find will not be overly burdensome, serves to ensure that participants are engaged in the 5/5 broadband transition and are not receiving more spectrum with limited incentive to utilize it more efficiently.

52. *Spectrum Valuation Adjustment*. When the Commission established the 3/3 broadband anti-windfall provision, it opted to use the 600 MHz auction prices as the basis for 3/3 broadband license anti-windfall payment calculations.[129] We conclude that the 600 MHz auction prices remain the best valuation source for anti-windfall payments for 900 MHz broadband licenses. We continue to find that

[124] *See* Anterix Comments at 11; LCRA Comments at 13.

[125] Anterix Comments at 11.

[126] *See* SDG&E Comments at 6. Specifically, SDG&E suggests we "consider certain factors demonstrating that an applicant should not be subject to anti-windfall payment obligations, including (i) the applicant having previously obtained 3/3 MHz broadband spectrum in secondary market transactions; (ii) any previous anti-windfall payments made in connection with such 3/3 broadband spectrum; (iii) significant amounts of narrowband spectrum returned by the applicant to the Commission's inventory as part of the re-banding process; and (iv) the deployment of broadband spectrum for private broadband networks that enable critical public safety applications." *Id.* One additional commenter, LCRA, expresses support for SDG&E's suggestion related to the anti-windfall provision. *See* LCRA Reply at 7–8.

[127] SDG&E Comments at 6.

[128] *See id.* at 6–7.

[129] *See 3/3 900 MHz R&O*, 35 FCC Rcd at 5222–23, para. 93.

600 MHz and 900 MHz spectrum characteristics, including propagation characteristics, are sufficiently similar to justify application of 600 MHz auction prices to 900 MHz broadband license anti-windfall payments.[130] Commenters were silent on the source of valuation.

53. Consistent with the Commission's proposal, we also make a one-time adjustment to the valuation of spectrum to account for the increased change in 900 MHz spectrum value since the *3/3 900 MHz R&O*.[131] We believe that the best metric for determining the increased value is by adjusting the population estimates by using the 2020 census population data for each county instead of the 2010 data. While the *5/5 900 MHz NPRM* proposed to base the valuation adjustment on inflation,[132] we find that the county population metric is more relevant to the value of the spectrum than an adjustment based on Consumer Price Index data or a similar inflation metric.[133] There is support in the record for a one-time adjustment in spectrum valuation.[134]

54. We believe that adjusting anti-windfall payments by the change in county-level population values provides the simplest method to increase anti-windfall payments over time, as this measure is county-specific and directly related to license values. The adjustment of the anti-windfall payment calculations shall apply to both the 5/5 broadband transition as well as the 3/3 broadband transition.[135] We delegate authority to WTB to periodically make additional adjustments as necessary, after any appropriate notice and comment period, to account for changes in population estimates or other metrics that will more appropriately reflect spectrum valuation changes.

55. *Spectrum Credit*. The 5/5 licensing process will account for situations where an applicant for a 5/5 broadband license has already returned more than six megahertz of spectrum to the Commission to obtain a 3/3 broadband license. In the *3/3 900 MHz R&O*, the Commission did not allow an applicant to receive anti-windfall credits for excess spectrum returned in exchange for a 3/3 broadband license.[136] Since 2020, there have been a limited number of cases where the applicant surrendered more than six megahertz of narrowband spectrum to obtain a 3/3 broadband license. Anterix notes that the "excess" spectrum surrendered in those cases was not FCC inventory spectrum and argues that it therefore should be considered in calculating the windfall payment for a 5/5 broadband license in that county.[137] We are persuaded that the provision of spectrum credit in limited circumstances, as described below, would allow the Commission to account for any spectrum that was relinquished in excess of the required six megahertz during the 3/3 broadband application process and to thereby take this spectrum into consideration when determining any anti-windfall payment to be assessed on a 3/3 broadband applicant for a subsequent 5/5

[130] *5/5 900 MHz NPRM*, 40 FCC Rcd at 840, para. 43.

[131] *See id.*

[132] *See id.*

[133] The Consumer Price Index "is a measure of the average change over time in the prices paid by urban consumers for a market basket of consumer goods and services." *See* U.S. Bureau of Labor Statistics, *Consumer Price Index,* https://www.bls.gov/cpi/.

[134] LCRA Comments at 13.

[135] Applications for 3/3 broadband licenses submitted to the Bureau before the date of publication in the Federal Register are not subject to this adjustment.

[136] *See 3/3 900 MHz R&O*, 35 FCC Rcd at 5222, para. 90 n.268. In other words, if an applicant returned seven megahertz of spectrum in exchange for a six megahertz 3/3 license, no credit was given for the extra one megahertz. *See id.*

[137] Anterix Comments at 11; *see also* SDG&E Reply at 3 (advocating for the Commission to "take into account the spectrum surrendered as part of a prior 3/3 MHz broadband license application when considering whether to assess an anti-windfall payment on a broadband applicant for any subsequent 5/5 MHz license" and arguing that this will "minimiz[e] financial burdens on entities that have already made significant investments in the band as 3/3 MHz licensees").

broadband license. We therefore conclude that it is in the public interest to allow for those applicants to receive a spectrum credit. Such spectrum credits will only be permitted in limited circumstances: the spectrum credits may only be used by the licensee that originally relinquished the spectrum and only during its application for a 5/5 broadband license. An applicant must note the previously relinquished spectrum during the 5/5 broadband application process for a given county, and the information provided will be verified by Commission staff. Should an applicant fail to include any potential spectrum credit during the 5/5 broadband application process for a given county, that applicant will surrender its claim to the benefit and will not be owed any payments in connection with the spectrum credit.

56. While we adopt the same basis for calculating the anti-windfall payment for a 5/5 broadband license as previously established in the *3/3 900 MHz R&O*,[138] we apply the updated spectrum valuation adjustment and spectrum credit process adopted today. For purposes of the calculation, we first determine the spectrum deficit, which is the difference between the amount of spectrum, in kilohertz or megahertz, relinquished by the broadband license applicant in the relevant county, inclusive of spectrum credit(s), and the ten megahertz of spectrum required for a 900 MHz broadband license. Next, we calculate the dollars per MHz-pop prices for the 600 MHz auction based on the final forward auction prices for a generic ten megahertz license in each Partial Economic Area (PEA). We then multiply the spectrum deficit by the 2020 county population estimates and the calculated dollars per MHz-pop price of 600 MHz spectrum in the county to arrive at the anti-windfall payment for that county.

57. As part of its application process with the Commission, a broadband license applicant must make any anti-windfall payments owed prior to the grant of 900 MHz broadband license(s). Currently, the process to determine and calculate anti-windfall payments is performed manually and requires significant effort from Commission staff. In order to alleviate administrative burdens, we direct the Bureau to automate the process of calculating and collecting anti-windfall payments to the extent possible. We further direct the Bureau to develop any processes necessary to implement that automation. With respect to the collection of the payment, we direct WTB to consult with the Office of the Managing Director to ensure compliance with government-wide payment processing rules.

58. We conclude that the Commission has broad spectrum management and licensing authority to require a mandatory anti-windfall payment for a 5/5 broadband transition, and that such measures are vital to the Commission's statutory obligation to grant licenses in the public interest.[139] The Commission has repeatedly used this authority to impose conditions on new licensees, including relocation payments, buildout conditions, public safety obligations, and obligations to facilitate the transition of incumbents of the spectrum at issue before commencing operations.[140] We also find that the anti-windfall payment is a necessary component of our exercise of statutory responsibility to grant an initial license under section 309 in accordance with the public interest, convenience, and necessity,[141] because it will enable the transition from narrowband to broadband licensing while ensuring that participants are actively engaged in this transition to increase efficient spectrum use and not merely acquire more spectrum. No commenters addressed the Commission's legal authority to impose an anti-

[138] *See 3/3 900 MHz R&O*, 35 FCC Rcd at 5222–23, para. 93.

[139] *See* 47 U.S.C. § 309.

[140] *See, e.g.*, *Expanding Flexible Use of the 3.7 to 4.2 GHz Band*, GN Docket 18-122, Report and Order, Order Proposing Modification, 35 FCC Rcd 2343, 2415–16, paras. 179–80 (2020) (authorizing relocation of incumbents and relocation payments to facilitate the relocation); *Facilitating Shared Use in the 3100–3550 MHz Band*, WT Docket No. 19-348, Second Report and Order, Order on Reconsideration, and Order of Proposed Modification, 36 FCC Rcd 5987, 6030–31, 6040–45, paras. 120–22, 149–65 (2021) (establishing the relocation of incumbents, the payment of those incumbents by the new entrants into the band, and establishment of buildout requirements of the new licenses granted); *3/3 900 MHz R&O*, 35 FCC Rcd at 5221–23, paras. 89–95 (establishing anti-windfall provisions to avoid providing broadband licensees that have existing 900 MHz licenses with an undue windfall when receiving a broadband license).

[141] 47 U.S.C. § 309.

windfall payment.

C. Licensing and Operating Rules for 5/5 900 MHz Broadband Licenses

59. As proposed by the *5/5 900 MHz NPRM*, we designate the 896–901/935–940 MHz band as a Miscellaneous Wireless Communications Service governed by part 27 of the Commission's rules.[142] We find this action to be in the public interest because it maintains a stable licensing environment for current 3/3 and incoming 5/5 broadband licensees. The license and operating rules that apply to the 3/3 broadband licenses will also apply to the 5/5 broadband licenses.[143] Additionally, as adopted in the *3/3 900 MHz R&O* for the 3/3 broadband segment and as proposed in the *5/5 900 MHz NPRM,* the 5/5 broadband segment will also be licensed geographically by county for 15-year initial terms with 10-year renewal terms.[144] Commenters generally support this approach, which maintains simplicity and consistency.[145] As discussed in greater detail below, we adopt specific performance provisions for 5/5 broadband licenses acquired in exchange for a 3/3 broadband license.

1. License Area

60. We find it in the public interest, as proposed in the *5/5 900 MHz NPRM,* to license all broadband operations in the 900 MHz band on a geographic-area basis by county, defined using the United States Census Bureau's data reflecting county legal boundaries and names valid through January 1, 2017.[146] As noted in the *3/3 900 MHz R&O* and discussed earlier in this *5/5 900 MHz R&O*, we believe that licensing broadband operations on a geographic-area basis by county will promote spectrum efficiency, expedite deployment of flexible-use services, and provide licensees with flexibility to quickly adjust and coordinate spectrum usage.[147] Further, in the *3/3 900 MHz R&O*, the Commission concluded that counties represent an appropriate geographic area for 3/3 broadband licenses, and found that this would aid in fostering flexible and innovative use of the 900 MHz band and provide a consistent, relatively small license size appropriate for a wide range of possible network deployments.[148] We continue to believe that the smaller license areas will stimulate investment, promote innovation, and encourage the efficient use of spectrum in the 900 MHz band.[149] By using the 2017 Census Bureau boundaries for 5/5 broadband licenses, we maintain stability and continuity in licensing the 900 MHz band, both by ensuring that all 3/3 broadband licenses granted either prior to today's actions or

[142] *5/5 900 MHz NPRM*, 40 FCC Rcd at 840, para. 45; *supra* para. 25. The entire band continues to be governed by part 90, as well.

[143] *See generally* 47 CFR §§ 27.1500–27.1510.

[144] *See* 47 CFR §§ 27.13(n), 27.1501; *3/3 900 MHz R&O*, 35 FCC Rcd at 5232–38, paras. 122–38; *5/5 900 MHz NPRM*, 40 FCC Rcd at 840–41, para. 45. As we explain in section III.C.2 below, the 15-year license term is subject to adjustment under certain circumstances.

[145] *See* LCRA Comments at 13; Anterix Comments at 12 (encouraging the Commission "to retain the existing definition of 'county' in Rule 27.1501" because "[s]witching county boundaries now would only complicate any transition (and require FCC staff to reengineer their systems) with no discernable benefit to the public"); Eversource Comments at 2 (supporting "5/5 MHz 900 MHz broadband operations on a county-by-county basis"); UTC Comments at 13.

[146] *5/5 900 MHz NPRM*, 40 FCC Rcd at 841, para. 46; *see generally* 47 CFR § 27.1501.

[147] *See 3/3 900 MHz R&O*, 35 FCC Rcd at 5232, paras. 122–23; *see also 2019 900 MHz NPRM*, 34 FCC Rcd at 1558, para. 21 (citing 47 CFR § 27.6(h), (i) (AWS-1 and AWS-4, respectively); *Use of Spectrum Bands Above 24 GHz for Mobile Radio Services*, GN Docket No. 14-177, et al., Report and Order and Further Notice of Proposed Rulemaking, 31 FCC Rcd 8014, 8029–30, 8046–47, paras. 35–36, 82 (2016)) ("Consistent with our approach in several other bands used to provide fixed and mobile services, we propose to license the broadband segment on a geographic area basis.").

[148] *3/3 900 MHz R&O*, 35 FCC Rcd at 5232–33, paras. 122–23.

[149] *Id.*

subsequently will have the same landscape, and by ensuring that 5/5 broadband licensees seeking to provide service can build upon a 3/3 broadband base.

61. In response to the Petition, American Petroleum Institute (API) suggested that the Commission issue 5/5 broadband licenses as site-based licenses. The Commission sought comment on this suggestion.[150] No commenters express support for the issuing of 5/5 broadband licenses as site-based licenses, but rather continued to highlight the benefits of the geographic-based approach used for 3/3 broadband licenses.[151] As Anterix notes, 3/3 broadband licenses have already been issued for a substantial number of counties and introducing different geographic parameters would complicate the license landscape.[152] Licensing 3/3 broadband licenses on a county basis while introducing site-based licenses for 5/5 broadband would add confusion to operations. This would also limit the flexibility of a 5/5 broadband licensee by requiring it to obtain a new authorization for each site of an operation, introducing operational challenges and delaying the band transition. A geographic-area license allows a broadband licensee to be responsive to the needs of its operation in real time and set up a new site wherever additional support is needed or redistribute resources as needs change.

62. The record supports the licensing of the 5/5 broadband segment on a geographic-area basis by county. LCRA points out that the county licensing scheme has successfully facilitated utilities' access to 900 MHz broadband licenses and effectively enables relocation of incumbent users.[153] In the *3/3 900 MHz R&O*, the Commission recognized that the band was subject to diverse uses and that the intensity of spectrum use varied by geographic area; in that context, the Commission found that this size best supported a negotiation-based transition.[154] This is also true for 5/5 broadband licenses. Over the course of the 3/3 transition, we have found that the smaller geographic boundary is critical in the voluntary transition, because it helps broadband proponents manage the number of incumbents that a broadband licensee would need to relocate at one time. Additionally, in the *3/3 900 MHz R&O*, the Commission concluded that a geographic license area was best suited for 3/3 broadband licenses and ensured that this transition was consistent with our actions in other bands used to provide fixed and mobile services.[155]

63. Based on this record and the success in the 3/3 transition, we believe adoption of the same county-based geographic license areas for 3/3 and 5/5 broadband licenses is best, as it promotes cohesion in the band. We find it critical that 5/5 broadband licensees are able to avail themselves of the same benefits of county-based geographic licenses as 3/3 broadband licensees. Our actions today will continue to promote efficiency in this band.[156]

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[150] *5/5 900 MHz NPRM*, 40 FCC Rcd at 841–42, paras. 47; American Petroleum Institute (API) Comments at 6 & n.7 (suggesting the use of site-based 900 MHz broadband licenses (rather than county-based licenses) as that approach "would be more useful for API members in certain contexts").

[151] LCRA Comments at 13; Anterix Comments at 11–12.

[152] Anterix Comments at 11–12.

[153] LCRA Comments at 13.

