FEDERAL COMMUNICATIONS COMMISSION

47 CFR Part 2

[ET Docket No. 23-121; FCC 25-59; FR ID 325614]

Implementation of the Final Acts of the World Radiocommunication Conference (Sharm el-Sheikh, 2019) (WRC-19), Revision to Table Mountain Radio Quiet Zone Field Strength Limits

AGENCY: Federal Communications Commission.

ACTION: Proposed rule.

SUMMARY: In this document, the Federal Communications Commission (Commission or FCC) proposes to modify the Commission's rules to implement certain spectrum allocation decisions from the International Telecommunication Union's World Radiocommunication Conference's 2019 Final Acts concerning portions of the radio spectrum between 495 kHz and 50.9 GHz, make other allocation changes, and make related updates to our service rules in this frequency range. These proposals are designed to harmonize our spectrum allocations with and conform our rules to the World Radiocommunication's 2019 Final Acts to the extent that doing so would better meet domestic requirements.

DATES: Comments are due on or before **[INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]** and reply comments are due on or before **[INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]**.

ADDRESSES: Pursuant to §§ 1.415 and 1.419 of the Commission's rules, 47 CFR 1.415, 1.419, interested parties may file comments and reply comments on or before the dates provided in the **DATES** section of this document. Comments may be filed using the Commission's Electronic Comment Filing System (ECFS). *See Electronic Filing of Documents in Rulemaking Proceedings*, 63 FR 24121 (1998). You may submit comments, identified by ET Docket No. 23-121, by any of the following methods:

- *Electronic Filers*: Comments may be filed electronically using the Internet by accessing the ECFS: https://www.fcc.gov/ecfs.
- *Paper Filers*: Parties who choose to file by paper must file an original and one copy of each filing.

- Filings can be sent by hand or messenger delivery, by commercial courier, or by the U.S. Postal Service. **All filings must be addressed to the Secretary, Federal Communications Commission.**
- Hand-delivered or messenger-delivered paper filings for the Commission's Secretary are accepted between 8:00 a.m. and 4:00 p.m. by the FCC's mailing contractor at 9050 Junction Drive, Annapolis Junction, MD 20701. All hand deliveries must be held together with rubber bands or fasteners. Any envelopes and boxes must be disposed of before entering the building.
- Commercial courier deliveries (any deliveries not by the U.S. Postal Service) must be sent to 9050 Junction Drive, Annapolis Junction, MD 20701.
- Filings sent by U.S. Postal Service First-Class Mail, Priority Mail, and Priority Mail Express must be sent to 45 L Street NE, Washington, DC 20554.

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

FOR FURTHER INFORMATION CONTACT: Sebastian Garcia of the Office of Engineering and Technology, at Sebastian.Garcia@fcc.gov or 202-418-2932.

SUPPLEMENTARY INFORMATION: This is a summary of the Commission's Notice of Proposed Rulemaking, in ET Docket No. 23-121; FCC 25-59, adopted on September 12, 2025, and released on December 9, 2025. The full text of this document is available for public inspection and can be downloaded at https://docs.fcc.gov/public/attachments/FCC-25-59A1.pdf. Alternative formats are available for people with disabilities (Braille, large print, electronic files, audio format) by sending an email to *fcc504@fcc.gov* or calling the Commission's Consumer and Governmental Affairs Bureau at (202) 418–0530 (voice).

Ex Parte Presentations. The proceeding this document initiates shall be treated as a "permit-but-disclose" proceeding in accordance with the Commission's *ex parte* rules. Persons making *ex parte* presentations must file a copy of any written presentation or a memorandum summarizing any oral presentation within two business days after the presentation (unless a different deadline applicable to the

Sunshine period applies). Persons making oral *ex parte* presentations are reminded that memoranda summarizing the presentation must (1) list all persons attending or otherwise participating in the meeting at which the *ex parte* presentation was made, and (2) summarize all data presented and arguments made during the presentation. If the presentation consisted in whole or in part of the presentation of data or arguments already reflected in the presenter's written comments, memoranda or other filings in the proceeding, the presenter may provide citations to such data or arguments in his or her prior comments, memoranda, or other filings (specifying the relevant page and/or paragraph numbers where such data or arguments can be found) in lieu of summarizing them in the memorandum. Documents shown or given to Commission staff during *ex parte* meetings are deemed to be written *ex parte* presentations and must be filed consistent with rule 1.1206(b). In proceedings governed by rule 1.49(f) or for which the Commission has made available a method of electronic filing, written *ex parte* presentations and memoranda summarizing oral *ex parte* presentations, and all attachments thereto, must be filed through the electronic comment filing system available for that proceeding, and must be filed in their native format (*e.g.*, .doc, .xml, .ppt, searchable .pdf). Participants in this proceeding should familiarize themselves with the Commission's *ex parte* rules.

Regulatory Flexibility Act. The Regulatory Flexibility Act of 1980, as amended (RFA), 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." Accordingly, the Commission has prepared an Initial Regulatory Flexibility Analysis (IRFA) concerning the possible/potential impact of the rule and policy changes contained in the FCC document. The IRFA is found in Appendix B of the FCC document, https://www.fcc.gov/document/fcc-adopts-proposals-wrc-19-implementation. The Commission invites the general public, particularly small businesses, to comment on the IRFA. Comments must be filed by the deadlines for comments on the Notice of Proposed Rulemaking indicated on the first page of this document and must have a separate and distinct heading designating them as responses to the IRFA.

Initial Paperwork Reduction Act. This document may contain proposed or modified information collection requirements. Therefore, the Commission seeks comment on potential new or revised information collections subject to the Paperwork Reduction Act of 1995. If the Commission adopts any

new or revised information collection requirements, the Commission will publish a notice in the *Federal Register* inviting the general public and the Office of Management and Budget to comment on the information collection requirements, as required by the Paperwork Reduction Act of 1995, Public Law 104–13. In addition, pursuant to the Small Business Paperwork Relief Act of 2002, Public Law 107–198, see 44 U.S.C. 3506(c)(4), the Commission seeks specific comments on how it might further reduce the information collection burden for small business concerns with fewer than 25 employees.

Providing Accountability Through Transparency Act: Consistent with the Providing Accountability Through Transparency Act, Public Law 1189-9, a summary of the Notice of Proposed Rulemaking will be available at https://www.fcc.gov/proposed-rulemakings.

Synopsis

INTRODUCTION

The Notice of Proposed Rulemaking (*WRC-19 NPRM*) follows the WRC-19 Administrative Order, 88 FR 67514 (September 29, 2023), which made non substantive, editorial revisions to the U.S. Table of Frequency Allocations (U.S. Table) and to other related rules to reflect International Telecommunication Union (ITU) decisions made at the 2019 World Radiocommunication Conference (WRC-19). In the *WRC-19 NPRM*, the Commission proposes to amend, as appropriate, parts 2 and 25 of the Commission's rules to implement in the U.S. Table specific allocation decisions from the *WRC-19 Final Acts* concerning portions of the radio spectrum between 495 kHz and 50.9 GHz, make other allocation changes, and make related updates to its service rules in this frequency range. Many of these proposals are based on the National Telecommunications and Information Administration's (NTIA) recommendations for national implementation of the *WRC-19 Final Acts*. Collectively, the Commission's proposals are designed to harmonize its spectrum allocations with and conform its rules to the *WRC-19 Final Acts* to the extent that doing so would better meet domestic requirements.

