

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

In the Matter of	)	
	)	
Amendment of Parts 2 and 97 of the	)	
Commission's Rules to Facilitate Use by the	)	ET Docket No. 10-98
Amateur Radio Service of the Allocation at	)	RM-11353
5 MHz	)	

**NOTICE OF PROPOSED RULEMAKING**

**Adopted: May 4, 2010**

**Released: May 7, 2010**

**Comment Date: (30 days after date of publication in the Federal Register)**

**Reply Comment Date: (45 days after date of publication in the Federal Register)**

By the Commission:

**I. INTRODUCTION**

1. By this action, we propose to amend Parts 2 and 97 of the Commission's Rules relating to the Amateur Radio Service.<sup>1</sup> Specifically, we propose to modify the rules pertaining to the use of five channels in the 5330.6-5406.4 kHz band (the 60 meter band)<sup>2</sup> to replace one designated channel with one that is less encumbered, to authorize three additional emission designators, and to increase the maximum authorized power in this band. These proposals are in response to a petition for rulemaking filed by the American Radio Relay League (ARRL). Additionally, and on our own motion, we propose to make editorial revisions to the relevant portions of the Table of Frequency Allocations (Allocation Table) in Part 2 and to Part 97.<sup>3</sup>

**II. BACKGROUND**

2. ARRL's petition addresses the existing amateur service allocation in the 60 meter band. This band is part of the larger 5060-5450 kHz band that is allocated to the fixed service on a primary basis for Federal and non-Federal use and to the mobile except aeronautical mobile service on a secondary basis for Federal and non-Federal use. Footnote US381 to the Allocation Table makes five frequencies in this band (5332 kHz, 5348 kHz, 5368 kHz, 5373 kHz and 5405 kHz) available to the amateur service on a secondary basis. In addition, footnote US340 authorizes Federal and non-Federal maritime and aeronautical mobile stations to use the 2-30 MHz band (which includes the 60 meter band) for measuring the quality of reception on radio channels on a non-interference basis; however, actual communication by

<sup>1</sup> Part 2 of the Rules, *inter alia*, sets forth the frequency allocations for the various radio services. 47 C.F.R. Part 2. Part 97, the Amateur Radio Service, provides rules for amateur operators to participate in a voluntary noncommercial communication service that, among other things, allows stations to communicate among themselves, provide emergency communications, and experiment with various radio techniques and technologies to further the understanding of radio use and the development of new technologies. 47 C.F.R. Part 97.

<sup>2</sup> In the Amateur Radio Service, wavelength bands rather than frequency bands are the usual means of identifying radio spectrum. In this Order, we use the term "60 meter band" (60 m band) when referring to the 5330.6-5406.4 kHz band. *See, e.g.*, Appendix at Section 97.303(h).

<sup>3</sup> 47 C.F.R. § 2.106. The Allocation Table is set forth in 47 C.F.R. § 2.106.

these stations is limited to frequencies specifically allocated to these services.<sup>4</sup> The 5060-5450 kHz band is primarily used by Federal agencies for ship-to-shore and fixed point-to-point communications. Non-Federal licensees in the 5060-5450 kHz band include state governments and licensees in the Industrial/Business Pool that operate standby and/or backup communication circuits for use during emergency and/or disaster situations, entities prospecting for petroleum and natural gas or distributing electric power, coast stations, and aeronautical fixed stations.

3. The Commission added the amateur service secondary allocation to this band in 2003, after determining that such frequencies could be useful to the Amateur Radio Service community for completing disaster communications links at times when existing frequencies in the 3500-4000 kHz (80 and 75 meter) and 7000-7300 kHz (40 meter) bands are not available due to ionospheric conditions, and after concluding that such an allocation represented the best compromise available to give the Amateur Radio Service access to new spectrum for a wide range of radio communications, while assuring that incumbent operations are protected.<sup>5</sup> At the request of the National Telecommunications and Information Administration (NTIA), the Commission restricted the use of these channels to single sideband suppressed carrier voice using only the upper sideband transmission,<sup>6</sup> and a maximum effective radiated power (ERP) of 50 watts (W) peak envelope power (PEP).<sup>7</sup> The Commission adopted these operating restrictions to decrease the interference potential between amateur stations and Federal stations.

