

Dated: July 8, 1997.

**Michael V. Peyton,**

*Acting Regional Administrator, Region 4.*

Dated: July 17, 1997.

**David A. Ullrich,**

*Acting Regional Administrator, Region 5.*

Accordingly, under the authority of 42 U.S.C. 7401-7671q, the final rule published on May 27, 1997 (62 FR 28634) is withdrawn.

[FR Doc. 97-19643 Filed 7-25-97; 8:45 am]

BILLING CODE 6560-50-P

## DEPARTMENT OF TRANSPORTATION

### Coast Guard

#### 46 CFR Part 10

[CGD 95-062]

RIN 2115-AF26

#### Implementation of the 1995 Amendments to the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, 1978 (STCW)

**AGENCY:** Coast Guard, DOT.

**ACTION:** Interim rule; corrections.

**SUMMARY:** This document contains corrections to the interim rule [CGD 95-062], published on Thursday, June 26, 1997 (FR Doc. 97-16109). The rule amends the domestic rules on licensing and documentation of personnel serving on U.S. seagoing vessels. It implements the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, 1978 (STCW), as amended in 1995.

**DATES:** The interim rule and this correction becomes effective on July 28, 1997.

#### FOR FURTHER INFORMATION CONTACT:

Mr. Christopher Young, Project Manager, Operating and Environmental Standards (G-MSO), U.S. Coast Guard Headquarters, 2100 Second Street SW., Washington, DC 20593-0001, telephone (202) 267-0216.

#### SUPPLEMENTARY INFORMATION:

##### Background

The interim rule that is the subject of these corrections changes the Coast Guard's domestic rules on licensing, documentation, and manning, in compliance with amendments to STCW. These amendments were adopted by a Conference of Parties to STCW in July 1995, and came into force on February 1, 1997.

## Need for Correction

As published, the interim rule contains errors that may prove to be misleading and therefore need to be corrected. Accordingly, make the following corrections to 46 CFR part 10:

### List of Subjects in 46 CFR Part 10

Fees, Marine safety, Incorporation by reference, Reporting and recordkeeping requirements, Schools, Seamen, Vessels.

### PART 10—LICENSING OF MARITIME PERSONNEL

1. The authority citation for part 10 continues to read as follows:

**Authority:** 31 U.S.C. 9701; 46 U.S.C. 2101, 2103, 2110; 46 U.S.C. Chapter 71; 46 U.S.C. 7502, 7505, 7701; 49 CFR 1.45, 1.46; Sec. 10.107 also issued under the authority of 44 U.S.C. 3507.

2. In the section "Discussion of Comments and Changes", on page 34515, in line 9 of the first paragraph of the first column under the heading "Simulators", "Technology and Graduated studies" should read "Technology and Graduate Studies".

3. On page 34522, 2nd column, 2nd paragraph, line 12, the sentence should end: "\* \* \* new requirements under §§ 10.205 (l), (m), (n), (o), or (p), 10.304, or 10.901.".

4. On page 34524, 2nd column, last paragraph the reference to paragraph (e) should be to paragraph (a).

5. On page 34525, 1st column, line 12, the reference to August 1, 2002, should be to February 1, 2002.

#### § 10.202 [Corrected]

6. On page 34529, § 10.202(k) should begin: "Notwithstanding § 10.205 (l), (m), (n), (o) and (p), § 10.304, and \* \* \*".

7. On page 34530, from § 10.202(l), remove "\* \* \* meet the requirements of subpart J, because the vessels are \* \* \*", and add in its place, "\* \* \* hold STCW certificates or endorsements, because they are \* \* \*".

#### § 10.205 [Corrected]

8. On page 34530, in § 10.205, remove the (1) after the heading of paragraph (l).

9. On the same page, in § 10.205(n)(1)(ii), change "approved" to "approved or accepted".

10. On the same page, in § 10.205(n)(2), "Paragraph (m)" should read "Paragraph (n)(1)".

#### § 10.209 [Corrected]

11. On page 34531, in § 10.209(k), line 9 should read "\* \* \* (l), (m), (n), and (o) in § 10.205 and shall \* \* \*".

Dated: July 18, 1997.

**R.C. North,**

*Rear Admiral, U.S. Coast Guard, Assistant Commandant for Marine Safety and Environmental Protection.*

[FR Doc. 97-19784 Filed 7-25-97; 8:45 am]

BILLING CODE 4910-14-M

## FEDERAL COMMUNICATIONS COMMISSION

### 47 CFR Parts 0, 2, 80, and 87

[PR Docket No. 92-257; FCC 97-217]

### Maritime and Aviation Communications

**AGENCY:** Federal Communications Commission.

**ACTION:** Final rule.

**SUMMARY:** The Commission has adopted a *Second Report and Order* in PR Docket No. 92-257 which provides adaptive regulations and improves radio communications capabilities in the maritime services. Specifically, the Commission amends the maritime service rules to permit medium frequency (MF), high frequency (HF), and very high frequency (VHF) public coast stations to automatically connect marine radios with the public switched network (PSN); allow VHF public coast stations to serve units on land, provided priority is given to communications originating on vessels; eliminate the requirement for VHF public coast stations to provide a showing of channel loading prior to assignment of additional channels; require a minimum digital selective calling (DSC) capability on all MF, HF, and VHF radios; permit brief scanning transmissions in the 2-30 MHz band for the purposes of automatic link establishment (ALE); permit vessel and coast stations to utilize alternative data communications protocols on narrow-band direct-printing (NB-DP) frequencies; and eliminate unnecessary regulatory burdens on the boating public.

**DATES:** Effective August 27, 1997.

**FOR FURTHER INFORMATION CONTACT:** Scot Stone of the Wireless Telecommunications Bureau, Public Safety and Private Wireless Division, at (202) 418-0638 or via E-mail to "sstone@fcc.gov".

**SUPPLEMENTARY INFORMATION:** This is a summary of the Commission's *Second Report and Order* in the *Second Report and Order and Second Further Notice of Proposed Rule Making*, PR Docket No. 92-257, FCC 97-217, adopted June 17, 1997, and released June 26, 1997, with Commissioner Ness issuing a statement.

The full text of this *Second Report and Order and Second Further Notice of Proposed Rule Making* is available for inspection and copying during normal business hours in the FCC Reference Center (Room 239), 1919 M Street, N.W., Washington, D.C. The complete text may be purchased from the Commission's copy contractor, International Transcription Services, 2100 M Street, N.W., Washington, D.C. 20037, telephone (202) 857-3800.

### **Summary of the Second Report and Order in the Second Report and Order and Second Further Notice of Proposed Rule Making**

1. The Commission initiated the instant proceeding to update the Maritime Service rules to promote the use of new, spectrally efficient radio communications techniques. In the *Further Notice of Proposed Rule Making* (60 FR 34198, June 30, 1995), the Commission proposed rules to provide more flexible regulatory treatment of public coast stations, relief from congestion on maritime frequencies, enhancements in marine communications equipment, and a reduction in regulatory burdens for non-commercial marine radio users. The Commission also asked for comment on ways to increase the efficient use of maritime radio spectrum and remove economic disincentives for coast and mobile station operators, while ensuring that the safety of life and property at sea was not adversely affected. In order to permit the implementation of state-of-the-art communications techniques found in most other land mobile radio services, the Commission amends the rules as follows:

2. First, the Commission amends the rules to permit MF, HF, and VHF public coast stations to automatically connect marine radios with the PSN using any "open" communications protocol, *i.e.*, any means of radio signaling whose documentation is available to the general public and is non-proprietary in nature. Because automatic interconnection eliminates the need for an operator to connect calls, the Commission amends the rules to eliminate the current requirement that a licensed operator be on duty at the control point of the station. The Commission also eliminates the requirement to have a licensed operator at radiotelephone coast stations.

3. Second, the Commission amends the rules to eliminate the requirement for VHF public coast stations to provide a showing of channel loading prior to assignment of additional channels. Presently, VHF public coast stations are initially authorized for a single channel

and must provide a showing of significant channel usage prior to obtaining an additional channel. This type of channel loading requirement unfairly impairs the ability of public coast stations to compete with other Commercial Mobile Radio Service providers.

4. Third, the Commission amends the rules to allow VHF public coast stations, including Automated Maritime Telecommunications System (AMTS) coast stations, to serve units on land, both fixed and mobile (including hand-held units), provided that priority is given to communications originating on vessels. This will permit public coast stations to expand marine telecommunications services and reduce communications costs for vessel operators, while preserving the core safety purpose of the marine radio spectrum.

5. Fourth, the Commission amends the rules to require a minimum DSC capability on all MF, HF, and VHF radios. Upon full implementation of the Global Maritime Distress and Safety System in 1999, compulsory vessels, *i.e.*, ships required to carry radio equipment for safety purposes, will be equipped with DSC equipment, and vessels using conventional marine radios will not be able to communicate with them. To ensure interoperable distress and safety communications among compulsory and exempt vessels, all type acceptance applications for new MF, HF, and VHF marine radios received by the Commission on or after June 17, 1999 must comply with international or Coast Guard DSC requirements, though radios for which type acceptance applications are received before that date will be permitted to be manufactured and used indefinitely.

6. Fifth, the Commission amends the rules to permit brief scanning transmissions on a secondary, non-interference basis in the 2-30 MHz band for the purposes of ALE. ALE systems eliminate the need for a trained radio operator by automatically checking the quality of each frequency and selecting a clear channel for the user. The Commission also amends the table of frequency allocations set out in its rules to reflect the decisions of the 1995 World Radiocommunication Conference for these frequency bands.

7. Sixth, the Commission amends the rules to permit vessel and coast stations to utilize alternative data communications protocols on NB-DP frequencies. To increase technical flexibility for vessel operators, the use of advanced digital communications protocols, higher data rates, and error

correction techniques will be permitted on NB-DP frequencies.

8. Seventh, the Commission will allow trunking on public coast station spectrum, pending the result of a separate proceeding to consider trunking in the marine VHF band based on any applicable recommendations adopted by the 1997 World Radiocommunication Conference.

9. Finally, the Commission amends the rules to eliminate unnecessary regulatory burdens on the boating public. Instead of requiring the owner to modify its license every time it purchases new equipment, the licensing rules are amended to provide a blanket authorization to use all marine radio frequencies normally available to vessel operators. The license may be kept anywhere on board instead of being posted at at the principal control point of the station. Also, a 90-day grace period following the expiration of ship and aircraft station licenses will be allowed during which a licensee can renew its license and retain the same call sign.

10. The Commission also amends the rules to allow mobile units to be used under private coast station licenses, and to permit VHF private coast stations that operate at less than 25 watts carrier power to use transmitters with a frequency tolerance of 10 parts per million (the same power frequency tolerance as transmitters type accepted for ship operation). The Commission amends the rules to permit data and facsimile transmission over marine VHF channel 68 (156.425 MHz) between vessels and between vessels and private coast stations serving Alaskan waters, and to automatically add marine VHF channel 68 to all current Alaskan private coast station licenses, for facsimile and data transmissions only.

11. The Commission also amends the rules to provide for the joint use of marine VHF frequencies by commercial and non-commercial vessels in regions to be chosen based on the recommendations of the Coast Guard.

### **Regulatory Flexibility Act**

#### *Final Regulatory Flexibility Analysis*

12. As required by Section 603 of the Regulatory Flexibility Act (RFA), 5 U.S.C. 603, an Initial Regulatory Flexibility Analysis (IRFA) was incorporated into the *Further Notice of Proposed Rule Making* in this proceeding (*Further Notice*). The Commission sought written public comments on the proposals in the *Further Notice*, including on the IRFA. The Commission's Final Regulatory Flexibility Analysis (FRFA) for the

*Second Report and Order* conforms to the RFA, as amended by the Contract With America Advancement Act of 1996 (CWAAA), Pub. L. No. 104-121, 110 Stat. 847 (1996).<sup>1</sup>

13. Need for and Purpose of the Action. Our objective is to promote innovative telecommunications services, improve communications capabilities, and reduce regulatory burdens for licensees in the Maritime Service. Specifically, this action will: (1) permit public coast stations to provide automated services, immediately obtain new channels, and serve units on land (VHF stations only); (2) ensure that affordable DSC radio equipment is available for recreational vessels; (3) improve high seas communications by permitting ALE transmissions in the 2-30 MHz band; (4) allow stations using NB-DP equipment to employ alternative data communications protocols; (5) reduce regulatory burdens for coast station licensees by eliminating the radiotelephone operator requirement, permitting hand-helds to be used under private coast authorizations, unifying the frequency tolerance requirement for 25 watt coast transmitters, and permitting facsimile on marine VHF channel 68 in Alaska; and (6) reduce regulatory burdens for ship station licensees by providing a "blanket" authorization for all radio equipment on board a vessel and permitting vessel owners to store their station licenses away from the harsh marine environment.

14. In making these broad changes to the Maritime Service rules, we find that the potential benefits to the maritime community exceed any negative effects that may result from the promulgation of rules for this purpose. Thus, we conclude that the public interest is served by amending our rules as described above.

15. Issues Raised in Response to the IRFA. No comments were submitted in response to the IRFA. In general comments on the Further Notice, however, some small business commenters raised issues that might affect small business entities. In particular, some small business commenters argued that requiring public coast stations to use a standard signaling protocol (e.g., DSC) is unnecessary, would be overly burdensome to licensees that have already started developing alternative protocols, and would inhibit the development of innovative protocols to better respond to regional market

demands. Small business commenters also pointed out that restricting the types or number of land units to be served by VHF public coast stations would inhibit a station's ability to provide needed services (e.g., customers using hand-held radios or dockside dispatch stations) and prevent a station from maximizing maritime spectrum efficiency. Further, small business commenters asked that the Commission require marine radios to have a minimum DSC capability which is less extensive and cheaper to implement than the internationally mandated DSC standard for large cargo vessels and passenger vessels. Small business commenters also urged the Commission not to allow recreational vessels to communicate on marine VHF band commercial frequencies on a nationwide basis. These commenters noted that such action would increase congestion on safety channels and inhibit tugs and towing vessels from doing business via marine radio near major ports and waterways. The Commission carefully considered each of these comments in reaching the decision set forth in herein.

16. Description and Number of Small Entities Involved. The rules adopted herein will apply to small businesses that choose to use, manufacture, design, import, or sell MF, HF, or VHF marine radios. Since this rule making proceeding applies to three groups of small entities, we will analyze the effects of these rules on each of these groups.

17. Estimates for marine radio manufacturers/importers. The Commission has not developed a definition of the term "small entity" specifically applicable to marine radio manufacturers and importers. Therefore, the applicable definition of small entity is the definition under the Small Business Administration rules applicable to radio and television broadcasting and communications equipment manufacturers. This definition provides that a small entity is any entity employing less than 750 persons. See 13 CFR 121.201, Standard Industrial Classification (SIC) Code 3663. Since the Regulatory Flexibility Act amendments were not in effect until the record in this proceeding was closed, the Commission was unable to request information regarding the number of small entities that may choose to manufacture or import marine radio equipment and is unable at this time to make a meaningful estimate of the number of potential manufacturers or importers which are small businesses.

18. The 1992 Census of Manufacturers, conducted by the

Bureau of Census, which is the most comprehensive and recent information available, shows that approximately 925 out of the 948 entities manufacturing radio and television transmitting equipment in 1992 employed less than 750 persons. We are unable to discern from the Census data precisely how many of these manufacturers produce marine radios. Further, any entity may choose to manufacture or produce marine radio equipment. Therefore, for the purposes of our evaluations and conclusions in this Final Regulatory Flexibility Analysis, we estimate that there are at least 925 potential manufacturers and importers of marine radio equipment which are small businesses, as that term is defined by the Small Business Administration.

19. Estimates for public coast station licensees. The Commission has not developed a definition of the term "small entity" specifically applicable to public coast station licensees. Therefore, the applicable definition of small entity is the definition under the Small Business Administration rules applicable to radiotelephone service providers. This definition provides that a small entity is any entity employing less than 1,500 persons. See 13 CFR 121.201, Standard Industrial Classification (SIC) Code 4812. Since the Regulatory Flexibility Act amendments were not in effect until the record in this proceeding was closed, the Commission was unable to request information regarding the number of small entities that may choose to provide public coast services and is unable at this time to make a meaningful estimate of the number of potential public coast service providers which are small businesses.

