**Before the**

**Federal Communications Commission**

**Washington, D.C. 20554**

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| --- | --- | --- | --- |
| In the Matter of  Facilitating Shared Use in the 3100-3550 MHz Band | **)**  **)**  **)**  **)** | WT Docket No. 19-348 | |
|  |  | |  | |

**ERRATUM**

**Released: October 20, 2020**

By the Chief, Wireless Telecommunications Bureau:

On October 2, 2020, the Commission released a Report and Order and Further Notice of Proposed Rulemaking (*R&O and* *FNPRM*)*,* FCC 20-138, in the above captioned proceeding. This Erratum amends Appendix A of the *R&O and* *FNPRM* to reflect minor wording revisions to the rule change descriptions as described below. In addition, this Erratum replaces Appendix D of the *R&O and* *FNPRM* to conform to the requirements of the Office of the Federal Register and to delete an inadvertently included paragraph. See new Appendix D attached.

The revisions to Appendix A are as follows:

1. Paragraph 4 is corrected to read as follows:

“**§ 90.103 [Amended]**

4. In § 90.103, amend the table in paragraph (b) by removing the entries for the “3300 to 3500” MHz and “3500 to 3550” MHz bands.”

1. Paragraph 6 is corrected to read as follows:

“6. Amend §97.207 by revising paragraph (c)(2) to read as follows:

**§ 97.207 Space station.**

\* \* \* \* \*

(c) \* \* \*

(2) The 7.0-7.1 MHz, 14.00-14.25 MHz, 144-146 MHz, 435-438 MHz, 2400-2450 MHz, 5.83-5.85 GHz, 10.45-10.50 GHz, and 24.00-24.05 GHz segments.

\* \* \* \* \*”

1. Paragraph 7 is corrected to read as follows:

“7. Amend §97.209 by revising paragraph (b)(2) to read as follows:

**§ 97.209 Earth station.**

\* \* \* \* \*

(b) \* \* \*

(2) The 7.0-7.1 MHz, 14.00-14.25 MHz, 144-146 MHz, 435-438 MHz, 1260-1270 MHz and 2400-2450 MHz, 5.65-5.67 GHz, 10.45-10.50 GHz and 24.00-24.05 GHz segments.”

1. Paragraph 8 is corrected to read as follows:

“8. Amend §97.211 by revising paragraph (c)(2) to read as follows:

**§ 97.211 Space telecommand station.**

\* \* \* \* \*

(c) \* \* \*

(2) The 7.0-7.1 MHz, 14.00-14.25 MHz, 144-146 MHz, 435-438 MHz, 1260-1270 MHz and 2400‑2450 MHz, 5.65-5.67 GHz, 10.45-10.50 GHz and 24.00-24.05 GHz segments.

\* \* \* \* \*”

1. Paragraph 11 is corrected to read as follows:

**“§ 97.305   [Amended]**

11. In § 97.305, amend the table in paragraph (c) by removing the entry for the 9 cm band under SHF.”

FEDERAL COMMUNICATIONS COMMISSION

# Donald K. Stockdale

# Chief

# Wireless Telecommunications Bureau

# APPENDIX D

**Proposed Rules**

The Federal Communications Commission proposes to amend 47 CFR parts 1, 2, and 27 as follows:

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

Authority: [insert current authority citation].