4. On October 20, 2006, ARRL filed a petition for rulemaking (ARRL Petition) seeking certain modifications to the rules governing amateur radio use of the 60 meter band. The Commission issued a public notice on December 8, 2006 seeking comment on the ARRL Petition.<sup>8</sup> No comments were received in response to the public notice. In its petition, ARRL requests that we make three modifications to the existing rules governing amateur radio use of the 60 meter band, specifically Section 2.106, footnote US381 of the Rule and Section 97.303 of the Rules, in order to increase the flexibility in the use of the band and to facilitate emergency communications provided by the Amateur Radio Service.<sup>9</sup> First, it requests that one of the available channels, 5368 kHz, be replaced with 5358.5 kHz. Second, it requests that three additional emission designators (150HA1A, 60H0J2B, and 2K80J2D) be authorized in the 60 meter band. Third, it requests that the maximum ERP on channels in the 60 meter band be increased from 50 to 100 W PEP.<sup>10</sup>

5. The ARRL Petition argues that a successful history of sharing with Federal users, together with its own users' strong desire to improve amateur service use of the band, merits a grant of greater flexibility in the use of these frequencies. ARRL argues that no incidents of interference to Federal users have been recorded since amateur service use was authorized under the current rules, despite active use of the band in routine amateur service communications, and that the 60 meter band is important for disaster communication planning. The ARRL Petition also documents discussions ARRL has had with the Interdepartment Radio Advisory Committee (IRAC) regarding ARRL's desire to promote greater amateur

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<sup>4</sup> 47 C.F.R. § 2.106, footnote US340. A third footnote displayed in the 5060-5450 kHz band – US212 – authorizes an emergency use frequency in and near the state of Alaska, and is not germane to this proceeding.

<sup>5</sup> Amendment of Parts 2 and 97 of the Commission's Rules to Create a Low Frequency Allocation for the Amateur Radio Service, ET Docket No. 02-98, [Report and Order](#), 18 FCC Rcd 10258 (2003).

<sup>6</sup> Currently only single sideband suppressed carrier upper sideband, phone emission type 2K80J3E is approved for Amateur Service use in the 60 meter band. 47 C.F.R. § 97.303(s). Emissions are designated according to their necessary bandwidth followed by their classification. 47 C.F.R. Part 2, Subpart C.

<sup>7</sup> *Id.*, 18 FCC Rcd at 10282. See also 47 C.F.R. § 97.303(s).

<sup>8</sup> [Public Notice](#), Report No. 2799 (rel. Dec. 8, 2006). RM-11353 was associated with the [ARRL Petition](#).

<sup>9</sup> See ARRL Petition at 10.

<sup>10</sup> See ARRL Petition at 7-9, 12; see also 47 C.F.R. § 2.106 footnote US381 and 47 C.F.R. § 97.303.

service use of the 60 meter band.<sup>11</sup> The proposals contained in the ARRL Petition were based on these discussions and a May 12, 2006 letter from NTIA indicating that it would “look favorably” on the above-described modifications should ARRL choose to pursue rule changes with the Commission.<sup>12</sup>

6. On March 11, 2010, the Commission adopted a *Notice of Proposed Rule Making and Order* that made certain amendments to correct the amateur service rules and to conform them to prior Commission decisions.<sup>13</sup> The proposals we discuss herein are based on the current rules, as modified by that action.

### III. DISCUSSION

7. The existing amateur radio use of the 60 meter band represents a balancing of important interests – the desire to provide amateur operators with frequencies that could be used to complete disaster communications links when other bands are not available, and the need to protect important primary Federal operations in the 60 meter band. The ARRL Petition seeks to modify the existing spectrum sharing scenario in a manner that appears to be consistent with the interests of both Federal and amateur users in the band, and we tentatively conclude that the changes to footnote US381 and Section 97.303 of our Rules that are proposed by ARRL should be adopted.