20. The size data provided by the Small Business Administration does not enable us to make a meaningful estimate of the number of public coast station licensees which are small businesses. Therefore, we used the 1992 Census of Transportation, Communications, and Utilities, conducted by the Bureau of Census, which is the most recent information available. This document shows that only 12 radiotelephone firms out of a total of 1,178 such firms which operated during 1992 had 1,000 or more employees. There are over 50 public coast station licensees. Based on the proposals contained herein, it is unlikely that more than 9 licensees will be authorized in the future. Therefore, for purposes of our evaluations and conclusions in this FRFA, we estimate that there are approximately 50 public coast station licensees which are small businesses, as that term is defined by the Small Business Administration.

<sup>1</sup> Subtitle II of the CWAAA is "The Small Business Regulatory Enforcement Fairness Act of 1996" (SBREFA), codified at 5 U.S.C. 601 et seq.

21. Estimates for private coast station licensees. The Commission has not developed a definition of the term "small entity" specifically applicable to private coast station licensees.

Therefore, the applicable definition of small entity is the definition under the Small Business Administration rules applicable to radiotelephone service providers. This definition provides that a small entity is any entity employing less than 1,500 persons. See 13 CFR 121.201, Standard Industrial Classification (SIC) Code 4812. Since the Regulatory Flexibility Act amendments were not in effect until the record in this proceeding was closed, the Commission was unable to request information regarding the number of small entities that may choose to provide private coast services and is unable at this time to make a meaningful estimate of the number of potential private coast service providers which are small businesses.

22. The size data provided by the Small Business Administration does not enable us to make a meaningful estimate of the number of private coast station licensees which are small businesses. Therefore, we used the 1992 Census of Transportation, Communications, and Utilities, conducted by the Bureau of Census, which is the most recent information available. This document shows that only 12 radiotelephone firms out of a total of 1,178 such firms which operated during 1992 had 1,000 or more employees. There are presently over 100 private coast station licensees. There is no limitation, however, as to the number of private coast station licensees that may be authorized. Therefore, for purposes of our evaluations and conclusions in this Final Regulatory Flexibility Analysis, we estimate that there are over 100 private coast station licensees which are small businesses, as that term is defined by the Small Business Administration.

23. Summary of Projected Reporting, Recordkeeping, and Other Compliance Requirements. In order to provide for distress signaling capabilities for recreational vessels we are imposing a single regulatory burden that may affect small businesses. Each MF, HF, and VHF marine radio for which an application for type acceptance is received on or after June 17, 1999, must comply with either the international requirements set forth in ITU-R Recommendation 493 (including only equipment classes A, B, D, and E) or the minimum requirements set forth in Radio Technical Commission for Maritime Services Paper 56-95/SC101-STD (SC101). This requirement, however, will not apply to battery-

operated, portable hand-held radio equipment or to AMTS equipment operating in the 216-220 MHz band. All classes of small businesses could potentially be affected by this requirement. In order to have a unit type accepted, a small entity would have to test the radio equipment and provide clerical support to file the requisite FCC application forms. Both of these functions could be handled by a third party.

24. Steps Taken to Minimize Burdens of Small Entities. The Commission in this proceeding has considered comments on ways to implement broad changes to the maritime service rules. In doing so, the Commission has adopted alternatives which minimize burdens placed on small entities. First, it has decided to permit land units to operate under the authority of an associated public coast station's license without having to be individually licensed by the Commission. This approach eliminates the need for fixed and mobile units on land to file forms and submit fees to the Commission. Second, it has decided to permit marine radio manufacturers to continue producing and selling conventional marine radios indefinitely, even though it has set a deadline for the type acceptance for such equipment. This approach manufacturers to sell existing stock and continue to sell units to vessel operators in areas of the country where DSC capability is not needed or desired. Third, it has decided not to license each ALE transmitter individually. This approach provides for system licensing of ALE transmitters nationwide and greatly reduces filing burdens for licensees providing ALE service. Fourth, it has decided not to mandate DSC as the single protocol to be used by public coast stations for interconnection with the PSN. This approach permits coast station licensees to choose an interconnection protocol that meets market demands, rather than presupposing a protocol that may be too expensive or undesirable to implement in certain areas of the country. Fifth, it has decided to simplify ship and aircraft radio licensing and provide a 90-day grace period for renewing ship and aircraft station licenses. This approach eliminates the need for licensees to re-notify the Commission and pay a modification fee each time a new type of radio equipment is added to the station. Further, this approach eliminates the need for licensees to apply for a new station license, and be assigned a new call sign in cases where they forget to renew their license before it expired. Changing a station's call sign

would have hidden costs for small businesses that may have literature or training information referencing the present call sign. Sixth, it has decided not to continue requiring private coast station licensees to get a separate marine utility station license to use hand-held radios. This approach eliminates the need for private coast station licensees to apply for this additional license and pay a fee. Seventh, it has decided to eliminate the frequency tolerance requirement for low powered private coast stations. This approach will allow private coast stations to use economical ship radios for short range communications from land. Eighth, it has decided to authorize, by rule, private coast stations and vessels communicating in Alaskan waters to use marine VHF channel 68. This approach eliminates the need for private coast station licensees to modify their licenses, and pay a fee, to request the new authority.

25. Significant Alternatives Considered and Rejected. The Commission considered and rejected several significant alternatives. The Commission rejected the alternative of requiring public coast stations to implement DSC as the single protocol for automatic interconnection because it determined that licensees should be given the flexibility to respond to market demands using the most efficient and cost effective protocols available for their particular area of the country. The Commission also rejected the alternative of limiting public coast station serve to units on land to a certain number of vehicles. Instead, it determined that licensees should be given the flexibility to serve any number of fixed or mobile units so long as they provide priority to marine-originating communications. The Commission rejected the alternative of prohibiting the sale, after a certain date, conventional marine radios without a DSC capability. Instead, it determined that small businesses and vessel operators may have a future need for non-DSC radios in areas of the country where DSC is not needed or desirable. The Commission rejected the alternative of requiring all DSC marine radios to meet an international standard. Instead, it determined that the SC101 minimum DSC capability, as endorsed by the Coast Guard, will provide manufacturers with the technical flexibility to respond to the communications needs of all types of vessels, e.g., commercial vessels sailing internationally, recreational vessels on inland waterways. The Commission rejected the alternative of including telegraph and NB-DP authority in the

"blanket license" for vessel stations because it determined that stations using telegraphy or NB-DP must ask for a Morse working series or SELCAL number. Because these are allocated internationally and are used by only a small percentage of U.S. vessels, it would be unreasonable to hand out Morse working series and SELCAL numbers to each vessel requesting a license. The Commission rejected the alternative of permitting facsimile transmissions on marine VHF frequencies nationwide because it determined, as the Coast Guard states, that there is too much congestion on marine VHF channels at this point to introduce data communications. Instead, this issue is best addressed at the same time the Commission considers narrowband operations. The Commission rejected the alternative of combining the "commercial" and "non-commercial" classifications of private marine VHF channels because it determined, and the Coast Guard agreed, that such sharing would be limited to niche markets and specific regions of the country. Instead, the Commission will consider specific requests by the Coast Guard to implement sharing on a regional basis. Finally, the Commission rejected the alternative of permitting public coast stations to share private land mobile radio (PLMR) frequencies because it determined that such sharing should be considered only after the resolution of PLMR service consolidation issues.

26. Report to Congress. The Commission shall send a copy of this Final Regulatory Flexibility Analysis with this *Second Report and Order* in a report to Congress pursuant to Section 251 of the Small Business Regulatory Enforcement Fairness Act of 1996, 5 U.S.C. 801(a)(1)(A).

#### Paperwork Reduction Act

27. This *Second Report and Order* does not contain either a proposed or modified information collection.

#### List of Subjects

##### 47 CFR Part 0

Organization and functions (Government agencies).

##### 47 CFR Parts 2, 80, and 87

Communications equipment, Radio.

Federal Communications Commission.

**William F. Caton,**

*Acting Secretary.*

#### Rule Changes

47 CFR Parts 0, 2, 80, and 87 are amended as follows:

#### PART 0—COMMISSION ORGANIZATION

1. The authority citation for part 0 continues to read as follows:

**Authority:** Sec. 5, 48 Stat. 1068, as amended; 47 U.S.C. 155, 255, unless otherwise noted.

2. Section 0.331(d) is revised to read as follows:

##### § 0.331 Authority delegated.

\* \* \* \* \*

(d) *Authority concerning rulemaking proceedings.* The Chief, Wireless Telecommunications Bureau shall not have the authority to act upon notices of proposed rulemaking and inquiry, final orders in rulemaking proceedings and inquiry proceedings, and reports arising from any of the foregoing except such orders involving ministerial conforming amendments to rule parts, or orders conforming any of the applicable rules to formally adopted international conventions or agreements where novel questions of fact, law, or policy are not involved. Also, the addition of new Marine VHF frequency coordination committee(s) to § 80.514 of this chapter need not be referred to the Commission if they do not involve novel questions of fact, policy or law, as well as requests by the United States Coast Guard to:

(1) Designate radio protection areas for mandatory Vessel Traffic Services

(VTS) and establish marine channels as VTS frequencies for these areas; or

(2) Designate regions for shared commercial and non-commercial vessel use of VHF marine frequencies.

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

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

**Authority:** Secs. 4, 302, 303, and 307 of the Communications Act of 1934, as amended, 47 U.S.C. Sections 154, 154(i), 302, 303, 303(r), and 307, unless otherwise noted.

4. Amend § 2.106 as follows:

a. Remove the existing entries for 2000–28000 kHz, 28–30 MHz, and 158.115–161.575 MHz;

b. Add entries in numerical order for 2000–27500 kHz, 27.5–30 MHz, and 158.115–161.575 MHz;

c. In the International Footnotes under heading I., add footnotes S5.92, S5.93, S5.103, S5.104, S5.105, S5.106, S5.107, S5.108, S5.109, S5.110, S5.111, S5.112, S5.113, S5.114, S5.115, S5.116, S5.117, S5.118, S5.119, S5.120, S5.122, S5.123, S5.124, S5.125, S5.126, S5.127, S5.128, S5.129, S5.130, S5.131, S5.132, S5.133, S5.134, S5.135, S5.136, S5.137, S5.138, S5.139, S5.140, S5.141, S5.142, S5.143, S5.144, S5.145, S5.146, S5.147, S5.148, S5.151, S5.152, S5.153, S5.154, S5.155, S5.155A, S5.155B, S5.156, S5.156A, S5.157, S5.226, and S5.229 in numerical order;

d. In the International Footnotes under heading II., remove footnotes 496, 497, 498, 500, 500A, 500B, 502, 503, 504, 505, 506, 507, 508, 509, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 520A, 520B, 521, 522, 523, 524, 525, 526, 527, 528, 529, 529A, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, and 546;

e. Add footnote US340 in numerical order; and

f. Add footnote NG155 in numerical order.

##### § 2.106 Table of Frequency Allocations.

\* \* \* \* \*

International table			United States table		FCC use designators	
Region 1—allocation kHz	Region 2—allocation kHz	Region 3—allocation kHz	Government	Non-Government	Rule part(s)	Special-use frequencies
			Allocation kHz	Allocation kHz		
(1)	(2)	(3)	(4)	(5)	(6)	(7)
*	*	*	*	*	*	*
2000–2025 FIXED MOBILE except aeronautical mobile (R)	2000–2025 FIXED MOBILE	2000–2025 FIXED MOBILE	2000–2025 FIXED MOBILE	2000–2025 MARITIME MOBILE	MARITIME (80)	

International table			United States table		FCC use designators	
Region 1—allocation kHz	Region 2—allocation kHz	Region 3—allocation kHz	Government	Non-Government	Rule part(s)	Special-use frequencies
(1)	(2)	(3)	Allocation kHz	Allocation kHz		
(1)	(2)	(3)	(4)	(5)	(6)	(7)
S5.92 S5.103			US340	US340 NG19		
2025–2045 FIXED MOBILE except aeronautical mobile (R) Meteorological Aids S5.104 S5.92 S5.103	2025–2045 FIXED MOBILE	2025–2045 FIXED MOBILE	2025–2045 FIXED MOBILE  US340	2025–2045 MARITIME MOBILE  US340 NG19	MARITIME (80)	
2045–2065 FIXED MARITIME MOBILE LAND MOBILE S5.92	2045–2065 FIXED MOBILE	2045–2065 FIXED MOBILE	2045–2065 FIXED MOBILE  US340	2045–2065 MARITIME MOBILE  US340 NG19	MARITIME (80)	
2065–2107 FIXED MARITIME MOBILE LAND MOBILE S5.92	2065–2107 MARITIME MOBILE S5.105  S5.106	2065–2107 MARITIME MOBILE S5.105  S5.106	2065–2107 MARITIME MOBILE S5.105  US296 US340	2065–2107 MARITIME MOBILE S5.105  US296 US340	MARITIME (80)	
2107–2160 FIXED MARITIME MOBILE LAND MOBILE  S5.92	2107–2160 FIXED MOBILE	2107–2160 FIXED MOBILE	2107–2160 FIXED MOBILE  US340	2107–2160 FIXED MARITIME MOBILE LAND MOBILE  US340 NG19	AVIATION (87) INTERNATIONAL FIXED PUBLIC (23) MARITIME (80) PRIVATE LAND MOBILE (90)	
2160–2170 RADIOLOCATION  S5.93 S5.107	2160–2170 FIXED MOBILE	2160–2170 FIXED MOBILE	2160–2170 FIXED MOBILE  US340	2160–2170 FIXED MARITIME MOBILE LAND MOBILE  US340 NG19	AVIATION (87) INTERNATIONAL FIXED PUBLIC (23) MARITIME (80) PRIVATE LAND MOBILE (90)	
2170–2173.5 MARITIME MOBILE	2170–2173.5 MARITIME MOBILE	2170–2173.5 MARITIME MOBILE	2170–2173.5 MARITIME MOBILE (telephony)  US340	2170–2173.5 MARITIME MOBILE  US340	MARITIME (80)	
2173.5–2190.5 MOBILE (distress and calling)  S5.108 S5.109 S5.110 S5.111	2173.5–2190.5 MOBILE (distress and calling)  S5.108 S5.109 S5.110 S5.111	2173.5–2190.5 MOBILE (distress and calling)  S5.108 S5.109 S5.110 S5.111	2173.5–2190.5 MOBILE (distress and calling) S5.108 S5.109 S5.110 S5.111 US279 US340	2173.5–2190.5 MOBILE (distress and calling) S5.108 S5.109 S5.110 S5.111 US279 US340	AVIATION (87) MARITIME (80)	2182 kHz: distress and calling
2190.5–2194 MARITIME MOBILE	2190.5–2194 MARITIME MOBILE	2190.5–2194 MARITIME MOBILE	2190.5–2194 MARITIME MOBILE (telephony)  US340	2190.5–2194 MARITIME MOBILE  US340	MARITIME (80)	