BACKGROUND

The International Telecommunications Union (ITU) convenes a World Radiocommunication Conference (WRC) typically every three to four years to address international spectrum use. Specifically, the ITU allocates frequency bands to various radio services generally on either a worldwide or regional

basis and enters these radio services in its Table of Frequency Allocations (which is reflected in § 2.106 of its rules as the International Table) as part of the ITU Radio Regulations.

The Commission conducted its primary preparations for WRC-19 via its 2019 World Radiocommunication Conference Advisory Committee (WAC), which held eight public meetings between August 2, 2016, and March 11, 2019, to evaluate and approve recommendations and preliminary views that it later submitted for Commission consideration. The ITU held a conference preparatory meeting (CPM) from February 18, 2019 through February 28, 2019, to prepare and approve a report on the technical, operational, and regulatory/procedural matters relevant to the WRC-19 agenda, which the Commission participated in. In addition, the United States worked with other nations to craft common proposals for Region 2 (North and South America). By August 1, 2019, the United States had provided its contributions to the Inter-American Telecommunication Commission (CITEL), which then provided the Region 2 proposals to WRC-19.

The ITU convened WRC-19 from October 28, 2019 to November 22, 2019, in Sharm el-Sheikh, Egypt, with 163 Member States, including the United States, participating. WRC-19 addressed 52 topics related to frequency allocation and frequency sharing for the efficient use of spectrum and orbital resources, and adopted allocation changes that affect both Federal and non-Federal entities. The ITU published the decisions made at WRC-19 as the *WRC-19 Final Acts* and subsequently revised the Radio Regulations to incorporate these decisions. On April 2, 2021, NTIA submitted its recommendations for national implementation of the *WRC-19 Final Acts* to the Commission.

On April 21, 2023, the Commission released the WRC-19 Administrative Order, which reflected the WRC-19 changes to the International Table and made other non-substantive, editorial changes to the Commission's rules, including revisions to the Federal Table that did not require notice and comment.

The Commission is only addressing those WRC-19-related proposals that are specifically discussed in the *WRC-19 NPRM*. Any additional WRC-related actions, including those recommended by NTIA, have been or are anticipated to be addressed in separate proceedings or are no longer appropriate for further action at this time. The Commission nevertheless invite commenters to identify alternate ways it could give effect to those WRC-19 matters discussed in the FCC document.

In the *WRC-19 NPRM*, the Commission proposes to: (1) implement certain WRC-19 allocation decisions as discussed herein; (2) revise parts 2 and 25 of the rules reflect the allocation changes that it is proposing in the FCC document; and (3) make other allocation changes that are not related to WRC-19 implementation. The Commission first addresses satellite issues, followed by terrestrial issues.

NOTICE OF PROPOSED RULEMAKING

A. Satellite Issues

Use of Space Operation Service by Non-Geostationary Satellites Below 1 GHz for Short-duration Missions.

The Commission proposes to make the space operation service in the 137-138 MHz space-to-Earth (downlink) band and the 148 149.9 MHz Earth-to-space (uplink) band available to space stations in non-geostationary orbits (NGSO) with short-duration (3 years or less) missions by adding references to three international footnotes (5.203C, 5.209A, 5.218A) to particular sub-bands in the Federal and non-Federal Tables of the U.S. Table of Frequency Allocations.

As background, the 137-138 MHz and 148-149.9 MHz bands are Federal/non-Federal shared bands. Under the Commission's rules, the 137-138 MHz band is allocated on a primary basis to the space operation, meteorological-satellite, and space research services (all space-to-Earth) for Federal and non-Federal use; the 137-137.025 MHz and 137.175-137.825 MHz sub-band is also allocated on a primary basis to the mobile-satellite service (MSS) (space-to-Earth) for Federal and non-Federal use; and the 137.025-137.175 MHz and 137.825-138 MHz sub-bands are allocated to the MSS (space-to-Earth) on a secondary basis for Federal and non-Federal use. The 148-149.9 MHz band is allocated to the fixed and mobile services and the MSS (Earth-to-space) service on a primary basis for Federal use; and to the MSS (Earth-to-space) service on a primary basis for non-Federal use. The demand for suitable spectrum for NGSO satellites with short duration missions is growing due to the increasing number of these types of satellite missions. These types of missions provide affordable options for scientific and commercial space purposes and are increasingly used by new entrants in the space sector taking advantage of decreasing costs associated with launch.

The Commission specifically proposes to add the following footnotes to the Federal and non-Federal portions of the U.S. Table to align it with the changes made in the *WRC-19 Final Acts*. First, the

Commission proposes to add footnote 5.203C to the 137-137.025 MHz, 137.025-137.175 MHz, 137.175-137.825 MHz, and 137.825-138 MHz sub-bands. Footnote 5.203C states that: (1) the use of the space operation service (space-to-Earth) with NGSO satellite short duration mission systems in the 137-138 MHz band is subject to Resolution 660 (WRC-19); (2) Resolution 32 (WRC-19) applies; and (3) these systems must not cause harmful interference to, or claim protection from, the existing services to which the band is allocated on a primary basis. Resolution 660 limits the use of space operation service (space-to-Earth) NGSO systems with short-duration missions in the 137-138 MHz frequency range to the 137.025-138 MHz sub-band and limits the power flux-density at any point on the Earth's surface produced by a space station of such non-GSO systems used for short-duration missions to −140 dB(W/(m2 · 4 kHz)). Resolution 32 (WRC-19) states that the maximum period of operation and validity of frequency assignments of a NGSO network or system identified as short-duration mission must not exceed three years from the date of bringing into use of the frequency assignments, without any possibility of extension, after which the recorded assignments shall be cancelled; and that the total number of satellites in a NGSO network or system identified as a short-duration mission shall not exceed 10 satellites. The Commission seeks comment on this proposal.

The Commission also proposes to add footnote 5.209A in the 137.175-137.825 MHz sub-band. Footnote 5.209A overrides the coordination requirement in much (650 kilohertz) of the spectrum to which footnote 5.203C (above) applies, i.e., it states that the use of the 137.175-137.825 MHz band by NGSO satellite systems in the space operation service identified as a short-duration mission in accordance with Appendix 4 is not subject to No. 9.11A. The Commission seeks comment on this proposal.

The Commission also proposes to add footnote 5.218A in the 148-149.9 MHz sub-band. Footnote 5.218A states that, in the 148-149.9 MHz band, the space operation service (Earth-to-space) may be used by NGSO systems with short-duration missions; that such systems used in accordance with Resolution 32 (discussed above) are not subject to agreement under No. 9.21, that such systems must not cause unacceptable interference to, or claim protection from, existing primary services within this frequency band, or impose additional constraints on the space operation and mobile-satellite services, and that earth stations in such systems must ensure that the power flux-density does not exceed −149 dB(W/(m² · 4 kHz)) for more than 1% of time at the border of the territory of 16 specified countries.

Finally, footnote 5.218A states that, at the stage of coordination with other administrations, the provisions of Nos. 9.17 and 9.18 also apply. The Commission requests comment on this proposal.