8. First, ARRL states that its request to replace the 5368 kHz channel with 5358.5 kHz is based on reports from amateur operators of frequent interference from a digital signal on the existing authorized channel.<sup>14</sup> Based on this information, we tentatively agree that the proposed modification would eliminate interference and enhance amateur radio operations and that it should be implemented. We note that most non-Federal licensees in the 60 meter band are licensed across the larger band 5005-5450 kHz and that many are also licensed across other bands as well. Therefore, we believe that our proposal to exchange one amateur channel for another in the 60 meter band will have a *de minimis* impact on these licensees, while benefiting amateur radio users who have a limited number of channels in the band on which they may operate and reducing the potential for interference from amateur operations to the primary Federal stations operating in the 5330.6-5406.4 kHz band.

9. Second, ARRL indicates that its survey of amateur radio users in the band found that there is significant demand for modulation techniques that would allow telegraphy and data transmissions in addition to the one that is currently permitted for voice transmissions (single sideband suppressed carrier upper sideband, emission type 2K80J3E).<sup>15</sup> Specifically, ARRL states that Morse code telegraphy by

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<sup>11</sup> ARRL Petition at 8. IRAC is a committee of the Federal departments, agencies, and administrations that advises NTIA in assigning frequencies to Federal radio stations and in developing and executing policies, programs, procedures, and technical criteria pertaining to the allocation, management, and use of the spectrum. 47 C.F.R. § 2.1.

<sup>12</sup> See Letter from Karl Nebbia, Deputy Associate Administrator, Office of Spectrum Management, NTIA, to Paul L. Rinaldo, ARRL Chief Technology Officer, May 12, 2006 (2006 NTIA Letter). This letter is attached, as Appendix A, to the ARRL Petition.

<sup>13</sup> See Amendment of the Amateur Service Rules to Facilitate Use of Spread Spectrum Communications Technologies, WT Docket No. 10-62 and RM-11325, *Notice of Proposed Rule Making and Order*, FCC 10-38 (rel. March 16, 2010) at Appendix B, §§ 97.301 (b)-(d), 97.303(h), 97.313(i). Of particular significance in this proceeding, the Commission amended Section 97.303(s) by: (1) deleting the first sentence (“An amateur station having an operator holding a General, Advanced or Extra Class license.”) and by listing the 60 meter band as an authorized frequency band in Section 97.301(b)-(d); (2) moving the transmitter power limit information for the 60 meter band to Section 97.313(i); and (3) renumbering paragraph (s) as paragraph (h).

<sup>14</sup> See ARRL Petition at 7-8, 12. We note that the digital signal that is heard on 5368 kHz is from an authorized Federal frequency assignment, and that amateur stations operating in the 60 meter band must accept interference from primary Federal stations.

<sup>15</sup> See 47 C.F.R. § 97.303(s).

means of on-off keying (emission designator 150HA1A) continues to be used by amateur stations because of its reliability in difficult propagation conditions. ARRL also states that the other requested emission designators – 60H0J2B (which is generally known as PSK31) and 2K80J2D (which is generally known as PACTOR-III) – are popular narrowband data modes.<sup>16</sup> We propose to add these three emission designators, which would allow four permissible emission types to be used in the 60 meter band. We propose to permit any additional modulation techniques that we adopt to be used on all assigned frequencies within the 60 meter band, including the assigned frequency 5368 kHz in the event that we do not adopt our proposal to replace the assigned frequency 5368 kHz with 5358.5 kHz.

10. ARRL states that we could require amateur operators to limit the length of transmissions in the two data emission modes in order to better position amateur operators to avoid causing harmful interference to primary operations, and suggests adopting a rule that incorporates a general requirement to limit the duration of data transmissions.<sup>17</sup> We seek comment on whether a rule addressing transmission limits would help ensure that in the currently infrequent instances in which Federal agencies exercise their primary use of the 60 meter band frequencies, those amateur licensees who have been operating on a secondary basis will be better positioned to avoid causing harmful interference, which is prohibited.<sup>18</sup> To the extent that commenters support a specific time limit, we ask whether a transmission length of three minutes would be sufficient. If not, what limits should we adopt? In addition, we seek comment on whether amateur stations should be permitted to transmit emission types in addition to the four discussed above in the 60 meter band without increasing the likelihood of interference to primary users. To the extent that commenters identify such emission designators, they should discuss their use and benefits and, in particular, how the use of those emission designators can be balanced with our continuing interest in protecting primary stations in the 60 meter band.