International table			United States table		FCC use designators	
Region 1—allocation kHz	Region 2—allocation kHz	Region 3—allocation kHz	Government Allocation kHz	Non-Government Allocation kHz	Rule part(s)	Special-use frequencies
(1)	(2)	(3)	(4)	(5)	(6)	(7)
2194–2300 FIXED MOBILE except aeronautical mobile (R)	2194–2300 FIXED MOBILE	2194–2300 FIXED MOBILE	2194–2300 FIXED MOBILE	2194–2300 FIXED LAND MOBILE MARITIME MOBILE	AVIATION (87) INTERNATIONAL FIXED PUBLIC (23) MARITIME (80) PRIVATE LAND MOBILE (90)	
S5.92 S5.103 S5.112		S5.112	US340	US340 NG19		
2300–2495 FIXED MOBILE except aeronautical mobile (R) BROADCASTING S5.113	2300–2495 FIXED MOBILE BROADCASTING S5.113	2300–2495 FIXED MOBILE BROADCASTING S5.113	2300–2495 FIXED MOBILE	2300–2495 FIXED LAND MOBILE MARITIME MOBILE	AVIATION (87) INTERNATIONAL FIXED PUBLIC (23) MARITIME (80) PRIVATE LAND MOBILE (90)	
S5.103			US340	US340 NG19		
2495–2498 FIXED MOBILE except aeronautical mobile (R) BROADCASTING S5.113 S5.103	2495–2498 STANDARD FREQUENCY AND TIME SIGNAL (2500 kHz)	2495–2498 STANDARD FREQUENCY AND TIME SIGNAL (2500 kHz)	2495–2498 STANDARD FREQUENCY AND TIME SIGNAL (2500 kHz)	2495–2498 STANDARD FREQUENCY AND TIME SIGNAL		
			US340	US340		
2498–2501 STANDARD FREQUENCY AND TIME SIGNAL (2500 kHz)	2498–2501 STANDARD FREQUENCY AND TIME SIGNAL (2500 kHz)	2498–2501 STANDARD FREQUENCY AND TIME SIGNAL (2500 kHz)	2498–2501 STANDARD FREQUENCY AND TIME SIGNAL (2500 kHz) US340	2498–2501 STANDARD FREQUENCY AND TIME SIGNAL US340	2500 kHz: standard frequency	
2501–2502 STANDARD FREQUENCY AND TIME SIGNAL Space Research	2501–2502 STANDARD FREQUENCY AND TIME SIGNAL Space Research	2501–2502 STANDARD FREQUENCY AND TIME SIGNAL Space Research	2501–2502 STANDARD FREQUENCY AND TIME SIGNAL US340 G106	2501–2502 STANDARD FREQUENCY AND TIME SIGNAL US340		
2502–2505 FIXED MOBILE except aeronautical mobile (R) S5.92 S5.103 S5.114	2502–2505 STANDARD FREQUENCY AND TIME SIGNAL	2502–2505 STANDARD FREQUENCY AND TIME SIGNAL	2502–2505 STANDARD FREQUENCY AND TIME SIGNAL US340	2502–2505 STANDARD FREQUENCY AND TIME SIGNAL US340		
2505–2605 FIXED MOBILE except aeronautical mobile (R)	2505–2605 FIXED MOBILE	2505–2605 FIXED MOBILE	2505–2605 FIXED MOBILE	2505–2605 FIXED LAND MOBILE MARITIME MOBILE	AVIATION (87) INTERNATIONAL FIXED PUBLIC (23) MARITIME (80) PRIVATE LAND MOBILE (90)	

International table			United States table		FCC use designators	
Region 1—allocation kHz	Region 2—allocation kHz	Region 3—allocation kHz	Government	Non-Government	Rule part(s)	Special-use frequencies
(1)	(2)	(3)	Allocation kHz	Allocation kHz		
(1)	(2)	(3)	(4)	(5)	(6)	(7)
S5.92 S5.103 S5.114			US285 UA340	US285 US340		
2605–2625 FIXED MOBILE except aeronautical mobile (R)	2605–2625 FIXED MOBILE	2605–2625 FIXED MOBILE	2605–2625 FIXED MOBILE	2605–2625 FIXED LAND MOBILE MARITIME MOBILE US285 US340	AVIATION (87) INTERNATIONAL FIXED PUBLIC (23) MARITIME (80) PRIVATE LAND MOBILE (90)	
S5.92 S5.103 S5.114			US285 UA340	US285 US340		
2625–2650 MARITIME MOBILE MARITIME RADIO- NAVIGATION	2625–2650 FIXED MOBILE	2625–2650 FIXED MOBILE	2625–2650 FIXED MOBILE	2625–2650 FIXED LAND MOBILE MARITIME MOBILE US285 US340	AVIATION (87) INTERNATIONAL FIXED PUBLIC (23) MARITIME (80) PRIVATE LAND MOBILE (90)	
PS5.92			US285 UA340	US285 US340		
2650–2850 FIXED MOBILE except aeronautical mobile (R)	2650–2850 FIXED MOBILE	2650–2850 FIXED MOBILE	2650–2850 FIXED MOBILE US285 US340	2650–2850 FIXED LAND MOBILE MARITIME MOBILE US285 US340	AVIATION (87) INTERNATIONAL FIXED PUBLIC (23) MARITIME (80) PRIVATE LAND MOBILE (90)	
S5.92 S5.103			US285 UA340	US285 US340		
2850–3025 AERONAUTICAL MOBILE (R)	2850–3025 AERONAUTICAL MOBILE (R)	2850–3025 AERONAUTICAL MOBILE (R)	2850–3025 AERONAUTICAL MOBILE (R) S5.111 S5.115	2850–3025 AERONAUTICAL MOBILE (R) S5.111 S5.115 US283 US340	AVIATION (87)	
S5.111 S5.115	S5.111 S5.115	S5.111 S5.115	US283 US340	US340		
3025–3155 AERONAUTICAL MOBILE (OR)	3025–3155 AERONAUTICAL MOBILE (OR)	3025–3155 AERONAUTICAL MOBILE (OR)	3025–3155 AERONAUTICAL MOBILE (OR) US340	3025–3155 AERONAUTICAL MOBILE (OR) US340		
3155–3200 FIXED MOBILE except aeronautical mobile (R)	3155–3200 FIXED MOBILE except aeronautical mobile (R)	3155–3200 FIXED MOBILE except aeronautical mobile (R)	3155–3200 FIXED MOBILE except aeronautical mobile (R)	3155–3200 FIXED MOBILE except aeronautical mobile (R)	AVIATION (87) INTERNATIONAL FIXED PUBLIC (23) MARITIME (80) PRIVATE LAND MOBILE (90)	
S5.116 S5.117	S5.116	S5.116 S5.117	US340	US340		
3200–3230 FIXED MOBILE except aeronautical mobile (R) BROADCASTING S5.113	3200–3230 FIXED MOBILE except aeronautical mobile (R) BROADCASTING S5.113	3200–3230 FIXED MOBILE except aeronautical mobile (R) BROADCASTING S5.113	3200–3230 FIXED MOBILE except aeronautical mobile (R)	3200–3230 FIXED MOBILE except aeronautical mobile (R)	AVIATION (87) INTERNATIONAL FIXED PUBLIC (23) MARITIME (80) PRIVATE LAND MOBILE (90)	
S5.116	S5.116	S5.116	US340	US340		



International table			United States table		FCC use designators	
Region 1—allocation kHz	Region 2—allocation kHz	Region 3—allocation kHz	Government Allocation kHz	Non-Government Allocation kHz	Rule part(s)	Special-use frequencies
(1)	(2)	(3)	(4)	(5)	(6)	(7)
3230–3400 FIXED MOBILE except aeronautical mobile BROADCASTING S5.113  S5.116	3230–3400 FIXED MOBILE except aeronautical mobile BROADCASTING S5.113  S5.116 S5.118	3230–3400 FIXED MOBILE except aeronautical mobile BROADCASTING S5.113  S5.116 S5.118	3230–3400 FIXED MOBILE except aeronautical mobile Radiolocation  US340	3230–3400 FIXED MOBILE except aeronautical mobile Radiolocation  US340	AVIATION (87) INTERNATIONAL FIXED PUBLIC (23) MARITIME (80) PRIVATE LAND MOBILE (90)	
3400–3500 AERONAUTICAL MOBILE (R)	3400–3500 AERONAUTICAL MOBILE (R)	3400–3500 AERONAUTICAL MOBILE (R)	3400–3500 AERONAUTICAL MOBILE (R) US283 US340	3400–3500 AERONAUTICAL MOBILE (R) US283 US340	AVIATION (87)	
3500–3750 AMATEUR S5.120 FIXED MOBILE except aeronautical mobile S5.92	3500–3750 AMATEUR S5.120  S5.119	3500–3750 AMATEUR S5.120 FIXED MOBILE	3500–3750  US340	3500–3750 AMATEUR S5.120  US340	AMATEUR (97)	
3750–3800 AMATEUR S5.120 FIXED MOBILE except aeronautical mobile S5.92	3750–3800 AMATEUR S5.120 FIXED MOBILE except aeronautical mobile (R) S5.122	3750–3800 AMATEUR S5.120 FIXED MOBILE	3750–3800  US340	3750–3800 AMATEUR S5.120  US340	AMATEUR (97)	
3800–3900 FIXED AERONAUTICAL MOBILE (OR) LAND MOBILE	3800–3900 AMATEUR S5.120 FIXED MOBILE except aeronautical mobile (R) S5.122	3800–3900 AMATEUR S5.120 FIXED MOBILE	3800–3900  US340	3800–3900 AMATEUR S5.120  US340	AMATEUR (97)	
3900–3950 AERONAUTICAL MOBILE (OR)  S5.123	3900–3950 AMATEUR S5.120 FIXED MOBILE except aeronautical mobile (R) S5.122	3900–3950 AERONAUTICAL MOBILE BROADCASTING	3900–3950  US340	3900–3950 AMATEUR S5.120  US340	AMATEUR (97)	
3950–4000 FIXED BROADCASTING	3950–4000 AMATEUR S5.120 FIXED MOBILE except aeronautical mobile (R) S5.122 S5.124 S5.125	3950–4000 FIXED BROADCASTING  S5.125	3950–4000  US340	3950–4000 AMATEUR S5.120  US340	AMATEUR (97)	
4000–4063 FIXED MARITIME MOBILE S5.127	4000–4063 FIXED MARITIME MOBILE S5.127	4000–4063 FIXED MARITIME MOBILE S5.127  S5.126	4000–4063 MARITIME MOBILE  US236 US340	4000–4063 MARITIME MOBILE  US236 US340	INTERNATIONAL FIXED PUBLIC (23) MARITIME (80)	

International table			United States table		FCC use designators	
Region 1—allocation kHz	Region 2—allocation kHz	Region 3—allocation kHz	Government	Non-Government	Rule part(s)	Special-use frequencies
(1)	(2)	(3)	Allocation kHz	Allocation kHz		
(1)	(2)	(3)	(4)	(5)	(6)	(7)
4063–4438 MARITIME MOBILE S5.109 S5.110 S5.130 S5.131 S5.132 S5.128 S5.129	4063–4438 MARITIME MOBILE S5.109 S5.110 S5.130 S5.131 S5.132 S5.129	4063–4438 MARITIME MOBILE S5.109 S5.110 S5.130 S5.131 S5.132 S5.128 S5.129	4063–4438 MARITIME MOBILE S5.109 S5.110 S5.130 S5.132 US82 US296 US340	4063–4438 MARITIME MOBILE S5.109 S5.110 S5.130 S5.132 US82 US296 US340	INTERNATIONAL FIXED PUBLIC (23) MARITIME (80)	
4438–4650 FIXED MOBILE except aeronautical mobile (R)	4438–4650 FIXED MOBILE except aeronautical mobile (R)	4438–4650 FIXED MOBILE except aeronautical mobile	4438–4650 FIXED MOBILE except aeronautical mobile (R)  US340	4438–4650 FIXED MOBILE except aeronautical mobile (R)  US340	AVIATION (87) INTERNATIONAL FIXED PUBLIC (23) MARITIME (80) PRIVATE LAND MOBILE (90)	
4650–4700 AERONAUTICAL MOBILE (R)	4650–4700 AERONAUTICAL MOBILE (R)	4650–4700 AERONAUTICAL MOBILE (R)	4650–4700 AERONAUTICAL MOBILE (R) US282 US283 US340	4650–4700 AERONAUTICAL MOBILE (R) US282 US283 US340	AVIATION (87)	
4700–4750 AERONAUTICAL MOBILE (OR)	4700–4750 AERONAUTICAL MOBILE (OR)	4700–4750 AERONAUTICAL MOBILE (OR)	4700–4750 AERONAUTICAL MOBILE (OR) US340	4700–4750 AERONAUTICAL MOBILE (OR) US340		
4750–4850 FIXED AERONAUTICAL MOBILE (OR) LAND MOBILE BROADCASTING S5.113	4750–4850 FIXED MOBILE except aeronautical mobile (R) BROADCASTING S5.113	4750–4850 FIXED BROADCASTING S5.113 Land Mobile	4750–4850 FIXED MOBILE except aeronautical mobile (R)  US340	4750–4850 FIXED MOBILE except aeronautical mobile (R)  US340	AVIATION (87) INTERNATIONAL FIXED PUBLIC (23) MARITIME (80)	
4850–4995 FIXED LAND MOBILE BROADCASTING S5.113	4850–4995 FIXED LAND MOBILE BROADCASTING S5.113	4850–4995 FIXED LAND MOBILE BROADCASTING S5.113	4850–4995 FIXED MOBILE  US340	4850–4995 FIXED  US340	AVIATION (87) INTERNATIONAL FIXED PUBLIC (23) MARITIME (80)	
4995–5003 STANDARD FREQUENCY AND TIME SIGNAL (5000 kHz)	4995–5003 STANDARD FREQUENCY AND TIME SIGNAL (5000 kHz)	4995–5003 STANDARD FREQUENCY AND TIME SIGNAL (5000 kHz)	4995–5003 STANDARD FREQUENCY AND TIME SIGNAL (5000 kHz) US340	4995–5003 STANDARD FREQUENCY AND TIME SIGNAL  US340		5000 kHz: standard frequency
5003–5005 STANDARD FREQUENCY AND TIME SIGNAL Space Research	5003–5005 STANDARD FREQUENCY AND TIME SIGNAL Space Research	5003–5005 STANDARD FREQUENCY AND TIME SIGNAL Space Research	5003–5005 STANDARD FREQUENCY AND TIME SIGNAL  US340 G106	5003–5005 STANDARD FREQUENCY AND TIME SIGNAL  US340		
5005–5060 FIXED BROADCASTING S5.113	5005–5060 FIXED BROADCASTING S5.113	5005–5060 FIXED BROADCASTING S5.113	5005–5060 FIXED	5005–5060 FIXED	AVIATION (87) INTERNATIONAL FIXED PUBLIC (23) MARITIME (80) PRIVATE LAND MOBILE (90)	

International table			United States table		FCC use designators	
Region 1—allocation kHz	Region 2—allocation kHz	Region 3—allocation kHz	Government	Non-Government	Rule part(s)	Special-use frequencies
(1)	(2)	(3)	Allocation kHz	Allocation kHz		
(1)	(2)	(3)	(4)	(5)	(6)	(7)
			US340	US340		
5060–5250 FIXED MOBILE except aeronautical mobile	5060–5250 FIXED MOBILE except aeronautical mobile	5060–5250 FIXED MOBILE except aeronautical mobile	5060–5250 FIXED MOBILE except aeronautical mobile	5060–5250 FIXED MOBILE except aeronautical mobile	AVIATION (87) INTERNATIONAL FIXED PUBLIC (23) MARITIME (80) PRIVATE LAND MOBILE (90)	
S5.133			US212 US340	US212 US340		
5250–5450 FIXED MOBILE except aeronautical mobile	5250–5450 FIXED MOBILE except aeronautical mobile	5250–5450 FIXED MOBILE except aeronautical mobile	5250–5450 FIXED MOBILE except aeronautical mobile	5250–5450 FIXED MOBILE except aeronautical mobile	AVIATION (87) INTERNATIONAL FIXED PUBLIC (23) MARITIME (80) PRIVATE LAND MOBILE (90)	
			US340	US340		
5450–5480 FIXED AERONAUTICAL MOBILE (OR) LAND MOBILE	5450–5480 AERONAUTICAL MOBILE (R)	5450–5480 FIXED AERONAUTICAL MOBILE (OR) LAND MOBILE	5450–5480 AERONAUTICAL MOBILE (R)	5450–5480 AERONAUTICAL MOBILE (R)	AVIATION (87)	
			US283 US340	US283	US340	
5480–5680 AERONAUTICAL MOBILE (R)	5480–5680 AERONAUTICAL MOBILE (R)	5480–5680 AERONAUTICAL MOBILE (R)	5480–5680 AERONAUTICAL MOBILE (R)	5480–5680 AERONAUTICAL MOBILE (R)	AVIATION (87)	
S5.111 S5.115	S5.111 S5.115	S5.111 S5.115	S5.111 S5.115 US283 US340	S5.111 S5.115 US283 US340		
5680–5730 AERONAUTICAL MOBILE (OR)	5680–5730 AERONAUTICAL MOBILE (OR)	5680–5730 AERONAUTICAL MOBILE (OR)	5680–5730 AERONAUTICAL MOBILE (OR)	5680–5730 AERONAUTICAL MOBILE (OR)		
S5.111 S5.115	S5.111 S5.115	S5.111 S5.115	S5.111 S5.115 US340	S5.111 S5.115 US340		
5730–5900 FIXED LAND MOBILE	5730–5900 FIXED MOBILE except aeronautical mobile (R)	5730–5900 FIXED MOBILE except aeronautical mobile (R)	5730–5900 FIXED MOBILE except aeronautical mobile (R)	5730–5900 FIXED MOBILE except aeronautical mobile (R)	AVIATION (87) INTERNATIONAL FIXED PUBLIC (23) MARITIME (80)	
			US340	US340		
5900–5950 BROADCASTING S5.134 S5.135	5900–5950 BROADCASTING S5.134 S5.135	5900–5950 BROADCASTING S5.134 S5.135	5900–5950 FIXED MOBILE except aeronautical mobile (R)	5900–5950 FIXED MOBILE except aeronautical mobile (R)	AVIATION (87) INTERNATIONAL FIXED PUBLIC (23) MARITIME (80)	
S5.136	S5.136	S5.136	US340	US340		
5950–6200 BROADCASTING	5950–6200 BROADCASTING	5950–6200 BROADCASTING	5950–6200 BROADCASTING	5950–6200 BROADCASTING	RADIO BROADCAST (HF)(73)	
			US340	US340		

