

APPENDIX A**Parties Submitting Comments and Reply Comments in WT Docket No. 00-48**

The following list contains the names of parties filing comments and reply comments in response to the Notice of Proposed Rule Making in WT Docket No. 00-48

Comments

Owen Anderson (Anderson)
Alaska Fishing Fleet
Globalstar, L.P. (Globalstar)
Globe Wireless, Inc. (Globe)
Maritel, Inc. (Maritel)
National GMDSS Implementation Task Force (Task Force)
National Oceanic and Atmospheric Administration (NOAA)
Radio Technical Commission for Maritime Services (RTCM)
Recreational Boating Association of Washington (RBAW)
SEA Inc. of Delaware (SEA)
Tideland Signal Corporation (Tideland)
Trident Seafoods Corporation (Trident)
United States Coast Guard (USCG)

Reply Comments

Maritel
Leonard Robert Raish, Attorney-At-Law
RBAW
Tideland
USCG

APPENDIX B**Final Rules**

Chapter I of Title 47 of the Code of Federal Regulations, Parts 2, 13 and 80, is amended as follows:

I. PART 2 – FREQUENCY ALLOCATIONS AND RADIO TREATY MATTERS; GENERAL RULES AND REGULATIONS

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

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

2. Section 2.106 is amended by revising footnote US296 to read as follows:

§ 2.106 Table of Frequency Allocations.

* * * * *

US296 In the bands designated for ship wide-band telegraphy, facsimile and special transmission systems, the following assignable frequencies are available to non-Federal Government stations on a shared basis with Federal Government stations: 2070.5 kHz, 2072.5 kHz, 2074.5 kHz, 2076.5 kHz, 4154 kHz, 4170 kHz, 6235 kHz, 6259 kHz, 8302 kHz, 8338 kHz, 12370 kHz, 12418 kHz, 16551 kHz, 16615 kHz, 18848 kHz, 18868 kHz, 22182 kHz, 22238 kHz, 25123 kHz, and 25159 kHz.

* * * * *

II. PART 13 -- COMMERCIAL RADIO OPERATORS

1. The authority citation for Part 13 continues to read as follows:

AUTHORITY: Secs. 4, 303, 48 Stat. 1066, 1082, as amended; 47 U.S.C. 154, 303.

2. Section 13.7 is amended by revising paragraph (b), redesignating paragraph (b)(9) as (b)(10), and adding a new paragraph (b)(9) to read as follows:

§ 13.7 Classification of operator licenses and endorsements.

* * * * *

(b) There are ten types of commercial radio operator licenses, certificates and permits (licenses). The license's ITU classification, if different from its name, is given in parentheses.

* * * * *

- (9) Restricted GMDSS Radio Operator's License (restricted operator's certificate).

* * * * *

3. Section 13.9 is amended by revising paragraphs (b)(1) and (c) to read as follows:

§ 13.9 Eligibility and application for new license or endorsement.

* * * * *

(b)(1) Each application for a new General Radiotelephone Operator License, Marine Radio Operator Permit, First Class Radiotelegraph Operator's Certificate, Second Class Radiotelegraph Operator's Certificate, Third Class Radiotelegraph Operator's Certificate, Ship Radar Endorsement, Six Months Service Endorsement, GMDSS Radio Operator's License, Restricted GMDSS Radio Operator's License, GMDSS Radio Maintainer's License and GMDSS Radio Operator/Maintainer must be filed on FCC Form 605 in accordance with § 1.913 of this chapter.

* * * * *

(c) Each application for a new General Radiotelephone Operator License, Marine Radio Operator Permit, First Class Radiotelegraph Operator's Certificate, Second Class Radiotelegraph Operator's Certificate, Third Class Radiotelegraph Operator's Certificate, Ship Radar Endorsement, GMDSS Radio Operator's License, Restricted GMDSS Radio Operator's License, GMDSS Radio Maintainer's License, or GMDSS Radio Operator/Maintainer License must be accompanied by the required fee, if any, and submitted in accordance with § 1.913 of this chapter. The application must include an original PPC(s) from a COLEM(s) showing that the applicant has passed the necessary examinations element(s) within the previous 365 days when the applicant files the application. If a COLEM files the application electronically on behalf of the applicant an original PPC(s) is not required. However, the COLEM must keep the PPC(s) on file for a period of 1 year.

* * * * *

4. Section 13.13 is amended by revising paragraph (a), redesignating paragraph (d) as (e), and adding a new paragraph (d) to read as follows:

§ 13.13 Application for a renewed or modified license.