1. Amend § 1.907 by revising the definition of “Covered geographic licenses” to read as follows:

**§ 1.907 Definitions.**

\* \* \* \* \*

*Covered geographic licenses*. Covered geographic licenses consist of the following services: 1.4 GHz Service (part 27, subpart I of this chapter); 1.6 GHz Service (part 27, subpart J); 24 GHz Service and Digital Electronic Message Services (part 101, subpart G of this chapter); 218-219 MHz Service (part 95, subpart F, of this chapter); 220-222 MHz Service, excluding public safety licenses (part 90, subpart T, of this chapter); 600 MHz Service (part 27, subpart N); 700 MHz Commercial Services (part 27, subparts F and H); 700 MHz Guard Band Service (part 27, subpart G); 800 MHz Specialized Mobile Radio Service (part 90, subpart S); 900 MHz Specialized Mobile Radio Service (part 90, subpart S); 900 MHz Broadband Service (part 27, subpart P); 3.45 GHz Service (part 27, subpart Q); 3.7 GHz Service (part 27, subpart O); Advanced Wireless Services (part 27, subparts K and L); Air-Ground Radiotelephone Service (Commercial Aviation) (part 22, subpart G, of this chapter); Broadband Personal Communications Service (part 24, subpart E, of this chapter); Broadband Radio Service (part 27, subpart M); Cellular Radiotelephone Service (part 22, subpart H); Citizens Broadband Radio Service (part 96, subpart C, of this chapter); Dedicated Short Range Communications Service, excluding public safety licenses (part 90, subpart M); Educational Broadband Service (part 27, subpart M); H Block Service (part 27, subpart K); Local Multipoint Distribution Service (part 101, subpart L); Multichannel Video Distribution and Data Service (part 101, subpart P); Multilateration Location and Monitoring Service (part 90, subpart M); Multiple Address Systems (EAs) (part 101, subpart O); Narrowband Personal Communications Service (part 24, subpart D); Paging and Radiotelephone Service (part 22, subpart E; part 90, subpart P); VHF Public Coast Stations, including Automated Maritime Telecommunications Systems (part 80, subpart J, of this chapter); Upper Microwave Flexible Use Service (part 30 of this chapter); and Wireless Communications Service (part 27, subpart D of this chapter).

\* \* \* \* \*

1. Amend § 1.9005 by:

a. Removing the word “and” at the end of paragraph (ll);

b. Removing the period at the end of paragraph (mm) and adding a semi-colon;

c. Removing the period at the end of paragraph (nn) and adding and “; and” in its place; and

d. Adding paragraph (oo).

The addition reads as follows:

**§ 1.9005 Included services.**

\* \* \* \* \*

(oo) The 3.45 GHz Service in the 3.45-3.55 GHz band (part 27 of this chapter);

**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

1. Amend § 2.106, the Table of Frequency Allocations, as follows:

a. Revise pages 40 and 41.

b. In the list of United States (US) Footnotes, add footnotes US103 and US431B.

The additions and revisions read as follows:

**§ 2.106   Table of Frequency Allocations.**

\* \* \* \* \*

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 2670-2690  FIXED 5.410  MOBILE except aeronautical  mobile 5.384A  Earth exploration-satellite  (passive)  Radio astronomy  Space research (passive)  5.149 5.412 | 2670-2690  FIXED 5.410  FIXED-SATELLITE (Earth-to-space)  (space-to-Earth) 5.208B 5.415  MOBILE except aeronautical mobile  5.384A  Earth exploration-satellite (passive)  Radio astronomy  Space research (passive)  5.149 | | 2670-2690  FIXED 5.410  FIXED-SATELLITE (Earth-to-space) 5.415  MOBILE except aeronautical mobile 5.384A  MOBILE-SATELLITE (Earth-to-space)  5.351A 5.419  Earth exploration-satellite (passive)  Radio astronomy  Space research (passive)  5.149 | US205 | US385 | |  |
| 2690-2700  EARTH EXPLORATION-SATELLITE (passive)  RADIO ASTRONOMY  SPACE RESEARCH (passive)  5.340 5.422 | | | | 2690-2700  EARTH EXPLORATION-SATELLITE (passive)  RADIO ASTRONOMY US74  SPACE RESEARCH (passive)  US246 | |  | |
| 2700-2900  AERONAUTICAL RADIONAVIGATION 5.337  Radiolocation  5.423 5.424 | | | | 2700-2900  METEOROLOGICAL AIDS  AERONAUTICAL RADIONAVI-  GATION 5.337 US18  Radiolocation G2  5.423 G15 | 2700-2900  5.423 US18 | | Aviation (87) |
| 2900-3100  RADIOLOCATION 5.424A  RADIONAVIGATION 5.426  5.425 5.427 | | | | 2900-3100  RADIOLOCATION 5.424A G56  MARITIME RADIONAVIGATION  5.427 US44 US316 | 2900-3100  MARITIME RADIONAVIGATION  Radiolocation US44  5.427 US316 | | Maritime (80)  Private Land Mobile  (90) |
| 3100-3300  RADIOLOCATION  Earth exploration-satellite (active)  Space research (active)  5.149 5.428 | | | | 3100-3300  RADIOLOCATION G59  Earth exploration-satellite (active)  Space research (active)  US342 | 3100-3300  Earth exploration-satellite (active)  Space research (active)  Radiolocation  US342 | | Private Land Mobile  (90) |
| 3300-3400  RADIOLOCATION  5.149 5.429 5.429A 5.429B  5.430 | 3300-3400  RADIOLOCATION  Amateur  Fixed  Mobile  5.149 5.429C 5.429D | 3300-3400  RADIOLOCATION  Amateur  5.149 5.429 5.429E 5.429F | | 3300-3500  RADIOLOCATION G2 | 3300-3450 | |  |
| 3400-3600  FIXED  FIXED-SATELLITE  (space-to-Earth)  MOBILE except aeronautical  mobile 5.430A  Radiolocation  5.341 | 3400-3500  FIXED  FIXED-SATELLITE (space-to-Earth)  MOBILE except aeronautical mobile  5.431A 5.431B  Amateur  Radiolocation 5.433  5.282 | 3400-3500  FIXED  FIXED-SATELLITE (space-to-Earth)  Amateur  Mobile 5.432 5.432B  Radiolocation 5.433  5.282 5.432A | | US103 US108 US342 US431B |  | |  |
| US103 US108 US342 | |  |
| 3450-3600  FIXED  MOBILE except aeronautical mobile  US103 US105 US108 US433 US431B | | Wireless Communi-  cations (27)  Citizens Broadband  (96)  Page 40 |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Table of Frequency Allocations 3500-5460 MHz (SHF) | | | | | Page 41 |
| International Table | | | United States Table | | FCC Rule Part(s) |
| Region 1 Table | Region 2 Table | Region 3 Table | Federal Table | Non-Federal Table |
| 3400-3600 MHz: see  previous page | 3500-3600  FIXED  FIXED-SATELLITE  (space-to-Earth)  MOBILE except aeronautical  mobile 5.431B  Radiolocation 5.433 | 3500-3600  FIXED  FIXED-SATELLITE (space-to-Earth)  MOBILE except aeronautical mobile  5.433A  Radiolocation 5.433 | 3500-3550  RADIOLOCATION G59  AERONAUTICAL RADIONAVIGATION  (ground-based) G110  US103 US108 US431B | 3450-3600 MHz: see previous page |  |
| 3550-3650  RADIOLOCATION G59  AERONAUTICAL RADIONAVIGATION  (ground-based) G110  US105 US107 US245 US433 |
| 3600-4200  FIXED  FIXED-SATELLITE  (space-to-Earth)  Mobile | 3600-3700  FIXED  FIXED-SATELLITE  (space-to-Earth)  MOBILE except aeronautical  mobile 5.434  Radiolocation 5.433 | 3600-3700  FIXED  FIXED-SATELLITE (space-to-Earth)  MOBILE except aeronautical mobile  Radiolocation  5.435 | 3600-3650  FIXED  FIXED-SATELLITE (space-to-Earth) US107  US245  MOBILE except aeronautical mobile  US105 US433 | Satellite  Communications (25)  Citizens Broadband (96) |
| 3650-3700  US109 US349 | 3650-3700  FIXED  FIXED-SATELLITE (space-to-Earth) NG169  NG185  MOBILE except aeronautical mobile  US109 US349 |
| 3700-4200  FIXED  FIXED-SATELLITE (space-to-Earth)  MOBILE except aeronautical mobile | | 3700-4200 | 3700-4000  FIXED  MOBILE except aeronautical mobile  NG182 NG457A | Wireless  Communications (27) |
| 4000-4200  FIXED  FIXED-SATELLITE (space-to-Earth) NG457A  NG182 | Satellite  Communications (25) |
| 4200-4400  AERONAUTICAL MOBILE (R) 5.436  AERONAUTICAL RADIONAVIGATION 5.438  5.437 5.439 5.440 | | | 4200-4400  AERONAUTICAL RADIONAVIGATION  5.440 US261 | | Aviation (87) |
| 4400-4500  FIXED  MOBILE 5.440A | | | 4400-4940  FIXED  MOBILE | 4400-4500 |  |
| 4500-4800  FIXED  FIXED-SATELLITE (space-to-Earth) 5.441  MOBILE 5.440A | | | 4500-4800  FIXED-SATELLITE (space-to-Earth)  5.441 US245 |  |
| 4800-4990  FIXED  MOBILE 5.440A 5.441A 5.441B 5.442  Radio astronomy  5.149 5.339 5.443 | | | US113 US245 US342 | 4800-4940  US113 US342 |  |
| 4940-4990  5.339 US342 US385 G122 | 4940-4990  FIXED  MOBILE except aeronautical mobile  5.339 US342 US385 | Public Safety Land  Mobile (90Y) |
| 4990-5000  FIXED  MOBILE except aeronautical mobile  RADIO ASTRONOMY  Space research (passive)  5.149 | | | 4990-5000  RADIO ASTRONOMY US74  Space research (passive)  US246 | |  |