International table			United States table		FCC use designators	
Region 1—allocation kHz	Region 2—allocation kHz	Region 3—allocation kHz	Government	Non-Government	Rule part(s)	Special-use frequencies
(1)	(2)	(3)	Allocation kHz	Allocation kHz		
(1)	(2)	(3)	(4)	(5)	(6)	(7)
6200–6525 MARITIME MOBILE S5.109 S5.110 S5.130 S5.132 S5.137	6200–6525 MARITIME MOBILE S5.109 S5.110 S5.130 S5.132 S5.137	6200–6525 MARITIME MOBILE S5.109 S5.110 S5.130 S5.132 S5.137	6200–6525 MARITIME MOBILE S5.109 S5.110 S5.130 S5.132 US82 US296 US340	6200–6525 MARITIME MOBILE S5.109 S5.110 S5.130 S5.132 US82 US296 US340	MARITIME (80)	
6525–6685 AERONAUTICAL MOBILE (R)	6525–6685 AERONAUTICAL MOBILE (R)	6525–6685 AERONAUTICAL MOBILE (R)	6525–6685 AERONAUTICAL MOBILE (R) US283 US340	6525–6685 AERONAUTICAL MOBILE (R) US283 US340	AVIATION (87)	
6685–6765 AERONAUTICAL MOBILE (OR)	6685–6765 AERONAUTICAL MOBILE (OR)	6685–6765 AERONAUTICAL MOBILE (OR)	6685–6765 AERONAUTICAL MOBILE (OR) US340	6685–6765 AERONAUTICAL MOBILE (OR) US340		
6765–7000 FIXED LAND MOBILE S5.139  S5.138	6765–7000 FIXED LAND MOBILE  S5.138	6765–7000 FIXED LAND MOBILE  S5.138	6765–7000 FIXED MOBILE  S5.138 US340	6765–7000 FIXED MOBILE  S5.138 US340	AVIATION (87) INTERNATIONAL FIXED PUBLIC (23)	6780±15 kHz: industrial scientific, and medical
7000–7100 AMATEUR S5.120 AMATEUR-SATELLITE S5.140 S5.141	7000–7100 AMATEUR S5.120 AMATEUR-SATELLITE	7000–7100 AMATEUR S5.120 AMATEUR-SATELLITE	7000–7100  US340	7000–7100 AMATEUR S5.120 AMATEUR-SATELLITE US340	AMATEUR (97)	
7100–7300 BROADCASTING	7100–7300 AMATEUR S5.120 S5.142	7100–7300 BROADCASTING	7100–7300 S5.142 US340	7100–7300 AMATEUR S5.120 S5.142 US340	AMATEUR (97)	
7300–7350 BROADCASTING S5.134 S5.135  S5.143	7300–7350 BROADCASTING S5.134 S5.135  S5.143	7300–7350 BROADCASTING S5.134 S5.135  S5.143	7300–7350 FIXED MOBILE  US340	7300–7350 FIXED MOBILE  US340	AVIATION (87) INTERNATIONAL FIXED PUBLIC (23) MARITIME (80) PRIVATE LAND MOBILE (90)	
7350–8100 FIXED LAND MOBILE	7350–8100 FIXED LAND MOBILE	7350–8100 FIXED LAND MOBILE  S5.144	7350–8100 FIXED LAND MOBILE  US340	7350–8100 FIXED LAND MOBILE  US340	AVIATION (87) INTERNATIONAL FIXED PUBLIC (23) MARITIME (80) PRIVATE LAND MOBILE (90)	
8100–8195 FIXED MARITIME MOBILE	8100–8195 FIXED MARITIME MOBILE	8100–8195 FIXED MARITIME MOBILE	8100–8195 FIXED MARITIME MOBILE US236 US340	8100–8195 FIXED MARITIME MOBILE US236 US340	MARITIME (80)	
8195–8815 MARITIME MOBILE S5.109 S5.110 S5.132 S5.145	8195–8815 MARITIME MOBILE S5.109 S5.110 S5.132 S5.145	8195–8815 MARITIME MOBILE S5.109 S5.110 S5.132 S5.145	8195–8815 MARITIME MOBILE S5.109 S5.110 S5.132 S5.145 S5.111 US82 US296	8195–8815 MARITIME MOBILE S5.109 S5.110 S5.132 S5.145 S5.111 US82 US296	MARITIME (80)	

International table			United States table		FCC use designators	
Region 1—allocation kHz	Region 2—allocation kHz	Region 3—allocation kHz	Government	Non-Government	Rule part(s)	Special-use frequencies
(1)	(2)	(3)	Allocation kHz	Allocation kHz		
(1)	(2)	(3)	(4)	(5)	(6)	(7)
S5.111	S5.111	S5.111	US340	US340		
8815–8965 AERONAUTICAL MOBILE (R)	8815–8965 AERONAUTICAL MOBILE (R)	8815–8965 AERONAUTICAL MOBILE (R)	8815–8965 AERONAUTICAL MOBILE (R) US340	8815–8965 AERONAUTICAL MOBILE (R) US340	AVIATION (87)	
8965–9040 AERONAUTICAL MOBILE (OR)	8965–9040 AERONAUTICAL MOBILE (OR)	8965–9040 AERONAUTICAL MOBILE (OR)	8965–9040 AERONAUTICAL MOBILE (OR) US340	8965–9040 AERONAUTICAL MOBILE (OR) US340		
9040–9400 FIXED	9040–9400 FIXED	9040–9400 FIXED	9040–9400 FIXED  US340	9040–9400 FIXED  US340	INTERNATIONAL FIXED PUBLIC (23) Aviation (87)	
9400–9500 BROADCASTING S5.134 S5.135	9400–9500 BROADCASTING S5.134 S5.135	9400–9500 BROADCASTING S5.134 S5.135	9400–9500 FIXED	9400–9500 FIXED	INTERNATIONAL FIXED PUBLIC (23) MARITIME (80) Aviation (87)	
S5.146	S5.146	S5.146	US340	US340		
9500–9900 BROADCASTING	9500–9900 BROADCASTING	9500–9900 BROADCASTING	9500–9900 BROADCASTING	9500–9900 BROADCASTING	RADIO BROADCAST (HF) (73) INTERNATIONAL FIXED PUBLIC (23)	
S5.147 S5.148	S5.147 S5.148	S5.147 S5.148	S5.147 S5.148 US235 US340	S5.147 S5.148 US235 US340		
9900–9995 FIXED	9900–9995 FIXED	9900–9995 FIXED	9900–9995 FIXED  US340	9900–9995 FIXED  US340	AVIATION (87) INTERNATIONAL FIXED PUBLIC (23)	
9995–10003 STANDARD FRE- QUENCY AND TIME SIGNAL (10000 kHz) S5.111	9995–10003 STANDARD FRE- QUENCY AND TIME SIGNAL (10000 kHz) S5.111	9995–10003 STANDARD FRE- QUENCY AND TIME SIGNAL (10000 kHz) S5.111	9995–10003 STANDARD FRE- QUENCY AND TIME SIGNAL (10000 kHz) S5.111 US340	9995–10003 STANDARD FRE- QUENCY AND TIME SIGNAL S5.111 US340		10000 kHz: stand- ard frequency
10003–10005 STANDARD FRE- QUENCY AND TIME SIGNAL Space Research S5.111	10003–10005 STANDARD FRE- QUENCY AND TIME SIGNAL S5.111	10003–10005 STANDARD FRE- QUENCY AND TIME SIGNAL S5.111	10003–10005 STANDARD FRE- QUENCY AND TIME SIGNAL S5.111 US340	10003–10005 STANDARD FRE- QUENCY AND TIME SIGNAL S5.111 US340		
10005–10100 AERONAUTICAL MOBILE (R)  S5.111	10005–10100 AERONAUTICAL MOBILE (R) S5.111	10005–10100 AERONAUTICAL MOBILE (R) S5.111	10005–10100 AERONAUTICAL MOBILE (R) S5.111 US283 US340	10005–10100 AERONAUTICAL MOBILE (R) S5.111 US283 US340	10005–10100 AERONAUTICAL MOBILE (R)	AVIATION (87)
10100–10150 FIXED Amateur S5.120	10100–10150 FIXED Amateur S5.120	10100–10150 FIXED Amateur S5.120	10100–10150  US247 US340	10100–10150 AMATEUR S5.120  US247 US340	AMATEUR (97)	

International table			United States table		FCC use designators	
Region 1—allocation kHz	Region 2—allocation kHz	Region 3—allocation kHz	Government	Non-Government	Rule part(s)	Special-use frequencies
(1)	(2)	(3)	Allocation kHz	Allocation kHz		
(1)	(2)	(3)	(4)	(5)	(6)	(7)
10150–11175 FIXED MOBILE except aeronautical mobile (R)	10150–11175 FIXED MOBILE except aeronautical mobile (R)	1050–11175 FIXED MOBILE except aeronautical mobile (R)	10150–11175 FIXED MOBILE except aeronautical mobile (R) US340	10150–11175 FIXED MOBILE except aeronautical mobile (R) US340	AVIATION (87) INTERNATIONAL FIXED PUBLIC (23)	
11175–11275 AERONAUTICAL MOBILE (OR)	11175–11275 AERONAUTICAL MOBILE (OR)	11175–11275 AERONAUTICAL MOBILE (OR)	11175–11275 AERONAUTICAL MOBILE (OR) US340	11175–11275 AERONAUTICAL MOBILE (OR) US340		
11275–11400 AERONAUTICAL MOBILE (R)	11275–11400 AERONAUTICAL MOBILE (R)	11275–11400 AERONAUTICAL MOBILE (R)	11275–1140 AERONAUTICAL MOBILE (R) US283 US340	11275–11400 AERONAUTICAL MOBILE (R) US283 US340	AVIATION (87)	
11400–11600 FIXED	11400–11600 FIXED	11400–11600 FIXED	11400–11600 FIXED  US340	11400–11600 FIXED  US340	AVIATION (87) INTERNATIONAL FIXED PUBLIC (23)	
11600–11650 BROADCASTING S5.134 S5.135  S5.146	11600–11650 BROADCASTING S5.134 S5.135  S5.146	11600–11650 BROADCASTING S5.134 S5.135  S5.146	11600–11650 FIXED  US340	11600–11650 FIXED  US340	AVIATION (87) INTERNATIONAL FIXED PUBLIC (23)	
11650–12050 BROADCASTING  S5.147 S5.148	11650–12050 BROADCASTING  S5.147 S5.148	11650–12050 BROADCASTING  S5.147 S5.148	11650–12050 BROADCASTING  US235 US340	11650–12050 BROADCASTING  US235 US340	RADIO BROADCAST (HF)(73) INTERNATIONAL FIXED PUBLIC (23)	
12050–12100 BROADCASTING S5.134 S5.135  S5.146	12050–12100 BROADCASTING S5.134 S5.135  S5.146	12050–12100 BROADCASTING S5.134 S5.135  S5.146	12050–12100 FIXED  US340	12050–12100 FIXED  US340	AVIATION (87) INTERNATIONAL FIXED PUBLIC (23)	
12100–12230 FIXED	12100–12230 FIXED	12100–12230 FIXED	12100–12230 FIXED  US340	12100–12230 FIXED  US340	AVIATION (87) INTERNATIONAL FIXED PUBLIC (23)	
12230–13200 MARITIME MOBILE S5.109 S5.110 S5.132 S5.145	12230–13200 MARITIME MOBILE S5.109 S5.110 S5.132 S5.145	12230–13200 MARITIME MOBILE S5.109 S5.110 S5.132 S5.145	12230–13200 MARITIME MOBILE S5.109 S5.110 S5.132 S5.145 US82 US296 US340	12230–13200 MARITIME MOBILE S5.109 S5.110 S5.132 S5.145 US82 US296 US340	INTERNATIONAL FIXED PUBLIC (23) MARITIME (80)	
13200–13260 AERONAUTICAL MOBILE (OR)	13200–13260 AERONAUTICAL MOBILE (OR)	13200–13260 AERONAUTICAL MOBILE (OR)	13200–13260 AERONAUTICAL MOBILE (OR) US340	13200–13260 AERONAUTICAL MOBILE (OR) US340		
13260–13360 AERONAUTICAL MOBILE (R)	13260–13360 AERONAUTICAL MOBILE (R)	13260–13360 AERONAUTICAL MOBILE (R)	13260–13360 AERONAUTICAL MOBILE (R) US283 US340	13260–13360 AERONAUTICAL MOBILE (R) US283 US340	AVIATION (87)	