11. Third, in support of its proposal to increase the power level, ARRL states that typical transmitter output power in modern amateur radio transceivers is 100 W PEP, and that the present 50 W PEP transmitter output power limit compromises communication reliability in the 60 meter band. ARRL claims that there are, at certain times of the year, and more often in the southern latitudes, high static levels in this frequency range. It argues that a slightly higher transmitter power output would bolster reliability, especially in connection with emergency communications.<sup>19</sup> ARRL also suggests that amateur operators be required to use Voice-Operated Transmit (VOX) in the phone emission mode. ARRL contends that adopting this requirement, in conjunction with an increased transmitter output power limit, would permit a Federal user to interrupt an amateur station's transmission quickly and easily without waiting for an unpredictable end of the transmission.<sup>20</sup> We seek comment on these proposals and whether we should adopt them. We specifically seek comment on whether a VOX mode of operation might increase the potential for interference because of its susceptibility to keying a radio to transmit under high surrounding noise environments such as might be found in an emergency operations center.

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<sup>16</sup> PSK31 is a data system using phase shift keying (PSK) at 31.1 baud and PACTOR-III is a data system with a potential throughput of up to 5.2 kbit/s. See Recommendation ITU-R M.1732 at p. 4. ARRL describes PSK31 and PACTOR-III on its website; see <http://www.arrl.org/FandES/field/regulations/techchar/PSK31.html> and <http://www.arrl.org/FandES/field/regulations/techchar/PACTOR-III.html>.

<sup>17</sup> ARRL Petition at 12 (stating that "...Amateur operators must exercise care to limit the length of transmissions so to avoid interference with Federal operations."). See also 2006 NTIA Letter.

<sup>18</sup> For the purposes of the proposed rules, the language in footnote US24 and Section 97.307(f)(14)(ii)(B) represents the minimum standard we propose, and we do not reach a tentative conclusion as to whether the final rules we adopt should include a more specific time frame.

<sup>19</sup> ARRL also claims that the increase in ERP would reduce the need to make measurements, assuming (as is typical) that a 0 dBd gain dipole antenna is used. See ARRL Petition at 8. See also § 97.313(i) in the Appendix where we have simplified the transmitter power standard for the 60 meter band.

<sup>20</sup> VOX uses a keying relay that actuates a radio to transmit when sound energy above a certain threshold is sensed by the transducer. See ARRL Petition at 7, 12.

12. In our proposed rules to implement the changes we have discussed above, we have, in some cases, incorporated editorial revisions intended to make the rules easier to read and to ensure that control operators have the necessary information to easily determine their proper operating requirements on the 60 meter band frequencies.<sup>21</sup> Also, at the request of NTIA, we solicit comment on whether amateur operators that provide emergency communications using the 60 meter band should be encouraged to add a sound card generated Automatic Link Establishment (ALE) capability to their stations.<sup>22</sup>

#### IV. PROCEDURAL MATTERS

##### A. Initial Regulatory Flexibility Certifications

13. The Regulatory Flexibility Act of 1980, as amended (RFA),<sup>23</sup> requires that an initial regulatory flexibility analysis be prepared for notice and comment rulemaking proceedings, unless the agency certifies that “the rule will not, if promulgated, have a significant economic impact on a substantial number of small entities.”<sup>24</sup> The RFA generally defines the term “small entity” as having the same meaning as the terms “small business,” “small organization,” and “small governmental jurisdiction.”<sup>25</sup> In addition, the term “small business” has the same meaning as the term “small business concern” under the Small Business Act.<sup>26</sup> A “small business concern” is one which: (1) is independently owned and operated; (2) is not dominant in its field of operation; and (3) satisfies any additional criteria established by the Small Business Administration (SBA).<sup>27</sup>

14. In the Notice, we propose to amend the amateur service rules in order to replace one of the channels in the 60 meter band with a less encumbered channel, to provide for additional emission designators, and to increase the maximum authorized power.