\* \* \* \* \*

**United States (US) Footnotes**

\* \* \* \* \*

US103 In the band 3300-3550 MHz, the following provisions shall apply: Non-Federal stations in the radiolocation service that were licensed (or licensed pursuant to applications accepted for filing) before February 22, 2019, may continue to operate on a secondary basis until new flexible use licenses are issued for operation in the band 3450-3550 MHz. The date by which non-Federal stations in the radiolocation service will be required to cease operations in the band 3300-3550 MHz will be set when the Commission establishes procedures for assigning flexible use licenses. After [EFFECTIVE DATE OF FINAL RULE], no new assignments may be made to non-Federal stations in the radiolocation service.—In the band 3300-3500 MHz, stations in the amateur service may continue to operate on a secondary basis until new flexible use licenses are issued for operation in the band 3450-3550 MHz. The date by which stations in the amateur service will be required to cease operations in the band 3400-3500 MHz will be set when the Commission establishes procedures for assigning flexible use licenses. Stations in the amateur service may continue to operate in the band 3300-3400 MHz on a secondary basis while the band’s future uses are finalized, and stations in the amateur service may be required to cease operations in the band 3300-3450 MHz at any time if the amateur service causes harmful interference to flexible use operations.

\* \* \* \* \*

US431B In the 3450-3550 MHz band, the following provisions shall apply. In general, within the contiguous United States, the band is a shared co-primary allocation between the Federal Radiolocation service and non-Federal Fixed and Mobile, except aeronautical mobile, services. Federal operations in the 3450-3550 MHz band must protect non-Federal operations from harmful interference, except under the following circumstances.—*Military Operational Need in National Emergency*. In time of war or a threat of war, or a state of public peril or disaster or other national emergency (collectively “national emergency”), Federal users are authorized to operate within the band as required to meet operational mission requirements. Upon notification, non-Federal licensees shall terminate or otherwise adjust their operations to prevent harmful interference to the Federal operations consistent with procedures established by the FCC in coordination with NTIA. During such operations and until the end of the national emergency, non-Federal licensees must adjust their operations to enable Federal use of the band and non-Federal users may not claim protection from harmful interference.—*Cooperative Planning Areas*. Cooperative Planning Areas are geographic locations in which non-Federal operations shall coordinate with Federal systems in the band to deploy non-Federal operations, in a manner that shall not cause harmful interference to Federal systems operating in the band and to protect non-Federal operations from potential harm caused by high powered Federal operations. In such areas, operators of non-Federal stations may be required to modify their operations (e.g., reduce power, adjust antenna pointing angles, shielding, etc.) to protect themselves and to protect Federal operations from interference. In these areas, non-Federal operations may not claim interference protection from Federal systems outside of coordination procedures. To the extent possible, Federal use in Cooperative Planning Areas will be chosen to minimize operational impact on non-Federal users. Appendix A to part 2 identifies the locations of Cooperative Planning Areas. Cooperative Planning Areas may also be Periodic Use Areas as described below. Coordination between Federal users and non-Federal licensees in Cooperative Planning Areas shall be consistent with procedures established by the FCC in coordination with NTIA.—*Periodic Use Areas*. Periodic Use Areas are geographic locations where non-Federal operations in the band may not cause harmful interference to Federal systems operating in the band for episodic periods. During these times and in these areas, Federal users will require interference protection from non-Federal operations. Non-Federal operations may be required to temporarily modify their operations (e.g., reduce power, adjust antenna pointing angles, etc.) to protect Federal operations from interference, which may include restrictions on non-Federal stations’ ability to radiate at certain locations during specific periods of time. During such episodic time periods, non-Federal users in Periodic Use Areas must alter their operations to enable Federal systems’ temporary use of the band, and during such times, non-Federal users may not claim interference protection from Federal systems outside of coordination procedures. To the extent possible, Federal use in Periodic Use Areas will be chosen to minimize operational impact to non-Federal users. Coordination between Federal users and non-Federal licensees in Periodic Use Areas shall be consistent with procedures established by the FCC in coordination with NTIA. While all Periodic Use Areas are co-located with Cooperative Planning Areas, the exact geographic area used during periodic use may differ from the co-located Cooperative Planning Area. The geographic locations of Periodic Use Areas are identified in Appendix A to part 2. Restrictions and authorizations for the Cooperative Planning Areas remain in effect during periodic use unless specifically relieved in the coordination process.