International table			United States table		FCC use designators	
Region 1—allocation kHz	Region 2—allocation kHz	Region 3—allocation kHz	Government	Non-Government	Rule part(s)	Special-use frequencies
(1)	(2)	(3)	Allocation kHz	Allocation kHz		
(1)	(2)	(3)	(4)	(5)	(6)	(7)
13360–13410 FIXED RADIO ASTRONOMY S5.149	13360–13410 FIXED RADIO ASTRONOMY S5.149	13360–13410 FIXED RADIO ASTRONOMY S5.149	13360–13410 RADIO ASTRONOMY S5.149 G115	13360–13410 RADIO ASTRONOMY S5.149		
13410–13570 FIXED MOBILE except aeronautical mobile (R) S5.150	13410–13570 FIXED MOBILE except aeronautical mobile (R) S5.150	13410–13570 FIXED MOBILE except aeronautical mobile (R) S5.150	13410–13570 FIXED MOBILE except aeronautical mobile (R) S5.150 US340	13410–13570 FIXED S5.150 US340	AVIATION (87) INTERNATIONAL FIXED PUBLIC (23)	13560±7 kHz: industrial, scientific and medical
13570–13600 BROADCASTING S5.134 S5.135  S5.151	13570–13600 BROADCASTING S5.134 S5.135  S5.151	13570–13600 BROADCASTING S5.134 S5.135  S5.151	13570–13600 FIXED Mobile except aeronautical mobile (R) US340	13570–13600 FIXED  US340	AVIATION (87) INTERNATIONAL FIXED PUBLIC (23)	
13600–13800   BROADCASTING S5.148	13600–13800   BROADCASTING S5.148	13600–13800   BROADCASTING S5.148	13600–13800   BROADCASTING S5.148 US340	13600–13800   BROADCASTING S5.148 US340	RADIO BROADCAST (HF) (73) INTERNATIONAL FIXED PUBLIC (23)	
13800–13870 BROADCASTING S5.134 S5.135  S5.151	13800–13870 BROADCASTING S5.134 S5.135  S5.151	13800–13870 BROADCASTING S5.134 S5.135  S5.151	13800–13870 FIXED Mobile except aeronautical mobile (R) US340	13800–13870 FIXED  US340	AVIATION (87) INTERNATIONAL FIXED PUBLIC (23)	
13870–14000 FIXED MOBILE except aeronautical mobile (R)	13870–14000 FIXED MOBILE except aeronautical mobile (R)	13870–14000 FIXED MOBILE except aeronautical mobile (R)	13870–14000 FIXED MOBILE except aeronautical mobile (R) US340	13870–14000 FIXED  US340	AVIATION (87) INTERNATIONAL FIXED PUBLIC (23)	
14000–14250 AMATEUR S5.120 AMATEUR-SATELLITE	14000–14250 AMATEUR S5.120 AMATEUR-SATELLITE	14000–14250 AMATEUR S5.120 AMATEUR-SATELLITE	14000–14250  US340	14000–14250 AMATEUR S5.120 AMATEUR-SATELLITE US340	AMATEUR (97)	
14250–14350 AMATEUR S5.120 S5.152	14250–14350 AMATEUR S5.120 S5.152	14250–14350 AMATEUR S5.120 S5.152	14250–14350 US340	14250–14350 AMATEUR S5.120 US340	AMATEUR (97)	
14350–14990 FIXED MOBILE except aeronautical mobile (R)	14350–14990 FIXED MOBILE except aeronautical mobile (R)	14350–14990 FIXED MOBILE except aeronautical mobile (R)	14350–14990 FIXED MOBILE except aeronautical mobile (R) US340	14350–14990 FIXED  US340	AVIATION (87) INTERNATIONAL FIXED PUBLIC (23)	
14990–15005 STANDARD FREQUENCY AND TIME SIGNAL (15000 kHz) S5.111	14990–15005 STANDARD FREQUENCY AND TIME SIGNAL (15000 kHz) S5.111	14990–15005 STANDARD FREQUENCY AND TIME SIGNAL (15000 kHz) S5.111	14990–15005 STANDARD FREQUENCY AND TIME SIGNAL (15000 kHz) S5.111 US340	14990–15005 STANDARD FREQUENCY AND TIME SIGNAL S5.111 US340		15000 kHz: standard frequency

International table			United States table		FCC use designators	
Region 1—allocation kHz	Region 2—allocation kHz	Region 3—allocation kHz	Government	Non-Government	Rule part(s)	Special-use frequencies
(1)	(2)	(3)	Allocation kHz	Allocation kHz		
(1)	(2)	(3)	(4)	(5)	(6)	(7)
15005–15010 STANDARD FREQUENCY AND TIME SIGNAL Space Research	15005–15010 STANDARD FREQUENCY AND TIME SIGNAL Space Research	15005–15010 STANDARD FREQUENCY AND TIME SIGNAL Space Research	15005–15010 STANDARD FREQUENCY AND TIME SIGNAL US340 G106	15005–15010 STANDARD FREQUENCY AND TIME SIGNAL US340		
15010–15100 AERONAUTICAL MOBILE (OR)	15010–15100 AERONAUTICAL MOBILE (OR)	15010–15100 AERONAUTICAL MOBILE (OR)	15010–15100 AERONAUTICAL MOBILE (OR) US340	15010–15100 AERONAUTICAL MOBILE (OR) US340		
15100–15600	15100–15600	15100–15600	15100–15600	15100–15600	RADIO BROADCAST (HF) (73) INTERNATIONAL FIXED PUBLIC (23)	
BROADCASTING S5.148	BROADCASTING S5.148	BROADCASTING S5.148	BROADCASTING S5.148 US340	BROADCASTING S5.148 US340		
15600–15800 BROADCASTING S5.134 S5.135	15600–15800 BROADCASTING S5.134 S5.135	15600–15800 BROADCASTING S5.134 S5.135	15600–15800 FIXED	15600–15800 FIXED	AVIATION (87) INTERNATIONAL PUBLIC FIXED (23)	
S5.146	S5.146	S5.146	US340	US340		
15800–16360 FIXED	15800–16360 FIXED	15800–16360 FIXED	15800–16360 FIXED	15800–16360 FIXED	AVIATION (87) INTERNATIONAL PUBLIC FIXED (23)	
S5.153	S5.153	S5.153	US340	US340		
16360–17410 MARITIME MOBILE S5.109 S5.110 S5.132 S5.145	16360–17410 MARITIME MOBILE S5.109 S5.110 S5.132 S5.145	16360–17410 MARITIME MOBILE S5.109 S5.110 S5.132 S5.145	16360–17410 MARITIME MOBILE S5.109 S5.110 S5.132 S5.145 US82 US296 US340	16360–17410 MARITIME MOBILE S5.109 S5.110 S5.132 S5.145 US82 US296 US340	MARITIME (80)	
17410–17480 FIXED	17410–17480 FIXED	17410–17480 FIXED	17410–17480 FIXED  US340	17410–17480 FIXED  US340	AVIATION (87) INTERNATIONAL PUBLIC FIXED (23)	
17480–17550 BROADCASTING S5.134 S5.135	17480–17550 BROADCASTING S5.134 S5.135	17480–17550 BROADCASTING S5.134 S5.135	17480–17550 FIXED	17480–17550 FIXED	AVIATION (87) INTERNATIONAL PUBLIC FIXED (23)	
S5.146	S5.146	S5.146	US340	US340		
17550–17900 BROADCASTING	17550–17900 BROADCASTING	17550–17900 BROADCASTING	17550–17900 BROADCASTING	17550–17900 BROADCASTING	RADIO BROADCAST (HF) (73) INTERNATIONAL FIXED PUBLIC (23)	
S5.148	S5.148	S5.148	S5.148 US340	S5.148 US340		
17900–17970 AERONAUTICAL MOBILE (R)	17900–17970 AERONAUTICAL MOBILE (R)	17900–17970 AERONAUTICAL MOBILE (R)	17900–17970 AERONAUTICAL MOBILE (R) US283 US340	17900–17970 AERONAUTICAL MOBILE (R) US283 US340	AVIATION (87)	



International table			United States table		FCC use designators	
Region 1—allocation kHz	Region 2—allocation kHz	Region 3—allocation kHz	Government	Non-Government	Rule part(s)	Special-use frequencies
(1)	(2)	(3)	Allocation kHz	Allocation kHz		
(1)	(2)	(3)	(4)	(5)	(6)	(7)
17970–18030 AERONAUTICAL MOBILE (OR)	17970–18030 AERONAUTICAL MOBILE (OR)	17970–18030 AERONAUTICAL MOBILE (OR)	17970–18030 AERONAUTICAL MOBILE (OR) US340	17970–18030 AERONAUTICAL MOBILE (OR) US340		
18030–18052 FIXED	18030–18052 FIXED	18030–18052 FIXED	18030–18052 FIXED  US340	18030–18052 FIXED  US340	INTERNATIONAL FIXED PUBLIC (23) MARITIME (80)	
18052–18068 FIXED space research	18052–18068 FIXED space research	18052–18068 FIXED space research	18052–18068 FIXED space research  US340	18052–18068 FIXED space research  US340	INTERNATIONAL FIXED PUBLIC (23) MARITIME (80)	
18068–18168 AMATEUR S5.120 AMATEUR-SAT- ELLITE  S5.154	18068–18168 AMATEUR S5.120 AMATEUR-SAT- ELLITE	18068–18168 AMATEUR S5.120 AMATEUR-SAT- ELLITE	18068–18168   US340	18068–18168 AMATEUR S5.120 AMATEUR-SAT- ELLITE  US340	AMATEUR (97) INTERNATIONAL FIXED PUBLIC (23) MARITIME (80)	
18168–18780 FIXED MOBILE except aeronautical mo- bile	18168–18780 FIXED MOBILE except aeronautical mobile	18168–18780 FIXED MOBILE except aeronautical mobile	18168–18780 FIXED MOBILE  US340	18168–18780 FIXED MOBILE  US340	AVIATION (87) INTERNATIONAL FIXED PUBLIC (23) MARITIME 80	
18780–18900 MARITIME MO- BILE	18780–18900 MARITIME MO- BILE	18780–18900 MARITIME MO- BILE	18780–18900 MARITIME MO- BILE  US82 US296 US340	18780–18900 MARITIME MO- BILE  US82 US296 US340	INTERNATIONAL FIXED PUBLIC (23) MARITIME (80)	
18900–19020 BROADCASTING S5.134 S5.135  S5.146	18900–19020 BROADCASTING S5.134 S5.135  S5.146	18900–19020 BROADCASTING S5.134 S5.135  S5.146	18900–19020 FIXED  US340	18900–19020 FIXED  US340	AVIATION (87) INTERNATIONAL FIXED PUBLIC (23)	
19020–19680 FIXED	19020–19680 FIXED	19020–19680 FIXED	19020–19680 FIXED  US340	19020–19680 FIXED  US340	AVIATION (87) INTERNATIONAL FIXED PUBLIC (23)	
19680–19800 MARITIME MO- BILE S5.132	19680–19800 MARITIME MO- BILE S5.132	19680–19800 MARITIME MO- BILE S5.132	19680–19800 MARITIME MO- BILE S5.132 US340	19680–19800 MARITIME MO- BILE S5.132 US340	MARITIME (80)	
19800–19900 FIXED	19800–19900 FIXED	19800–19900 FIXED	19800–19900 FIXED  US340	19800–19900 FIXED  US340	AVIATION (87) INTERNATIONAL FIXED PUBLIC (23)	

International table			United States table		FCC use designators	
Region 1—allocation kHz	Region 2—allocation kHz	Region 3—allocation kHz	Government	Non-Government	Rule part(s)	Special-use frequencies
(1)	(2)	(3)	Allocation kHz	Allocation kHz		
(1)	(2)	(3)	(4)	(5)	(6)	(7)
19900–19995 STANDARD FREQUENCY AND TIME SIGNAL space research S5.111	19900–19995 STANDARD FREQUENCY AND TIME SIGNAL space research S5.111	19900–19995 STANDARD FREQUENCY AND TIME SIGNAL space research S5.111	19900–19995 STANDARD FREQUENCY AND TIME SIGNAL space research S5.111 US340 G106	19900–19995 STANDARD FREQUENCY AND TIME SIGNAL space research S5.111 US340		
19995–20010 STANDARD FREQUENCY AND TIME SIGNAL (20000 kHz) S5.111	19995–20010 STANDARD FREQUENCY AND TIME SIGNAL (20000 kHz) S5.111	19995–20010 STANDARD FREQUENCY AND TIME SIGNAL (20000 kHz) S5.111	19995–20010 STANDARD FREQUENCY AND TIME SIGNAL  S5.111 US340 G106	19995–20010 STANDARD FREQUENCY AND TIME SIGNAL  S5.111 US 340		2000 kHz: STANDARD FREQUENCY
20010–21000 FIXED MOBILE	20010–21000 FIXED MOBILE	20010–21000 FIXED MOBILE	20010–21000 FIXED MOBILE US340	20010–21000 FIXED US340		
21000–21450 AMATEUR S5.120 AMATEUR-SATELLITE	21000–21450 AMATEUR S5.120 AMATEUR-SATELLITE	21000–21450 AMATEUR S5.120 AMATEUR-SATELLITE	21000–21450  US340	21000–21450 AMATEUR S5.120 AMATEUR-SATELLITE US340	AMATEUR (97)	
21450–21850 BROADCASTING  S5.148	21450–21850 BROADCASTING  S5.148	21450–21850 BROADCASTING  S5.148	21450–21850 BROADCASTING  S5.148 US340	21450–21850 BROADCASTING  S5.148 US340	INTERNATIONAL FIXED PUBLIC (23) RADIO BROADCAST (HF)(73)	
21850–21870 FIXED S5.155A  S5.155	21850–21870 FIXED  S5.155	21850–21870 FIXED  S5.155	21850–21870 FIXED  US340	21850–21870 FIXED  US340	AVIATION (87) INTERNATIONAL FIXED PUBLIC (23)	
21870–21924 FIXED S5.155B	21870–21924 FIXED S5.155B	21870–21924 FIXED S5.155B	21870–21924 FIXED  US340	21870–21924 FIXED  US340	AVIATION (87) INTERNATIONAL FIXED PUBLIC (23)	
21924–22000 AERONAUTICAL MOBILE (R)	21924–22000 AERONAUTICAL MOBILE (R)	21924–22000 AERONAUTICAL MOBILE (R)	21924–22000 AERONAUTICAL MOBILE (R) US340	21924–22000 AERONAUTICAL MOBILE (R) US340	AVIATION (87)	
22000–22855 MARITIME MOBILE S5.132  S5.156	22000–22855 MARITIME MOBILE S5.132	22000–22855 MARITIME MOBILE S5.132	22000–22855 MARITIME MOBILE S5.132  US82 US296 US340	22000–22855 MARITIME MOBILE S5.132  US82 US296 US340	INTERNATIONAL FIXED PUBLIC (23) MARITIME (80)	
22855–23000 FIXED	22855–23000 FIXED	22855–23000 FIXED	22855–23000 FIXED	22855–23000 FIXED	AVIATION (87) INTERNATIONAL FIXED PUBLIC (23)	

International table			United States table		FCC use designators	
Region 1—allocation kHz	Region 2—allocation kHz	Region 3—allocation kHz	Government	Non-Government	Rule part(s)	Special-use frequencies
(1)	(2)	(3)	Allocation kHz	Allocation kHz		
(1)	(2)	(3)	(4)	(5)	(6)	(7)
S5.156			US340	US340		
23000–23200 FIXED MOBILE except aeronautical mobile (R)	23000–23200 FIXED MOBILE except aeronautical mobile (R)	23000–23200 FIXED MOBILE except aeronautical mobile (R)	23000–23200 FIXED MOBILE except aeronautical mobile (R)	23000–23200 FIXED	AVIATION (87) INTERNATIONAL FIXED PUBLIC (23)	
S5.156			US340	US340		
23200–23350 AERONAUTICAL MOBILE (OR) FIXED S5.156A	23200–23350 AERONAUTICAL MOBILE (OR) FIXED S5.156A	23200–23350 AERONAUTICAL MOBILE (OR) FIXED S5.156A	23200–23350 AERONAUTICAL MOBILE (OR)	23200–23350 AERONAUTICAL MOBILE (OR)		
			US340	US340		
23350–24000 FIXED MOBILE except aeronautical mobile S5.157	23350–24000 FIXED MOBILE except aeronautical mobile S5.157	23350–24000 FIXED MOBILE except aeronautical mobile S5.157	23350–24000 FIXED MOBILE except aeronautical mobile	23350–24000 FIXED	AVIATION (87) INTERNATIONAL FIXED PUBLIC (23)	
			US340	US340		
24000–24890 FIXED LAND MOBILE	24000–24890 FIXED LAND MOBILE	24000–24890 FIXED LAND MOBILE	24000–24890 FIXED MOBILE except aeronautical mobile	24000–24890 FIXED	AVIATION (87) INTERNATIONAL FIXED PUBLIC (23)	
			US340	US340		
24890–24990 AMATEUR S5.120 AMATEUR-SAT-ELLITE	24890–24990 AMATEUR S5.120 AMATEUR-SAT-ELLITE	24890–24990 AMATEUR S5.120 AMATEUR-SAT-ELLITE	24890–24990	24890–24990 AMATEUR S5.120 AMATEUR-SAT-ELLITE	AMATEUR (97)	
			US340	US340		
24990–25005 STANDARD FREQUENCY AND TIME SIGNAL (25000 kHz)	24990–25005 STANDARD FREQUENCY AND TIME SIGNAL (25000 kHz)	24990–25005 STANDARD FREQUENCY AND TIME SIGNAL (25000 kHz)	24990–25005 STANDARD FREQUENCY AND TIME SIGNAL (25000 kHz)	24990–25005 STANDARD FREQUENCY AND TIME SIGNAL (25000 kHz)		25000 kHz: STANDARD FREQUENCY
			US340	US340		
25005–25010 STANDARD FREQUENCY AND TIME SIGNAL space research	25005–25010 STANDARD FREQUENCY AND TIME SIGNAL space research	25005–25010 STANDARD FREQUENCY AND TIME SIGNAL space research	25005–25010 STANDARD FREQUENCY AND TIME SIGNAL	25005–25010 STANDARD FREQUENCY AND TIME SIGNAL		
			US340 G106	US340		
25010–25070 FIXED MOBILE except aeronautical mobile	25010–25070 FIXED MOBILE except aeronautical mobile	25010–25070 FIXED MOBILE except aeronautical mobile	25010–25070	25010–25070 LAND MOBILE	PRIVATE LAND MOBILE (90)	
			US340	US340 NG112		
25070–25210 MARITIME MOBILE	25070–25210 MARITIME MOBILE	25070–25210 MARITIME MOBILE	25070–25210 MARITIME MOBILE	25070–25210 MARITIME MOBILE	MARITIME (80) PRIVATE LAND MOBILE (90)	
			US82 US281 US296 US340	US82 US281 US296 US340 NG112		