If the proposed use of the 137-138 MHz and 148-149.9 MHz bands by the space operation service is adopted, the Commission requests additional comment on how incumbent services operating in the proposed bands would be protected from interference due to increased short-duration NGSO usage of the band, outside of the limits proposed in Resolution 660. The Commission also seeks comment on whether it should require applicants in the space operation service operating short-duration NGSO's below 1 GHz to coordinate with MSS licensees already operating in those bands. Lastly, the Commission seeks comment on the general parameters of the application and licensing process applicable to short-duration NGSO operations in the space operations service in the 137-138 MHz and 148-149.9 MHz bands.

The Commission notes the Commission's ongoing In-Space Servicing and Manufacturing Notice of Proposed Rulemaking (ISAM Notice), in which the Commission reached a tentative conclusion that at least some ISAM operations could fall within the definition of the space operations service. The Commission additionally notes the Commission's part 25 Streamlined Small Satellite Process, which could also be applicable to short-duration NGSO operations in the space operations service. The Commission reached a tentative conclusion that its existing part 25, part 5, and part 97 rules are sufficient and give short-duration NGSO operators in the space operations service the applicable general parameters of the application and licensing processes for those operations but seek comment on alternative approaches.

In-band Power Limits for Earth Stations Transmitting in the 399.9-400.05 MHz Band. The Commission next proposes to limit in-band power for earth stations operating in the mobile-satellite service (MSS) in the 399.9-400.05 MHz band, by adding references to footnotes 5.260A and 5.260B, to the Federal and non-Federal Tables of the U.S. Table, consistent with the *WRC-19 Final Acts*. This proposal would align the band with the maximum radiated power for mobile-satellite service use (except telecommand uplinks with the mobile-satellite service in the 400.02-400.05 MHz band) in the U.S., and state dates for compliance, as described in the *WRC-19 Final Acts*. Under the Commission's rules, the

399.9-400.05 MHz band is allocated to the mobile-satellite (Earth-to-space) and radionavigation-satellite services on a primary basis for Federal and non-Federal use.

Footnote 5.260A states: (1) in the 399.9-400.05 MHz band, the maximum EIRP of any emission of MSS earth stations, and the maximum EIRP of each earth station, must not exceed 5 dBW in any 4 kilohertz band (5 dBW/4 kHz) and 5 dBW in the 150 kilohertz wide band (5 dBW/150 kHz); (2) until November 22, 2022, these limits do not apply to satellite systems with complete ITU notifications that were received by November 22, 2019; and (3) thereafter, these limits apply to all MSS systems operating in this band. Footnote 5.260B states that, in the 400.02-400.05 MHz segment, the provisions of footnote 5.260A do not apply to MSS telecommand uplinks. The Commission requests comment on the addition of these footnotes to the Federal and non-Federal U.S. Tables and whether it should consider elevation angles in establishing the maximum EIRP limit. The Commission also seeks comment on whether these power limits should be added to § 25.204 of the Commission's rules.

Global Maritime Distress Safety Systems Modernization.

The following proposals would align the 1621.35-1626.5 MHz band in the U.S. Table with the *WRC-19 Final Acts* by adding a new allocation for the maritime mobile-satellite service (space-to-Earth) on a primary basis for Federal and non-Federal shared use subject to the conditions in four new international footnotes (5.208B, 5.370, 5.373, and 5.373A) added to the Federal and non-Federal Tables in 1621.35-1626.5 MHz portion of the 1613.8-1626.5 MHz band with the existing allocations and footnotes in the 1613.8-1626.5 MHz band. Under the Commission's rules, the 1613.8-1626.5 MHz band is allocated to the mobile-satellite service (Earth-to-space), aeronautical radionavigation service, radiodetermination-satellite service (Earth-to-space), all on a primary basis for Federal and non-Federal use, and to the mobile-satellite service (space-to-Earth) on a secondary basis for Federal and non-Federal use. These proposals are meant to provide additional satellite coverage to the Global Maritime Distress and Safety System (GMDSS) for use in the U.S.

As background, the GMDSS is an internationally recognized distress and radio communication safety system that has been in place for several decades. The GMDSS is an automated ship-to-shore and ship-to-ship system using satellites and/or terrestrial radio systems with digital selective calling technology. The GMDSS systems provide safety-of-life information and communication systems that

inform vessels of navigation hazards and weather conditions and enable distress calls with pertinent location and identification information with the push of a button. The GMDSS is mandated for ships internationally by the International Maritime Organization (IMO) Safety of Life at Sea Convention (SOLAS), 1974, as amended in 1988, which carries the force of an international treaty. The procedures governing GMDSS use are contained in the International Telecommunication Union's Radio Regulations and also carry the force of an international treaty.

The Commission proposes to split the existing 1613.8-1626.5 MHz band into two bands (1613.8-1621.35 MHz and 1621.35-1626.5 MHz) and add a primary maritime mobile-satellite service (space-to-Earth) allocation in the 1621.35-1626.5 MHz band for Federal and non-Federal use subject to the conditions in four new footnotes (5.208B, 5.370, 5.373, and 5.373A) added to the band. The existing allocations - primary mobile satellite service (Earth-to-space), aeronautical radionavigation, radiodetermination satellite (Earth-to-space), and secondary mobile-satellite (Earth-to-space) and footnotes (5.341, 5.364, 5.365, 5.366, 5.367, 5.368, and 5.372) in the 1613.8-1626.5 MHz band - would be retained in the 1613.8-1621.35 MHz and 1621.35-1626.5 MHz bands, while a primary maritime mobile-satellite allocation for Federal and non-Federal shared use, along with footnotes 5.208B, 5.370, 5.373, and 5.373A, would be added in the 1621.35-1626.5 MHz band.

The Commission seeks comment on the addition of a primary maritime mobile-satellite service (space-to-Earth) allocation to the 1621.35-1626.5 MHz band, subject to the conditions in footnotes 5.208B, 5.370, 5.373, and 5.373A.

Footnote 5.208B states that in the frequency bands 137-138 MHz, 157.1875-157.3375 MHz, 161.7875-161.9375 MHz, 387-390 MHz, 400.15-401 MHz, 1452-1492 MHz, 1525-1610 MHz, 1613.8-1626.5 MHz, 2655-2690 MHz, and 21.4-22 GHz, Resolution 739 (Rev.WRC-19) applies. Resolution 739 recommends unwanted emissions limits to ensure that unwanted emissions from geostationary and non-geostationary space stations that are planned to operate in the mobile-satellite service (space-to-Earth) in the 1613.8-1626.5 MHz band are minimized in order to protect radio astronomy service stations in the 1610.6-1613.8 MHz band from harmful interference.

Footnote 5.370 states that in Venezuela, the allocation to the radiodetermination-satellite service in the 1610-1626.5 MHz frequency band (Earth-to-space) is on a secondary basis.

Footnote 5.373 states that "maritime mobile earth stations receiving in the 1621.35-1626.5 MHz band shall not impose additional constraints on earth stations operating in the maritime mobile-satellite service or maritime earth stations of the radiodetermination-satellite service operating in accordance with the Radio Regulations in the 1610-1621.35 MHz frequency band or on earth stations in the maritime mobile-satellite service operating in accordance with the Radio Regulations in the 1626.5-1660.5 MHz frequency band, unless otherwise agreed between the notifying administrations."

Footnote 5.373A states that maritime mobile earth stations receiving in the 1621.35-1626.5 MHz frequency band shall not impose constraints on the assignment of earth stations in the mobile-satellite service (Earth-to-space) and the radiodetermination-satellite service (Earth-to-space) in the 1621.35-1626.5 MHz frequency band in networks for which complete coordination information has been received by the Radiocommunication Bureau before October 28, 2019.