[154] *See* 3/3 900 MHz R&O, 35 FCC Rcd at 5201, para. 39.

[155] *See 3/3 900 MHz R&O*, 35 FCC Rcd at 5232, paras. 122–23; *see also 2019 900 MHz NPRM*, 34 FCC Rcd at 1558, para. 21 (citing 47 CFR § 27.6(h), (i) (AWS-1 and AWS-4, respectively); *Use of Spectrum Bands Above 24 GHz for Mobile Radio Services*, GN Docket No. 14-177, et al., Report and Order and Further Notice of Proposed Rulemaking, 31 FCC Rcd 8014, 8029–30, 8046–47, paras. 35–36, 82 (2016)).

[156] *See 3/3 900 MHz R&O*, 35 FCC Rcd at 5232, paras. 122–23; *see also 2019 900 MHz NPRM*, 34 FCC Rcd at 1558, para. 21 (citing 47 CFR § 27.6(h), (i) (AWS-1 and AWS-4, respectively); *Use of Spectrum Bands Above 24 GHz for Mobile Radio Services*, GN Docket No. 14-177, et al., Report and Order and Further Notice of Proposed Rulemaking, 31 FCC Rcd 8014, 8029–30, 8046–47, paras. 35–36, 82 (2016)) ("Consistent with our approach in several other bands used to provide fixed and mobile services.").

2. License Term

64. Consistent with the proposals in the *5/5 900 MHz NPRM* and with the rules for 3/3 broadband licenses, the 5/5 broadband licenses will generally have a 15-year initial term with subsequent 10-year license renewal terms.[157] Anterix and UTC concur that a 15-year term with 10-year renewal terms is consistent with the Commission's rules for 3/3 broadband licenses and support the use of these license terms for 5/5 broadband licenses.[158] We find that this 15-year initial license term is in the public interest as this keeps a consistent approach among the 3/3 and 5/5 900 MHz broadband licenses and accounts for the complexities of this band and its transition as well.[159] We believe that a 15-year license term will continue the positive trend of investment in this band as licensees have found this term to be long enough to build out a service network. This is reflected in the scope for activity since the *3/3 900 MHz R&O*. Anterix reports that there are currently at least seven utilities deploying 900 MHz broadband networks across a multitude of states and that more than 125 leading technology and service providers are driving utility solutions.[160] Our actions today seek to build upon this type of success; keeping a consistent license and renewal term across 3/3 and 5/5 broadband licenses is part of this effort. Accordingly, we adopt the 15-year initial term with 10-year renewal terms as proposed in the *5/5 900 MHz NPRM,* subject to certain adjustments.[161]

3. Performance Requirements

65. Based on the record before us, we find it in the public interest to adopt key components of the performance requirements that we proposed in the *5/5 900 MHz NPRM*. As the Commission has stated previously, performance requirements promote the productive use of spectrum, encourage licensees to provide service in a timely manner, and promote the provision of innovative services and technologies in unserved areas, particularly rural markets.[162] We conclude that these goals are generally served by the

[157] *5/5 900 MHz NPRM*, 40 FCC Rcd at 842, 845, paras. 49, 57; *3/3 900 MHz R&O*, 35 FCC Rcd at 5233, 5238, paras. 124, 137; *see* 47 CFR § 27.13(n) ("900 MHz broadband. Authorizations for broadband licenses in the 897.5–900.5 MHz and 936.5–939.5 MHz bands will have a term not to exceed 15 years from the date of initial issuance and ten (10) years from the date of any subsequent renewal."), 27.1505(c) (stating, in the 3/3 900 MHz broadband context, that the Commission will reduce the initial license term from 15 years to 13 years if the licensee fails to meet the first performance benchmark). The Communications Act does not specify a term limit for wireless radio services licenses. The only statutory limit on license terms is eight years for licenses in the broadcast services. *See* 47 U.S.C. § 307(c)(1); *see also* 47 CFR § 73.1020(a); 47 CFR § 27.13(n); *5/5 900 MHz NPRM,* 40 FCC Rcd at 842–43, para. 49. The 15-year license term in the 5/5 900 MHz broadband context is likewise subject to certain adjustments for failure to meet buildout deadlines, as discussed below in section III.C.3.

[158] Anterix Comments at 12; UTC Comments at 13.

[159] *See 3/3 900 MHz R&O*, 35 FCC Rcd at 5233, para. 124 n.356 (citing *Service Rules for Advanced Wireless Services in the 1.7 GHz and 2.1 GHz Bands*, WT Docket No. 02-353, Report and Order, 18 FCC Rcd 25162, 25190, para. 70 (2003) (finding that the transition warranted a 15-year initial license term, with 10-year terms thereafter); *Expanding the Economic and Innovation Opportunities of Spectrum Through Incentive Auctions*, GN Docket No. 12-268, Report and Order, 29 FCC Rcd 6567, 6875, para. 759 (2014) (finding that the transition warranted a 12-year initial license term, with 10-year terms thereafter); *Allocation and Service Rules for the 1675–1680 MHz Band*, WT Docket No. 19-116, Notice of Proposed Rulemaking, 34 FCC Rcd 3552, 3565, para. 32 (2019) (proposing 15-year initial and renewal license terms for licenses in the 1675–1680 MHz band because it would afford licensees sufficient time to make long-term investments in deployment).

[160] Anterix Comments at 2 (stating that 3/3 broadband has been deployed in the 900 MHz band across 15 states). A review of ULS reveals that, as of January 8, 2026, there are 900 MHz 3/3 broadband systems in 23 states.

[161] *See* section III.C.3.d., *infra*, discussing penalties that include a reduced license term for failure to meet certain performance benchmarks timely.

[162] *See 3/3 900 MHz R&O*, 35 FCC Rcd at 5234, para. 126 (citing *Promoting Investment in the 3550–3700 MHz Band*, GN Docket No. 17-258, Report and Order, 33 FCC Rcd 10598, 10631, para. 61 (2018); *Use of Spectrum Bands Above 24 GHz for Mobile Radio Services et al.*, GN Docket No. 14-177, Report and Order and Further Notice (continued….)

coverage benchmarks, timeframes, broadband requirements, and penalties proposed in the *5/5 900 MHz NPRM*, which mirror those adopted in the *3/3 900 MHz R&O* and take into account the types of services that are likely to be deployed using this 900 MHz spectrum. For 3/3 broadband licensees that exchange their licenses for 5/5 broadband licenses, however, we shorten the performance timeframes in order to ensure that the spectrum is intensely and efficiently utilized.

a. Coverage Benchmarks

66. Regarding the quantifiable benchmarks in each individual license area, we find that it serves the public interest to adopt the coverage benchmarks as proposed and as supported by the record.[163] Accordingly, a 5/5 broadband licensee can meet the population coverage requirement by providing reliable signal coverage and offering broadband service to at least 45% of the population in the license area by the applicable interim deadline (interim performance benchmark), and to at least 80% of the population in the license area by the applicable final deadline (final performance benchmark).[164] As an alternative to the population coverage requirement, a licensee can meet its coverage requirements by providing reliable signal coverage and offering broadband service covering at least 25% of the geographic license area by its applicable interim deadline (interim performance benchmark), and at least 50% of the geographic license area by its applicable final deadline (final performance benchmark).[165] After satisfying the final performance benchmark, the 900 MHz 5/5 broadband licensee will be required to continue to provide reliable signal coverage and offer service at or above that final benchmark level for the remaining years in the license term.[166]

67. Although the "offering of broadband services" does not require a commercial offering to the general public, we decline to permit a 5/5 broadband licensee to meet its geographic coverage performance requirements by demonstrating that it is using facilities to further its private business needs, as requested by commenters, instead of meeting the specific geographic area percentage targets.[167] We find that it serves the public interest to establish quantifiable metrics to help ensure that the 5/5 broadband licenses are intensely and efficiently utilized. We believe that adopting geographic metrics of 25% and 50% as an alternative to the population coverage benchmarks accommodates use of the spectrum for

(Continued from previous page)
of Proposed Rulemaking, 31 FCC Rcd 8014, 8084, para. 191 (2016)). For auctioned services, the Act requires that the Commission's rules "include performance requirements, such as appropriate deadlines and penalties for performance failures, to ensure prompt delivery of service to rural areas, to prevent stockpiling or warehousing of spectrum by licensees or permittees, and to promote investment in and rapid deployment of new technologies and services." 47 U.S.C. § 309(j)(4)(B).

[163] *See* UTC Comments at 13–14 (supporting the proposal to apply the current 3/3 900 MHz population coverage requirements to 5/5 broadband licenses and the proposal to establish an interim geographic coverage requirement and a final geographic area coverage requirement as an alternative); LCRA Comments at 14 (supporting the proposal to apply the current 3/3 900 MHz coverage requirements in the 5/5 context).

[164] *See 5/5 900 MHz NPRM*, 40 FCC Rcd at 843–44, para. 51.

[165] *See id.* at 844, para. 52.

[166] *See id.* at 844, para. 51; *see also infra* section III.C.4. (regarding renewal obligations following the initial license term).

[167] *See 5/5 900 MHz NPRM,* 40 FCC Rcd at 844, para. 54 (seeking comment on the proposal in Petition, Attach. A at 14). SDG&E contends that adopting a standard of serving private business needs "allows operators to scale and adapt their networks to evolving business needs and technological advancements." SDG&E Comments at 7–8. LCRA asserts that a 5/5 broadband licensee could satisfy an alternative "private business needs" performance requirement by relying on the Commission's "substantial service" standard. LCRA Comments at 16–17 (citing letters and comments by LCRA and other utilities filed in WT Docket No. 17-200, and acknowledging that the Commission considered this option and rejected it the *3/3 900 MHz R&O*). Substantial service is defined by the Commission as "service that is sound, favorable, and substantially above a level of mediocre service that just might minimally warrant renewal." *See* 47 CFR § 90.743(a).

private business needs, as has been the case with the identical benchmarks established for the 3/3 broadband licenses, especially as the geographic size of each license—a single county—is relatively small.[168] As in the *3/3 900 MHz R&O*,[169] we find that adding the substantial service option for 5/5 broadband licenses is unnecessary, given the alternative option of geographic coverage where population metrics are more difficult to meet. Accordingly, we adopt the population and geographic coverage requirements proposed in the *5/5 900 MHz NPRM*.

b. Timeframe and Deadlines for Meeting the Coverage Benchmarks and Offering Broadband Service

68. In the *5/5 900 MHz NPRM*, the Commission proposed to give 5/5 broadband licensees the same amount of time for performance benchmarks as the rules provide to 3/3 broadband licensees.[170] Specifically, the Commission proposed six years to meet an interim performance benchmark for a newly issued 5/5 broadband license, and an additional six years to meet the final performance benchmark, starting with the date of grant of the 5/5 broadband license.[171] UTC and LCRA support the proposed deadlines.[172] We adopt these performance benchmark deadlines as proposed for new 5/5 broadband licenses where the licensee transitions the county from the legacy configuration. We find that these deadlines are appropriate given that 5/5 broadband licensees in markets not already transitioned to a 3/3 broadband segment will need to undertake significant work, particularly with respect to existing incumbents, to transition the band to the new regulatory framework that we adopt today.

69. Where a 3/3 broadband licensee opts to expand to a 5/5 broadband license, however, we find that abbreviated performance benchmark timeframes are more appropriate. The *5/5 900 MHz NPRM* sought comment on whether the proposals discussed above represent the appropriate balance between license-term length and a significant final performance benchmark,[173] and it also recognized the need to include appropriate incentives for current 3/3 broadband licensees that expand their operations by applying for and receiving a 5/5 broadband license.[174] In this expansion scenario, application of the performance benchmark deadlines outlined above would allow for unnecessarily drawn-out buildout periods—as long as 24 years when adding the same timeframes for the 5/5 transition to the timeframes for the 3/3 transition. We anticipate that conversion from 3/3 broadband operations to 5/5 broadband operations in this band would not require significant additional construction or equipment, but rather would primarily entail retuning previously installed radio equipment. Anterix agrees "that if a party had already secured a 3 MHz x 3 MHz license under the existing build out rules, an expansion to 5 MHz x 5 MHz should not trigger a new 12-year build out timeframe."[175] It further indicates that a limited additional performance benchmark deadline would still allow the licensee "to evolve [its] 3 MHz x 3 MHz network to support 5 MHz x 5 MHz."[176] We therefore conclude that application of the above extended performance benchmark timeline would not serve the public interest or the Commission's

[168] *See 3/3 900 MHz R&O,* 35 FCC Rcd at 5235–36, para. 130 (citing comments submitted in that proceeding); 5/5 *900 MHz NPRM*, 40 FCC Rcd at 843–44, para. 51.

[169] *3/3 900 MHz R&O*, 35 FCC Rcd at 5235, para. 128 & n.372.

[170] *See 5/5 900 MHz NPRM,* 40 FCC Rcd at 843–44, paras. 51–52.

[171] *Id.*

[172] UTC Comments at 13–14; LCRA Comments at 14.

[173] *See 5/5 900 MHz NPRM,* 40 FCC Rcd at 844, para. 54.

[174] *See 5/5 900 MHz NPRM,* 40 FCC Rcd at 843, para. 50.

[175] Letter from Elizabeth R. Sachs, Counsel for Anterix, Inc., to Marlene H. Dortch, Secretary, FCC, WT Docket No. 24-99 (filed Jan. 21, 2026).

[176] *Id*. (adding that Anterix "recognizes that the timing of an application for an expansion from 3 MHz x 3 MHz to 5 MHz x 5 MHz would be in the control of the licensee").

objective to promote efficient and intense utilization of spectrum in the 900 MHz band.

70. We are also concerned that, if we were to fail to acknowledge potential incentives related to the 3/3 to 5/5 transition as we consider performance obligation deadlines, a 3/3 broadband licensee could exploit a potential loophole. In particular, the licensee could opt not to deploy its 3/3 broadband network, thereby allowing its spectrum to lie fallow and failing to meet its 3/3 interim performance benchmark, and then exchange that inoperative 3/3 license for a 5/5 broadband license in order to gain 12 more years to deploy its broadband network under a new set of deadlines. This set of actions would be contrary to our intent in establishing the 3/3 broadband licensing rules and thwarts the objectives of reconfiguring the 900 MHz band for broadband service. Moreover, the Commission has repeatedly emphasized the detriment to the public in allowing licensees to hoard spectrum and allow it to lie fallow.[177] We also note that an applicant may not cancel its 3/3 broadband license solely in order to seek a new 5/5 broadband license (and lengthier construction deadlines) because, in that case, it would not meet the 5/5 broadband license eligibility requirement that an applicant must hold more than 50% of the total amount of licensed 900 MHz spectrum for the relevant county.

71. LCRA asserts that "the Commission should permit licensees that expand from a 3/3 broadband license to a 5/5 broadband license to meet their performance requirements under a consolidated deadline based on the date the 5/5 broadband license is granted."[178] We agree with LCRA to the extent that we recognize the efficiency of a single consolidated timeframe and set of deadlines for meeting the coverage benchmarks under a 5/5 broadband license that is issued in exchange for the existing 3/3 broadband license.