International table			United States table		FCC use designators	
Region 1—allocation kHz	Region 2—allocation kHz	Region 3—allocation kHz	Government	Non-Government	Rule part(s)	Special-use frequencies
(1)	(2)	(3)	Allocation kHz	Allocation kHz		
(1)	(2)	(3)	(4)	(5)	(6)	(7)
25210–25330 FIXED MOBILE except aeronautical mobile	25210–25330 FIXED MOBILE except aeronautical mobile	25210–25330 FIXED MOBILE except aeronautical mobile	25210–25330  US340	25210–25330 LAND MOBILE  US340	PRIVATE LAND MOBILE (90)	
25330–25550 FIXED MOBILE except aeronautical mobile	25330–25550 FIXED MOBILE except aeronautical mobile	25330–25550 FIXED MOBILE except aeronautical mobile	25330–25550 FIXED MOBILE except aeronautical mobile US340	25330–25550  US340		
25550–25670 RADIO ASTRONOMY S5.149	25550–25670 RADIO ASTRONOMY S5.149	25550–25670 RADIO ASTRONOMY S5.149	25550–25670 RADIO ASTRONOMY US74 S5.149	25550–25670 RADIO ASTRONOMY US74 S5.149		
25670–26100 BROADCASTING	25670–26100 BROADCASTING	25670–26100 BROADCASTING	25670–26100 BROADCASTING  US25 US340	25670–26100 BROADCASTING  US25 US340	RADIO BROADCAST (HF)(73) Remote Pickup (74D)	
26100–26175 MARITIME MOBILE S5.132	26100–26175 MARITIME MOBILE S5.132	26100–26175 MARITIME MOBILE S5.132	26100–26175 MARITIME MOBILE S5.132  US340	26100–26175 MARITIME MOBILE S5.132  US340	AUXILIARY BROADCASTING (74) MARITIME (80)	
26175–26480 FIXED MOBILE except aeronautical mobile	26175–26480 FIXED MOBILE except aeronautical mobile	26175–26480 FIXED MOBILE except aeronautical mobile	26175–26480  US340	26175–26480 LAND MOBILE  US340	AUXILIARY BROADCASTING (74)	
26480–26950 FIXED MOBILE except aeronautical mobile	26480–26950 FIXED MOBILE except aeronautical mobile	26480–26950 FIXED MOBILE except aeronautical mobile	26480–26950 FIXED MOBILE except aeronautical mobile US10 US340	26480–26950  US10 US340		
26950–26960 FIXED MOBILE except aeronautical mobile S5.150	26950–26960 FIXED MOBILE except aeronautical mobile S5.150	26950–26960 FIXED MOBILE except aeronautical mobile S5.150	26950–26960  S5.150 US340	26950–26960 FIXED  S5.150 US340	INTERNATIONAL FIXED PUBLIC (23)	
26960–27230 FIXED MOBILE except aeronautical mobile S5.150	26960–27230 FIXED MOBILE except aeronautical mobile S5.150	26960–27230 FIXED MOBILE except aeronautical mobile S5.150	26960–27230  S5.150 US340	26960–27230 MOBILE except aeronautical mobile S5.150 US340	PERSONAL (95)	27120±163 kHz: industrial, scientific and medical
27230–27410 FIXED MOBILE except aeronautical mobile S5.150	27230–27410 FIXED MOBILE except aeronautical mobile S5.150	27230–27410 FIXED MOBILE except aeronautical mobile S5.150	27230–27410  S5.150 US340	27230–27410 FIXED MOBILE except aeronautical mobile S5.150 US340	PERSONAL (95) PRIVATE LAND MOBILE (90)	

International table			United States table		FCC use designators	
Region 1—allocation kHz	Region 2—allocation kHz	Region 3—allocation kHz	Government Allocation kHz	Non-Government Allocation kHz	Rule part(s)	Special-use frequencies
(1)	(2)	(3)	(4)	(5)	(6)	(7)
27410–27500 FIXED MOBILE except aeronautical mobile	27410–27500 FIXED MOBILE except aeronautical mobile	27410–27500 FIXED MOBILE except aeronautical mobile	27410–27500  US340	27410–27500 FIXED LAND MOBILE  US340	PRIVATE LAND MOBILE (90)	
27.5–27.54 METEOROLOGICAL AIDS FIXED MOBILE	27.5–27.54 METEOROLOGICAL AIDS FIXED MOBILE	27.5–27.54 METEOROLOGICAL AIDS FIXED MOBILE	27.5–27.54  US340	27.5–27.54 FIXED LAND MOBILE  US340	PRIVATE LAND MOBILE (90)	
27.54–28 METEOROLOGICAL AIDS FIXED MOBILE	27.54–28 METEOROLOGICAL AIDS FIXED MOBILE	27.54–28 METEOROLOGICAL AIDS FIXED MOBILE	27.54–28 FIXED LAND MOBILE  US298 US340	27.54–28  US298 US340		
28–29.7 AMATEUR AMATEUR-SATELLITE	28–29.7 AMATEUR AMATEUR-SATELLITE	28–29.7 AMATEUR AMATEUR-SATELLITE	28–29.7  US340	28–29.7 AMATEUR AMATEUR-SATELLITE US340	AMATEUR (97)	
29.7–29.8 FIXED MOBILE	29.7–29.8 FIXED MOBILE	29.7–29.8 FIXED MOBILE	29.7–29.8  US340	29.7–29.8 LAND MOBILE  US340	PRIVATE LAND MOBILE (90)	
29.8–29.89 FIXED MOBILE	29.8–29.89 FIXED MOBILE	29.8–29.89 FIXED MOBILE	29.8–29.89  US340	29.8–29.89 FIXED  US340	AVIATION (87) INTERNATIONAL FIXED PUBLIC (23)	
29.89–29.91 FIXED MOBILE	29.89–29.91 FIXED MOBILE	29.89–29.91 FIXED MOBILE	29.89–29.91 FIXED MOBILE US340	29.89–29.91  US340		
29.91–30 FIXED MOBILE	29.91–30 FIXED MOBILE	29.91–30 FIXED MOBILE	29.91–30  US340	29.91–30 FIXED  US340	AVIATION (87) INTERNATIONAL FIXED PUBLIC (23)	
*	*	*	*	*	*	*
158.115–161.575 FIXED MOBILE except aeronautical mobile S5.226 S5.229	158.115–161.575 FIXED MOBILE S5.226 S5.230 S5.231 S5.232	158.115–161.575 FIXED MOBILE S5.226 S5.230 S5.231 S5.232	158.115–161.575  S5.226	158.115–161.575 FIXED LAND MOBILE S5.226 NG6 NG28 NG70 NG112 NG124 NG148 NG155	PUBLIC MOBILE (22) PRIVATE LAND MOBILE (90) MARITIME (80)	
*	*	*	*	*	*	*

**International Footnotes**

\* \* \* \* \*

**I. New "S" Numbering Scheme**

\* \* \* \* \*

S5.92 Some countries of Region 1 use radiodetermination systems in the bands 1606.5–1625 kHz, 1635–1800 kHz, 1850–2160 kHz, 2194–2300 kHz, 2502–2850 kHz and 3500–3800 kHz, subject to agreement obtained under Article 14/No. S9.21. The radiated mean power of these stations shall not exceed 50W.

S5.93 *Additional allocation:* in Angola, Armenia, Azerbaijan, Belarus, Bulgaria, Georgia, Hungary, Kazakhstan, Latvia, Lithuania, Moldova, Mongolia, Nigeria, Uzbekistan, Poland, Kyrgyzstan, Slovakia, the Czech Republic, Russia, Tajikistan, Chad, Turkmenistan and Ukraine, the bands 1625–1635 kHz, 1800–1810 kHz and 2160–2170 kHz are also allocated to the fixed and land mobile services on a primary basis, subject to agreement obtained under Article 14/No. S9.21.

S5.103 In Region 1, in making assignments to stations in the fixed and mobile services in the bands 1850–2045 kHz, 2194–2498 kHz, 2502–2625 kHz and 2650–2850 kHz, administrations should bear in mind the special requirements of the maritime mobile service.

S5.104 In Region 1, the use of the band 2025–2045 kHz by the meteorological aids service is limited to oceanographic buoy stations.

S5.105 In Region 2, except in Greenland, coast stations and ship stations using radiotelephony in the band 2065–2107 kHz shall be limited to class J3E emissions and to a peak envelope power not exceeding 1kW. Preferably, the following carrier frequencies should be used: 2065.0 kHz, 2079.0 kHz, 2082.5 kHz, 2086.0 kHz, 2093.0 kHz, 2096.5 kHz, 2100.0 kHz and 2103.5 kHz. In Argentina and Uruguay, the carrier frequencies 2068.5 kHz and 2075.5 kHz are also used for this purpose, while the frequencies within the band 2072–2075.5 kHz are used as provided in No. 4323BD/S52.165.

S5.106 In Regions 2 and 3, provided no harmful interference is caused to the maritime mobile service, the frequencies between 2065 kHz and 2107 kHz may be used by stations of the fixed service communicating only within national borders and whose mean power does not exceed 50 W. In notifying the frequencies, the attention of the Bureau should be drawn to these provisions.

S5.107 *Additional allocation:* in Saudi Arabia, Botswana, Eritrea, Ethiopia, Iraq, Lesotho, Libya, Malawi, Somalia, Swaziland and Zambia, the band 2160–2170 kHz is also allocated to the fixed and mobile, except aeronautical mobile (R), services on a primary basis. The mean power of stations in these services shall not exceed 50 W.

S5.108 The carrier frequency 2182 kHz is an international distress and calling frequency for radiotelephony. The conditions for the use of the band 2173.5–2190.5 kHz are prescribed in Articles N38/S31 and 60/S52 and in Articles 37 and 38/Appendix S13.

S5.109 The frequencies 2187.5 kHz, 4207.5 kHz, 6312 kHz, 8414.5 kHz, 12577

kHz and 16804.5 kHz are international distress frequencies for digital selective calling. The conditions for the use of these frequencies are prescribed in Article N38/S31.

S5.110 The frequencies 2174.5 kHz, 4177.5 kHz, 6268 kHz, 8376.5 kHz, 12520 kHz and 16695 kHz are international distress frequencies for narrow-band direct-printing telegraphy. The conditions for the use of these frequencies are prescribed in Article N38/S31.

S5.111 The carrier frequencies 2182 kHz, 3023 kHz, 5680 kHz, 8364 kHz and the frequencies 121.5 MHz, 156.8 MHz and 243 MHz may also be used, in accordance with the procedures in force for terrestrial radiocommunication services, for search and rescue operations concerning manned space vehicles. The conditions for the use of the frequencies are prescribed in Article N38/S31 and in Article 38/Appendix S13.

The same applies to the frequencies 10003 kHz, 14993 kHz and 19993 kHz, but in each of these cases emissions must be confined in a band of  $\pm 3$  kHz about the frequency.

S5.112 *Alternative allocation:* in Belgium, Bosnia and Herzegovina, Cyprus, Denmark, Spain, France, Greece, Iceland, Italy, Malta, Norway, the United Kingdom, Singapore, Sri Lanka, Turkey and Yugoslavia, the band 2194–2300 kHz is allocated to the fixed and mobile, except aeronautical mobile, services on a primary basis.

S5.113 For the conditions for the use of the bands 2300–2495 kHz (2498 kHz in Region 1), 3200–3400 kHz, 4750–4995 kHz and 5005–5060 kHz by the broadcasting service, see Nos. S5.16 to S5.20, S5.21 and 2666/S23.3 to 2673/S23.10.

S5.114 *Alternative allocation:* in Belgium, Bosnia and Herzegovina, Cyprus, Denmark, Spain, France, Greece, Iraq, Italy, Malta, Norway, the United Kingdom, Turkey and Yugoslavia, the band 2502–2625 kHz is allocated to the fixed and mobile, except aeronautical mobile, services on a primary basis.

S5.115 The carrier (reference) frequencies 3023 kHz and 5680 kHz may also be used, in accordance with Article N38/S31 and Article 38/Appendix S13 by stations of the maritime mobile service engaged in coordinated search and rescue operations.

S5.116 Administrations are urged to authorize the use of the band 3155–3195 kHz to provide a common worldwide channel for low power wireless hearing aids. Additional channels for these devices may be assigned by administrations in the bands between 3155 kHz and 3400 kHz to suit local needs.

It should be noted that frequencies in the range 3000 kHz to 4000 kHz are suitable for hearing aid devices which are designed to operate over short distances within the induction field.

S5.117 *Alternative allocation:* in Belgium, Bosnia and Herzegovina, Cameroon, Cyprus, Côte d'Ivoire, Denmark, Egypt, Spain, France, Greece, Iceland, Italy, Liberia, Malta, Norway, the United Kingdom, Singapore, Sri Lanka, Togo, Turkey and Yugoslavia, the band 3155–3200 kHz is allocated to the fixed and mobile, except aeronautical mobile, services on a primary basis.

S5.118 *Additional allocation:* in the United States, Japan, Mexico, Peru and Uruguay, the band 3230–3400 kHz is also allocated to the radiolocation service on a secondary basis.

S5.119 *Additional allocation:* in Honduras, Mexico, Peru and Venezuela, the band 3500–3750 kHz is also allocated to the fixed and mobile services on a primary basis.

S5.120 For the use of the bands allocated to the amateur service at 3.5 MHz, 7.0 MHz, 10.1 MHz, 14.0 MHz, 18.068 MHz, 21.0 MHz, 24.89 MHz and 144 MHz in the event of natural disasters, see Resolution 640.

S5.122 *Alternative allocation:* in Argentina, Bolivia, Chile, Ecuador, Paraguay, Peru and Uruguay, the band 3750–4000 kHz is allocated to the fixed and mobile, except aeronautical mobile, services on a primary basis.

S5.123 *Additional allocation:* in Botswana, Lesotho, Malawi, Mozambique, Namibia, South Africa, Swaziland, Zambia and Zimbabwe, the band 3900–3950 kHz is also allocated to the broadcasting service on a primary basis, subject to agreement obtained under Article 14/No. S9.21.

S5.124 *Additional allocation:* in Canada, the band 3950–4000 kHz is also allocated to the broadcasting service on a primary basis. The power of broadcasting stations operating in this band shall not exceed that necessary for a national service within the frontier of this country and shall not cause harmful interference to other services operating in accordance with the Table.

S5.125 *Additional allocation:* in Greenland, the band 3950–4000 kHz is also allocated to the broadcasting service on a primary basis. The power of the broadcasting stations operating in this band shall not exceed that necessary for a national service and shall in no case exceed 5 kW.

S5.126 In Region 3, the stations of those services to which the band 3995–4005 kHz is allocated may transmit standard frequency and time signals.

S5.127 The use of the band 4000–4063 kHz by the maritime mobile service is limited to ship stations using radiotelephony (see No. 4374/S52.220 and Appendix 16/S17).