Further, the Commission seeks comment on whether updates are needed to the service-specific rules in part 80 of the Commission's rules to implement a primary maritime mobile-satellite service (space-to-earth) allocation in the 1621.35-1626.5 MHZ Band. Additionally, the Commission seeks comment on whether any corresponding changes are needed to part 25 of the Commission's rules to reflect this maritime mobile-satellite service (space-to-earth) allocation. Commenters should identify any rules that need to be amended and provide specific language to support their recommendations.

Earth Stations in Motion (ESIMs).

The Commission's next proposal concerns the addition of footnote 5.517A to the 17.7-19.7 GHz (space-to-Earth) and 27.5-29.5 GHz (Earth-to-space) frequency bands of the U.S. Table. Footnote 5.517A states that "the operation of earth stations in motion (ESIMs) communicating with geostationary orbit fixed-satellite service (GSO FSS) space stations in the 17.7-19.7 GHz (space-to-Earth) and 27.5-29.5 GHz (Earth-to-space) frequency bands shall be subject to the application of Resolution 169 (WRC-23)," as described in the *WRC-23 Final Acts*, which contains the most up-to-date version of Resolution 169. Resolution 169 provides conditions for ESIMs communicating with GSO FSS space stations in the 17.7-19.7 GHz and 27.5-29.5 GHz frequency bands, or parts thereof. As background, ESIMs currently serve a wide range of applications – both on board various modes of transportation, such as aircraft and ships, and on land – by providing reliable and high-bandwidth connectivity capabilities to platforms in

motion. Advances in satellite manufacturing and earth station technology have made ESIMs more widespread and more practical. When ships are at sea or aircraft cross the oceans, they are out of reach of terrestrial networks. ESIM systems can provide continuous and consistent service with very wide, or literally global, geographic coverage as ships and aircraft operate at or over almost any location. To address the increasing need of ESIMs for radio-frequency spectrum, while protecting other and existing radio services, WRC-19 established certain regulatory and technical conditions under which the 17.7-19.7 GHz (space-to-Earth) and 27.5-29.5 GHz (Earth-to-space) frequency bands can be used by the three types of ESIMs communicating with geostationary space stations in the fixed-satellite service.

Section 25.202(10)(ii) of the Commission's rules states the frequencies that are available for use by ESIMs communicating with GSO FSS space stations. Under this portion of the Commission's rules, the 19.4-19.6 GHz, 27.5-28.35 GHz, and 29.1-29.25 GHz bands are not currently listed as available for ESIM operations, however, pursuant to § 25.202(b) operations are allowed outside of bands that are expressly listed in 25.202 on a case-by-case basis. The Commission also notes that the Upper Microwave Flexible Use Service (UMFUS) is primary in the 27.5-28.35 GHz band and that earth stations in that band are subject to limits on the number of earth stations in a given area and the area within which the earth stations may operate without providing interference protection to UMFUS operations. Point-to-point microwave licensed under part 101 of the Commission's rules and broadcast auxiliary services licensed under part 74 of its rules are also co-primary with FSS in the 17.7-18.3 GHz band. Additionally, Resolution 169 prescribes off-axis power limits that differ from those adopted in the Commission's part 25 rules (i.e., Resolution 169 contains higher EIRP density limits, different off-axis angles, and specific frequency sub-bands in the conventional Ka-band for the off-axis EIRP of transmissions from ESIMs). The implementation of Resolution 169 would therefore essentially subject ESIM operations in these bands to less restrictive limits than currently apply. The Commission seeks comment on whether to add footnote 5.517A to the 17.7-19.7 GHz and 27.5-29.5 GHz bands and on whether this would be consistent with current Commission rules regarding ESIM operations

Earth Stations Transmitting in the 49.7-50.2 GHz and 50.4-50.9 GHz Bands.

The Commission proposes an update to its rules to further develop the regulatory framework for NGSO FSS systems. The Commission specifically proposes to modify US156 of the Commission's rules

to reflect WRC-19's revision of the limits for unwanted emissions in the 50.2-50.4 GHz passive band (200 megahertz passive band or passive band) from earth stations in the fixed-satellite service (Earth-to-space) that transmit in the 49.7 50.2 GHz and 50.4 50.9 GHz bands. Footnote US156 currently states that in the bands 49.7-50.2 GHz and 50.4-50.9 GHz, for earth stations in the fixed-satellite service (Earth-to-space), the unwanted emissions power in the band 50.2-50.4 GHz shall not exceed −20 dBW/200 MHz (measured at the input of the antenna), except that the maximum unwanted emissions power may be increased to −10 dBW/200 MHz for earth stations having an antenna gain greater than or equal to 57 dBi. These limits apply under clear-sky conditions. During fading conditions, the limits may be exceeded by earth stations when using uplink power control.

First, the Commission proposes to modify US156 to state that, for NGSO earth stations brought into use on or after January 1, 2021, that transmit to space stations in non-geostationary-satellite orbits, unwanted emission power shall not exceed −42 dBW in the 200 megahertz passive band (i.e., −42 dBW/200 MHz in the 50.2-50.4 GHz passive band) for NGSO earth stations not employing uplink power control, and −42 dBW/200 MHz in the passive band at zenith (i.e., at an elevation angle of 90°) increasing [linearly] to a maximum level of −35 dBW/200 MHz in the passive band at a minimum elevation angle of 15° for NGSO earth stations employing uplink power control.

Next, for GSO earth stations brought into use on or after January 1, 2024, that transmit to space stations in the geostationary satellite orbit, the Commission proposes to require that the unwanted emission power shall not exceed −45 dBW/200 MHz in the passive band for GSO earth stations having an elevation angle equal to or above 80°; −30 dBW/200 MHz in the passive band for GSO earth stations having an elevation angle below 80° and an antenna gain less than 57 dBi; and −25 dBW/200 MHz in the passive band for GSO earth stations having an elevation angle below 80° and an antenna gain greater than or equal to 57 dBi.

Lastly, for NGSO earth stations brought into use prior to January 1, 2021 or GSO earth stations brought into use prior to January 1, 2024, the Commission proposes that unwanted emissions in the 50.2-50.4 GHz band shall not exceed −20 dBW/200 MHz, except that the maximum unwanted emissions power may be increased to −10 dBW/200 MHz for earth stations having an antenna gain greater than or equal to 57dBi. The above limits would apply under clear-sky conditions. During fading conditions, the

limits may be exceeded by earth stations when using uplink control. The Commission requests comment on these proposed updates and whether any corresponding updates to its part 25 rules are necessary to implement these proposals. Additionally, given that the compliance dates mentioned above have passed, the Commission seeks comment on whether it should update these dates, along with how any issues associated with grandfathering should be addressed given that earth stations authorized before the proposed dates would be subjected to less restrictive power limits.

B. Terrestrial Issues.

International Navigational Data (NAVDAT) System in the 435-472 kHz and 479-510 kHz Bands.