(a) Each application to renew a First Class Radiotelegraph Operator's Certificate, Second Class Radiotelegraph Operator's Certificate, Third Class Radiotelegraph Operator's Certificate, Marine Radio Operator Permit, GMDSS Radio Operator's License, Restricted GMDSS Radio Operator's License, GMDSS Radio Maintainer's License, or GMDSS Radio Operator/Maintainer License must be made on FCC Form 605. The application must be accompanied by the appropriate fee and submitted in accordance with § 1.913 of this chapter.

* * * * *

(d) Provided that a person's commercial radio operator license was not revoked, or suspended, and is not the subject of an ongoing suspension proceeding, a person holding a General Radiotelephone Operator License, Marine Radio Operator Permit, First Class Radiotelegraph Operator's Certificate, Second Class Radiotelegraph Operator's Certificate, Third Class Radiotelegraph Operator's Certificate, GMDSS Radio Operator's License, Restricted GMDSS Radio Operator License, GMDSS Radio Maintainer's License, or GMDSS Radio Operator/Maintainer license, who has an application for another commercial radio operator license which has not yet been acted upon pending at the FCC and who holds a PPC(s) indicating that he or she passed the necessary examination(s) within the previous 365 days, is authorized to exercise the rights and privileges of the license for which the application is filed. This temporary conditional operating authority is valid for a period of 90 days from the date the application is received. This temporary conditional operating authority does not relieve the licensee of the obligation to comply with the certification requirements of the Standards of Training, Certification and Watchkeeping (STCW) Convention. The FCC, in its discretion, may cancel this temporary conditional operating authority without a hearing.

* * * * *

5. Section 13.17 is amended by revising paragraph (b) to read as follows:

§ 13.17 Replacement license.

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(b) Each application for a replacement General Radiotelephone Operator License, Marine Radio Operator Permit, First Class Radiotelegraph Operator's Certificate, Second Class Radiotelegraph Operator's Certificate, Third Class Radiotelegraph Operator's Certificate, GMDSS Radio Operator's License, Restricted GMDSS Radio Operator License, GMDSS Radio Maintainer's License, or GMDSS Radio Operator/Maintainer license must be made on FCC Form 605 and must include a written explanation as to the circumstances involved in the loss, mutilation, or destruction of the original document.

* * * * *

6. Section 13.201 is amended by redesignating paragraphs (b)(7) and (b)(8) as (b)(8) and (b)(9), revising paragraph (b)(6), and adding a new paragraph (b)(7) to read as follows:

§ 13.201 Qualifying for a commercial operator license or endorsement.

* * * * *

(b) * * * * *

(6) GMDSS Radio Operator's License: Written Elements 1 and 7, or a Proof of Passing Certificate (PPC) issued by the United States Coast Guard or its designee representing a certificate of competency from a Coast Guard-approved training course for a GMDSS endorsement.

(7) Restricted GMDSS Radio Operator License: Written Elements 1 and 7R, or a Proof of Passing Certificate (PPC) issued by the United States Coast Guard or its designee representing a certificate of competency from a Coast Guard-approved training course for a GMDSS endorsement.

III. PART 80 -- STATIONS IN THE MARITIME SERVICES

1. The authority citation for Part 80 continues to read as follows:

AUTHORITY: Secs. 4, 303, 307(e), 309, and 332, 48 Stat. 1066, 1082, as amended; 47 U.S.C. 154, 303, 307(e), 309, and 332, 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.

2. Section 80.5 is amended by adding an entry for INMARSAT in alphabetical order and revising the entries for Digital selective calling, Distress signal, Distress traffic, Inland waters, Maritime mobile service identities (MMSI), Safety signal, and Urgency signal to read as follows:

§ 80.5 Definitions.

* * * * *

Digital selective calling (DSC). A synchronous system developed by the International Telecommunication Union Radiocommunication (ITU-R) Sector, used to establish contact with a station or group of stations automatically by means of radio. The operational and technical characteristics of this system are contained in Recommendations ITU-R M.493-10 and ITU-R M.541-8. (See subpart W of this part.)

* * * * *

Distress signal. The distress signal is a digital selective call using an internationally recognized distress call format in the bands used for terrestrial communication or an internationally recognized distress message format, in which case it is relayed through space stations, which indicates that a person, ship, aircraft, or other vehicle is threatened by grave and imminent danger and requests immediate assistance

(1) In radiotelephony, the international distress signal consists of the enunciation of the word "Mayday", pronounced as the French expression "m'aider". In case of distress, transmission of this particular signal is intended to ensure recognition of a radiotelephone distress call by stations of any nationality.