S5.128 In Afghanistan, Argentina, Armenia, Australia, Azerbaijan, Belarus, Botswana, Burkina Faso, Central African Republic, China, Georgia, India, Kazakhstan, Mali, Moldova, Niger, Kyrgyzstan, Russia, Tajikistan, Chad, Turkmenistan and Ukraine, in the bands 4063–4123 kHz, 4130–4133 kHz and 4408–4438 kHz, stations of limited power in the fixed service which are situated at least 600 km from the coast may operate on condition that harmful interference is not caused to the maritime mobile service.

S5.129 On condition that harmful interference is not caused to the maritime mobile service, the frequencies in the bands 4063–4123 kHz and 4130–4438 kHz may be used exceptionally by stations in the fixed service communicating only within the boundary of the country in which they are located with a mean power not exceeding 50 W.

S5.130 The conditions for the use of the carrier frequencies 4125 kHz and 6215 kHz are prescribed in Articles N38/S31 and 60/S52 and in Articles 37 and 38/Appendix S13.

S5.131 The frequency 4209.5 kHz is used exclusively for the transmission by coast stations of meteorological and navigational warnings and urgent information to ships by means of narrow-band direct-printing techniques (see Resolution 339 WRC-95).

S5.132 The frequencies 4210 kHz, 6314 kHz, 8416.5 kHz, 12579 kHz, 16806.5 kHz, 19680.5 kHz, 22376 kHz and 26100.5 kHz are the international frequencies for the transmission of Maritime Safety Information (MSI) (see Resolution 333 (Mob-87) and Appendix 31/S17).

S5.133 *Different category of service:* in Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Latvia, Lithuania, Moldova, Uzbekistan, Kyrgyzstan, Russia, Tajikistan, Turkmenistan and Ukraine, the allocation of the band 5130–5250 kHz to the mobile, except aeronautical mobile, service is on a primary basis (see No. S5.33).

S5.134 The use of the bands 5900–5950 kHz, 7300–7350 kHz, 9400–9500 kHz, 11600–11650 kHz, 12050–12100 kHz, 13570–13600 kHz, 13800–13870 kHz, 15600–15800 kHz, 17480–17550 kHz and 18900–19020 kHz by the broadcasting service is limited to single-sideband emissions with the characteristics specified in Appendix 45/S11 to the Radio Regulations.

S5.135 The use of the bands 5900–5950 kHz, 7300–7350 kHz, 9400–9500 kHz, 11600–11650 kHz, 12050–12100 kHz, 13570–13600 kHz, 13800–13870 kHz, 15600–15800 kHz, 17480–17550 kHz and 18900–19020 kHz by the broadcasting service shall be subject to the planning procedures to be drawn up by a competent world administrative radio conference.

S5.136 The band 5900–5950 kHz is allocated, until 1 April 2007, to the fixed service on a primary basis, as well as to the following services: in Region 1 to the land mobile service on a primary basis, in Region 2 to the mobile except aeronautical mobile (R) service on a primary basis, and in Region 3 to the mobile except aeronautical mobile (R) service on a secondary basis, subject to application of the procedure referred to in Resolution 21 (Rev.WRC-95). After 1 April 2007, frequencies in this band may be used by stations in the above-mentioned services, communicating only within the boundary of the country in which they are located, on the condition that harmful interference is not caused to the broadcasting service. When using frequencies for these services, administrations are urged to use the minimum power required and to take account of the seasonal use of frequencies by the broadcasting service published in accordance with the Radio Regulations.

S5.137 On condition that harmful interference is not caused to the maritime mobile service, the bands 6200–6213.5 kHz and 6220.5–6525 kHz may be used exceptionally by stations in the fixed service, communicating only within the boundary of the country in which they are located, with a mean power not exceeding 50 W. At the time of notification of these frequencies, the attention of the Bureau will be drawn to the above conditions.

S5.138 The following bands:

6765–6795 kHz (centre frequency 6780 kHz),  
433.05–434.79 MHz (centre frequency 433.92 MHz) in Region 1 except in the countries mentioned in No. S5.280,  
61–61.5 GHz (centre frequency 61.25 GHz),  
122–123 GHz (centre frequency 122.5 GHz),  
and  
244–246 GHz (centre frequency 245 GHz)  
are designated for industrial, scientific and medical (ISM) applications. The use of these frequency bands for ISM applications shall be subject to special authorization by the administration concerned, in agreement with other administrations whose radiocommunication services might be affected. In applying this provision, administrations shall have due regard to the latest relevant ITU-R Recommendations.

S5.139 *Different category of service:* in Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Latvia, Lithuania, Moldova, Mongolia, Uzbekistan, Kyrgyzstan, Russia, Tajikistan, Turkmenistan and Ukraine, the allocation of the band 6765–7000 kHz to the land mobile service is on a primary basis (see No. S5.33).

S5.140 *Additional allocation:* in Angola, Iraq, Rwanda, Somalia and Togo, the band 7000–7050 kHz is also allocated to the fixed service on a primary basis.

S5.141 *Alternative allocation:* in Egypt, Eritrea, Ethiopia, Guinea, Libya, Madagascar and Malawi, the band 7000–7050 kHz is allocated to the fixed service on a primary basis.

S5.142 The use of the band 7100–7300 kHz in Region 2 by the amateur service shall not impose constraints on the broadcasting service intended for use within Region 1 and Region 3.

S5.143 The band 7300–7350 kHz is allocated, until 1 April 2007, to the fixed service on a primary basis and to the land mobile service on a secondary basis, subject to application of the procedure referred to in Resolution 21 (Rev. WRC-95). After 1 April 2007, frequencies in this band may be used by stations in the above-mentioned services, communicating only within the boundary of the country in which they are located, on condition that harmful interference is not caused to the broadcasting service. When using frequencies for these services, administrations are urged to use the minimum power required and to take account of the seasonal use of frequencies by the broadcasting service published in accordance with the Radio Regulations.

S5.144 In Region 3, the stations of those services to which the band 7995–8005 kHz is allocated may transmit standard frequency and time signals.

S5.145 The conditions for the use of the carrier frequencies 8291 kHz, 12290 kHz and 16420 kHz are prescribed in Articles N38/S31 and 60/S52 and in Article 38/Appendix S13.

S5.146 The bands 9400–9500 kHz, 11600–11650 kHz, 12050–12100 kHz, 15600–15800 kHz, 17480–17550 kHz and 18900–19020 kHz are allocated to the fixed service on a primary basis until 1 April 2007, subject to application of the procedure referred to in Resolution 21 (Rev. WRC-95). After 1 April

2007, frequencies in these bands may be used by stations in the fixed service, communicating only within the boundary of the country in which they are located, on condition that harmful interference is not caused to the broadcasting service. When using frequencies in the fixed service, administrations are urged to use the minimum power required and to take account of the seasonal use of frequencies by the broadcasting service published in accordance with the Radio Regulations.

S5.147 On condition that harmful interference is not caused to the broadcasting service, frequencies in the bands 9775–9900 kHz, 11650–11700 kHz and 11975–12050 kHz may be used by stations in the fixed service communicating only within the boundary of the country in which they are located, each station using a total radiated power not exceeding 24 dBW.

S5.148 The bands 9775–9900 kHz, 11650–11700 kHz, 11975–12050 kHz, 13600–13800 kHz, 15450–15600 kHz, 17550–17700 kHz and 21750–21850 kHz are allocated to the fixed service on a primary basis subject to the procedure described in Resolution 8. The use of these bands by the broadcasting service shall be subject to provisions established by the World Administrative Radio Conference for the Planning of the HF Bands Allocated to the Broadcasting Service (see Resolution 508). The provisions of Resolution 512 (HFBC-87) also apply. Within these bands, the date of commencement of operations in the broadcasting service on a planned channel shall not be earlier than the date of completion of satisfactory transfer, according to the procedures described in Resolution 8, of all assignments to stations in the fixed service operating in accordance with the Table and other provisions of the Radio Regulations, which are recorded in the Master Register and which may be affected by broadcasting operations on that channel.

\* \* \* \* \*

S5.151 The bands 13570–13600 kHz and 13800–13870 kHz are allocated, until 1 April 2007, to the fixed service on a primary basis and to the mobile except aeronautical mobile (R) service on a secondary basis, subject to application of the procedure referred to in Resolution 21 (Rev.WRC-95). After 1 April 2007, frequencies in these bands may be used by stations in the above-mentioned services, communicating only within the boundary of the country in which they are located, on the condition that harmful interference is not caused to the broadcasting service. When using frequencies in these services, administrations are urged to use the minimum power required and to take account of the seasonal use of frequencies by the broadcasting service published in accordance with the Radio Regulations.

S5.152 *Additional allocation:* in Armenia, Azerbaijan, Belarus, China, Côte d'Ivoire, Georgia, the Islamic Republic of Iran, Kazakhstan, Moldova, Uzbekistan, Kyrgyzstan, Russia, Tajikistan, Turkmenistan and Ukraine, the band 14250–14350 kHz is also allocated to the fixed service on a primary basis. Stations of the fixed service shall not use a radiated power exceeding 24 dBW.

S5.153 In Region 3, the stations of those services to which the band 15995–16005 kHz

is allocated may transmit standard frequency and time signals.

S5.154 *Additional allocation:* in Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Moldova, Uzbekistan, Kyrgyzstan, Russia, Tajikistan, Turkmenistan and Ukraine, the band 18068–18168 kHz is also allocated to the fixed service on a primary basis for use within their boundaries, with a peak envelope power not exceeding 1 kW.

S5.155 *Additional allocation:* in Armenia, Azerbaijan, Belarus, Bulgaria, Georgia, Hungary, Kazakhstan, Moldova, Mongolia, Uzbekistan, Kyrgyzstan, Slovakia, the Czech Republic, Russia, Tajikistan, Turkmenistan and Ukraine, the band 21850–21870 kHz is also allocated to the aeronautical mobile (R) services on a primary basis.

S5.155A In Armenia, Azerbaijan, Belarus, Bulgaria, Georgia, Hungary, Kazakhstan, Moldova, Mongolia, Uzbekistan, Kyrgyzstan, Slovakia, the Czech Republic, Russia, Tajikistan, Turkmenistan and Ukraine, the use of the band 21850–21870 kHz by the fixed service is limited to provision of services related to aircraft flight safety.

S5.155B The band 21870–21924 kHz is used by the fixed service for provision of services related to aircraft flight safety.

S5.156 *Additional allocation:* in Nigeria, the band 22720–23200 kHz is also allocated to the meteorological aids service (radiosondes) on a primary basis.

S5.156A The use of the band 23200–23350 kHz by the fixed service is limited to provision of services related to aircraft flight safety.

S5.157 The use of the band 23350–24000 kHz by the maritime mobile service is limited to inter-ship radiotelegraphy.

S5.226 The frequency 156.8 MHz is the international distress, safety and calling frequency for the maritime mobile VHF radiotelephone service. The conditions for the use of this frequency are contained in Article N38/S31 and Article 38/Appendix S13.

In the bands 156–156.7625 MHz, 156.8375–157.45 MHz, 160.6–160.975 MHz and 161.475–162.05 MHz, each administration shall give priority to the maritime mobile service on only such frequencies as are assigned to stations of the maritime mobile service by the administration (see Articles N38/S31 and 60/S52 and Article 38/Appendix S13).

Any use of frequencies in these bands by stations of other services to which they are allocated should be avoided in areas where such use might cause harmful interference to the maritime mobile VHF radiocommunication service.

However, the frequency 156.8 MHz and the frequency bands in which priority is given to the maritime mobile service may be used for radiocommunications on inland waterways subject to agreement between interested and affected administrations and taking into account current frequency usage and existing agreements.

S5.229 *Alternative allocation:* in Morocco, the band 162–174 MHz is allocated to the broadcasting service on a primary basis. The use of this band shall be subject

to agreement with administrations having services, operating or planned, in accordance with the Table which are likely to be affected. Stations in existence on 1 January 1981, with their technical characteristics as of that date, are not affected by such agreement.

\* \* \* \* \*

#### United States (US) Footnotes

\* \* \* \* \*

US340 The 2–30 MHz band is available on a secondary noninterference basis to Government and non-Government maritime and aeronautical stations for the purposes of measuring the quality of reception on radio channels. See 47 C.F.R. § 87.149 for the list of protected frequencies and bands within this frequency range. Actual communications shall be limited to those frequencies specifically allocated to the maritime mobile and aeronautical mobile services.

\* \* \* \* \*

#### Non-Government (NG) Footnotes

\* \* \* \* \*

NG155 The bands 159.500–159.675 MHz and 161.375–161.550 MHz are allocated to the maritime service as described in Part 80 of this chapter. Additionally, the frequencies 159.550, 159.575 and 159.600 MHz are available for low-power intership communications.

\* \* \* \* \*

### PART 80—STATIONS IN THE MARITIME SERVICES

5. The authority citation for part 80 continues to read as follows:

**Authority:** Secs. 4, 303, 48 Stat. 1066, 1082, as amended; 47 U.S.C. 154, 303, unless otherwise noted. Interpret or apply 48 Stat. 1064–1068, 1081–1105, as amended; 47 U.S.C. 151–155, 301–609; 3 UST 3450, 3 UST 4726, 12 UST 2377.

6. Amend § 80.13 by revising paragraph (b) to read as follows:

#### § 80.13 Station license required.

\* \* \* \* \*

(b) One ship station license will be granted for operation of all maritime services transmitting equipment on board a vessel. Radiotelegraph and narrow-band directing-printing equipment will not be authorized, however, unless specifically requested by the applicant.

\* \* \* \* \*

7. Amend § 80.25 by revising paragraphs (a) and (b) to read as follows:

#### § 80.25 License term.

(a) Licenses for ship stations in the maritime services will normally be issued for a term of ten years from the date of original issuance, major modification, or renewal. Licensees may apply for renewal of the station license up to ninety (90) days after the date the license expires.

(b) Licenses other than ship stations in the maritime services will normally be issued for a term of five years from the date of original issuance, major modification, or renewal. Licenses, other than Public Coast and Alaska Public Fixed stations, may be renewed up to ninety (90) days after the date the license expires.

\* \* \* \* \*

8. Amend § 80.89 by revising the first sentence of paragraph (f) introductory text to read as follows:

#### § 80.89 Unauthorized transmissions.

\* \* \* \* \*

(f) Transmit while on board vessels located on land unless authorized under a public coast station license. \* \* \*

\* \* \* \* \*

9. Add § 80.123 under the undesignated center heading “Special Procedures—Public Coast Stations” to read as follows:

#### § 80.123 Service to stations on land.

Marine VHF public coast stations, including AMTS coast stations, may provide public correspondence service to stations on land in accordance with the following:

(a) The public coast station licensee must provide each associated land station with a letter, which shall be presented to authorized FCC representatives upon request, acknowledging that the land station may operate under the authority of the associated public coast station's license:

(b) Each public coast station serving stations on land must afford priority to marine-originating communications through any appropriate electrical or mechanical means.

(c) Land station identification shall consist of the associated public coast station's call sign, followed by a unique numeric or alphabetic unit identifier;

(d) Radio equipment used on land must be type accepted for use under part 22, part 80, or part 90 of this chapter. Such equipment must operate only on the public correspondence channels authorized for use by the associated public coast station;

(e) Transmitter power shall be in accordance with the limits set in § 80.215 for ship stations and antenna height shall be limited to 6.1 meters (20 feet) above ground level;

(f) Land stations may only communicate with public coast stations and must remain within radio range of associated public coast stations; and,

(g) The land station must cease operation immediately upon written notice by the Commission to the associated public coast station that the



land station is causing harmful interference to marine communications.

10. Add § 80.133 under the undesignated center heading "Special Procedures—Private Coast Stations" to read as follows:

**§ 80.133 Private coast stations using facsimile in Alaska.**

Facsimile techniques may be implemented in accordance with the following paragraphs.

(a) Private coast stations in Alaska are eligible to use facsimile techniques with associated ship stations and other private coast stations in accordance with § 80.505(b).

(b) The frequency 156.425 MHz is assigned by rule to private coast stations in Alaska for facsimile transmissions.