The Commission proposes to make the 495-505 kHz band (i.e., the 10 kilohertz band centered on the frequency 500 kHz) available for digital broadcasting of maritime safety and security related information from shore-to-ship, i.e., the international Navigational Data (NAVDAT) system, by adding a reference to footnote 5.82C in the 495-505 kHz band in the non-Federal portion of the U.S. Table. The Commission also proposes to revise footnote US79A, which the Commission added in the WRC-19 Administrative Order to reflect the pre-WRC-19 conditions in footnote 5.79 in the U.S. Table, by updating its text to generally reflect WRC-19's changes to footnote 5.79. WRC-19 revised footnote 5.79 by expanding the permitted uses of the maritime mobile service in the 415-495 kHz and 505-526.5 kHz (505-510 kHz in Region 2) bands from radiotelegraphy by stating that this spectrum "may also be used for the NAVDAT system in accordance with the most recent version of Recommendation ITU-R M.2010, subject to agreement between interested and affected administrations. NAVDAT transmitting stations are limited to coast stations." In addition, WRC-19 expanded this footnote's applicability in Region 2 from 505-510 kHz to 505-526.5 kHz.

The 495-505 kHz band is allocated exclusively to the maritime mobile service on a primary basis in all ITU Regions and under the Commission's rules, in the U.S. Table, where the band is allocated for Federal/non Federal shared use. WRC-19 adopted footnote 5.82C, which states that the 495 505 kHz band is used for the international NAVDAT system as described in the most recent version of Recommendation ITU-R M.2010 and that NAVDAT transmitting stations are limited to coast stations. As discussed in ITU-R Report M.2201, the 495-505 kHz band is lightly used and thus available for use by

the NAVDAT system, and its coverage range matches the coverage provided by the existing Navigational Telex (NAVTEX) system operating at 490 kHz and 518 kHz. The NAVDAT system would provide a greatly improved data throughput from that currently provided by the NAVTEX system and also would provide protection to the NAVTEX system.

Under the Commission's rules, in the U.S. Table, the 435-472 kHz, 479-495 kHz, and 505-510 kHz bands are allocated to the maritime mobile service on a primary basis for Federal/non-Federal shared use and footnote US79A applies. The Commission tentatively find that the text of footnote US79A should be replaced by the text of footnote 5.79, except that the frequency bands that are not currently authorized in the U.S. Table (the 472 479 kHz and 510-526.5 kHz bands are not allocated for the maritime mobile service) should not be listed. Together, these proposals would make the 435-472 kHz and 479-510 kHz bands available to the international NAVDAT system. Footnote 5.82C would make the 495-505 kHz band available for use by the international NAVDAT system as described in ITU-R M.2010 and limit NAVDAT transmitting stations to coast stations. The Commission requests comment on these proposals.

Lastly, the implementation of the NAVDAT system would require service-specific rules to be added to part 80 of the Commission's rules. Given the nascency of the NAVDAT system, it is premature to propose service-specific rules at this time. The Commission may propose rules for the NAVDAT system at a later date, as the domestic standards are developed.

Table Mountain Radio Quiet Zone Field Strength Limit.

The Commission seeks comment on a proposal from NTIA's Institute for Telecommunications Sciences (ITS) to make several modifications to the Table Mountain Radio Quiet Zone field strength limit in the Commission's rules. As background, the Table Mountain Field Site (TMFS) is designated in the Commission's rules and in the NTIA Manual as a "Radio Quiet Zone." Federal and State regulations protect the TMFS from strong external radio signals. Applicants intending to operate a new or modified station at a permanent fixed location in the vicinity of Boulder County, Colorado are advised to give consideration, prior to filing applications, to the necessity of protecting the Table Mountain Radio Receiving Zone from interference. This rule enables the Department of Commerce laboratories and research affiliates to study the characteristics and propagation of electromagnetic radiation, and of spectrum coexistence between new and legacy (incumbent) radio systems, in a real-world, open-air

environment with minimal interference from uncontrolled sources of external radio interference. NTIA's ITS laboratory manages the Quiet Zone's radio frequency (RF) environment, which includes monitoring interference and overseeing incident-signal power level compliance.

Section 1.924 of the Commission's rules states that the Department of Commerce seeks to ensure that the field strengths of any radiated signals received in the vicinity of the Table Mountain Radio Quiet Zone near Boulder, Colorado do not exceed the limits given in the section's table, entitled "Field Strength Limits for Table Mountain." At and above 890 MHz, that limit is one millivolt per meter (1 mV/m). According to NTIA, although a fixed-level limit, irrespective of radio frequency, might appear reasonable at first glance, there is a technical problem with such a fixed field-strength limit: when radio signals are held at that limit, their power coupled into receiver circuits gradually decreases for a given, fixed receive-antenna gain. Received power, for a fixed field strength limit, decreases in a receiver with a fixed-gain antenna by a factor of four for every doubling of frequency. This rapid decrease with increasing frequency becomes so severe at millimeter-wave frequencies (an area of currently expanding research and industrial-commercial development) that incident radio signals at the field strength limit eventually go below the room-temperature thermal noise limit of receiving antennas, receiver circuits, scientific electronic instrumentation, and all other room temperature objects including even human bodies. The problem occurs because of a technical artifact: the definition of the effective aperture (the electronic "size") of a theoretical construction called an isotropic antenna.

To address the issue at the TMFS, NTIA requests several modifications to the Table Mountain Quiet Zone field strength rules found in § 1.924. Specifically, NTIA requests that the Commission amend the rules to limit the field strength at the Quiet Zone by modifying the field strength limit for microwave frequencies at and above 15.7 GHz, increasing the new limit at the same rate that the effective aperture of an isotropic antenna changes, and changing the current total signal power criterion to a per megahertz basis.

First, the Commission seeks comment on modifying the field strength limits for frequency ranges at and above 15.7 GHz. NTIA suggests its proposed adjustment begin at 15.7 GHz based on an analysis that determined 15.7 GHz is the bottom edge of the nearest allocated frequency band to the frequency where the signal-to-noise ratio (SNR) of an incident signal at the Table Mountain Quiet Zone limit,

received with an isotropic (0 dBi gain) antenna in a sensitive receiver, is 10 dB in a 1 megahertz bandwidth. Is this rationale sufficient to support modifying the field strength and power flux density limits for frequency ranges above 15.7 GHz? Should the Commission consider an alternative starting point at a higher frequency for the new field strength limit? The Commission requests that commenters include technical support for the Commission's consideration.

Second, the Commission seeks comment on NTIA's suggestion to linearly increase the field strength limits and logarithmically increase the power flux density (PFD) limits with the transmit frequency above 15.7 GHz (see Table 1 below). Should the Commission consider alternative methods for calculating the new field strength and power flux density limits? Commenters suggesting an alternative method should provide technical justification for their preferred method.

Third, the Commission seeks comment on defining the new field strength and power flux density limits above 15.7 GHz on a per megahertz basis instead of the current total field strength or power flux density criterion. The Commission has traditionally defined field strength limits without a reference channel bandwidth in several rule parts, including for 800 MHz cellular systems along the Cellular Geographic Service Area (CGSA) boundary (40 dBuV/m) and 1.9 GHz PCS systems at the border of the PCS service area (47 dBuV/m). Similarly, the Advanced Wireless Service (AWS) rules specify a field strength limit without reference to channel bandwidth. In a more recent proceeding for the Upper Microwave Flexible Use Service (UMFUS), the Commission adopted a power flux density limit on a per megahertz basis for base stations operating in the 27.5-28.35 GHz band and 37-40 GHz band. During the UMFUS proceeding, the Commission sought comment on whether it should adopt a 47dBuV/m field strength limit, a -86dBm/m2/MHz PFD limit, or any alternative limit at the market boundary. The Commission adopted the PFD limit on a per megahertz basis with overwhelming support from commenters and noted that a scaling factor should be considered given the wide channel bandwidths and diversity of potential UMFUS applications. The Commission seeks comment on whether defining the field strength or power flux density limit on a per megahertz basis as requested by NTIA includes a sufficient scaling factor for the wider channel bandwidths of current and planned services that may be deployed above 15.7 GHz. Commenters are encouraged to provide technical justification for the channel

bandwidth scaling factor or different field strength/PFD limits and explain any material differences regarding assumptions used to derive their preferred field strength/PFD limit.