(2) For GMDSS, distress alerts result in an audible alarm and visual indication that a ship or person is threatened by grave and imminent danger and requests immediate assistance. These automatic systems contain sufficient information in the distress alert message to identify the vessel, prepare to assist and begin a search. However, except when transmitted via satellite EPIRB, the distress alert is just the initial call for help. Communication between the vessel or person in distress and the Rescue Coordination Center (RCC) or ship assisting should always follow.

Distress traffic. Distress traffic consists of all messages relating to the immediate assistance required by a person, ship, aircraft, or other vehicle in distress, including search and rescue communications and on-scene communications.

* * * * *

Inland Waters. This term, as used in reference to waters of the United States, its territories and possessions, means waters that lie landward of the boundary lines of inland waters as contained in 33 CFR 80.01, as well as waters within its land territory, such as rivers and lakes, over which the United States exercises sovereignty.

INMARSAT. INMARSAT Ltd. is a private commercial company licensed in the United Kingdom.

* * * * *

Maritime mobile service identities (MMSI). An international system for the identification of radio stations in the maritime mobile service. The system is comprised of a series of nine digits which are transmitted over the radio path to uniquely identify ship stations, ship earth stations, coast stations, coast earth stations and groups of stations.

* * * * *

Safety signal. (1) * * * * *

(4) For GMDSS, safety calls result in an audible alarm and visual indication that the station sending this signal has a very urgent message to transmit concerning the safety of navigation or giving important meteorological warnings.

* * * * *

Urgency signal. (1) * * * * *

(4) For GMDSS, urgency calls result in an audible alarm and visual indication that the station sending this signal has a very urgent message to transmit concerning the safety of a ship, aircraft, or other vehicle, or of some person on board or within sight.

* * * * *

3. Section 80.15 is amended by deleting paragraph (e)(1), redesignating paragraphs (e)(2) and (e)(3) as (e)(1) and (e)(2), and revising redesignated paragraph (e)(1) to read as follows:

§ 80.15 Eligibility for station license.

* * * * *

(e) EPIRB stations.

(1) Class A or Class B EPIRB stations will be authorized for use on board the following types of vessels until December 31, 2006:

* * * * *

4. Section 80.51 is amended by deleting paragraph (a), redesignating paragraph (b) as the sole undesignated paragraph of this section, and revising the paragraph to read as follows:

§ 80.51 Ship earth station licensing.

A ship earth station authorized to operate in the INMARSAT space segment must display the Commission license in conjunction with the commissioning certificate issued by the INMARSAT Organization. Notwithstanding the requirements in this paragraph, ship earth stations can operate in the INMARSAT space segment without an INMARSAT issued commissioning certificate provided an

appropriate written approval is obtained from the INMARSAT Organization in addition to the Commission's license.

* * * * *

5. Section 80.59 is amended by revising paragraph (c)(1)(x)(C) to read as follows:

§ 80.59 Compulsory ship inspections.

* * * * *

(c) * * * * *

(1) * * * * *

(x) * * * * *

(C) Category 1, 406.0-406.1 MHz EPIRB (GMDSS approved);

* * * * *

6. Section 80.67 is amended by revising paragraph (b) to read as follows:

§ 80.67 General facilities requirements for coast stations.

* * * * *

(b) All coast stations that operate telephony on frequencies in the 1605-3500 kHz band must be able to transmit and receive using J3E emission on the frequency 2182 kHz and at least one working frequency in the band.

7. Section 80.89 is amended by deleting paragraph (e) and redesignating paragraphs (f) and (g) as paragraphs (e) and (f).

8. Section 80.91 is amended to read as follows:

§ 80.91 Order of priority of communications.

(a) All stations in the maritime mobile service and the maritime mobile-satellite service shall be capable of offering four levels of priority in the following order:

- (1) Distress calls, distress messages, and distress traffic.
- (2) Urgency communications.
- (3) Safety communications.
- (4) Other communications.

(b) In a fully automated system, where it is impracticable to offer all four levels of priority, category 1 shall receive priority until such time as intergovernmental agreements remove exemptions granted for such systems from offering the complete order of priority.

9. Section 80.93 is amended by redesignating paragraph (d) as paragraph (e), adding a new paragraph (d), and revising paragraph (c) to read as follows:

§ 80.93 Hours of service.

* * * * *

(c) Compulsory ship stations. (1) Compulsory ship stations whose service is not continuous may not suspend operation before concluding all traffic originating in or destined for public coast stations situated within their range and mobile stations which have indicated their presence.

(2) For GMDSS ships, radios shall be turned on and set to proper watch channels while ships are underway. If a ship has duplicate GMDSS installations for DSC or INMARSAT, only one of each must be turned on and keeping watch.