72. Specifically, where an applicant seeks the 5/5 broadband license in the same county in which it is exchanging its 3/3 broadband license, we will: (1) identify the remaining interim and/or final construction deadlines and expiration date of the 3/3 broadband license; (2) where the interim performance deadline for the 3/3 broadband license has not occurred prior to the grant of the 5/5 broadband license, add two years to that deadline and apply it to the 5/5 broadband license as the new interim performance deadline; (3) where the interim performance deadline for the 3/3 broadband license has passed but the final performance deadline for that license has not yet occurred, add two years to that final performance deadline and apply it to the 5/5 broadband license (there will be no 5/5 broadband license interim performance deadline);[179] and (4) where the final performance deadline for the 3/3 broadband license has passed and the licensee timely met that deadline, set the 5/5 broadband license final performance deadline as 2 years from the date of license grant. We do not impose an additional interim performance requirement for a 5/5 broadband licensee where the 3/3 interim performance deadline has already been met because in such cases, the licensee has already made progress toward the final benchmark, and imposing an additional interim deadline would be unnecessarily burdensome. The

[177] *See 5/5 900 MHz NPRM*, 40 FCC Rcd at 843, para. 50; *Facilitating Opportunities for Advanced Air Mobility et al.*, WT Docket No. 24-629 et al., Notice of Proposed Rulemaking, 40 FCC Rcd 745, 759, para. 32 (2025) ("We continue to believe that performance requirements play a critical role in ensuring that licensed spectrum does not lie fallow . . . ."); *Facilitating Shared Use in the 3100–3550 MHz Band*, WT Docket No. 19-348, Second Report and Order, Order on Reconsideration, and Order of Proposed Modification, 36 FCC Rcd 5987, 6030, para. 120 (2021) ("Performance requirements play a critical role in ensuring that licensed spectrum does not lie fallow.").

[178] LCRA Comments at 14. It suggests that, "[r]ather than deploying a site on a 3/3 broadband network, it may be more efficient to wait to deploy a particular site until the licensee can deploy a 5/5 broadband network" and that a "single, consolidated performance requirement will provide greater flexibility and reduce regulatory confusion, while ensuring the spectrum is intensely and efficiently utilized." LCRA Comments at 15.

[179] If the 3/3 broadband licensee failed to meet its interim performance deadline, its final performance deadline will have been accelerated by two years pursuant to the penalty provisions adopted in the *3/3 900 MHz R&O*. *See 3/3 900 MHz R&O*, 35 FCC Rcd at 5238, para. 137; 47 CFR § 27.1505(c)(i). Accordingly, upon issuing a new 5/5 broadband license to that licensee in the exchange scenario, we will add two years to the *accelerated* 3/3 final performance deadline, not the original 3/3 final performance deadline.

performance requirement deadlines we establish today will encourage licensees to provide service in a timely manner and help to ensure intensive spectrum utilization.

EXCHANGE OCCURS	5/5 INTERIM DEADLINE	5/5 FINAL DEADLINE
Before 3/3 interim deadline	3/3 interim deadline + 2 years	3/3 final deadline + 2 years
Between 3/3 interim and final deadlines	None	3/3 final deadline + 2 years
After final deadline	None	5/5 grant date + 2 years

73. We also note that the license term for the new 5/5 broadband license in an exchange scenario is affected by the 3/3 broadband licensee's buildout progress. Specifically, if the 3/3 broadband license's term was reduced to 13 years pursuant to the applicable penalty provisions adopted in the *3/3 900 MHz R&O*,[180] we will issue the new 5/5 broadband license for an initial 13-year term; otherwise we will issue it for an initial 15-year term.

c. Broadband Requirement and Broadband Safe Harbor

74. The performance requirements we are establishing today for 5/5 broadband licensees are two-fold, including both a coverage requirement and the offering of broadband services.[181] 5/5 broadband licensees will be required to demonstrate in their construction notifications that they are deploying broadband technologies and offering broadband services in order to satisfy the population or geographic coverage performance requirements we establish today.[182] We reiterate our finding that it serves the public interest to promote increased broadband operations as a key component of the 900 MHz band.

75. We also find that it serves the public interest to allow every 5/5 broadband licensee to determine the specific broadband technology that will best accommodate its particular uses of the spectrum. We do, however, establish a safe harbor for "broadband service" as proposed in the *NPRM*.[183] Under this safe harbor, the Commission would find that a 5/5 broadband licensee has satisfied the requirement to offer broadband service if the service has the following minimum features: provide 5/5 Long Term Evolution (LTE) service, based on the 3GPP standard release 8.0.[184] Of course an LTE network based on a later 3GPP standard release offering more advanced services may also be deployed.[185] We note that these minimum features are consistent with the minimum features previously adopted for the safe harbor for satisfying the broadband component of the 3/3 license performance requirements,[186] and that they are related to the characteristics of this band and the anticipated uses. With the safe harbor for meeting the broadband service performance requirement, we do not intend to thwart technological improvements, and a 5/5 900 MHz broadband licensee is free to submit for Commission review an alternative methodology to demonstrate that it has met the broadband service component of the

[180] *3/3 900 MHz R&O*, 35 FCC Rcd at 5238, para. 137; 47 CFR § 27.1505(c)(i).

[181] *See 5/5 900 MHz NPRM*, 40 FCC Rcd at 843–44, 845, paras. 50–51, 53.

[182] *5/5 900 MHz NPRM*, 40 FCC Rcd at 845, para. 56; *see* 47 CFR § 27.1505; *3/3 900 MHz R&O*, 35 FCC Rcd at 5236–37, paras. 132–33.

[183] *5/5 900 MHz NPRM*, 40 FCC Rcd at 845, para. 56.

[184] *Id.*; *see also* 3GPP, *Release 8*, https://www.3gpp.org/specifications-technologies/releases/release-8 (last visited Nov. 19, 2025).

[185] By LTE, we refer to the global standard for wireless communications of high-speed data for mobile phones and data terminals, developed by 3GPP. The LTE standard supports operation in the following channel bandwidth in Frequency-Division Duplexing (FDD) mode: 1.4 MHz, 3 MHz, 5 MHz, 10 MHz, 15 MHz and 20 MHz. *See* 3rd Generation Partnership Project, LTE; "Evolved Universal Terrestrial Radio Access (E-UTRA); Base Station (BS) radio transmission and reception (release 15)," 3GPP TS 36.104 version 15.3.0, § 5.6 (2018).

[186] *See 3/3 900 MHz R&O,* 35 FCC Rcd at 5237–38, paras. 134–36.

performance requirement.[187] We agree with commenters that, while LTE networks can benefit the likely customer base of utilities and other part 90 users,[188] it is beneficial to permit showings that alternative technologies can meet the broadband service component of the performance requirement.[189] We also recognize, as commenters have noted, that utilities and other enterprise licensees may use their 900 MHz band licenses to offer broadband service for private business and not broadly to the public.[190]

d. Penalties

76. We find that it serves the public interest to adopt the penalties proposed in the *5/5 900 MHz NPRM*.[191] If a 5/5 broadband licensee fails to meet its applicable interim performance benchmark deadline, its final benchmark deadline will be accelerated by two years, and its license term will be reduced by two years.[192] If a 5/5 broadband licensee fails to meet the final performance benchmark, even if it timely met its applicable interim performance benchmark, its authorization for that license area will terminate automatically without Commission action and that licensee will be ineligible to acquire it again.[193] Further, if a license terminates for failure to satisfy the final performance benchmark, the spectrum will become available for assignment subject to the eligibility requirements we adopt today, or any subsequent license issuance or competitive bidding rules that we may adopt. No commenter addressed the appropriate penalties for failing to meet the performance requirements. Our approach here is consistent with the Commission's rules for other broadband services.[194] We also remind prospective 5/5 broadband licensees that if they rely on a lessee to meet the performance requirements we adopt today, and the lessee fails to fulfill such requirements, we will enforce the performance requirements failure against the licensee.[195]

e. Narrowband Operations

77. The Commission sought comment on whether narrowband licensees in the 900 MHz band should be required to satisfy more stringent performance requirements than required under the existing rules, whether or not those licensees ultimately agree to relocate their facilities.[196] The Commission also invited commenters to discuss the state of current narrowband utilization, any ongoing or future investment in narrowband operations, and whether certain narrowband licensees have satisfied their promises to utilize the band more intensively.[197] AAR notes that "[r]ailroads use the 900 MHz band to support new safety applications including increased regulatory signaling obligations and recommendations established by the Federal Railroad Administration (FRA) and the National Safety Transportation Board, respectively."[198] The Commission queried which modified performance

[187] *5/5 900 MHz NPRM,* 40 FCC Rcd at 845, para. 56.

[188] Ericsson Comments at 2–3; Mission Critical Partners, Inc. Comments at 1.

[189] Ericsson Comments at 2–3; Mission Critical Partners, Inc. Comments at 1–2; Multi-Tech Systems, Inc. Comments at 1; Anterix Reply at 1–3.

[190] *See* LCRA Reply at 6 (citing Anterix Comments at 12).

[191] *5/5 900 MHz NPRM*, 40 FCC Rcd at 845, para. 57.

[192] *See* 47 CFR § 27.1505(c)(1).

[193] *See id.* § 27.1505(c)(2).

[194] *See, e.g.*, 47 CFR § 27.14(a) (AWS-1 and AWS-3), (q)(6) (AWS-4), (r)(4) (H Block); *3/3 900 MHz R&O*, 35 FCC Rcd at 5238, para. 138.

[195] *See* 47 CFR § 1.9030(d)(5)(ii); Appx. A (Final Rules), sec. 27.1505 (Performance requirements for 900 MHz broadband licenses).

[196] *5/5 900 MHz NPRM*, 40 FCC Rcd at 844, para. 53.

[197] *Id.*

[198] AAR Comments at 3–4.

requirements, if any, would best achieve the Commission's objectives to put otherwise fallow spectrum to more intensive use in the 900 MHz band.[199] No comments address these issues. At this time, we do not make changes to the existing performance requirements governing the 900 MHz narrowband licensees.

4. Renewal Term Obligations

78. We will not adopt additional renewal requirements outside of those already in place in section 1.949 of our rules.[200] In order to warrant renewal, a 5/5 broadband licensee must provide service over the license term. Licensees may meet a renewal "safe harbor" (continuing to serve at or above the level required by the final construction requirement), or make an individualized renewal showing.[201]

5. Mobile Spectrum Holdings Policies

79. In the *3/3 900 MHz R&O*, the Commission declined to include the 3/3 broadband segment in the Commission's spectrum aggregation screen.[202] In doing so, the Commission noted the relatively small amount of broadband spectrum at issue, compared to other flexible-use broadband services that the Commission had designated in the past.[203] The Commission also observed that use of the 3/3 broadband segment was "likely to be focused on business, enterprise, and government customers whose needs are not being met by the consumer-driven, wireless service offerings."[204] In the *5/5 900 MHz NPRM*, the Commission sought comment on whether any new basis exists to revisit the determination in the *3/3 900 MHz R&O* if the Commission adopts rules to enable 5/5 broadband.[205] No commenters raised any concerns with following the Commission's approach from the *3/3 900 MHz R&*O. Accordingly, consistent with the Commission's approach for the 3/3 900 MHz spectrum, we decline to include the 5/5 broadband licenses in the Commission's spectrum aggregation screen.

D. Technical Rules

80. We find it in the public interest to apply our part 27 technical rules for 5/5 broadband licenses and to continue to apply our part 90 rules to the 900 MHz narrowband licenses at 896–897.5/935–936.5 MHz and 900.5–901/939.5–940 MHz in the 3/3 configuration counties that do not transition to a 5/5 broadband configuration.[206] We will also continue to apply part 90 rules to the entire band for counties that remain in a legacy configuration. We make minimal adjustments discussed further herein. The Commission first applied these rules to the 900 MHz segment in the *3/3 900 MHz R&O*, where the Commission recognized that our part 27 rules would prevent harmful interference and the existing part 90 rules provided sufficient protection for narrowband licensees in the 900 MHz band.[207]

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[199] *5/5 900 MHz NPRM*, 40 FCC Rcd at 844, para. 53.

[200] *Id.* at 846, para. 58; 47 CFR § 1.949.

[201] *See* 47 CFR § 1.949(d) (renewal standard), (e)(2) and (3) (safe harbors for geographic license renewal), and (f) (requiring a detailed "Renewal Showing" if the applicant cannot satisfy one of the renewal safe harbors in paragraph (e)). We expect that 3/3 and 5/5 broadband licensees will continue to provide broadband service in their renewal terms. Individualized renewal showings for non-broadband service will face a high burden of demonstrating that such service is in the public interest.

[202] *3/3 900 MHz R&O*, 35 FCC Rcd at 5239, para. 141; *see generally Policies Regarding Mobile Spectrum Holdings; Expanding the Economic and Innovation Opportunities of Spectrum Through Incentive Auctions*, WT Docket No. 12-269, GN Docket No. 12-268, Report and Order, 29 FCC Rcd 6133 (2014).

[203] *3/3 900 MHz R&O*, 35 FCC Rcd at 5239, para. 141 (citing *3/3 900 MHz NPRM*, 34 FCC Rcd at 1570, para. 58).

[204] *3/3 900 MHz NPRM*, 34 FCC Rcd at 1570, para. 58; *see also 3/3 900 MHz R&O*, 35 FCC Rcd at 5239, para. 141 (citing *2019 900 MHz NPRM*, 34 FCC Rcd at 1570, para. 58).

[205] *5/5 900 MHz NPRM*, 40 FCC Rcd at 846–47, para. 60.

[206] *Id.* at 847, para. 61.

[207] *See 3/3 900 MHz R&O*, 35 FCC Rcd at 5241–47, paras. 145–65; *see also* 47 CFR §§ 27.1507–27.1510.

Our part 27 technical rules have functioned effectively in the 3/3 broadband context. As Anterix highlights, 900 MHz broadband has proven to be a good neighbor to in-band narrowband systems and these operations that have been found useful in an environment when dissimilar systems in adjacent bands are in play.[208] UTC notes that the proposed technical rules will effectively prevent harmful interference between users of the band as well as users of adjacent bands and while the narrowband segments will not function as a guard band there are a variety of other mitigating factors.[209]

81. A few commenters raised concerns regarding use of the part 27 rules in a 5/5 broadband context.[210] We are not persuaded that use of the part 27 rules presents an issue in the 5/5 broadband context. In particular, and as noted by UTC and SDG&E, existing interference protocols and mitigation options should operate to address harmful interference concerns.[211]

1. Broadband Rules

82. *Transmitter power limits.* We find it in the public interest to apply the same effective radiated power limits to 3/3 and 5/5 broadband licenses. As discussed in the *5/5 900 NPRM,* the Commission provides in section 27.1507 of our rules an effective radiated power for base and repeater stations in the 900 MHz 3/3 broadband segment not to exceed 400 watts/megahertz power spectral density (PSD) in non-rural areas and 800 watts/megahertz PSD in rural areas, with maximum permissible power decreasing as the antenna height above average terrain (HAAT) rises above 304 meters.[212] In the past, the Commission allowed additional flexibility to 3/3 900 MHz broadband licensees who have sought to operate at higher powers, as long as they sufficiently mitigate the risk of harmful interference.[213] In doing so, the Commission also adopted rules permitting an effective radiated power for mobile, control, and auxiliary test stations in the broadband segment not to exceed 10 watts, and effective radiated power of portables not to exceed 3 watts.[214] Nokia supports the proposal, stating that it will "allow utility companies to utilize similar coverage to the current 3 MHz broadband deployment."[215] Based on this record of success in the 3/3 broadband segment, we will extend the same rules for 5/5 broadband licenses.

83. *Out-of-band emission (OOBE) limits.* We find it in the public interest to apply the same out-of-band emissions (OOBE) limit to 3/3 and 5/5 broadband licensees in the 900 MHz band.[216] The 3/3 broadband technical rules provide that the spectrum immediately outside a 900 MHz broadband licensee's frequency band of operation must be attenuated by at least 43 + 10 log (P) dB for uplink operations in the

[208] *See* Anterix Comments at 13.

[209] UTC Comments at 5.

[210] *See generally* Gogo Comments (raising concerns about the use of standard OOBE limits and other interference mitigation measures in the 5/5 broadband context and the potential for harmful interference with its systems); MSI Comments at 2.

[211] *See* UTC Comments at 5; SDG&E Comments at 4.