15. Because “small entities,” as defined in the RFA, are not persons eligible for licensing in the amateur service, the proposed changes to Part 97 does not apply to “small entities.” Rather, they apply exclusively to individuals who are the control operators of amateur radio stations.

16. As of January 22, 2009, the Commission had issued 100 call signs to 46 licensees in the Conventional Industrial/Business Pool Radio Service (IG) in the five 2.8 kHz channels at issue in this proceeding. These call signs authorize the use of the entire 5005-5450 kHz band and other frequency bands. Because these licensees can tune across the 5005-5450 kHz band and other frequency bands, we

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<sup>21</sup> See Sections 97.303(h), 97.305(c), 97.307(f), and 97.313(i). For example, in our proposal to revise Section 97.303(h), we state that, for CW emissions and PSK31 data emissions, the carrier frequency is to be set to one of the listed center frequencies; and that, for phone emissions and PACTOR-III data emissions, one of the listed carrier frequencies must be used in order to transmit on the required center frequency. Similarly, in our proposal to add new paragraph (f)(14) to Section 97.307(f), we provide a table of concise requirements for proper operations. In addition, we propose to revise footnote US381 to use standard terminology.

<sup>22</sup> ALE is a standard for initiating and sustaining communications using High Frequency (HF) radio. For more information, see <http://hfink.com/automaticlinkestablishment/>.

<sup>23</sup> The RFA, *see* 5 U.S.C. § 601-612, has been amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA), Pub. L. No. 104-121, Title II, 110 Stat. 857 (1996).

<sup>24</sup> 5 U.S.C. § 605(b).

<sup>25</sup> 5 U.S.C. § 601(6).

<sup>26</sup> 5 U.S.C. § 601(3) (incorporating by reference the definition of “small business concern” in the Small Business Act, 15 U.S.C. § 632). Pursuant to 5 U.S.C. § 601(3), the statutory definition of a small business applies “unless an agency, after consultation with the Office of Advocacy of the Small Business Administration and after opportunity for public comment, establishes one or more definitions of such term which are appropriate to the activities of the agency and publishes such definition(s) in the Federal Register.”

<sup>27</sup> 15 U.S.C. § 632.



believe that replacing one 2.8 kHz channel with another nearby channel for secondary amateur service use would have a *de minimis* effect on incumbent non-Federal IG licensees.<sup>28</sup> Moreover, we believe that, at most, only 17 of the IG licensees met the definition of a small entity. Therefore, we certify that the proposals in this Notice, if adopted, will not have a significant economic impact on a substantial number of small entities.

17. If commenters believe that the proposals discussed in the Notice require additional RFA analysis, they should include a discussion of these issues in their comments and additionally label them as RFA comments. The Commission will send a copy of the Notice, including a copy of this initial certification, to the Chief Counsel for Advocacy of the SBA.<sup>29</sup> In addition, a copy of the Notice and this initial certification will be published in the Federal Register.<sup>30</sup>

### **B. Paperwork Reduction Act Analysis**

18. This document does not contain proposed information collection(s) subject to the Paperwork Reduction Act of 1995 (PRA), Public Law 104-13. In addition, therefore, it does not contain any new or modified “information collection burden for small business concerns with fewer than 25 employees,” pursuant to the Small Business Paperwork Relief Act of 2002, Public Law 107-198, *see* 44 U.S.C. 3506(c)(4).

### **C. Filing Requirements**

19. Ex Parte Rules – Permit-But-Disclose Proceeding, This is a permit-but-disclose notice and comment rulemaking proceeding. Ex parte presentations are permitted, except during the Sunshine Agenda period, provided they are disclosed pursuant to the Commission’s rules. *See generally* 47 C.F.R. §§ 1.1202, 1.1203, and 1.1206(a).

20. Pursuant to sections 1.415 and 1.419 of the Commission’s rules, 47 CFR §§ 1.415, 1.419, interested parties may file comments and reply comments on or before the dates indicated on the first page of this document. Comments may be filed using: (1) the Commission’s Electronic Comment Filing System (ECFS), (2) the Federal Government’s eRulemaking Portal, or (3) by filing paper copies. *See Electronic Filing of Documents in Rulemaking Proceedings*, 63 FR 24121 (1998).