Finally, the Commission seeks general comment on whether a similar technical argument for adjusting the field strength limit in the Table Mountain Radio Quiet Zone should be considered for extremely high operating frequencies, such as above 1 terahertz. Commenters are encouraged to provide technical justification for designating any additional frequency break points (such as algorithmic support for a revised field strength limit) as well as the appropriate reference to signal bandwidth for compliance.

ORDERING CLAUSES

IT IS ORDERED that, pursuant to sections 1, 4(i), 4(j), 7, 301, 303(c), 303(f), and 303(r) of the Communications Act of 1934, as amended, 47 U.S.C. 151, 154(i), 154(j), 157, 301, 303(c), 303(f), and 303(r), that the Notice of Proposed Rulemaking IS ADOPTED.

IT IS FURTHER ORDERED that the Commission's Office of Secretary, SHALL SEND a copy of this Notice of Proposed Rule Making, including the Initial Regulatory Flexibility Analysis, to the Chief Counsel for Advocacy of the Small Business Administration.

List of Subjects in 47 CFR Parts 2 and 25

Administrative practice and procedures, Communications, Communications equipment, Reporting and recordkeeping requirements, Satellites, Telecommunications, and Wiretapping and electronic surveillance.

FEDERAL COMMUNICATIONS COMMISSION.

Marlene Dortch,

Secretary.

Proposed Rules

For the reasons discussed in the preamble, the Federal Communications Commission proposes to amend 47 CFR part 2 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. Amend § 2.106(a) by revising pages 4, 21, 22, 26, and 34 of the U.S. Table of Frequency Allocations to read as follows:

§ 2.106 Table of Frequency Allocations.

(a) * * *

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435-472 MARITIME MOBILE 5.79 Aeronautical radionavigation 5.77 5.82	5.78 5.82		435-472 MARITIME MOBILE US79A Aeronautical radionavigation 5.82 US2 US231	435-472 MARITIME MOBILE US79A 5.82 US2 US231	
472-479 MARITIME MOBILE 5.79 Amateur 5.80A Aeronautical radionavigation 5.77 5.80 5.80B 5.82			472-479 US2	472-479 Amateur 5.80A 5.82 US2 NG8	Amateur Radio (97)
479-495 MARITIME MOBILE 5.79 5.79A Aeronautical radionavigation 5.77 5.82	479-495 MARITIME MOBILE 5.79 5.79A Aeronautical radionavigation 5.77 5.80 5.82		479-495 MARITIME MOBILE US79A 5.79A Aeronautical radionavigation 5.82 US2 US231	479-495 MARITIME MOBILE US79A 5.79A 5.82 US2 US231	Maritime (80)
495-505 MARITIME MOBILE 5.82C			495-505 MARITIME MOBILE 5.82C		Maritime (80) Aviation (87)
505-526.5 MARITIME MOBILE 5.79 5.79A 5.84 AERONAUTICAL RADIONAVIGATION	505-510 MARITIME MOBILE 5.79	505-526.5 MARITIME MOBILE 5.79 5.79A 5.84 AERONAUTICAL RADIONAVIGATION Aeronautical mobile Land mobile	505-510 MARITIME MOBILE US79A		Maritime (80)
	510-525 MARITIME MOBILE 5.79A 5.84 AERONAUTICAL RADIONAVIGATION		510-525 MARITIME MOBILE (ships only) 5.79A 5.84 AERONAUTICAL RADIONAVIGATION (radiobeacons) US18 US14 US225		Maritime (80) Aviation (87)
526.5-1606.5 BROADCASTING	525-535 BROADCASTING 5.86 AERONAUTICAL RADIONAVIGATION	526.5-535 BROADCASTING Mobile 5.88	525-535 MOBILE US221 AERONAUTICAL RADIONAVIGATION (radiobeacons) US18 US239		Aviation (87) Private Land Mobile (90)
	535-1605 BROADCASTING	535-1606.5 BROADCASTING	535-1605	535-1605 BROADCASTING NG1 NG5	Radio Broadcast (AM)(73) Private Land Mobile (90)
5.87 5.87A	1605-1625 BROADCASTING 5.89		1605-1615 MOBILE US221 G127	1605-1705 BROADCASTING 5.89	Radio Broadcast (AM)(73)
1606.5-1625 FIXED MARITIME MOBILE 5.90 LAND MOBILE 5.92	5.90	1606.5-1800 FIXED MOBILE RADIOLOCATION RADIONAVIGATION	1615-1705		Alaska Fixed (80) Private Land Mobile (90)
1625-1635 RADIOLOCATION 5.93	1625-1705 FIXED MOBILE BROADCASTING 5.89 Radiolocation				
1635-1800 FIXED MARITIME MOBILE 5.90 LAND MOBILE	5.90		US299	US299 NG1 NG5	
	1705-1800 FIXED MOBILE RADIOLOCATION AERONAUTICAL RADIONAVIGATION		1705-1800 FIXED MOBILE RADIOLOCATION		Alaska Fixed (80) Private Land Mobile (90)
5.92 5.96		5.91	US240		

International Table			United States Table		FCC Rule Part(s)
Region 1 Table	Region 2 Table	Region 3 Table	Federal Table	Non-Federal Table	
117.975-137 AERONAUTICAL MOBILE (R) 5.111 5.200 5.201 5.202			117.975-121.9375 AERONAUTICAL MOBILE (R) 5.111 5.200 US26 US28 US36		Aviation (87)
			121.9375-123.0875 US30 US31 US33 US80 US102 US213	121.9375-123.0875 AERONAUTICAL MOBILE US30 US31 US33 US80 US102 US213	
			123.0875-123.5875 AERONAUTICAL MOBILE 5.200 US32 US33 US112		
			123.5875-128.8125 AERONAUTICAL MOBILE (R) US26 US36		
			128.8125-132.0125	128.8125-132.0125 AERONAUTICAL MOBILE (R)	
			132.0125-136 AERONAUTICAL MOBILE (R) US26		
			136-137 US244	136-137 AERONAUTICAL MOBILE (R) US244	
137-137.025 SPACE OPERATION (space-to-Earth) 5.203C METEOROLOGICAL-SATELLITE (space-to-Earth) MOBILE-SATELLITE (space-to-Earth) 5.208A 5.208B 5.209 SPACE RESEARCH (space-to-Earth) Fixed Mobile except aeronautical mobile (R) 5.204 5.205 5.206 5.207 5.208			137-137.025 SPACE OPERATION (space-to-Earth) 5.203C METEOROLOGICAL-SATELLITE (space-to-Earth) MOBILE-SATELLITE (space-to-Earth) US319 US320 SPACE RESEARCH (space-to-Earth) 5.208		Satellite Communications (25)
137.025-137.175 SPACE OPERATION (space-to-Earth) 5.203C METEOROLOGICAL-SATELLITE (space-to-Earth) SPACE RESEARCH (space-to-Earth) Fixed Mobile except aeronautical mobile (R) Mobile-satellite (space-to-Earth) 5.208A 5.208B 5.209 5.204 5.205 5.206 5.207 5.208			137.025-137.175 SPACE OPERATION (space-to-Earth) 5.203C METEOROLOGICAL-SATELLITE (space-to-Earth) SPACE RESEARCH (space-to-Earth) Mobile-satellite (space-to-Earth) US319 US320 5.208		
137.175-137.825 SPACE OPERATION (space-to-Earth) 5.203C 5.209A METEOROLOGICAL-SATELLITE (space-to-Earth) MOBILE-SATELLITE (space-to-Earth) 5.208A 5.208B 5.209 SPACE RESEARCH (space-to-Earth) Fixed Mobile except aeronautical mobile (R) 5.204 5.205 5.206 5.207 5.208			137.175-137.825 SPACE OPERATION (space-to-Earth) 5.203C 5.209A METEOROLOGICAL-SATELLITE (space-to-Earth) MOBILE-SATELLITE (space-to-Earth) US319 US320 SPACE RESEARCH (space-to-Earth) 5.208		