[212] 47 CFR § 27.1507; *5/5 900 MHz NPRM*, 40 FCC Rcd at 847, para. 62.

[213] 47 CFR § 27.1507(a)(1)(ii), (a)(2)(ii); *3/3 900 MHz R&O*, 35 FCC Rcd at 5241, para. 146 ("[P]rovided the 900 MHz broadband licensee complies with a modeled power flux density (PFD) of 3000 microwatts/m^2/MHz over at least 98% of the area within 1 km of the base or repeater station antenna, at 1.6 meters above ground level, we permit 900 MHz broadband base stations to operate with an effective radiated power not to exceed 1000 watts/megahertz in non-rural areas and 2000 watts/megahertz in rural areas and an antenna height above average terrain (HAAT) not to exceed 304 meters (1,000 feet), with the maximum permissible power decreasing as the HAAT rises above 304 meters.").

[214] 47 CFR § 27.1507(a)(3)–(4); *3/3 900 MHz R&O*, 35 FCC Rcd at 5242, para. 148.

[215] Nokia Comments at 4.

[216] *See 5/5 900 MHz NPRM*, 40 FCC Rcd at 848, para. 63.

897.5–900.5 MHz band[217] and by at least 50 + 10 log (P) dB for downlink operations in the 936.5–939.5 MHz band.[218] We believe that applying this limit to the 5/5 broadband licensees will continue to provide the appropriate protections to 900 MHz band neighbors. Most commenters support this outcome although commercial air-to-ground (ATG) communications users in neighboring bands raise concerns.

84. We agree with the majority of commenters that the 3/3 OOBE limits are appropriate and provide necessary interference protections from 5/5 broadband operations to adjacent band users. Commenters Anterix, Ericsson, LCRA, UBA, and Nokia all strongly support maintaining the same OOBE limit for 5/5 broadband licenses.[219] LCRA believes that the current technical rules should be maintained for expanded 5/5 broadband operations and are "sufficient to protect adjacent band users" as these companies, with their extensive experience "confirm that the proposed technical rules will ensure adjacent services are protected from harmful interference, while enabling utilities to expand in a cost-efficient manner."[220]

85. Nokia identifies two key considerations the OOBE limit should address, this limit must factor in prior investment on the part of users of this band and ensure that adjacent services are protected from inference.[221] In maintaining the same limit, we take into account that there has already been equipment deployed by 3/3 broadband users. To provide as much stability we can to the 5/5 transition, it is best to maintain the same rules and expectations where we can so the licensees can continue to relying on aspects of the transition that are working in the best interest of all parties involved. Additionally, we are not persuaded that this OOBE limit would result in harmful interference to operations outside of this band, so this limit also continues to protect out of band operations.

86. Ericsson also highlights the importance of maintaining the same OOBE limit, stating that it will result in a "consistent regulatory environment that supports innovation and growth" while providing on balance, an environment that "safeguards the interest of all spectrum users."[222] This will also allow for "seamless integration of services" between 3/3 and 5/5 broadband.[223] We agree that maintaining the same OOBE limit in both the 3/3 and 5/5 broadband context provides predictability to licensees while enabling them to expand their broadband operations.

87. However, Gogo suggests that the Commission should require a 5/5 broadband licensee's OOBE limit to be attenuated by at least 50 + 10 log (P) dB, rather than the current OOBE limit of at least 43 + 10 log (P) dB.[224] Gogo is concerned that the absence of a guard band "creates a risk of [OOBE] causing harmful interference to Gogo's operations, reducing the overall spectral efficiency of Gogo's ATG system or disrupting it entirely."[225] In addition, Gogo suggests that the Commission should consider amending section 27.1509(c) of our rules to eliminate the -26 dB exception with respect to expanded 900

[217] *See* 47 CFR § 27.1509(a); *see also 3/3 900 MHz R&O*, 35 FCC Rcd at 5242, para. 149.

[218] 47 CFR § 27.1509(b); *see also 3/3 900 MHz R&O*, 35 FCC Rcd at 5242, para. 149.

[219] *See* Anterix Comments at 13; Ericsson May 2025 Comments 5; LCRA Reply at 9–10; UBBA Reply at 8 (quoting *3/3 900 MHz R&O*, 35 FCC Rcd at 5243, para. 150 (2020)); Nokia Comments at 4.

[220] LCRA Reply at 9–10.

[221] Nokia Comments at 4.

[222] *Id.* at 5.

[223] Ericsson Comments at 5.

[224] Gogo Comments at 7. *But see* Anterix, Inc. Reply Comments at 6, n.25 (Anterix Reply) (citing *3/3 900 MHz R&O*, 35 FCC Rcd at 5243, para. 150).

[225] Gogo Comments at 1; *see* Gogo Business Aviation LLC Petition Comments at 2–4, 5–9; *see also* Letter from Michele C. Farquhar, Counsel to Gogo Business Aviation LLC, to Marlene H. Dortch, Secretary, FCC, WT Docket No. 24-99 (filed June 27, 2024).

MHz operations at or below 896 MHz.[226]

88. In the alternative, Gogo suggests several requirements for 5/5 broadband licensees, including requiring coordination within five miles of a Gogo site, requiring lab and real-world testing, establishing a legal and financial duty on the part of each broadband licensee to prevent and remediate harmful interference, affirming that 5/5 broadband licensees can negotiate private coexistence agreements, and, finally, designating a single 24/7 contact number for reporting harmful interference from all licensees.[227]

89. Motorola suggests that the Commission "should propose an [OOBE] limit no greater than -23 dBm/MHz in the band immediately adjacent to the broadband allocation[s],"[228] which Motorola also suggested before adoption of the *3/3 900 MHz Report and Order*.[229] Similar to the Commission's discussion in *3/3 900 MHz Report and Order*, we find Motorola's suggestion to be overly conservative for 5/5 900 MHz broadband operations and find that the suggested OOBE limit may restrict 5/5 broadband deployment in certain areas.[230] Additionally, as UBBA notes, Motorola has presented no evidence to revisit this determination in the 5/5 context.[231] In the *3/3 900 MHz Report and Order*, the Commission retained the authority to impose operational restrictions or tighter OOBE limits if necessary to resolve harmful interference.[232] We retain the same authority here. As a matter of course, we expect 5/5 broadband licensees to engage in coordination efforts with the adjacent band users to identify additional measures needed to promote co-existence. We believe that licensees in each band are best situated to determine which methods of interference avoidance and mitigation are appropriate for each site. We expect that licensees may take steps such as carefully selecting transmitter locations, adjusting transmitter and antenna parameters, and controlling power levels. Additionally, licensees are in the best position to reach private and working agreements that reflect the real-time needs of both sets of operations. For example, a 3/3 or 5/5 broadband licensee could contractually agree to a more stringent OOBE, or could agree to an enhanced coordination regime.

90. Finally, Commission rules require all licensees to use frequencies far enough away from the band edges so as not to cause harmful interference to services in the immediately adjoining frequency bands.[233] In order to comply with our rules, any 900 MHz broadband licensee would be mandated to select frequencies that would result in the attenuation necessary to prevent harmful interference to the band next to theirs. This alone should address the concerns raised by Gogo and other band neighbors. However, in the event that harmful interference occurs, we expect the licensees will take appropriate steps to resolve it first through bilateral negotiation, then by notifying the Commission.

91. *Interference protections and resolution.* We find it in the public interest to maintain the current interference protections and resolution requirements for 3/3 broadband licensees and apply the same requirements to 5/5 broadband licensees.[234] Accordingly, both 3/3 and 5/5 900 MHz broadband licensees will be required to comply with the sections 27.1510 and 90.672 of the Commission's rules

[226] Gogo Comments at 7. *But see* UBBA Reply at 8 (citing *3/3 900 MHz R&O*, 35 FCC Rcd at 5243, para. 151).

[227] Gogo Comments at 6.

[228] Motorola Comments at 9–10.

[229] Motorola 2020 Comments at 4–5.

[230] *3/3 900 MHz R&O*, 35 FCC Rcd at 5243, para. 150.

[231] UBBA Reply at 8.

[232] *3/3 900 MHz R&O*, 35 FCC Rcd at 5242, para. 149 (citing 47 CFR §§ 27.53(n), 90.691(b)).

[233] *See* 47 CFR § 2.102(f).

[234] *See 5/5 900 MHz NPRM*, 40 FCC Rcd at 849, para. 67.

regarding unacceptable interference and resolution requirements.[235] In addition, co-channel broadband systems must comply with existing 900 MHz co-channel separation requirements, which require that co-channel systems generally comply with a minimum spacing criteria of at least 113 kilometers (70 miles) separation distance between base stations.[236]

92. Several commenters suggested that we consider a smaller spacing of 40 miles.[237] However, no commenter gave details on purported negative effects of the 70-mile zone on broadband operations. Additionally, no technical basis has been provided as to why a 30-mile reduction is appropriate for both 3/3 and 5/5 broadband licensees. The current 70-mile buffer has operated to protect narrowband users from 3/3 broadband segment licensees for the past five years and we have not received any formal complaints that this requirement is hindering operations. In the *3/3 900 MHz R&O*, the Commission found that this co-channel separation distance standard is sufficient to protect site-based narrowband operations from 3/3 broadband operations.[238] We maintain the 70-mile/113-kilometer base station separation requirement for 3/3 and 5/5 broadband licenses.

93. Currently, 3/3 broadband licensees are also required to prevent harmful interference to narrowband operations and to resolve any unacceptable interference in the shortest time practicable.[239] In the *5/5 900 MHz NPRM*, the Commission sought comment on Gogo's proposal that there be a mandatory coordination and remediation process to prevent and resolve harmful interference that would include pre-deployment coordination and testing and a single point of contact for all 5/5 broadband licensees, among other requirements, to prevent harmful interference that should be implemented by Commission rules or license conditions and supported by private agreements.[240]

94. UBBA highlights that the Commission rejected similar proposals from Gogo in the *3/3 900 MHz R&O*, where the Commission noted the expectation for "900 MHz broadband licensees and adjacent band licensees to work together to resolve any inference issues."[241] This remains true today. Licensees still have a robust set of options to mitigate harmful interference to adjacent band operations,

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[235] 47 CFR §§ 27.1510 ("Unacceptable interference to narrowband 900 MHz licensees from 900 MHz broadband licensees"), 90.672 ("Unacceptable interference to non-cellular 800 MHz licensees from 800 MHz cellular systems or part 22 Cellular Radiotelephone systems, and within the 900 MHz narrowband segments, and to narrowband 900 MHz licensees from 900 MHz broadband licensees."). To reflect our conclusion today, we are adopting revisions to section 90.672(a). *See* Appx. A (Final Rules), sec. 90.672(a)(1)(i)(C)–(D). Section 27.1510 currently cross-references section 90.672 and requires no change. *See also 3/3 900 MHz R&O*, 35 FCC Rcd at 5245–46, paras. 159–61.

[236] 47 CFR § 90.621(b); *3/3 900 MHz R&O*, 35 FCC Rcd at 5245, para. 158.

[237] Anterix Comments at 10; LCRA Reply at 9; SDG&E Reply at 2–3.

[238] *3/3 900 MHz R&O*, 35 FCC Rcd at 5245, para. 158.

[239] *See generally* 47 CFR §§ 27.1510, 90.672(a), 90.673–90.675; *3/3 900 MHz R&O*, 35 FCC Rcd at 5245, paras. 159–60. Section 90.672(a) defines "unacceptable interference," while "harmful interference" is defined as "[i]nterference which endangers the functioning of a radionavigation service or of other safety services or seriously degrades, obstructs, or repeatedly interrupts a radiocommunication service operating in accordance with [the ITU] Radio Regulations." 47 CFR § 2.1(c).

[240] *5/5 900 MHz NPRM*, 40 FCC Rcd at 850, para. 67 (citing Gogo Comments at 2, 6, 8). API states that if the Commission moves forward, it should ensure that co-channel distance separations in section 90.621 and interference thresholds in section 90.672 should be applied to expanded 900 MHz broadband operations and that interference mitigation obligations in sections 90.673–90.675 should be amended to clearly apply to 900 MHz broadband licenses. API Comments at 7. Sensus advocates for prior testing and coordination for expanded 900 MHz broadband. Sensus Comments at 5. Anterix, in turn, claims that it will continue working with adjacent licensees to avoid harmful interference, that the existing rules are sufficient, and that private arrangements can be worked out without FCC involvement. Anterix Comments at 5–6; Anterix Reply at 7.

[241] UBBA Reply at 8 (quoting *3/3 900 MHz R&O*, 35 FCC Rcd at 5243, para. 151).

and we expect those tools to be used by both 3/3 and 5/5 broadband licensees alike.

95. *Field strength limit.* In the *3/3 900 MHz R&O*, the Commissions established a median field strength limit not to exceed 40 dBμV/m at any given point along the geographic license boundary in the broadband segment, unless the affected licensee agrees to a different field strength limit.[242] We apply the same field strength limit to 900 MHz 5/5 broadband operations.

96. *Canada/Mexico border operations.* All 900 MHz licensees seeking to operate in border regions remain subject to the United States' current agreements and arrangements with Canada and Mexico. These include, as applicable, limitations on channel usage, as 900 MHz channels are divided between countries on a primary and secondary basis, and it is likely that a 3/3 or 5/5 900 MHz broadband license in the border area would be operating on both U.S. primary channels and channels that are secondary to Mexican and/or Canadian operations. Additionally, a 3/3 or 5/5 900 MHz broadband licensee is subject to current power restrictions, which for primary licensees vary based on antenna height, and for secondary licensees include more restrictive power flux density limits. Current and future broadband licensees in the 900 MHz band are also subject to any international agreements governing border-area operations.[243]

2. Narrowband Rules

97. We find that existing part 90 rules governing narrowband operations in the 900 MHz band for the legacy and 3/3 configurations are appropriate to ensure co-existence in neighboring counties with 5/5 broadband licensees, with one clarifying provision discussed in further detail below. In the *5/5 900 MHz NPRM*, the Commission sought feedback on whether changes to the existing part 90 technical and operational rules are necessary or desirable to support continued 900 MHz narrowband operations.[244] No commenters suggested specific changes to part 90 rules to better accommodate a 5/5 broadband licensee. AAR suggests that we maintain our part 90 technical rules in order to best protect narrowband incumbents and we should not change our technical rules unless and until all narrowband incumbents have been completely cleared from the 5/5 broadband segment.[245] We agree; the part 90 rules currently provide protection to narrowband incumbents where 3/3 broadband operations are in effect and we see no compelling reason to adjust these technical rules at this time.

98. Existing rules establish mechanisms for preventing interference to licensed broadband systems from new or modified narrowband operations.[246] In this regard, the Commission's existing co-channel separation requirements for narrowband systems, as set forth in section 90.621(b)(4) of the Commission's rules, provide adequate protection to 3/3 and 5/5 broadband systems. To provide added certainty of such protection, we find that it serves the public interest to adopt a new provision to our rules, in section 90.621(b)(8). This provision clarifies that existing narrowband licensees in the band will not be prohibited from modifying their systems to meet evolving needs, and that narrowband licensees will not be prohibited from entering the band in the future when the freeze is lifted,[247] as long as they comply with

[242] 47 CFR § 27.1508; *3/3 900 MHz R&O*, 35 FCC Rcd at 5246, para. 163. The Commission reasoned that this limit was appropriate because it corresponded to the current field strength limit at the border between co-channel 900 MHz SMR licensees. *3/3 900 MHz R&O*, 35 FCC Rcd at 5246, para.163 (citing 47 CFR § 90.671).

[243] *3/3 900 MHz R&O*, 35 FCC Rcd at 5246, para. 162; 47 CFR § 90.621(b)(4).