- Electronic Filers: Comments may be filed electronically using the Internet by accessing the ECFS: <http://fjallfoss.fcc.gov/ecfs2/> or the Federal eRulemaking Portal: <http://www.regulations.gov>.
- Paper Filers: Parties who choose to file by paper must file an original and four copies of each filing. If more than one docket or rulemaking number appears in the caption of this proceeding, filers must submit two additional copies for each additional docket or rulemaking number.

Filings can be sent by hand or messenger delivery, by commercial overnight courier, or by first-class or overnight U.S. Postal Service mail. All filings must be addressed to the Commission’s Secretary, Office of the Secretary, Federal Communications Commission.

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<sup>28</sup> These licensees are authorized under Section 90.266 of the Commission’s Rules. Section 90.266(e) requires that “equipment shall be capable of transmitting and receiving on any frequency between 2 and 25 MHz and capable of immediate change among the frequencies, provided, however, that this requirement does not apply to equipment manufactured prior to August 15, 1983.” Section 90.266(f) limits licensees to a maximum necessary bandwidth of 2.8 kHz. 47 C.F.R. § 90.266(e) and (f).

<sup>29</sup> *See* 5 U.S.C. § 605(b).

<sup>30</sup> *See* 5 U.S.C. § 605(b).

- All hand-delivered or messenger-delivered paper filings for the Commission's Secretary must be delivered to FCC Headquarters at 445 12<sup>th</sup> St., SW, Room TW-A325, Washington, DC 20554. The filing hours are 8:00 a.m. to 7:00 p.m. All hand deliveries must be held together with rubber bands or fasteners. Any envelopes must be disposed of before entering the building.
- Commercial overnight mail (other than U.S. Postal Service Express Mail and Priority Mail) must be sent to 9300 East Hampton Drive, Capitol Heights, MD 20743.
- U.S. Postal Service first-class, Express, and Priority mail must be addressed to 445 12<sup>th</sup> Street, SW, Washington DC 20554.

21. People with Disabilities: To request materials in accessible formats for people with disabilities (braille, large print, electronic files, audio format), send an e-mail to [fcc504@fcc.gov](mailto:fcc504@fcc.gov) or call the Consumer & Governmental Affairs Bureau at 202-418-0530 (voice), 202-418-0432 (tty).

22. For further information, contact James Miller, Office of Engineering and Technology, (202) 418-7351 or Tom Mooring, Office of Engineering and Technology, (202) 418-2450.

## II. ORDERING CLAUSES

23. Accordingly, IT IS ORDERED that pursuant to Sections 1, 4, 301, 302(a), and 303(b), (c) and (f) of the Communications Act of 1934, as amended, 47 U.S.C. Sections 151, 154, 301, 302a(a), and 303(b), (c) and (f), this NOTICE OF PROPOSED RULEMAKING is hereby ADOPTED.

24. IT IS ALSO ORDERED that the Commission's Consumer and Governmental Affairs Bureau, Reference Information Center, SHALL SEND a copy of this NOTICE OF PROPOSED RULEMAKING, including the Initial Regulatory Flexibility Certification, to the Chief Counsel for Advocacy of the Small Business Administration.

FEDERAL COMMUNICATIONS COMMISSION

Marlene H. Dortch  
Secretary

## APPENDIX

## Proposed Rules

For the reasons discussed in the preamble, the Federal Communications Commission proposes to amend 47 CFR parts 2 and 97 to read as follows:

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

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

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

2. Section 2.106, the Table of Frequency Allocations, is amended by revising footnote US381 to read as follows.

**§ 2.106 Table of Frequency Allocations.**

\* \* \* \* \*

UNITED STATES (US) FOOTNOTES

\* \* \* \* \*

US381 In the band 5330.6-5406.4 kHz (60 m band), the assigned (center) frequencies 5332, 5348, 5358.5, 5373, and 5405 kHz are allocated to the amateur service on a secondary basis. Amateur service use of the 60 m band frequencies is restricted to a maximum effective radiated power of 100 W PEP and to the following emission modes and designators: phone (2K80J3E), data (2K80J2D and 60H0J2B), and CW (150HA1A). Amateur operators using data emissions must exercise care to limit the length of transmissions so as to avoid causing harmful interference to Federal stations.