\* \* \* \* \* \*

1. Add Appendix A to part 2 to read as follows:

**Appendix A to part 2 – Table: Department of Defense Cooperative Planning Areas and Periodic Use Areas**

|  |  |  |  |
| --- | --- | --- | --- |
| **Location name** | **State** | **CPA** | **PUA** |
| Little Rock | AR | Yes | - |
| Yuma Complex (includes Yuma Proving Grounds and MCAS Yuma) | AZ | Yes | Yes |
| Camp Pendleton | CA | Yes | - |
| Edwards Air Force Base | CA | Yes | Yes |
| National Training Center | CA | Yes | Yes |
| Naval Air Weapons Station, China Lake | CA | Yes | Yes |
| Point Mugu | CA | Yes | Yes |
| San Diego\*  Includes Point Loma SESEF range \* | CA | Yes | - |
| Twentynine Palms | CA | Yes | - |
| Eglin Air Force Base  Includes Santa Rosa Island and Cape San Blas site | FL | Yes | Yes |
| Mayport\*  Includes Mayport SESEF range\* | FL | Yes | - |
| Pensacola | FL | Yes | Yes |
| Joint Readiness Training Center | LA | Yes | Yes |
| Chesapeake Beach | MD | Yes | Yes |
| Naval Air Station, Patuxent River | MD | Yes | Yes |
| St. Inigoes | MD | Yes | Yes |
| Bath | ME | Yes | Yes |
| Pascagoula | MS | Yes | Yes |
| Camp Lejeune | NC | Yes | - |
| Cherry Point | NC | Yes | - |
| Fort Bragg | NC | Yes | Yes |
| Portsmouth | NH | Yes | Yes |
| Moorestown | NJ | Yes | Yes |
| White Sands Missile Range | NM | Yes | Yes |
| Nevada Test and Training Range | NV | Yes | Yes |
| Fort Sill | OK | Yes | Yes |
| Tobyhanna Army Depot | PA | Yes | - |
| Dahlgren | VA | Yes | Yes |
| Newport News | VA | Yes | Yes |
| Norfolk\*  Includes Fort Story SESEF range\* | VA | Yes | - |
| Wallops Island | VA | Yes | Yes |
| Bremerton | WA | Yes | Yes |
| Everett\*  Includes Ediz Hook SESEF range\* | WA | Yes | - |

\*Includes Shipboard Electronic Systems Evaluation Facility (SESEF) attached to each homeport.

**PART 27 – MISCELLANEOUS WIRELESS COMMUNICATIONS SERVICES**

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

Authority: [insert current authority citation].

1. Amend § 27.1 by adding paragraph (b)(17) to read as follows:

**§ 27.1 Basis and purpose.**

\* \* \* \* \*

(b) \* \* \*

(17) 3450-3550 MHz.

\* \* \* \* \*

1. Amend § 27.4 by adding in alphabetical order the definition for “3.45 GHz Service” to read as follows:

**§ 27.4 Terms and definitions.**

*3.45 GHz Service*. A radiocommunication service licensed under this part for the frequency bands specified in § 27.5(n) (3450-3550 MHz band).

\* \* \* \* \*

1. Amend § 27.5 by adding paragraph (o) to read as follows:

**§ 27.5 Frequencies.**

\* \* \* \* \*

(o) *3450-3550 MHz band*. The 3.45 GHz Service is licensed as five individual 20 megahertz blocks available for assignment in the contiguous United States on a Partial Economic Area basis, *see* § 27.6(n).