[244] *See 5/5 900 MHz NPRM*, 40 FCC Rcd at 851, para 70.

[245] *See* AAR Comments at 14.

[246] *See* 47 CFR § 90.621(b)(4).

[247] *See infra* section III.E., discussing the 900 MHz licensing freeze.

specified requirements of our rules to protect broadband licensees already operating.[248] When applying these co-channel separation rules, the proposed narrowband system must calculate and apply the required separation and contour protections from the edge of the co-channel broadband licensee's market boundary.[249]

99. Space Data suggests a wholesale re-banding to move 900 MHz up to a higher frequency to allow for more space between a 5/5 broadband licensee and the adjacent band users.[250] However, UBBA argues that this is outside of the scope of the *5/5 900 MHz NPRM*'s proposals, and we agree.[251]

E. 900 MHz Licensing Freeze

100. Today, we find that a 900 MHz licensing freeze should not remain in place indefinitely and we direct the Bureau to consider lifting the freeze at appropriate points in the future. We further establish a timeframe to guide the Bureau toward eventually opening the band for unrestricted licensing, as follows: (1) from now until six months from the date of publication of this item in the Federal Register, the licensing freeze will remain in place; (2) beginning six months from the date of publication of this item in the Federal Register, the Bureau may consider partially lifting the freeze to allow expansion of incumbent systems; and (3) three years from the date of publication of this item in the Federal Register, the Bureau may reconsider lifting the freeze in its entirety.

101. The Bureau has long maintained a licensing freeze on the acceptance of applications for new or expanded 900 MHz operations, which was established to maintain a stable spectral landscape while the Commission determined how to proceed with respect to the 900 MHz band.[252] Once the *3/3 900 MHz R&O* was issued, the licensing freeze enabled 3/3 broadband proponents the ability to negotiate toward broadband deployment without new entrants complicating the negotiations (and the freeze protected broadband proponents from potential speculating behavior by bad actors).[253] Yet, at the same time, complex systems and other narrowband incumbents have been severely limited in their ability to

[248] *See* Appx. A (Final Rules), sec. 90.621(b)(8). While not specifically included in the *5/5 900 MHz NPRM*, this provision applies the existing interference protection paradigm in 90.621(b) to add procedures for narrowband system to protect incumbent broadband systems.

[249] *Id.*

[250] *See* Space Comments 3–15.

[251] UBBA Reply at 8–9.

[252] *See Wireless Telecommunications Bureau Announces Temporary Filing Freeze on the Acceptance of Certain Part 90 Applications for 896–901/935–940 MHz (900 MHz Band) Spectrum*, WT Docket No. 17-200, Public Notice, 33 FCC Rcd 8735, 8735–36 (WTB 2018) (*900 MHz Freeze Public Notice*). WTB also noted that an entity could seek relief from the freeze through the Commission's waiver provisions. *Id.* at 8736, n.4. WTB modified the freeze in 2019 to permit incumbents to exchange frequencies at the same location (i.e., acquire proposed narrowband segment frequencies to replace proposed vacated broadband segment frequencies), provided the modification did not increase that incumbent's net number of licensed frequencies. *See Review of the Commission's Rules Governing the 896–901/935–940 MHz Band; pdv Wireless, Inc. d/b/a Anterix, Request for Modification of 900 MHz Temporary Filing Freeze*, WT Docket No. 17-200, Order, 34 FCC Rcd 9369, 9369, 9370–71, paras. 1, 5–7 (WTB 2019) (*900 MHz Freeze Modification*). In 2020, the Commission partially lifted the freeze to permit covered incumbents to file applications to relocate their operations to different frequencies or locations and transition 900 MHz narrowband operations. *See 3/3 900 MHz Order*, 35 FCC Rcd at 5251, para. 175.

[253] *See* Anterix Comments at 14 (attributing the success of the 900 MHz 3/3 transition "in no small part" to the adoption of this freeze); SDG&E Comments at 4–5 (describing the freeze as the "cornerstone of the Commission's strategy to stabilize the spectrum landscape during the ongoing realignment of the 900 MHz band for broadband deployments").

expand or improve systems for legitimate business needs.[254]

102. While the licensing freeze has served its purpose in facilitating the 3/3 broadband transition in the 900 MHz band, we do not believe that it is in the public interest to maintain such a freeze indefinitely. We intend that our delegation to the Bureau for a partial freeze lift will be limited in scope: it should consider the expansion of existing narrowband systems in terms of spectrum or geography, including complex system expansion.

103. We delegate authority to the Bureau to issue any appropriate public notice with details about a potential lift of the licensing freeze including the exact dates, eligibility requirements, and any other relevant information. The Commission also directs the Bureau, if necessary, to reinstate the freeze in any form required to achieve the Commission's goals of an efficient and smooth transition.

F. Other Issues

1. 3GPP Alignment

104. The *5/5 900 MHz NPRM* sought comment on whether there is a specific 3GPP standard that should apply to reduce the risk of harmful interference, either in band or to adjacent band users.[255] Gogo suggests that the Commission should harmonize with 3GPP standards, specifically mentioning that specification (3GPP 36.101 Table 6.6.2.1.1-1) for a 5/5 broadband allocation "is slightly stricter than the FCC requirement and does not include the FCC's -26dB exception at band edge."[256] For the reasons discussed above in the OOBE section, we decline to adopt Gogo's suggestion. We apply the same standard to 3/3 and 5/5 broadband operations.

2. 220 MHz Delegation of Authority

105. As discussed in section III.A.2 above, on a practical level, the nationwide ribbon license held by the railroads at 896–896.125/935–935.125 MHz (in the lower portion of the first narrowband segment of the 3/3 configuration) presents a significant challenge to widespread deployment of 5/5 broadband in the 900 MHz band. One potential solution suggested by AAR would be for the railroads to move from the 900 MHz band to the 220 MHz band (conditioned on several factors).[257] We recognize that a relocation of the railroads from 900 MHz to 220 MHz under the rules adopted herein and pursuant the conditions desired by the railroads can be accomplished through (a) private, voluntary agreements involving multiple parties including the railroads, 900 MHz broadband proponents such as Anterix, and 220 MHz incumbents, and (b) access to licenses currently in the FCC's spectrum inventory. In order to facilitate the potential solution of AAR moving from 900 MHz to 220 MHz, we delegate authority to WTB to address potential waiver requests seeking access to 220 MHz FCC inventory spectrum (including but not limited to requests involving transactions, new or modified licenses, administrative license changes, extended license terms, and extended terms of discontinuance of service). We expect that the Bureau would rule favorably on such requests to the extent they: (1) facilitate the transition of railroad operations from the 900 MHz to 220 MHz band, (2) facilitate access to 220 MHz inventory spectrum for railroads or other 220 MHz incumbents, and (3) include an anti-windfall payment in cases where there is a net reduction of FCC inventory spectrum.[258] This delegation of authority to WTB is intended to

[254] *See* EEI Comments at 4 (stating that the freeze "has constrained the ability of incumbent licensees to enhance and expand their networks"); Motorola Reply at 3 (arguing that the freeze has negatively impacted "the ability of incumbent licensees to maintain systems to effectively meet internal requirements" (internal quotation marks omitted)).

[255] *See 5/5 900 MHz NPRM*, 40 FCC Rcd at 848–49, para. 65.

[256] Gogo Comments at 9.

[257] AAR Comments at 7–8.

[258] We anticipate that 900 MHz broadband proponents will remit anti-windfall payments for the corresponding amount of spectrum.

expedite and streamline consideration of such 220 MHz waiver requests in order to promote broadband access while ensuring rail safety.

3. Complex Systems Definition

106. Several commenters raise issues related to "complex systems," which are systems excluded from mandatory relocation under the process provided for the 3/3 transition.[259] Because the 5/5 broadband process does not include mandatory transition of holdouts from the 896–897.5/935–936.5 MHz and 900.5–901/939.5–940 MHz portions of the band (referred to as the narrowband segments in the 3/3 configuration), we do not need to adopt a similar exemption for the rules governing 5/5 broadband. EEI and NextEra Energy both request that the Commission add additional clarity to the section 27.1501 definition of complex systems, which currently reads "[a]covered incumbent's system that consists of 45 or more functionally integrated sites."[260] The Commission explained that this designation would be effective as of the adoption date of the *3/3 900 MHz R&O*.[261] Essentially, commenters request that the date be added to the definition so that those users who qualified as complex systems as of the date of the *3/3 900 MHz R&O* can retain that status going forward. No commenters opposed the definitional adjustment. We conclude that it is in the public interest to add this clarification to the definition to provide assurance for complex systems to adjust and streamline their operations without fear that these improvements could bring the possibility of mandatory transition.[262]

IV. PROCEDURAL MATTERS

107. *Regulatory Flexibility Act*. The Regulatory Flexibility Act of 1980, as amended (RFA),[263] requires that an agency prepare a regulatory flexibility analysis for notice and comment rulemakings, unless the agency certifies that "the rule will not, if promulgated, have a significant economic impact on a substantial number of small entities."[264] Accordingly, the Commission has prepared a Final Regulatory Flexibility Analysis (FRFA) concerning the possible impact of the rule changes contained in this *Report and Order* on small entities. The FRFA is set forth in Appendix B.

108. *Paperwork Reduction Act.* This *Report and Order* may contain new or substantively modified information collection requirements subject to the Paperwork Reduction Act of 1995 (PRA), Public Law 104-13. All such requirements will be submitted to the Office of Management and Budget (OMB) for review under section 3507(d) of the PRA. OMB, the general public, and other federal agencies will be invited to comment on any new or modified information collection requirements contained in this proceeding. In addition, we note that pursuant to the Small Business Paperwork Relief Act of 2002, Public Law 107-198, *see* 44 U.S.C. § 3506(c)(4), we previously sought specific comment on how the Commission might further reduce the information collection burden for small business concerns with fewer than 25 employees.

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[259] *See* EEI Comments at 3–4, NextEra Comments at 3–4; *see also 3/3 900 MHz R&O*, 35 FCC Rcd at 5219, para. 82.

[260] 47 CFR § 27.1501.

[261] *3/3 900 MHz R&O*, 35 FCC Rcd at 5220, para. 84.

[262] The new definition of "complex systems" will read: "A covered incumbent's system that consists of 45 or more functionally integrated sites as of May 13, 2020." We decline to adopt the additional language suggested by NextEra ("Incumbent licensees that qualify as complex as of May 13, 2020, may make network adjustments that reduce the number of functionally integrated sites below 45 without losing complex system status"), NextEra Comments at 5 (emphasis omitted), as we find it unnecessary. Our update to the definition aligns with Anterix's position that it "believes that as it works to clear complex system incumbents, those systems should retain their complex system status throughout the clearing process." Anterix Comments at 10.

[263] 5 U.S.C. §§ 601–612. The RFA has been amended by the Small Business Regulatory Enforcement Fairness Act (SBREFA), Pub. L. No. 104-121, 110 Stat. 847 (1996).

[264] *Id.* § 605(b).

109. *Congressional Review Act.* The Commission has determined, and the Administrator of the Office of Information and Regulatory Affairs, Office of Management and Budget, concurs, that this rule is "non-major" under the Congressional Review Act, 5 U.S.C. § 804(2). The Commission will send a copy of this *Report and Order* to Congress and the Government Accountability Office pursuant to 5 U.S.C. § 801(a)(1)(A).

V. ORDERING CLAUSES

110. IT IS ORDERED that, pursuant to the authority found in sections 1, 2, 4(i), 4(j), 301, 302, 303, 307–310, 319, 324, and 332 of the Communications Act of 1934, as amended, 47 U.S.C. §§ 151, 152, 154(i), 154(j), 301, 302a, 303, 307–310, 319, 324, 332, this *Report and Order* IS HEREBY ADOPTED.[265]

111. IT IS FURTHER ORDERED that, pursuant to the authority found in sections 4(i) and 5 of the Communications Act of 1934, as amended, 47 U.S.C. §§ 154(i), 155, and sections 0.201, 0.331, and 1.103 of the Commission's rules, 47 CFR §§ 0.201, 0.331, 1.103, authority is delegated to the Wireless Telecommunications Bureau, subject to the conditions specified herein, EFFECTIVE upon publication in the Federal Register.

112. IT IS FURTHER ORDERED that this *Report and Order* SHALL BE EFFECTIVE 30 days after publication in the Federal Register, except that the amendments to sections 27.1503, 27.1504, and 27.1505, 47 CFR §§ 27.1503, 27.1504, 27.1505, which may contain new or modified information collections, will not become effective until the Office of Management and Budget completes review of any information collections that the Wireless Telecommunications Bureau determines is required under the Paperwork Reduction Act. The Commission directs the Wireless Telecommunications Bureau to announce the effective date for sections 27.1503, 27.1504, and 27.1505 by notice in the Federal Register and by subsequent Public Notice.

113. IT IS FURTHER ORDERED that the Office of the Managing Director, Performance Program Management, SHALL SEND a copy of this Report and Order in a report to be sent to Congress and the Government Accountability Office pursuant to the Congressional Review Act, 5 U.S.C. § 801(a)(1)(A).

114. IT IS FURTHER ORDERED that the Commission's Office of the Secretary SHALL SEND a copy of this *Report and Order*, including the Final Regulatory Flexibility Analysis, to the Chief Counsel for Advocacy of the Small Business Administration.

FEDERAL COMMUNICATIONS COMMISSION

Marlene H. Dortch
Secretary

[265] Pursuant to Executive Order 14215, 90 Fed. Reg. 10447 (Feb. 20, 2025), this regulatory action has been determined to be not significant under Executive Order 12866, 58 Fed. Reg. 68708 (Dec. 28, 1993).

APPENDIX A

Final Rules

For the reasons discussed in the preamble, the Federal Communications Commission amends parts 2, 27, and 90 of title 47 of the Code of Federal Regulations as follows:

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

1. The authority citation for part 2 continues to read as follows:

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

2. Section 2.106 is amended by:

a. Revising pages 31 and 32 of the Table of Frequency Allocations to read as follows:

§ 2.106 Table of Frequency Allocations.