(c) Equipment used for facsimile operations is subject to the applicable provisions of subpart E of this part.

11. Amend § 80.153 by revising the entry for "Coast telephone, all classes" in paragraph (b) to read as follows:

**§ 80.153 Coast station operator requirements.**

\* \* \* \* \*

(b) \* \* \*

*Coast telephone*, all classes—None.

\* \* \* \* \*

12. Amend § 80.177 by revising paragraph (c) to read as follows:

**§ 80.177 When operator license is not required.**

\* \* \* \* \*

(c) No operator license is required to operate coast telephone stations or marine utility stations.

\* \* \* \* \*

13. Amend § 80.179 by revising paragraphs (b), (c), and (d) to read as follows:

**§ 80.179 Unattended operation.**

\* \* \* \* \*

(b) Automatic use of a transmitter during narrow-band direct-printing (NB-DP) operations in accordance with § 80.219.

(c) Automatic use of a transmitter during selective calling operations in accordance with § 80.225.

(d) Automatic use of a transmitter when operating as part of the Automated Maritime

Telecommunications System (AMTS), an automated multi-station system for which provisions are contained in this part, or an automated public coast station.

\* \* \* \* \*

14. Amend § 80.203 by adding new paragraph (n) to read as follows:

**§ 80.203 Authorization of transmitters for licensing.**

\* \* \* \* \*

(n) Applications for type acceptance of all marine radio transmitters operating in the 2–27.5 MHz band or the 156–162 MHz band received on or after June 17, 1999, must have a DSC capability in accordance with § 80.225. This requirement does not apply to transmitters used with AMTS or hand-held portable transmitters.

15. Amend the table in § 80.205 paragraph (a) by revising the second "J2B" entry to read as follows:

**§ 80.205 Bandwidths.**

(a) \* \* \*

	Classes of emission	Emission designator	Authorized bandwidth (kHz)
J2B <sup>5</sup>	* * * * *	300HJ2B	0.5
	* * * * *		

<sup>5</sup> NB-DP radiotelegraph and data transmissions for communications with public coast stations.

\* \* \* \* \*

16. Amend § 80.207 by revising paragraph (a) and footnotes 1 and 2 to the table in paragraph (d), and adding footnote 14 to both entries for "NB-DP"

in the table in paragraph (d) to read as follows:

**§ 80.207 Classes of emission.**

(a) Authorization to use radiotelephone and radiotelegraph

emissions by ship and coast stations includes the use of digital selective calling and selective calling techniques in accordance with § 80.225.

\* \* \* \* \*

(d) \* \* \*

	Types of stations	Classes of emission
	Ship Stations <sup>1</sup>	
Radiotelegraphy:		
* * * * *		
1605–27500 kHz:		
* * * * *		
NB-DP <sup>14</sup>		F1B, J2B
* * * * *		
	Land Stations <sup>1</sup>	
Radiotelegraphy:		
* * * * *		
4000–27500 kHz:		
* * * * *		
NB-DP <sup>14</sup>		F1B, J2B

Types of stations						Classes of emission
*	*	*	*	*	*	*
<sup>1</sup> Excludes distress, EPIRBs, survival craft, and automatic link establishment. <sup>2</sup> Frequencies used for public correspondence and in Alaska 156.425 MHz. See §§ 80.371(c), 80.373(f) and 80.385(b). Transmitters type accepted before January 1, 1994, for G3E emissions will be authorized indefinitely for F2C, F3C, F1D and F2D emissions. Transmitters type accepted on or after January 1, 1994, will be authorized for F2C, F3C, F1D or F2D emissions only if they are type accepted specifically for each emission designator. <sup>14</sup> NB-DP operations which are not in accordance with CCIR Recommendation 625 or 476 are permitted to utilize any modulation, so long as emissions are within the limits set forth in § 80.211(f).						
*	*	*	*	*	*	*

17. Amend § 80.209 in the table by revising the entry for (a)(5)(i) and adding footnote 7 to read as follows:

**§ 80.209 Transmitter frequency tolerance.**  
(a) \* \* \*

Frequency bands and categories of stations						Tolerances <sup>1</sup>
(5) *	*	*	*	*	*	*
(i) Coast stations: For stations licensed to operate with a carrier power:						
Below 3 watts .....						10.
3 to 100 watts .....						75.
*	*	*	*	*	*	*

<sup>1</sup> Transmitters authorized prior to January 2, 1990, with frequency tolerances equal to or better than those required after this date will continue to be authorized in the maritime services provided they retain type acceptance and comply with the applicable standards of this part.

<sup>7</sup> For transmitters operated at private coast stations with antenna heights less than 6 meters (20 feet) above ground and output power of 25 watts or less the frequency tolerance is 10 parts in 10.<sup>6</sup>

18. Amend § 80.211 by revising paragraph (d) to read as follows:

**§ 80.211 Emission limitations.**

\* \* \* \* \*

(d) The mean power of emissions from radiotelephone survival craft transmitters, 9 GHz search and rescue transponders, and radiotelegraph survival craft transmitters must be attenuated below the mean output power of the transmitter as follows:

(1) On any frequency removed from the assigned frequency by more than 50 percent, up to and including 100 percent of the authorized bandwidth: at least 25 dB;

(2) On any frequency removed from the assigned frequency by more than 100 percent of the authorized bandwidth: at least 30 dB.

\* \* \* \* \*

19. Revise § 80.219 to read as follows:

**§ 80.219 Special requirements for narrowband direct-printing (NB-DP) equipment.**

NB-DP and data transmission equipment installed in ship and coast stations before October 1, 1990, that operates on the frequencies in the 4,000–27,500 kHz bands must be capable of operation in accordance with the technical requirements of either

CCIR Recommendation 476 or CCIR Recommendation 625 and may be used indefinitely. Equipment installed on or after October 1, 1990, must be capable of operation in accordance with the technical requirements of CCIR Recommendation 625. NB-DP and data transmission equipment are additionally permitted to utilize any modulation, so long as emissions are within the limits set forth in § 80.211(f) and the equipment is also capable of operation in accordance with CCIR recommendation 625.

20. Amend § 80.225 by revising the title, the first sentence in the introductory text, and paragraphs (a), (c) introductory text to read as follows:

**§ 80.225 Requirements for selective calling equipment.**

This section specifies the requirements for voluntary digital selective calling (DSC) equipment and selective calling equipment installed in ship and coast stations. \* \* \*

(a) DSC equipment voluntarily installed in coast or ship stations must meet either the requirements of CCIR Recommendation 493 (including only equipment classes A, B, D, and E) or RTCM Paper 56–95/SC101–STD. DSC equipment must not be used with the sensors referred to in § 80.179(e)(2). DSC

equipment used on compulsorily fitted ships must meet the requirements contained in subpart W for GMDSS.

\* \* \* \* \*

(c) Selective calling equipment, other than that designed in accordance with paragraph (a) of this section, is authorized as follows:

\* \* \* \* \*

(3) Equipment functioning under the provisions of § 80.207(a) includes the brief use of radiotelegraphy, including keying only the modulating audio frequency, tone signals, and other signalling devices to establish or maintain communications provided that:

(i) These signalling techniques are not used on frequencies designated for general purpose digital selective calling (DSC) and distress and safety DSC calling as listed in § 80.359;

(ii) The authorized radiotelephone emission bandwidth is not exceeded;

(iii) Documentation of selective calling protocols must be available to the general public; and,

(iv) Harmful interference is not caused to stations operating in accordance with the International Radio Regulations.

21. Add § 80.229 to subpart E to read as follows:

**§ 80.229 Special requirements for automatic link establishment (ALE).**

Brief signalling for the purposes of measuring the quality of a radio channel and thereafter establishing communication shall be permitted within the 2 MHz–30 MHz band. Public coast stations providing high seas service are authorized by rule to use

such signalling under the following conditions:

- (a) The transmitter power shall not exceed 100 W ERP;
- (b) Transmissions must sweep linearly in frequency at a rate of at least 60 kHz per second, occupying any 3 kHz bandwidth for less than 50 milliseconds;

(c) The transmitter shall scan the band no more than four times per hour;

(d) Transmissions within 6 kHz of the following protected frequencies and frequency bands must not exceed 10 µW peak ERP:

(1) Protected frequencies (kHz)

2091.0	4188.0	6312.0	12290.0	16420.0
2174.5	4207.5	8257.0	12392.0	16522.0
2182.0	5000.0	8291.0	12520.0	16695.0
2187.5	5167.5	8357.5	12563.0	16750.0
2500.0	5680.0	8364.0	12577.0	16804.5
3023.0	6215.0	8375.0	15000.0	20000.0
4000.0	6268.0	8414.5	16000.0	25000.0
4177.5	6282.0	10000.0		

(2) Protected bands (kHz)

4125.0–4128.0  
8376.25–8386.75  
13360.0–13410.0  
25500.0–25670.0

frequency, at least  $43 + 10\log_{10}$  (peak power in watts) db.

22. In § 80.363, add paragraph (c) to read as follows:

**§ 80.363 Frequencies for facsimile.**

\* \* \* \* \*

(c) The frequency 156.425 MHz is assigned by rule to private coast stations and ship stations in Alaska for ship-to-shore and ship-to-ship facsimile transmissions using F2C or F3C emissions.

23. Amend § 80.371 by revising paragraph (c) introductory text to read as follows:

**§ 80.371 Public correspondence frequencies.**

\* \* \* \* \*

(c) *Working frequencies in the marine VHF 156–162 MHz band.* The frequency pairs listed in the table below are available for assignment to public coast stations for public correspondence communications with ship stations and units on land.

\* \* \* \* \*

24. Amend § 80.373 paragraph (f) table by adding footnote 17 to the first item under center heading “Noncommercial” to read as follows:

**§ 80.373 Private communications frequencies.**

\* \* \* \* \*

(f) \* \* \*

Channel designator	Carrier frequency (MHz)		Points of communication (Intership and between coast and ship unless otherwise indicated)
	Ship transmit	Coast transmit	
68 <sup>17</sup>	156.425	156.425	

<sup>17</sup> The frequency 156.425 MHz is assigned by rule to private coast stations in Alaska for facsimile transmissions as well as voice communications.

25. Amend § 80.405 by revising the third sentence of paragraph (c) to read as follows:

**§ 80.405 Station license.**

\* \* \* \* \*

(c) \* \* \* When the station license cannot be posted as in the case of a marine utility station operating at temporary unspecified locations or the ship or recreational boat does not have an enclosed wheelhouse, it must be kept where it will be readily available for inspection. \* \* \*

26. Amend § 80.453 by adding paragraph (a)(4) to read as follows:

**§ 80.453 Scope of communications.**

\* \* \* \* \*

(a) \* \* \*

(4) With units on land in accordance with § 80.123.

\* \* \* \* \*

27. Amend § 80.477 by revising the title and paragraph (a) to read as follows:

**§ 80.477 AMTS points of communication.**

(a) AMTS coast stations may communicate with fixed platform stations located in the offshore waters of the Gulf of Mexico, with ship stations, and with land units in accordance with § 80.123.

\* \* \* \* \*

28. Amend § 80.507 by adding paragraph (d) to read as follows:

**§ 80.507 Scope of service.**

\* \* \* \* \*

(d) Each private coast station is authorized by rule to use hand-held marine radios in the vicinity of the station's fixed transmitter site on those frequencies assigned to the private coast station. Hand-held communications must conform to those normally permitted under a marine utility station authorization and must be limited to contact with the associated private coast station and ship stations in the vicinity of the private coast station.

29. Amend § 80.519 by revising paragraph (b) to read as follows:

**§ 80.519 Station identification.**

(b) Marine utility stations, private coast stations, and associated hand-held radios, when exchanging communications, may be identified by a unit identifier in lieu of the call sign. Identification by transmission of the assigned call sign must be at the end of the exchange or at least once every 15 minutes.

30. Amend § 80.653 by revising paragraph (b)(2) to read as follows:

**§ 80.653 Scope of communications.**

(2) Transmissions necessary for the test and maintenance of maritime radio equipment at repair shops and at temporary unspecified locations;

**PART 87—AVIATION SERVICES**

31. The authority citation for part 87 continues to read as follows:

**Authority:** 48 Stat. 1066, 1082, as amended; 47 U.S.C. 154, 303, unless

2091.0 .....	4188.0
2174.5 .....	4207.5
2182.0 .....	5000.0
2187.5 .....	5167.5
2500.0 .....	5680.0
3023.0 .....	6215.0
4000.0 .....	6268.0
4177.5 .....	6282.0

(2) Protected bands (kHz)

4125.0–4128.0  
8376.25–8386.75  
13360.0–13410.0  
25500.0–25670.0

(e) The instantaneous signal, which refers to the peak power that would be measured with the frequency sweep stopped, along with spurious emissions generated from the sweeping signal, must be attenuated below the peak carrier power (in watts) as follows:

(1) On any frequency more than 5 Hz from the instantaneous carrier frequency, at least 3 dB;

otherwise noted. Interpret or apply 48 Stat. 1064–1068, 1081–1105, as amended; 47 U.S.C. 151–156, 301–609.

32. Amend § 87.27 by revising paragraphs (a) and (b) to read as follows:

**§ 87.27 License term.**

(a) Licenses for aircraft stations will normally be issued for a term of ten years from the date of original issuance, major modification or renewal. Licensees may apply for renewal of the station license up to ninety (90) days after the date the license expires.

(b) Licenses other than aircraft stations in the aviation services will normally be issued for a term of five years from the date of original issuance, major modification, or renewal. Licensees, other than Aeronautical Advisory (unicom) stations licensed under § 87.215(b), Aeronautical Fixed, Aeronautical Enroute, and Airport Control Tower stations, may apply for renewal of the station license up to ninety (90) days after the date the license expires.

33. Amend § 87.131 by adding footnote 9 to to the column heading "Authorized emission(s)" to read as follows:

**§ 87.131 Power and emissions.**

Class of station	Frequency band/frequency	Authorized emission(s) <sup>9</sup>	Maximum power <sup>1</sup>


(2) On any frequency more than 250 Hz from the instantaneous carrier frequency, at least 40 dB; and

(3) On any frequency more than 7.5 kHz from the instantaneous carrier frequency, at least 43 + 10log<sub>10</sub> (peak power in watts) db.

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<sup>1</sup> The power is measured at the transmitter output terminals and the type of power is determined according to the emission designator as follows:

(i) Mean power (pY) for amplitude modulated emissions and transmitting both sidebands using unmodulated full carrier.

(ii) Peak envelope power (pX) for all emission designators other than those referred to in paragraph (i) of this note.

<sup>9</sup> Excludes automatic link establishment.

34. Add § 87.149 to subpart D to read as follows:

**§ 87.149 Special requirements for automatic link establishment (ALE).**

Brief signalling for the purposes of measuring the quality of a radio channel and thereafter establishing communication shall be permitted within the 2 MHz–30 MHz band. Public coast stations licensed under part 80 of this chapter providing high seas service are authorized by rule to use such signalling under the following conditions:

(a) The transmitter power shall not exceed 100 W ERP;

(b) Transmissions must sweep linearly in frequency at a rate of at least 60 kHz per second, occupying any 3 kHz bandwidth for less than 50 milliseconds;

(c) The transmitter shall scan the band no more than four times per hour;

(d) Transmissions within 6 kHz of the following protected frequencies and frequency bands must not exceed 10 μW peak ERP:

(1) Protected frequencies (kHz)

6312.0	12290.0	16420.0
8257.0	12392.0	16522.0
8291.0	12520.0	16695.0
8357.5	12563.0	16750.0
8364.0	12577.0	16804.5
8375.0	15000.0	20000.0
8414.5	16000.0	25000.0
10000.0		

**NATIONAL AERONAUTICS AND SPACE ADMINISTRATION**

**48 CFR Parts 1852**

**Revision to the NASA FAR Supplement To Correct Provision and Clause Dates**

**AGENCY:** National Aeronautics and Space Administration (NASA).

**ACTION:** Final rule.

**SUMMARY:** This is a final rule amending the NASA FAR Supplement to correct the dates of provisions and clauses.

**EFFECTIVE DATE:** July 28, 1997.