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**PART 97 – AMATEUR RADIO SERVICE**

3. The authority citation for Part 97 continues to read as follows:

AUTHORITY: 48 Stat. 1066, 1082, as amended; 47 U.S.C. 154, 303. Interpret or apply 48 Stat. 1064-1068, 1081-1105, as amended; 47 U.S.C. 151-155, 301-609, unless otherwise noted.

4. Section 97.303 is amended by revising paragraph (h) to read as follows.

**§ 97.303 Frequency sharing requirements.**

\* \* \* \* \*

(h) 60 m band: (1) In the 5330.6-5406.4 kHz band (60 m band), amateur stations shall only transmit on the five center frequencies listed in the table below. In order to meet this requirement, amateur stations transmitting phone emissions and PACTOR-III data emissions may set the carrier frequency 1.4 kHz below the center frequency as specified in the table below. For amateur stations transmitting CW emissions and PSK31 data emissions, the carrier frequency shall be set to the center frequency. Amateur operators shall ensure that their station's transmission occupies not more than 2.8 kHz centered on each of these frequencies.



60 M BAND FREQUENCIES (KHZ)

Center	Carrier
5332.0	5330.6
5348.0	5346.6
5358.5	5357.1
5373.0	5371.6
5405.0	5403.6

(2) Amateur stations transmitting on the 60 m band must not cause harmful interference to, and must accept interference from, stations authorized by: (i) the United States (NTIA and FCC) and other nations in the fixed service; and (ii) other nations in the mobile except aeronautical mobile service.

\* \* \* \* \*

5. Section 97.305 is amended by inserting the new entry “60 m” between the “75 m” and “40 m” entries in the table following paragraph (c) to read as follows.

**§ 97.305 Authorized emission types.**

\* \* \* \* \*

(c) \* \* \*

Wavelength band	Frequencies	Emission types authorized	Standards see § 97.307(f), paragraph:
* *	*	*	*
HF:			
80 m	Entire band.....	RTTY, data.....	(3), (9).
75 m	Entire band.....	Phone, image.....	(1), (2).
60 m	All frequencies.....	Phone, data.....	(14).
40 m	7.000-7.100 MHz.....	RTTY, data.....	(3), (9).
* *	*	*	*

6. Section 97.307 is amended by adding new paragraph (f)(14) to read as follows.

**§ 97.307 Emission standards.**

\* \* \* \* \*

(f) \* \* \*

(14) In the 60 m band:

(i) A station may transmit only phone, data, and CW emissions using the emission designators and any additional restrictions that are specified in the table below (except that the use of a narrower necessary bandwidth is permitted):

60 M BAND EMISSION REQUIREMENTS

Emission type	Emission designator	Restricted to
Phone .....	2K80J3E .....	Upper sideband only
Data .....	2K80J2D .....	Data using PACTOR-III technique
Do .....	60H0J2B .....	Data using PSK31 technique
CW .....	150HA1A	

(ii) The following requirements also apply:

(A) When transmitting phone emissions, the suppressed carrier frequency must be set as specified in § 97.303(h).

(B) The control operator of a station transmitting data emissions must exercise care to limit the length of transmission so as to avoid causing harmful interference to United States Government stations.

7. Section 97.313 is amended by revising paragraph (i) to read as follows.

**§ 97.313 Transmitter power standards.**

\* \* \* \* \*

(i) No station may transmit with an effective radiated power (ERP) exceeding 100 W PEP on the 60 m band. For the purpose of computing ERP, the transmitter PEP will be multiplied by the antenna gain relative to a dipole or the equivalent calculation in decibels. A half-wave dipole antenna will be presumed to have a gain of 1. Licensees using other antennas must maintain in their station records either the antenna manufacturer's data on the antenna gain or calculations of the antenna gain.