* * * * *

Table of Frequency Allocations	894–1400 MHz (UHF)				Page 31
International Table			United States Table		FCC Rule Part(s)
Region 1 Table	Region 2 Table	Region 3 Table	Federal Table	Non-Federal Table	
890–942 FIXED MOBILE except aeronautical mobile 5.317A BROADCASTING 5.322 Radiolocation	890–902 FIXED MOBILE except aeronautical mobile 5.317A Radiolocation	890–942 FIXED MOBILE 5.317A BROADCASTING Radiolocation	890–902	(See previous page)	
				894–896 AERONAUTICAL MOBILE US116 US268	Public Mobile (22)
				896–901 FIXED MOBILE except aeronautical mobile US116 US268	Wireless Communications (27) Private Land Mobile (90)
	5.318 5.325		US116 US268 G2	901–902 FIXED MOBILE US116 US268	Personal Communications (24)
	902–928 FIXED Amateur Mobile except aeronautical mobile 5.325A Radiolocation 5.150 5.325 5.326		902–928 RADIOLOCATION G59 5.150 US218 US267 US275 G11	902–928 5.150 US218 US267 US275	RF Devices (15) ISM Equipment (18) Private Land Mobile (90) Amateur Radio (97)
	928–942 FIXED MOBILE except aeronautical mobile 5.317A Radiolocation		928–932	928–929 FIXED US116 US268 NG35	Public Mobile (22) Private Land Mobile (90) Fixed Microwave (101)
				929–930 FIXED LAND MOBILE US116 US268	Private Land Mobile (90)
				930–931 FIXED MOBILE US116 US268	Personal Communications (24)
			US116 US268 G2	931–932 FIXED LAND MOBILE US116 US268	Public Mobile (22)
			932–935 FIXED US268 G2	932–935 FIXED US268 NG35	Public Mobile (22) Fixed Microwave (101)
			935–941	935–940 FIXED MOBILE except aeronautical mobile US116 US268	Wireless Communications (27) Private Land Mobile (90)
				940–941 FIXED MOBILE US116 US268	Personal Communications (24)

			941–944 FIXED US84 US268 US301 G2	941–944 FIXED US84 US268 US301 NG30 NG35	Public Mobile (22) Aural Broadcast Auxiliary (74E) Low Power Auxiliary (74H) Fixed Microwave (101)
942–960 FIXED MOBILE except aeronautical mobile 5.317A BROADCASTING 5.322 5.323	942–960 FIXED MOBILE 5.317A	942–960 FIXED MOBILE 5.317A BROADCASTING 5.320	944–960	944–960 FIXED NG35	
960–1164 AERONAUTICAL MOBILE (R) 5.327A AERONAUTICAL RADIONAVIGATION 5.328 5.328AA			960–1164 AERONAUTICAL MOBILE (R) 5.327A AERONAUTICAL RADIONAVIGATION 5.328 US224		Aviation (87)
1164–1215 AERONAUTICAL RADIONAVIGATION 5.328 RADIONAVIGATION-SATELLITE (space-to-Earth) (space-to-space) 5.328B 5.328A			1164–1215 AERONAUTICAL RADIONAVIGATION 5.328 RADIONAVIGATION-SATELLITE (space-to-Earth) (space-to-space) 5.328A US224		
1215–1240 EARTH EXPLORATION-SATELLITE (active) RADIOLOCATION RADIONAVIGATION-SATELLITE (space-to-Earth) (space-to-space) 5.328B 5.329 5.329A SPACE RESEARCH (active) 5.330 5.331 5.332			1215–1240 EARTH EXPLORATION-SATELLITE (active) RADIOLOCATION G56 RADIONAVIGATION-SATELLITE (space-to-Earth) (space-to-space) G132 SPACE RESEARCH (active) 5.332	1215–1240 Earth exploration-satellite (active) Space research (active)	
1240–1300 EARTH EXPLORATION-SATELLITE (active) RADIOLOCATION RADIONAVIGATION-SATELLITE (space-to-Earth) (space-to-space) 5.328B 5.329 5.329A SPACE RESEARCH (active) Amateur 5.282 5.330 5.331 5.332 5.335 5.335A			1240–1300 EARTH EXPLORATION-SATELLITE (active) RADIOLOCATION G56 SPACE RESEARCH (active) AERONAUTICAL RADIONAVIGATION 5.332 5.335	1240–1300 AERONAUTICAL RADIONAVIGATION Amateur Earth exploration-satellite (active) Space research (active) 5.282	Amateur Radio (97)
1300–1350 RADIOLOCATION AERONAUTICAL RADIONAVIGATION 5.337 RADIONAVIGATION-SATELLITE (Earth-to-space) 5.149 5.337A			1300–1350 AERONAUTICAL RADIONAVIGATION 5.337 Radiolocation G2 US342	1300–1350 AERONAUTICAL RADIONAVIGATION 5.337 US342	Aviation (87)
1350–1400 FIXED MOBILE RADIOLOCATION	1350–1400 RADIOLOCATION 5.338A		1350–1390 FIXED MOBILE RADIOLOCATION G2 5.334 5.339 US342 US385 G27 G114	1350–1390 5.334 5.339 US342 US385	
			1390–1395 5.339 US79 US342 US385	1390–1395 FIXED MOBILE except aeronautical mobile 5.339 US79 US342 US385 NG338A	Wireless Communications (27)
5.149 5.338 5.338A 5.339	5.149 5.334 5.339		1395–1400 LAND MOBILE (medical telemetry and medical telecommand) 5.339 US79 US342 US385		Personal Radio (95)

b. Revising paragraphs (c) (116) and (268) to read as follows:

(c) * * *

(116) US116 In the bands 890–902 MHz and 935–941 MHz, no new assignments are to be made to Federal radio stations after July 10, 1970, except on case-by-case basis to experimental stations. Federal assignments existing prior to July 10, 1970, shall be on a secondary basis to stations in the non-Federal mobile, except aeronautical mobile, service and shall be subject to adjustment or removal from the bands 890–902 MHz, 928–932 MHz, and 935–941 MHz at the request of the FCC.

* * * * *

(268) US268 The bands 890–902 MHz and 928–942 MHz are also allocated to the radiolocation service for Federal ship stations (off-shore ocean areas) on the condition that harmful interference is not caused to non-Federal stations in the mobile, except aeronautical mobile, service. The provisions of footnote US116 apply.

* * * * *

PART 27—MISCELLANEOUS WIRELESS COMMUNICATIONS SERVICES

3. The authority citation for part 27 continues to read as follows:

Authority: 47 U.S.C. 154, 301, 302a, 303, 307, 309, 332, 336, 337, 1403, 1404, 1451, and 1452, unless otherwise noted.

4. Section 27.13 is amended by revising paragraph (n) to read as follows:

§ 27.13 License period.

* * * * *

(n) ***900 MHz broadband.*** Authorizations for broadband licenses in the 897.5–900.5 MHz and 936.5–939.5 MHz bands or the 896–901 MHz and 935–940 MHz bands will have a term not to exceed 15 years from the date of initial issuance, and ten (10) years from the date of any subsequent renewal.

* * * * *

5. The heading of 47 CFR part 27, subpart P is revised to read as follows:

Subpart P—Regulations Governing Licensing and Use of 900 MHz Broadband Service in the 896–901 MHz and 935–940 MHz Bands

6. Section 27.1500 is revised to read as follows:

§ 27.1500 Scope.

This subpart sets out the regulations governing the licensing and operations of 900 MHz broadband systems operating in the 897.5–900.5/936.5–939.5 MHz bands or in the 896–901/935–940 MHz bands. It includes eligibility requirements and operational and technical standards for stations licensed in these bands. It also supplements the rules regarding application procedures contained in part 1, subpart F of this chapter. The rules in this subpart are to be read in conjunction with the applicable requirements

contained elsewhere in this part; however, in case of conflict, the provisions of this subpart shall govern with respect to licensing and operation in these frequency band segments.

7. Section 27.1501 is revised to read as follows:

§ 27.1501 Definitions.

3/3 900 MHz broadband. The 900 MHz broadband systems in the 897.5–900.5/936.5–939.5 MHz band licensed by the Commission pursuant to this subpart.

3/3 900 MHz broadband licensee. An entity that holds a 3/3 900 MHz broadband license issued pursuant to this subpart.

3/3 900 MHz broadband segment. The segment of realigned 900 MHz spectrum (i.e., the 897.5–900.5/936.5–939.5 MHz band) licensed by the Commission pursuant to this subpart.

5/5 900 MHz broadband. The 900 MHz broadband systems in the 896–901/935–940 MHz band licensed by the Commission pursuant to this subpart.

5/5 900 MHz broadband frequency range. Realigned 900 MHz spectrum (i.e., the 896–901/936–941 MHz band) licensed by the Commission pursuant to this subpart.

5/5 900 MHz broadband licensee. An entity that holds a 5/5 900 MHz broadband license issued pursuant to this subpart.

900 MHz broadband. The 900 MHz broadband systems in the 897.5–900.5/936.5–939.5 MHz band and in the 896–901/935–940 MHz band licensed by the Commission pursuant to this subpart.

900 MHz broadband licensee. An entity that holds either a 3/3 900 MHz broadband license or a 5/5 900 MHz broadband license issued pursuant to this subpart.

900 MHz narrowband segment. The segments of realigned 900 MHz spectrum (i.e., the 896–897.5/935–936.5 MHz and 900.5–901/939.5–940 MHz bands (Paired channels 1–119 and 361–399)) designated for narrowband operations in markets with 3/3 900 MHz broadband and licensed pursuant to 47 CFR part 90, subpart S.

Complex system. A covered incumbent's system that consists of 45 or more functionally integrated sites as of May 13, 2020.

County. For purposes of this part, counties shall be defined using the United States Census Bureau's data reflecting county legal boundaries and names valid through January 1, 2017.

Covered incumbent. Any 900 MHz site-based licensee in the 900 MHz band that is required under § 90.621(b) of this chapter to be protected by a 3/3 or 5/5 900 MHz broadband licensee (as applicable) with a base station at any location within the county, or any 900 MHz geographic-based SMR licensee in the 3/3 MHz broadband segment or 5/5 900 MHz frequency range, as applicable, whose license area completely or partially overlaps the county.

Eligibility Certification. A filing made to the Commission as part of the prospective broadband licensee's application for a 3/3 or 5/5 900 MHz broadband license that demonstrates satisfaction of the eligibility restrictions.

License area. The geographic component of a 3/3 or 5/5 900 MHz broadband license. A license area consists of one county.

Power spectral density (PSD). The power of an emission in the frequency domain, such as in terms of ERP or EIRP, stated per unit bandwidth, e.g., watts/MHz.

Site-channel. A channel licensed at a particular location.

Transition plan. A filing made to the Commission as part of the prospective broadband licensee's application for a 3/3 or 5/5 900 MHz broadband license that includes a plan for transitioning the band in the particular county.

Transitioned market. See § 90.7 of this chapter.

8. Section 27.1503 is amended by revising paragraphs (a) through (c) to read as follows:

§ 27.1503 Broadband license eligibility and application requirements.

(a) *Eligibility.*

(1) *3/3 900 MHz broadband license.* For an applicant to be eligible for a 3/3 900 MHz broadband license in a county, it must:

(i) Hold the licenses for more than 50% of the total amount of licensed 900 MHz SMR (site-based or geographically licensed) and B/ILT (site-based) spectrum for the relevant county, including credit for spectrum included in an application filed with the Commission on or after March 14, 2019, to relocate, negotiate cancellation of licenses, or acquire spectrum held by, covered incumbents; and

(ii) Meet a threshold of at least 90% of licensed channels in the 3/3 900 MHz broadband segment by: (A) Holding spectrum in the 3/3 900 MHz broadband segment, and/or (B) reaching an agreement to clear through relocation of or cancellation of the license(s) or acquisition of spectrum held by covered incumbents, including credit for spectrum included in an application filed with the Commission on or after March 14, 2019; and/or (C) demonstrating how it will provide interference protection to covered incumbents' site-channels in the county and within 70 miles of the county boundary, and geographically licensed channels where the license area completely or partially overlaps the county.

(iii) The applicant for a 3/3 900 MHz broadband license may use its current holdings in the 900 MHz narrowband segment to relocate covered incumbents. Spectrum used for the purpose of relocating incumbent(s) may not exceed the incumbent's current spectrum holdings in the relevant county, unless additional channels are necessary to achieve equivalent coverage and/or capacity.

(2) *5/5 900 MHz broadband license.* For an applicant to be eligible for a 5/5 900 MHz broadband license in a county, it must:

(i) Hold the licenses for more than 50% of the total amount of licensed 900 MHz spectrum for the relevant county, including credit for spectrum included in an application filed with the Commission on or after March 14, 2019, to relocate, negotiate cancellation of licenses, or acquire spectrum held by, covered incumbents;

(ii) As it pertains to the 897.5–900.5 MHz and 936.5–939.5 MHz bands, either (A) Hold a 3/3 900 MHz license in the relevant county, or (B) meet a threshold of at least 90% of combined licensed channels by: (1) holding spectrum in the 3/3 900 MHz broadband segment, and/or (2) reaching an agreement to clear through relocation of or cancellation of the license(s) or acquisition of spectrum held

by covered incumbents, including credit for spectrum included in an application filed with the Commission on or after March 14, 2019; and/or (3) demonstrating how it will provide interference protection to covered incumbents' site-channels in the county and within 70 miles of the county boundary, and geographically licensed channels where the license area completely or partially overlaps the county; and

(iii) As it pertains to the 896–897.5/935–936.5 MHz and 900.5–901/939.5–940 MHz bands, demonstrate that it has reached an agreement to clear through relocation of or cancellation of the license(s) or acquisition of spectrum held by all covered incumbents, or demonstrate how it will provide harmful interference protection to all covered incumbents holding site-based licenses in the county and within 70 miles of the county boundary and geographically licensed channels where the license area completely or partially overlaps the county.

(3) To provide interference protection, an applicant for a 3/3 or 5/5 900 MHz broadband license may:

(i) Protect site-based covered incumbents through compliance with minimum spacing criteria set forth in § 90.621(b) of this chapter;

(ii) Protect site-based covered incumbents through new or existing letters of concurrence agreeing to lesser base station separations as set forth in § 90.621(b) of this chapter; and/or

(iii) Protect geographically based covered incumbent(s) through a private contractual agreement.

(4) If any site of a complex system is located within the county or within 70 miles of the county boundary, an applicant must either hold the license for that site or reach an agreement to acquire, relocate, or protect the site in order to demonstrate eligibility for a 3/3 or 5/5 900 MHz broadband license.

(b) * * *

(2) * * *

(i) Lists the licenses the applicant holds in the 900 MHz band to demonstrate that it holds the licenses for more than 50% of the total licensed 900 MHz spectrum in the relevant county to meet the requirements outlined in paragraph (a)(1)(i) or (a)(2)(i) of this section. Spectrum included in an application filed with the Commission on or after March 14, 2019, to relocate, or acquire spectrum held by, covered incumbents will be counted toward the total licensed spectrum held by the applicant.

(ii) States that the applicant has filed a Transition Plan detailing how it meets the requirements outlined in paragraph (a)(1)(ii) or (a)(2)(ii) of this section and, if applicable, how it meets the requirements outlined in paragraph (a)(2)(iii) of this section.

(3) * * *

(i) * * *

(A) Agreement by covered incumbents to relocate from the 3/3 900 MHz broadband segment (for a 3/3 broadband license) or the 896–901 and 935–940 MHz bands (for a 5/5 broadband license), as applicable;

(B)—(E) * * *

(ii) Descriptions of the agreements outlined in paragraphs (a)(1)(ii) and (a)(2)(ii) and (iii) of this section, if applicable.

(iii) * * *

(A) The applications that the parties to the agreements will file in order to relocate licensees or, in the case of 3/3 broadband licenses, to relocate or repack licensees in the 900 MHz narrowband segments;

(B) A description of how the applicant will provide interference protection to, and/or relocate, or acquire spectrum held by covered incumbents, as outlined in paragraphs (a)(1)(ii) and (a)(2)(ii) and (iii) of this section, as applicable.

(C)—(D) * * *

(iv) * * *

* * * * *

(c) *Anti-windfall provisions.*

(1) The applicant must return to the Commission all of its licensed 900 MHz spectrum, up to six megahertz for a 3/3 900 MHz broadband license and up to ten megahertz for a 5/5 900 MHz broadband license, for the county in which it seeks a broadband license. The applicant will be required to file, within 15 days of filing its broadband license application, an application(s) to cancel all of its 900 MHz broadband, SMR, and B/ILT spectrum, as applicable, up to six megahertz for a 3/3 900 MHz broadband license and up to ten megahertz for a 5/5 900 MHz broadband license, conditioned upon Commission grant of its application.

(2) If the applicant relinquishes less than six megahertz of spectrum for a 3/3 900 MHz broadband license or less than ten megahertz of spectrum for a 5/5 900 MHz broadband license in accordance with paragraph (c)(1) of this section, then the applicant must remit an anti-windfall payment prior to the grant of the 900 MHz broadband license. Payment must be made through a monetary payment to the general fund of the U.S. Treasury.

(3) For the purpose of calculating the windfall payment, if an applicant relinquished more than six megahertz of narrowband spectrum when it applied for its 3/3 900 MHz broadband license, then that 3/3 licensee may claim credit for the excess spectrum in its application for a 5/5 MHz broadband license for the same county. Any excess spectrum credit not claimed on its initial application is forfeited.