1. Amend § 27.6 by adding paragraph (n) to read as follows:

**§ 27.6 Service areas.**

\* \* \* \* \*

(n) *3450-3550 MHz Band*. Service areas in the 3.45 GHz Service are based on Partial Economic Areas (PEAs) as defined by appendix A to this subpart (*see* Wireless Telecommunications Bureau Provides Details About Partial Economic Areas, DA 14-759, Public Notice, released June 2, 2014, for more information).

1. Amend § 27.11 by adding paragraph (m) to read as follows:

**§ 27.11 Initial authorization**.

\* \* \* \* \*

(m) *3450-3550 MHz band*. Authorizations for licenses in the 3.45 GHz Service will be based on Partial Economic Areas (PEAs), as specified in § 27.6(n), and the frequency blocks specified in § 27.5(n).

1. Amend § 27.13 by adding paragraph (o) to read as follows:

**§ 27.13 License period.**

\* \* \* \* \*

(o) *3450-3550 MHz Band*. Authorization for the band will have a term not to exceed fifteen years from the date of issuance.

1. Amend § 27.14 by revising the first sentence of paragraphs (a) and (k), and adding paragraph (w) to read as follows:

**§ 27.14 Construction requirements.**

(a) AWS and WCS licensees, with the exception of WCS licensees holding authorizations for the 600 MHz band, Block A in the 698-704 MHz and 728-734 MHz bands, Block B in the 704-710 MHz and 734-740 MHz bands, Block E in the 722-728 MHz band, Block C, C1 or C2 in the 746-757 MHz and 776-787 MHz bands, Block A in the 2305-2310 MHz and 2350-2355 MHz bands, Block B in the 2310-2315 MHz and 2355-2360 MHz bands, Block C in the 2315-2320 MHz band, Block D in the 2345-2350 MHz band, in the 3450-3550 MHz band, and in the 3700-3980 MHz band, and with the exception of licensees holding AWS authorizations in the 1915-1920 MHz and 1995-2000 MHz bands, the 2000-2020 MHz and 2180-2200 MHz bands, or 1695-1710 MHz, 1755-1780 MHz and 2155-2180 MHz bands, must, as a performance requirement, make a showing of “substantial service” in their license area within the prescribed license term set forth in § 27.13.\* \* \*

\* \* \* \* \*

(k) Licensees holding WCS or AWS authorizations in the spectrum blocks enumerated in paragraphs (g), (h), (i), (q), (r), (s), (t), (v) and (w) of this section, including any licensee that obtained its license pursuant to the procedures set forth in paragraph (j) of this section, shall demonstrate compliance with performance requirements by filing a construction notification with the Commission, within 15 days of the expiration of the applicable benchmark, in accordance with the provisions set forth in § 1.946(d) of this chapter. \* \* \*

\* \* \* \* \*

(w) The following provisions apply to any licensee holding an authorization in the 3450-3550 MHz band:

(1) Licensees relying on mobile or point-to-multipoint service shall provide reliable signal coverage and offer service within eight (8) years from the date of the initial license to at least forty-five (45) percent of the population in each of its license areas (“First Buildout Requirement”). Licensee shall provide reliable signal coverage and offer service within twelve (12) years from the date of the initial license to at least eighty (80) percent of the population in each of its license areas (“Second Buildout Requirement”). Licensees relying on point-to-point service shall demonstrate within eight years of the license issue date that they have four links operating and providing service to customers or for internal use if the population within the license area is equal to or less than 268,000 and, if the population is greater than 268,000, that they have at least one link in operation and providing service to customers, or for internal use, per every 67,000 persons within a license area (“First Buildout Requirement”). Licensees relying on point-to-point service shall demonstrate within 12 years of the license issue date that they have eight links operating and providing service to customers or for internal use if the population within license area is equal to or less than 268,000 and, if the population within the license area is greater than 268,000, shall demonstrate they are providing service and have at least two links in operation per every 67,000 persons within a license area (“Second Buildout Requirement”).

(2) In the alternative, a licensee offering Internet of Things-type services shall provide geographic area coverage within eight (8) years from the date of the initial license to thirty-five (35) percent of the license (“First Buildout Requirement”). A licensee offering Internet of Things-type services shall provide geographic area coverage within twelve (12) years from the date of the initial license to sixty-five (65) percent of the license (“Second Buildout Requirement”).