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137.825-138 SPACE OPERATION (space-to-Earth) 5.203C METEOROLOGICAL-SATELLITE (space-to-Earth) SPACE RESEARCH (space-to-Earth) Fixed Mobile except aeronautical mobile (R) Mobile-satellite (space-to-Earth) 5.208A 5.208B 5.209 5.204 5.205 5.206 5.207 5.208			137.825-138 SPACE OPERATION (space-to-Earth) 5.203C METEOROLOGICAL-SATELLITE (space-to-Earth) SPACE RESEARCH (space-to-Earth) Mobile-satellite (space-to-Earth) US319 US320 5.208		
138-143.6 AERONAUTICAL MOBILE (OR) 5.210 5.211 5.212 5.214	138-143.6 FIXED MOBILE RADIOLOCATION Space research (space-to-Earth)	138-143.6 FIXED MOBILE Space research (space-to-Earth) 5.207 5.213	138-144 FIXED MOBILE	138-144	
143.6-143.65 AERONAUTICAL MOBILE (OR) SPACE RESEARCH (space-to-Earth) 5.211 5.212 5.214	143.6-143.65 FIXED MOBILE RADIOLOCATION SPACE RESEARCH (space-to-Earth)	143.6-143.65 FIXED MOBILE SPACE RESEARCH (space-to-Earth) 5.207 5.213			
143.65-144 AERONAUTICAL MOBILE (OR) 5.210 5.211 5.212 5.214	143.65-144 FIXED MOBILE RADIOLOCATION Space research (space-to-Earth)	143.65-144 FIXED MOBILE Space research (space-to-Earth) 5.207 5.213	G30		
144-146 AMATEUR AMATEUR-SATELLITE 5.216			144-148	144-146 AMATEUR AMATEUR-SATELLITE	Amateur Radio (97)
146-148 FIXED MOBILE except aeronautical mobile (R)	146-148 AMATEUR 5.217	146-148 AMATEUR FIXED MOBILE 5.217		146-148 AMATEUR	
148-149.9 FIXED MOBILE except aeronautical mobile (R) MOBILE-SATELLITE (Earth-to-space) 5.209 5.218 5.218A 5.219 5.221	148-149.9 FIXED MOBILE MOBILE-SATELLITE (Earth-to-space) 5.209 5.218 5.218A 5.219 5.221		148-149.9 FIXED MOBILE MOBILE-SATELLITE (Earth-to-space) US319 US320 US323 US325 5.218 5.218A 5.219 G30	148-149.9 MOBILE-SATELLITE (Earth-to-space) US320 US323 US325 5.218 5.218A 5.219 US319	Satellite Communications (25)
149.9-150.05 MOBILE-SATELLITE (Earth-to-space) 5.209 5.220			149.9-150.05 MOBILE-SATELLITE (Earth-to-space) US319 US320 RADIONAVIGATION-SATELLITE		
150.05-153 FIXED MOBILE except aeronautical mobile RADIO ASTRONOMY 5.149	150.05-154 FIXED MOBILE 5.225		150.05-150.8 FIXED MOBILE US73 G30	150.05-150.8 US73	

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235-267 FIXED MOBILE 5.111 5.252 5.254 5.256 5.256A	235-267 FIXED MOBILE 5.111 5.256 G27 G100	235-267 5.111 5.256	
267-272 FIXED MOBILE Space operation (space-to-Earth) 5.254 5.257	267-322 FIXED MOBILE	267-322	
272-273 SPACE OPERATION (space-to-Earth) FIXED MOBILE 5.254			
273-312 FIXED MOBILE 5.254			
312-315 FIXED MOBILE Mobile-satellite (Earth-to-space) 5.254 5.255			
315-322 FIXED MOBILE 5.254	G27 G100		
322-328.6 FIXED MOBILE RADIO ASTRONOMY 5.149	322-328.6 FIXED MOBILE US342 G27	322-328.6 US342	
328.6-335.4 AERONAUTICAL RADIONAVIGATION 5.258 5.259	328.6-335.4 AERONAUTICAL RADIONAVIGATION 5.258		Aviation (87)
335.4-387 FIXED MOBILE 5.254	335.4-399.9 FIXED MOBILE	335.4-399.9	
387-390 FIXED MOBILE Mobile-satellite (space-to-Earth) 5.208A 5.208B 5.254 5.255			
390-399.9 FIXED MOBILE 5.254	G27 G100		
399.9-400.05 MOBILE-SATELLITE (Earth-to-space) 5.209 5.220 5.260A 5.260B	399.9-400.05 MOBILE-SATELLITE (Earth-to-space) 5.260A 5.260B US320 RADIONAVIGATION-SATELLITE		Satellite Communications (25)