9. Section 27.1504 is amended by revising paragraphs (a), (d), and (g) to read as follows:

§ 27.1504 Mandatory relocation.

(a) Subject to paragraph (b) of this section, 900 MHz broadband licensees may require mandatory relocation of covered incumbents from the 897.5–900.5 MHz and 936.5–939.5 MHz bands as follows: remaining site-channels in a given county or within 70 miles of the county boundary, and geographically licensed channels where the license area completely or partially overlaps the county, that were not covered by § 27.1503(a)(1)(ii) or 27.1503(a)(2)(ii).

(b)—(c) * * *

(d) Having met the 90% success threshold referenced in § 27.1503, a 900 MHz broadband licensee seeking to trigger the mandatory relocation process shall serve notice on all applicable covered incumbents and file such notice in ULS as a pleading to the relevant call sign(s).

(e)—(f) * * *

(g) A party seeking Commission resolution of a dispute must submit the request in writing to the Chief, Wireless Telecommunications Bureau, and file such notice in ULS as a pleading to the relevant call sign(s):

(1)–(4) * * *

* * * * *

10. Section 27.1505 is amended by revising paragraphs (b)–(d) to read as follows:

§ 27.1505 Performance requirements for 900 MHz broadband licenses.

* * * * *

(b) A 900 MHz broadband licensee must offer broadband service and meet a population coverage requirement or, alternatively, a geographic coverage requirement, by the applicable deadlines as follows:

(1) For a 3/3 broadband license, or a 5/5 broadband license that is not issued in exchange for a 3/3 900 MHz broadband license, the licensee is subject to the following benchmarks:

(i) *Interim performance requirement*: Within six years of license grant, a 900 MHz broadband licensee shall offer broadband service and either (A) provide reliable signal coverage to at least 45% of the population in its license area, or (B) demonstrate that it provides reliable signal coverage for at least 25% of the geographic license area.

(ii) *Final performance requirement*. Within 12 years of license grant, a 900 MHz broadband licensee shall offer broadband service and either (A) provide reliable signal coverage to at least 80% of the population in its license area, or (B) demonstrate that it provides reliable signal coverage for at least 50% of the geographic license area.

(2) For a 5/5 900 MHz broadband license issued in exchange for a 3/3 900 MHz broadband license prior to the 3/3 broadband license interim performance deadline, the licensee is subject to the following benchmarks:

(i) *Interim performance requirement*: Within two years from the date of the applicable interim performance deadline for the 3/3 broadband license, the 5/5 broadband licensee shall offer broadband service and either (A) provide reliable signal coverage to at least 45% of the population in its license area, or (B) demonstrate that it provides reliable signal coverage for at least 25% of the geographic license area.

(ii) *Final performance requirement*. Within two years from the date of the applicable final performance deadline for the 3/3 broadband license, a 5/5 broadband licensee shall offer broadband service and either (A) provide reliable signal coverage to at least 80% of the population in its license area, or (B) demonstrate that it provides reliable signal coverage for at least 50% of the geographic license area.

(3) For a 5/5 900 MHz broadband license issued in exchange for a 3/3 900 MHz broadband license after the 3/3 broadband licensee has met its applicable interim performance deadline but prior to its applicable final performance deadline for the 3/3 license, the licensee will be subject to the following

final performance requirement: within two years from the date of the applicable final performance deadline for the 3/3 broadband license, a 5/5 broadband licensee shall offer broadband service and either (A) provide reliable signal coverage to at least 80% of the population in its license area, or (B) demonstrate that it provides reliable signal coverage for at least 50% of the geographic license area. Such licensee will not be subject to an interim performance requirement for the 5/5 broadband license.

(4) For a 5/5 900 MHz broadband license issued in exchange for a 3/3 900 MHz broadband license after the 3/3 broadband licensee has met its applicable final performance requirement, the 5/5 broadband licensee will be subject to the following final performance requirement: within two years from the date of grant of the 5/5 broadband license, a 5/5 broadband licensee shall offer broadband service and either (A) provide reliable signal coverage to at least 80% of the population in its license area, or (B) demonstrate that it provides reliable signal coverage for at least 50% of the geographic license area. The licensee will not be subject to an interim performance requirement for the 5/5 broadband license.

(c) *Penalties.*

(1)(A) A 3/3 broadband licensee that fails to meet its interim performance benchmark will be required to meet its final performance benchmark two years sooner (i.e., at 10 years into the license term), and its license term will be reduced to 13 years.

(B) Except in cases where a licensee received its 5/5 900 MHz broadband license in exchange for a 3/3 900 MHz broadband license, a 5/5 broadband licensee that fails to meet its applicable initial performance benchmark will be required to meet its final performance benchmark two years sooner (i.e., at 10 years into the license term), and its license term will be reduced to 13 years.

(C) A 5/5 broadband licensee that received its 5/5 license in exchange for a 3/3 900 MHz broadband license and that fails to meet its applicable interim performance benchmark, as described in paragraph (b)(2)(i) or (ii) of this section, will be subject to a revised final performance deadline that is accelerated by two years, and its applicable license term will be reduced by two years.

(2) * * *

(d) *Continuity of Operations.* After satisfying its final performance benchmark, a licensee is required to continue to provide coverage and offer broadband service at or above that same level for the remaining period of the license term and thereafter. See 47 CFR § 1.949 (Application for Renewal of Authorization).

11. Section 27.1506 is amended to read as follows:

§ 27.1506 Frequencies.

The 897.5–900.5 MHz and 936.5–939.5 MHz band segments are available for licensing with an authorized bandwidth up to 3 megahertz paired channels. The 896–901 MHz and 935–940 MHz bands are available for licensing with an authorized bandwidth up to 5 megahertz paired channels. The 897.5–900.5 MHz band segment or 896–901 MHz band segment, as applicable, must only be used for uplink transmissions. The 936.5–939.5 MHz band segment or 935–940 MHz band segment, as applicable, must only be used for downlink transmissions.

12. Section 27.1509 is amended by revising paragraphs (a) and (b) to read as follows:

§ 27.1509 Emission limits.

* * * * *

(a) For 900 MHz broadband operations in the 896–901 MHz band, by at least 43 + 10 log (P) dB.

(b) For 900 MHz broadband operations in the 935–940 MHz band, by at least 50 + 10 log (P) dB.

* * * * *

PART 90—PRIVATE LAND MOBILE RADIO SERVICES

13. The authority citation for part 90 continues to read as follows:

Authority: 47 U.S.C. 154(i), 161, 303(g), 303(r), 332(c)(7), 1401–1473.

14. Section 90.7 is amended by removing the term "900 MHz broadband segment," revising the term "Transitioned market," and adding, after the term "900 MHz broadband licensee," the terms "3/3 900 MHz broadband," "3/3 900 MHz broadband licensee," "3/3 900 MHz broadband segment," "5/5 900 MHz broadband," "5/5 900 MHz broadband licensee," and "5/5 900 MHz broadband frequency range," to read as follows:

§ 90.7 Definitions.

* * * * *

900 MHz broadband segment. [Removed.]

3/3 900 MHz broadband. See 47 CFR 27.1501.

3/3 900 MHz broadband licensee. See 47 CFR 27.1501.

3/3 900 MHz broadband segment. See 47 CFR 27.1501.

5/5 900 MHz broadband. See 47 CFR 27.1501.

5/5 900 MHz broadband licensee. See 47 CFR 27.1501.

5/5 900 MHz broadband frequency range. See 47 CFR 27.1501.

* * * * *

Transitioned market. A geographic area in which the 900 MHz band has been reconfigured to consist of a 3/3 900 MHz broadband licensed area in the 3/3 900 MHz broadband segment and 900 MHz narrowband segments pursuant to part 27 of this chapter. A geographic area that has been reconfigured to consist of a 5/5 900 MHz broadband license area is not part of this definition.

15. Section 90.613 is amended by revising the introductory text to read as follows:

§ 90.613 Frequencies available.

The following table indicates the channel designations of frequencies available for assignment to eligible applicants under this subpart. Frequencies shall be assigned in pairs, with mobile and control station transmitting frequencies taken from the 806–824 MHz band with corresponding base station frequencies being 45 MHz higher and taken from the 851–869 MHz band, or with mobile and control station frequencies taken from the 896–901 MHz band with corresponding base station frequencies being 39 MHz higher and taken from the 935–940 MHz band. For operations in the 897.5–900.5 MHz and 936.5–

939.5 MHz bands (Channels 120–360), no new applications will be accepted in a 3/3 900 MHz broadband transitioned market for a narrowband system under part 90, subpart S of this chapter. For operations in 896–901 MHz and 935–940 MHz bands (Channels 1–399), no new applications will be accepted in markets transitioned to 5/5 900 MHz broadband for narrowband systems under part 90, subpart S of this chapter. Only the base station transmitting frequency of each pair is listed in the following table.

* * * * *

16. Section 90.616 is amended by revising paragraph (a)(3) to read as follows:

§ 90.616 896–897.5/935–936.5 MHz and 900.5–901/939.5–940 MHz narrowband segments.

* * * * *

(a) * * *

(3) Business/Industrial/Land Transportation Pool and Specialized Mobile Radio licensees authorized as of September 13, 2018, for relocation to the 900 MHz narrowband segments from the 3/3 900 MHz broadband segment pursuant to part 27, subpart P, of this chapter.

* * * * *

17. Section 90.621(b) is amended by adding paragraph (8) to read as follows:

§ 90.621 Selection and assignment of frequencies.

* * * * *

(b) * * *

(8) Except as provided in paragraph (b)(5) and subject to paragraph (b)(6) of this section, new or modified 900 MHz narrowband systems must meet the co-channel separation distances set forth in paragraph (b)(4) of this section with respect to an incumbent 900 MHz broadband system's licensed market boundary.

18. Section 90.672 is amended by revising paragraphs (a)(1)(i)(C) and (D) to read as follows:

§ 90.672 Unacceptable interference to non-cellular 800 MHz licensees from 800 MHz cellular systems or part 22 Cellular Radiotelephone systems, and within the 900 MHz narrowband segments, and to narrowband 900 MHz licensees from 900 MHz broadband licensees.

(a) * * *

(1) * * *

(i) * * *

(C) From the 3/3 900 MHz broadband segment or 5/5 900 MHz broadband frequency range, a median desired signal strength of -104 dBm or higher if operating in the 900 MHz narrowband segment, as measured at the R.F. input of the receiver of a mobile unit; or

(D) From the 3/3 900 MHz broadband segment or 5/5 900 MHz broadband frequency range, a median desired signal strength of -101 dBm or higher if operating in the 900 MHz narrowband segment, as measured at the R.F. input of the receiver of a portable, i.e., hand-held, unit; and either

* * * * *

Appendix B

Final Regulatory Flexibility Analysis

1. As required by the Regulatory Flexibility Act of 1980, as amended (RFA)[1] , the Federal Communications Commission (Commission) incorporated an Initial Regulatory Flexibility Analysis (IRFA) in the *Review of the Commission's Rules Governing the 896–901/935–940 MHz Band* (*Notice*) released in January 2025.[2] The Commission sought written public comment on the proposals in the Notice, including comment on the IRFA. No comments were filed addressing the IRFA. This Final Regulatory Flexibility Analysis (FRFA) conforms to the RFA and it (or summaries thereof) will be published in the Federal Register.[3]

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

2. In the *Report and Order*, the Commission adopts rules providing for the realignment of the 896–901/935–940 MHz band (900 MHz band) to enable broadband use for the entire ten megahertz of the 900 MHz band. The rules we adopt today allow for certain existing 900 MHz licensees to transition to a 5/5 broadband license. The revised 900 MHz regulatory framework also maintains previous configurations of the 900 MHz band, allowing continued operations by legacy Specialized Mobile Radio (SMR), land mobile radio, and other narrowband licensees, as well as 3/3 broadband licensees. The *Report and Order* builds upon the Commission's previous efforts to realign the band to provide for the deployment of broadband services and technologies. We update the existing 900 MHz broadband licensing framework to facilitate a voluntary, market-driven transition and to allow 900 MHz users the opportunity to increase their capacity for more advanced and robust broadband communications networks. This ten-megahertz broadband spectrum opportunity will enable innovation and help ensure that utilities, critical infrastructure, and small and other business enterprise entities have access to additional broadband capacity to support ongoing 900 MHz private wireless broadband deployments.

3. In addition, the *Report and Order* provides a pathway to a ten megahertz broadband option in the 900 MHz band. Under the rules we adopt today, the 900 MHz spectrum can be used on a county basis in any of the following three configurations: (1) a "legacy" configuration with twenty wideband channels interleaved with 200 narrowband channels; (2) one six-megahertz broadband segment consisting of two paired three-megahertz channels and two narrowband segments with a total of 159 narrowband channels; or (3) ten megahertz of broadband consisting of two paired five-megahertz channels and no reserved narrowband channels.

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

4. No comments were filed addressing the impact of the proposed rules on small entities.

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

5. Pursuant to the Small Business Jobs Act of 2010, which amended the RFA,[4] the Commission is required to respond to any comments filed by the Chief Counsel for the Small Business Administration (SBA) Office of Advocacy, and also provide a detailed statement of any change made to

[1] 5 U.S.C. §§ 601 *et seq*., as amended by the Small Business Regulatory Enforcement and Fairness Act (SBREFA), Pub. L. No. 104-121, 110 Stat. 847 (1996).

[2] *Review of the Commission's Rules Governing the 896–901/935–940 MHz Band*, WT Docket No. 24-99, RM-11977, Notice of Proposed Rulemaking and Order, 40 FCC Rcd 818 (*Notice*).

[3] 5 U.S.C. § 604.

[4] Small Business Jobs Act of 2010, Pub. L. No. 111-240, 124 Stat. 2504 (2010).

the proposed rules as a result of those comments.[5] The Chief Counsel did not file any comments in response to the proposed rules in this proceeding.

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

6. The RFA directs agencies to provide a description of, and where feasible, an estimate of the number of small entities that may be affected by the adopted rules.[6] The RFA generally defines the term "small entity" as having the same meaning as the terms "small business," "small organization," and "small governmental jurisdiction."[7] In addition, the term "small business" has the same meaning as the term "small business concern" under the Small Business Act.[8] A "small business concern" is one which: (1) is independently owned and operated; (2) is not dominant in its field of operation; and (3) satisfies any additional criteria established by the SBA.[9] The SBA establishes small business size standards that agencies are required to use when promulgating regulations relating to small businesses; agencies may establish alternative size standards for use in such programs, but must consult and obtain approval from SBA before doing so.[10]

7. Our actions, over time, may affect small entities that are not easily categorized at present. We therefore describe three broad groups of small entities that could be directly affected by our actions.[11] In general, a small business is an independent business having fewer than 500 employees.[12] These types of small businesses represent 99.9% of all businesses in the United States, which translates to 34.75 million businesses.[13] Next, "small organizations" are not-for-profit enterprises that are independently owned and operated and are not dominant in their field.[14] While we do not have data regarding the number of non-profits that meet that criteria, over 99 percent of nonprofits have fewer than 500 employees.[15] Finally, "small governmental jurisdictions" are defined as cities, counties, towns, townships, villages, school districts, or special districts with populations of less than fifty thousand.[16]

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[5] 5 U.S.C. § 604(a)(3).

[6] *Id.* § 604 (a)(4).

[7] *Id.* § 601(6).

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

[9] 15 U.S.C. § 632.

[10] 13 CFR § 121.903.

[11] 5 U.S.C. § 601(3)–(6).

[12] *See* SBA, Office of Advocacy, *Frequently Asked Questions About Small Business* (July 23, 2024), https://advocacy.sba.gov/wp-content/uploads/2024/12/Frequently-Asked-Questions-About-Small-Business_2024-508.pdf.