(3) If a licensee fails to establish that it meets the First Buildout Requirement for a particular license area, the licensee’s Second Buildout Requirement deadline and license term will be reduced by two years. If a licensee fails to establish that it meets the Second Buildout Requirement for a particular license area, its authorization for each license area in which it fails to meet the Second Buildout Requirement shall terminate automatically without Commission action, and the licensee will be ineligible to regain it if the Commission makes the license available at a later date.

(4) To demonstrate compliance with these performance requirements, licensees shall use the most recently available decennial U.S. Census Data at the time of measurement and shall base their measurements of population or geographic area served on areas no larger than the Census Tract level. The population or area within a specific Census Tract (or other acceptable identifier) will be deemed served by the licensee only if it provides reliable signal coverage to and offers service within the specific Census Tract (or other acceptable identifier). To the extent the Census Tract (or other acceptable identifier) extends beyond the boundaries of a license area, a licensee with authorizations for such areas may include only the population or geographic area within the Census Tract (or other acceptable identifier) towards meeting the performance requirement of a single, individual license. If a licensee does not provide reliable signal coverage to an entire license area, the license must provide a map that accurately depicts the boundaries of the area or areas within each license area not being served. Each licensee also must file supporting documentation certifying the type of service it is providing for each licensed area within its service territory and the type of technology used to provide such service. Supporting documentation must include the assumptions used to create the coverage maps, including the propagation model and the signal strength necessary to provide reliable service with the licensee's technology.

1. Amend § 27.50 by adding paragraph (k) to read as follows:

**§ 27.50 Power limits and duty cycle*.***

*\* \* \* \* \**

(k) The following power requirements apply to stations transmitting in the 3450-3550 MHz band:

(1) The power of each fixed or base station transmitting in the 3450-3550 MHz band and located in any county with population density of 100 or fewer persons per square mile, based upon the most recently available population statistics from the Bureau of the Census, is limited to an equivalent isotropically radiated power (EIRP) of 3280 Watts/MHz. This limit applies to the aggregate power of all antenna elements in any given sector of a base station.

(2) The power of each fixed or base station transmitting in the 3450-3550 MHz band and situated in any geographic location other than that described in paragraph (j)(1) of this section is limited to an EIRP of 1640 Watts/MHz. This limit applies to the aggregate power of all antenna elements in any given sector of a base station.

(3) Mobile and portable stations are limited to 1 Watt EIRP. Mobile and portable stations operating in these bands must employ a means for limiting power to the minimum necessary for successful communications.

(4) Equipment employed must be authorized in accordance with the provisions of § 27.51. Power measurements for transmissions by stations authorized under this section may be made either in accordance with a Commission-approved average power technique or in compliance with paragraph (j)(5) of this section. In measuring transmissions in this band using an average power technique, the peak-to-average ratio (PAR) of the transmission may not exceed 13 dB.

(5) Peak transmit power must be measured over any interval of continuous transmission using instrumentation calibrated in terms of an rms-equivalent voltage. The measurement results shall be properly adjusted for any instrument limitations, such as detector response times, limited resolution bandwidth capability when compared to the emission bandwidth, sensitivity, and any other relevant factors, so as to obtain a true peak measurement for the emission in question over the full bandwidth of the channel.

1. Amend § 27.53 by adding paragraph (o) to read as follows:

**§ 27.53 Emission limits*.***

*\* \* \* \* \**

(o) *3.45 GHz Service*. The following emission limits apply to stations transmitting in the 3450-3550 MHz band:

(1) For base station operations in the 3450-3550 MHz band, the conducted power of any emission outside the licensee’s authorized bandwidth shall not exceed −13 dBm/MHz. Compliance with this paragraph (o)(1) is based on the use of measurement instrumentation employing a resolution bandwidth of 1 megahertz or greater. However, in the 1 megahertz bands immediately outside and adjacent to the licensee's frequency block, a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed. The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power. Notwithstanding the channel edge requirement of -13 dBm per megahertz, for base station operations in the 3450-3550 MHz band beyond the two edges of the band, the conducted power of any emission shall not exceed -25 dBm/MHz within a 20 megahertz offset from the top and bottom edges of the band, and shall not exceed -40 dBm/MHz beyond that 20 megahertz offset.