1530-1535 SPACE OPERATION (space-to-Earth) MOBILE-SATELLITE (space-to-Earth) 5.208B 5.351A 5.353A Earth exploration-satellite Fixed Mobile except aeronautical mobile 5.341 5.342 5.351 5.354	1530-1535 SPACE OPERATION (space-to-Earth) MOBILE-SATELLITE (space-to-Earth) 5.208B 5.351A 5.353A Earth exploration-satellite Fixed Mobile 5.343 5.341 5.351 5.354		5.341 5.351	
1535-1559 MOBILE-SATELLITE (space-to-Earth) 5.208B 5.351A 5.341 5.351 5.353A 5.354 5.355 5.356 5.357 5.357A 5.359 5.362A			1535-1559 MOBILE-SATELLITE (space-to-Earth) US308 US309 US315 US380 5.341 5.351 5.356	Satellite Communications (25) Maritime (80) Aviation (87)
1559-1610 AERONAUTICAL RADIONAVIGATION RADIONAVIGATION-SATELLITE (space-to-Earth) (space-to-space) 5.208B 5.328B 5.329A 5.341			1559-1610 AERONAUTICAL RADIONAVIGATION RADIONAVIGATION-SATELLITE (space-to-Earth)(space-to-space) 5.341 US85 US208 US260	Aviation (87)
1610-1610.6 MOBILE-SATELLITE (Earth-to-space) 5.351A AERONAUTICAL RADIONAVIGATION 5.341 5.355 5.359 5.364 5.366 5.367 5.368 5.369 5.371 5.372	1610-1610.6 MOBILE-SATELLITE (Earth-to-space) 5.351AAERONAUTICAL RADIONAVIGATION RADIODETERMINATION-SATELLITE (Earth-to-space) 5.341 5.364 5.366 5.367 5.368 5.370 5.372	1610-1610.6 MOBILE-SATELLITE (Earth-to-space) 5.351A AERONAUTICAL RADIONAVIGATION Radiodetermination-satellite (Earth-to-space) 5.341 5.355 5.359 5.364 5.366 5.367 5.368 5.369 5.372	1610-1610.6 MOBILE-SATELLITE (Earth-to-space) US319 US380 AERONAUTICAL RADIONAVIGATION US260 RADIODETERMINATION-SATELLITE (Earth-to-space) 5.341 5.364 5.366 5.367 5.368 5.372 US208	Satellite Communications (25) Maritime (80) Aviation (87)
1610.6-1613.8 MOBILE-SATELLITE (Earth-to-space) 5.351A RADIO ASTRONOMY AERONAUTICAL RADIONAVIGATION 5.149 5.341 5.355 5.359 5.364 5.3665.367 5.368 5.369 5.371 5.372	1610.6-1613.8 MOBILE-SATELLITE (Earth-to-space) 5.351A RADIO ASTRONOMY AERONAUTICAL RADIONAVIGATION RADIODETERMINATION-SATELLITE (Earth-to-space) 5.149 5.341 5.364 5.366 5.367 5.3685.370 5.372	1610.6-1613.8 MOBILE-SATELLITE (Earth-to-space) 5.351A RADIO ASTRONOMY AERONAUTICAL RADIONAVIGATION Radiodetermination-satellite (Earth-to-space) 5.149 5.341 5.355 5.359 5.364 5.366 5.367 5.368 5.369 5.372	1610.6-1613.8 MOBILE-SATELLITE (Earth-to-space) US319 US380 RADIO ASTRONOMY AERONAUTICAL RADIONAVIGATION US260 RADIODETERMINATION-SATELLITE (Earth-to-space) 5.341 5.364 5.366 5.367 5.368 5.372 US208 US342	
1613.8-1621.35 MOBILE-SATELLITE (Earth-to-space) 5.351A AERONAUTICAL RADIONAVIGATION Mobile-satellite (space-to-Earth) 5.208B 5.341 5.355 5.359 5.364 5.365 5.3665.367 5.368 5.369 5.371 5.372	1613.8-1621.35 MOBILE-SATELLITE (Earth-to-space) 5.351A AERONAUTICAL RADIONAVIGATION RADIODETERMINATION-SATELLITE (Earth-to-space) Mobile-satellite (space-to-Earth) 5.208B 5.341 5.364 5.365 5.366 5.367 5.3685.370 5.372	1613.8-1621.35 MOBILE-SATELLITE (Earth-to-space) 5.351A AERONAUTICAL RADIONAVIGATION Mobile-satellite (space-to-Earth) 5.208B Radiodetermination-satellite (Earth-to-space) 5.341 5.355 5.359 5.364 5.365 5.366 5.367 5.368 5.369 5.372	1613.8-1621.35 MOBILE-SATELLITE (Earth-to-space) US319 US380 AERONAUTICAL RADIONAVIGATION US260 RADIODETERMINATION-SATELLITE (Earth-to-space) Mobile-satellite (space-to-Earth) 5.341 5.364 5.365 5.366 5.367 5.368 5.372 US208	
1621.35-1626.5 MARITIME MOBILE-SATELLITE (space-to-Earth) 5.373 5.373A MOBILE-SATELLITE (Earth-to-space) 5.351A AERONAUTICAL RADIONAVIGATION Mobile-satellite (space-to-Earth) except maritime mobile-satellite (space-to-Earth) 5.208B 5.341 5.355 5.359 5.364 5.365 5.366 5.367 5.368 5.369 5.371 5.372	1621.35-1626.5 MARITIME MOBILE-SATELLITE (space-to-Earth) 5.373 5.373A MOBILE-SATELLITE (Earth-to-space) 5.351A AERONAUTICAL RADIONAVIGATION RADIODETERMINATION-SATELLITE (Earth-to-space) Mobile-satellite (space-to-Earth) except maritime mobile-satellite (space-to-Earth) 5.208B 5.341 5.364 5.365 5.366 5.367 5.368 5.370 5.372	1621.35-1626.5 MARITIME MOBILE-SATELLITE (space-to-Earth) 5.373 5.373A MOBILE-SATELLITE (Earth-to-space) 5.351A AERONAUTICAL RADIONAVIGATION Mobile-satellite (space-to-Earth) except maritime mobile-satellite (space-to-Earth) Radiodetermination-satellite (Earth-to-space) 5.208B 5.341 5.355 5.359 5.364 5.365 5.366 5.367 5.368 5.369 5.372	1621.35-1626.5 MARITIME MOBILE-SATELLITE (space-to-Earth) 5.373 5.373A MOBILE-SATELLITE (Earth-to-space) US319 US380 AERONAUTICAL RADIONAVIGATION US260 RADIODETERMINATION-SATELLITE (Earth-to-space) Mobile-satellite (space-to-Earth) except maritime mobile-satellite (space-to-Earth) 5.208B 5.341 5.364 5.365 5.366 5.367 5.368 5.370 5.372	

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3. Amend § 2.106 by revising paragraphs (c)(79)(iii) and (c)(156) to read as follows:

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(c) * * *

(79) * * *

(iii) US79A The use of the bands 415-472 kHz, 479-495 kHz, and 505-510 kHz by the maritime mobile service is limited to radiotelegraphy and may also be used for the NAVDAT system in accordance with the most recent version of Recommendation ITU-R M.2010, subject to agreement between interested and affected administrations. NAVDAT transmitting stations are limited to coast stations.

* * * * *

(156) In the bands 49.7-50.2 GHz and 50.4-50.9 GHz, for earth stations in the fixed-satellite service (Earth-to-space), the following limits shall apply to unwanted emissions power (measured at the input of the antenna) in the band 50.2-50.4 GHz:

(i) For NGSO earth stations brought into use prior to 1 January 2021 or GSO earth stations brought into use prior to 1 January 2024: emissions shall not exceed −20 dBW/200 MHz, except that the maximum unwanted emissions power may be increased to −10 dBW/200 MHz for earth stations having an antenna gain greater than or equal to 57 dBi.

(ii) For NGSO earth stations brought into use on or after 1 January 2021: emissions shall not exceed −42 dBW/200MHz, except that stations employing uplink power control (free-space path loss compensation) may increase maximum unwanted emissions power from −42 dBW/200MHz at zenith to a maximum level of −35 dBW/200MHz at a minimum elevation angle of 15°.

(iii) For GSO earth stations brought into use on or after 1 January 2024: emissions shall not exceed −45 dBW/200MHz, except that (i) the maximum unwanted emissions power may be increased to −30 dBW/200 MHz for earth stations having an antenna gain less than 57 dBi and an elevation angle below 80° or (ii) the maximum unwanted emissions power

may be increased to −25 dBW/200 MHz for earth stations having an antenna gain greater than or equal to 57 dBi and an elevation angle below 80°.

(iv) These limits apply under clear-sky conditions. During fading conditions, the limits may be exceeded by earth stations when using uplink power control.

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[FR Doc. 2026-00588 Filed: 1/13/2026 8:45 am; Publication Date: 1/14/2026]