[13] *Id*.

[14] 5 U.S.C. § 601(4).

[15] *See* SBA, Office of Advocacy, *Small Business Facts, Spotlight on Nonprofits* (July 2019), https://advocacy.sba.gov/2019/07/25/small-business-facts-spotlight-on-nonprofits/.

[16] 5 U.S.C. § 601(5).

Based on the 2022 U.S. Census of Governments data, we estimate that at least 48,724 out of 90,835 local government jurisdictions have a population of less than 50,000.[17]

8. The rules adopted in the *Report and Order* will apply to small entities in the industries identified in the chart below by their six-digit North American Industry Classification System (NAICS)[18] codes and corresponding SBA size standard.[19] Based on currently available U.S. Census data regarding the estimated number of small firms in the identified industry, we conclude that the adopted rules will impact a substantial number of small entities. Where available, we provide additional information regarding the number of potentially affected entities in the identified industries below.

Table 1. 2022 U.S. Census Bureau Data by NAICS Code

Regulated Industry (Footnotes specify potentially affected entities within a regulated industry where applicable)	**NAICS Code**	**SBA Size Standard**	**Total Firms**[20]	**Total Small Firms**[21]	**% Small Firms**
Wireless Telecommunications Carriers (except Satellite)[22]	517112	1,500 employees	1,184	1,081	91.30%

Table 2. Telecommunications Service Provider Data

2024 Universal Service Monitoring Report Telecommunications Service Provider Data[23] **(Data as of December 2023)**	**SBA Size Standard (1500 Employees)**		
Affected Entity	**Total # FCC Form 499A Filers**	**Small Firms**	**% Small Entities**
Wireless Telecommunications Carriers (except Satellite)[24]	585	498	85.13

[17] *See* U.S. Census Bureau, 2022 Census of Governments –Organization, https://www.census.gov/data/tables/2022/econ/gus/2022-governments.html, tables 1–11.

[18] The North American Industry Classification System (NAICS) is the standard used by federal statistical agencies in classifying business establishments for the purpose of collecting, analyzing, and publishing statistical data related to the U.S. business economy. *See* www.census.gov/NAICS for further details regarding the NAICS codes identified in this chart.

[19] The size standards in this chart are set forth in 13 CFR § 121.201 by six digit NAICS code.

[20] *U.S. Census Bureau*, "*Selected Sectors: Employment Size of Firms for the U.S.: 2022*." Economic Census, ECN Core Statistics Economic Census: Establishment and Firm Size Statistics for the U.S., Table EC2200SIZEEMPFIRM, 2025.

[21] *Id.*

[22] Affected Entities in this industry include 2.3 GHz Wireless Communications Services, and Private Land Mobile Radio — 900 MHz Band.

[23] Federal-State Joint Board on Universal Service, Universal Service Monitoring Report at 26, Table 1.12 (2024), https://docs.fcc.gov/public/attachments/DOC-408848A1.pdf.

[24] Affected Entities in this industry include all reporting wireless carriers and service providers.

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

9. The RFA directs agencies to describe the economic impact of adopted rules on small entities, as well as projected reporting, recordkeeping and other compliance requirements, including an estimate of the classes of small entities which will be subject to the requirement and the type of professional skills necessary for preparation of the report or record.[25]

10. The adopted rule changes are likely to require small entities to hire attorneys, engineers, consultants, or other professionals in order to meet compliance obligations in the *Report and Order*. The Commission, however, cannot quantify the cost of compliance with these rule changes. We note, however, that several of the rule changes are consistent with and mirror existing policies for 3/3 900 MHz broadband licensees and requirements used in similar spectrum bands. Therefore, small entities with existing licenses may already be familiar with such policies and requirements and may have processes and procedures already in place to facilitate compliance, thereby resulting in minimal incremental costs to comply with the *Report and Order.* The following discussion summarizes the compliance requirements for small and other entities that are adopted in the *Report and Order.*

11. *Application Freeze*. The *Report and Order* establishes a framework to guide the Wireless Telecommunications Bureau (Bureau) towards eventually opening the band for unrestricted licensing, as follows: (1) from now until six months from the date of publication of this item in the Federal Register, the licensing freeze will remain in place; (2) beginning six months from the date of publication of this item in the Federal Register, the Bureau may consider beginning to accept applications that expand incumbent systems (including complex systems); and (3) in three years from the date of publication of this item in the Federal Register, the Bureau may reconsider lifting the freeze in its entirety.

12. *Eligibility and Applications.* The *Report and Order* models the eligibility requirements already established for a 3/3 broadband license and applies similar application requirements to obtain a 5/5 broadband license. An applicant must submit both an Eligibility Certification and a Transition Plan. The Eligibility Certification must include, at a minimum that: (1) the applicant holds the licenses for more than 50% of the total amount of licensed 900 MHz spectrum for the relevant county; (2) as it pertains to the 3/3 broadband segment (897.5–900.5/936.5–939.5 MHz), the prospective licensee either: (a) holds a 3/3 broadband license in the relevant county; or (b) has reached an agreement to clear through acquisition, cancellation, or relocation, or demonstrated how it will provide harmful interference protection to 90% or more of covered incumbent licensees collectively holding licenses in the 3/3 broadband segment, in the county and within 70 miles of the county boundary and geographically licensed channels where the license area completely or partially overlaps the county; and (3) the applicant itself holds, or has either reached an agreement to clear through acquisition, cancellation, or relocation, or demonstrates how it will provide harmful interference protection to, all covered 5/5 incumbent licensees collectively holding licenses in the narrowband segment in the county and within 70 miles of the county boundary and geographically licensed channels where the license area completely or partially overlaps the county.

13. A 5/5 broadband applicant can rely on either its 3/3 broadband license or its 900 MHz SMR and B/ILT spectrum to meet the 50% threshold in the relevant county. This is one of the key differences in eligibility between the 5/5 and 3/3 900 MHz broadband requirements. We believe that allowing the 5/5 broadband applicant to meet this specific eligibility requirement by holding a 3/3 broadband license would not only show that the 50% threshold is met in a relevant county but also ensures that an existing 3/3 broadband licensee can expand its broadband operations if it otherwise met the eligibility criteria. However, we do not require a two-step process whereby a prospective 5/5 broadband applicant would first be required to hold or obtain a 3/3 broadband license.

[25] 5 U.S.C. § 604(a)(5).

14. An application for a 5/5 broadband license also must include a Transition Plan. Transition Plans must describe in detail all information and actions necessary to accomplish the realignment to 5/5 broadband, as follows: (1) a description of the agreements reached with covered 5/5 incumbents and the applications that the parties to the agreements will file for spectrum in the broadband and/or narrowband segments, as applicable, in order to relocate licensees;[26] (2) a description of how the applicant will provide harmful interference protection to, and/or acquire or relocate incumbent licensees collectively holding licenses for at least 90% of site-channels in the 3/3 broadband segment and 100% of site-channels in the narrowband segment, as applicable, in the county and within 70 miles of the county boundary, and geographically licensed channels where the license area completely or partially overlaps the county, and/or evidence that it holds licenses for the site-channels and/or geographically licensed channels; (3) any rule waivers or other actions necessary to implement an agreement with a covered 5/5 incumbent; and (4) such additional information as may be required to comply with the Commission's rules.

15. To demonstrate that the 5/5 broadband applicant is able to effectuate the proposed transition and deploy broadband operations, while adequately protecting covered 5/5 incumbents, it must include in its Transition Plan a certification from an FCC-certified frequency coordinator that the Transition Plan's representations can be implemented consistent with Commission rules. Finally, to increase administrative efficiency and reduce burdens, we allow a 5/5 900 MHz broadband applicant seeking to transition multiple counties simultaneously to file a single Transition Plan that covers all of its county-based applications.[27] We believe this process will simplify the overall transition and filing requirements.

16. The *Report and Order* directs the Bureau to open the 900 MHz for 5/5 broadband by issuing a public notice announcing the date that the Bureau will begin accepting applications consistent with the eligibility and application requirements adopted herein. Consistent with part 1 of the Commission's rules, an application for a new 900 MHz broadband license would be placed on public notice for 30 days, during which time interested parties may file petitions to deny. After review of the required filings, if the Bureau finds that the applicant has satisfied the 5/5 broadband license requirements and that granting of the application is otherwise in the public interest, it would grant the application and issue a 5/5 broadband license. The timeline for complying with the applicable construction obligations will begin immediately upon grant of the new license.

17. *Anti-Windfall Provisions.* The *Report and Order* adopts similar anti-windfall provisions as in the prior 3/3 broadband context. Specifically, an applicant will turn in all of its licensed 900 MHz SMR and B/ILT spectrum, as well as its 3/3 broadband license, if applicable, up to ten megahertz total, that it holds for any county in which it seeks a 5/5 broadband license. In instances where a prospective 5/5 broadband licensee holds less than ten megahertz of 900 MHz spectrum and is therefore unable to return ten megahertz, spectrum may be assigned from the Commission's available inventory for issuance of a broadband license if the applicant compensates the general fund of the U.S. Treasury via an anti-windfall payment as detailed herein. We believe that applying this anti-windfall requirement to the 5/5 broadband licenses is in the public interest, as it will act as payment for any spectrum provided by the Commission from the inventory and will mitigate any potential unearned benefit a prospective 5/5 broadband licensee receives as a result of this exchange.

18. *Licensing and Operating Rules*. The Commission designates the 900 MHz broadband allocation as a Miscellaneous Wireless Communications Service governed by part 27 of the

[26] The Transition Plan must describe in detail the specific frequencies that will be covered by applications filed by covered incumbents to relocate and the type of application that will be necessary (e.g., modification of license relocating to new frequencies).

[27] 47 CFR § 27.1503(b)(4) ("Applicants seeking to transition multiple counties may simultaneously file a single Transition Plan with each of its county-based applications.").

Commission's rules. The license and operating rules that apply to the 3/3 broadband licenses will also apply to the 5/5 broadband licenses.[28] The 3/3 broadband segment and 5/5 broadband licenses will also be licensed geographically by county for 15-year terms with 10-year renewal terms.[29]

19. *Performance Requirements.* In the 5/5 broadband context, the *Report and Order* adopts the coverage requirements proposed in the *Notice*, which mirror those adopted in the 3/3 broadband context and take into account the types of services that are likely to be deployed using this 900 MHz spectrum. Consistent with the 3/3 broadband license requirements, the *Report and Order* adopts a two-fold performance requirement whereby a 5/5 broadband licensee must: (1) provide reliable signal coverage and offer broadband service; and (2) meet a quantifiable benchmark—either (a) a population coverage requirement, or (b) a geographic coverage requirement—by certain deadlines. However, where a licensee holds a 3/3 broadband license, a full 12-year term for deployment of the 5/5 license is unnecessarily lengthy.

20. A 5/5 broadband licensee can meet the population coverage requirement by providing reliable signal coverage and offering broadband service to at least 45% of the population in each of its license areas by the applicable interim performance benchmark, and to at least 80% of the population in each of its license areas by the applicable final performance benchmark. As an alternative to the population requirement, a licensee can meet its coverage requirements by providing reliable signal coverage and offering broadband service covering at least 25% of the geographic license area by its applicable interim performance benchmark, and at least 50% of the geographic license area by its applicable final performance benchmark. After satisfying the final performance benchmark, the 900 MHz 5/5 broadband licensee will be required to continue to provide reliable signal coverage and offer service at or above that final benchmark level for the remaining years in the license term. The *Report and Order* also adopts geographic metrics of 25% and 50% as an alternative to the population coverage benchmarks to accommodate use of the spectrum for private business needs.

21. Lastly, the *Report and Order* adopts specific timelines for 5/5 broadband licensees to meet performance deadlines, specifically, six years to meet an interim performance benchmark for the newly issued 5/5 broadband license, and an additional six years to meet the final performance benchmark, starting with the date of grant of the 5/5 broadband license. The *Report and Order* establishes an abbreviated performance timeframe for a situation where a 5/5 broadband applicant holds a 3/3 license. Specifically, where an applicant seeks the 5/5 broadband license in the same county where it is exchanging its 3/3 license, application review will (1) identify the remaining interim and/or final construction deadlines and expiration date of the 3/3 broadband license; (2) where the interim deadline for the 3/3 broadband license has not yet been reached, add two years to that deadline and apply it to the 5/5 broadband license; (3) where the interim deadline for the 3/3 broadband license has passed but the final deadline for that license has not yet occurred, add two years to that final deadline and apply it to the 5/5 broadband license (there will be no 5/5 broadband license interim deadline); (4) where the final deadline for the 3/3 broadband license has passed and the licensee timely met that deadline, set the 5/5 broadband license final deadline as 2 years from date of license grant; (5) if the 3/3 broadband license's term was reduced to 13 years, issue the new 5/5 broadband license for an initial 13-year term; otherwise issue it for an initial 15-year term.

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

22. The RFA requires an agency to provide, "a description of the steps the agency has taken to minimize the significant economic impact on small entities . . . including a statement of the factual,

[28] *See generally* 47 CFR §§ 27.1500–.1510.

[29] *See* 47 CFR §§ 27.13(n), 27.1501; *3/3 900 MHz R&O*, 35 FCC Rcd at 5232–38, paras. 122–38; *5/5 900 MHz NPRM*, 40 FCC Rcd at 840–41, para. 45.

policy, and legal reasons for selecting the alternative adopted in the final rule and why each one of the other significant alternatives to the rule considered by the agency which affect the impact on small entities was rejected."[30]

23. As discussed above, the adopted rules in the *Report and Order* maximize the 900 MHz band's potential by enabling broadband deployment on all ten megahertz of the band. In reaching its conclusions, the Commission considered comments from a wide array of interested parties, some of which are small entities. With those comments in mind, the Commission has taken steps to enable it to minimize significant economic burdens on small entities resulting from the adopted rules and has also considered significant alternatives to those approaches. For example, we considered the concerns of railroad industry commenters regarding the financial and operational impact to their operating safety systems in the narrowband segment (at 897.5–900.5/936.5–939.5 MHz) as a result of transitioning out of the band to accommodate the 5/5 expansion. The adopted rules implement a voluntary, negotiation-based process that allows flexibility for incumbent operations and provides 900 MHz users, some of which are small entities, the opportunity to increase capacity for more advanced and robust broadband communications networks. In addition, we considered adopting different eligibility requirements for a 5/5 broadband license. However, the rules we adopt in the *Report and Order* largely mirror the eligibility requirements for a 3/3 broadband license, thereby potentially reducing administrative burdens on small entities that are already familiar with the 3/3 licensing process. The similarities between the two processes could minimize the need for such entities to utilize outside consultants or other professionals to assist them in understanding the application process.

24. The Commission does not believe that the rules adopted in the *Report and Order* create any significant negative economic impact on small entities. The *Report and Order* expands broadband availability in the 900 MHz band, while allowing two other configurations (legacy narrowband and 3/3 broadband) to continue on a county-by-county basis. This expansion updates the existing 900 MHz broadband licensing framework to allow 900 MHz users the opportunity to increase their capacity for more advanced and robust broadband communications networks. The Commission has taken many steps to harmonize this expansion with its prior action by implementing similar application procedures, technical rules, and performance benchmarks.

G. Report to Congress

25. The Commission will send a copy of the *Report and Order,* including this FRFA, in a report to Congress pursuant to the Congressional Review Act.[31] In addition, the Commission will send a copy of the *Report and Order*, including this FRFA, to the Chief Counsel for the SBA Office of Advocacy, and this FRFA (or summaries thereof) will also be published in the Federal Register.[32]

[30] 5 U.S.C. § 604(a)(6).

[31] *Id*. § 801(a)(1)(A).

[32] *Id.* § 604(b).