(2) For mobile operations in the 3450-3550 MHz band, the conducted power of any emission outside the licensee’s authorized bandwidth shall not exceed −13 dBm/MHz. Compliance with this paragraph (o)(2) is based on the use of measurement instrumentation employing a resolution bandwidth of 1 megahertz or greater. However, in the 1 megahertz bands immediately outside and adjacent to the licensee's frequency block, the minimum resolution bandwidth for the measurement shall be either one percent of the emission bandwidth of the fundamental emission of the transmitter or 350 kHz. In the bands between 1 and 5 MHz removed from the licensee’s frequency block, the minimum resolution bandwidth for the measurement shall be 500 kHz. The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power.

1. Amend § 27.55 by adding paragraph (e) to read as follows:

**§ 27.55 Power strength limits*.***

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(e) *Power flux density for* stations *operating in the 3450-3550* *MHz band.* For base and fixed stations operation in the 3450-3550 MHz band in accordance with the provisions of § 27.50(j), the power flux density (PFD) at any location on the geographical border of a licensee’s service area shall not exceed −76 dBm/m2/MHz. This power flux density will be measured at 1.5 meters above ground. Licensees in adjacent geographic areas may voluntarily agree to operate under a higher PFD at their common boundary.

1. Amend § 27.57 by revising paragraph (c) to read as follows:

**§ 27.57 International coordination*.***

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(c) Operation in the 1695-1710 MHz, 1710-1755 MHz, 1755-1780 MHz, 1915-1920 MHz, 1995-2000 MHz, 2000-2020 MHz, 2110-2155 MHz, 2155-2180 MHz, 2180-2200 MHz, 3450-3550 MHz, and 3700-3980 MHz bands is subject to international agreements with Mexico and Canada.

1. Add new Subpart Q to read as follows:

**Subpart Q – 3450-3550 MHz Band**

**Sec.**

27.1600 3450-3550 MHz band subject to competitive bidding.

27.1601 Designated entities in the 3450-3550 MHz band.

27.1602 Permanent discontinuance of service in the 3450-3550 MHz band.

**§ 27.1600 3450-3550 MHz band subject to competitive bidding.**

Mutually exclusive initial applications for 3450-3550 MHz band licenses are subject to competitive bidding. The general competitive bidding procedures set forth in 47 CFR part 1, subpart Q of this chapter will apply unless otherwise provided in this subpart.

**§ 27.1601 Designated entities in the 3450-3550 MHz band.** 

(a) *Definitions*.

(1) *Small business*. A small business is an entity that, together with its affiliates, its controlling interests, and the affiliates of its controlling interests, has average gross revenues not exceeding $55 million for the preceding five (5) years.

(2) *Very small business*. A very small business is an entity that, together with its affiliates, its controlling interests, and the affiliates of its controlling interests, has average gross revenues not exceeding $20 million for the preceding five (5) years.

(b) *Bidding credits*. A winning bidder that qualifies as a small business, as defined in this section, or a consortium of small businesses may use the bidding credit of 15 percent, as specified in § 1.2110(f)(2)(i)(C) of this chapter, subject to the cap specified in § 1.2110(f)(2)(ii) of this chapter. A winning bidder that qualifies as a very small business, as defined in this section, or a consortium of very small businesses may use the bidding credit of 25 percent, as specified in § 1.2110(f)(2)(i)(B) of this chapter, subject to the cap specified in § 1.2110(f)(2)(ii) of this chapter.

(c) *Eligibility for rural service provider bidding credit*. A rural service provider, as defined in §1.2110(f)(4)(i) of this chapter, that has not claimed a small business bidding credit may use the bidding credit of 15 percent specified in §1.2110(f)(4) of this chapter.

**§ 27.1602 Permanent discontinuance of 3450-3550 MHz licenses.**

A 3450-3550 MHz band licensee that permanently discontinues service as defined in § 1.953 must notify the Commission of the discontinuance within 10 days by filing FCC Form 601 requesting license cancellation. An authorization will automatically terminate, without specific Commission action, if service is permanently discontinued as defined in § 1.953, even if a licensee fails to file the required form requesting license cancellation.