* * * * *

(d) Ships Voluntarily Fitting GMDSS Subsystems. For ships voluntarily fitting GMDSS subsystems, radios shall be turned on and set to proper watch channels while ships are underway. If ship has duplicate GMDSS installations for DSC or INMARSAT, only one of each must be turned on and keeping watch.

(e) Other than public coast or compulsory ship stations. The hours of service of stations other than those described in paragraphs (b), (c), and (d) of this section are determined by the station licensee.

10. Section 80.101 is amended by revising paragraphs (b) and (c) to read as follows:

§ 80.101 Radiotelephone testing procedures.

* * * * *

(b) Testing of transmitters must be confined to single frequency channels on working frequencies. However, 2182 kHz and 156.800 MHz may be used to contact ship or coast stations as appropriate when signal reports are necessary. Short tests on 4215 MHz are permitted by vessels equipped with MF/HF radios to evaluate the compatibility of the equipment for distress and safety purposes. U.S. Coast Guard stations may be contacted on 2182 kHz or 156.800 MHz for test purposes only when tests are being conducted by Commission employees, when FCC-licensed technicians are conducting inspections on behalf of the Commission, when qualified technicians are installing or repairing radiotelephone equipment, or when qualified ship's personnel conduct an operational check requested by the U.S. Coast Guard. In these cases the test must be identified as "FCC" or "technical."

(c) Survival craft transmitter tests must not be made within actuating range of automatic alarm receivers.

11. Section 80.102 is amended by redesignating paragraph (e) as paragraph (f) and adding a new paragraph (e) to read as follows:

§ 80.102 Radiotelephone station identification.

* * * * *

(e) Voice traffic in the INMARSAT system is closed to other parties except the two stations involved and the identification is done automatically with the establishment of the call. Therefore, it is not necessary for these stations to identify themselves periodically during the communication. For terrestrial systems using DSC to establish radiotelephone communications, the identification is made at the beginning of the call. In these cases, both parties must identify themselves by ship name, call sign or MMSI at least once every 15 minutes during radiotelephone communications.

12. Section 80.103 is revised to read as follows:

§ 80.103 Digital selective calling (DSC) operating procedures.

(a) Operating procedures for the use of DSC equipment in the maritime mobile service are as contained in ITU-R Recommendation M.541-8 and subpart W of this part.

(b) When using DSC techniques, coast stations and ship stations must use maritime mobile service identities (MMSI) assigned by the Commission or its designees.

(c) DSC acknowledgement of DSC distress and safety calls must be made by designated coast stations and such acknowledgement must be in accordance with procedures contained in ITU-R Recommendation M.541-8. Nondesigned public and private coast stations must follow the guidance provided for ship stations in ITU-R Recommendation M.541-8 with respect to DSC "Acknowledgement of distress calls" and "Distress relays." (See subpart W of this part.)

(d) Group calls to vessels under the common control of a single entity are authorized. A group call identity may be created from an MMSI ending in a zero, assigned to this single entity, by deleting the trailing zero and adding a leading zero to the identity.

13. Section 80.116 is amended by removing paragraph (h).

14. Section 80.141 is amended by revising paragraph (c) to read as follows:

§ 80.141 General provision for ship stations.

* * * * *

(c) Service requirements for vessels. Each ship station provided for compliance with Part II of Title III of the Communications Act must provide a public correspondence service on voyages of more than 24 hours for any person who requests the service. Compulsory radiotelephone ships must provide this service for at least four hours daily. The hours must be prominently posted at the principal operating location of the station.

* * * * *

15. Section 80.142 is amended by revising paragraph (b) to read as follows:

§ 80.142 Ships using radiotelegraphy.

(a) * * * * *

- (b) NB-DP operating procedure. The operation of NB-DP equipment in the maritime mobile service must be in accordance with the operating procedures contained in the latest version of ITU-R Recommendation 492 that does not prevent the use of existing equipment.

* * * * *

16. Section 80.143 is amended by revising paragraph (a) to read as follows:

§ 80.143 Required frequencies for radiotelephony.

(a) Except for compulsory vessels, each ship radiotelephone station licensed to operate in the band 1605-3500 kHz must be able to receive and transmit J3E emission on the frequency 2182 kHz. Ship stations are additionally authorized to receive and transmit H3E emission for communications with foreign coast stations and with vessels of foreign registry. If the station is used for other than safety communications, it must be capable also of receiving and transmitting the J3E emission on at least two other frequencies in that band. However, ship stations which operate exclusively on the Mississippi River and its connecting waterways, and on high frequency bands above 3500 kHz, need be equipped with 2182 kHz and one other frequency within the band 1605-3500 kHz.

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17. Section 80.145 is removed and reserved.

§ 80.145 [Reserved]

18. Section 80.146 is removed and reserved.

§ 80.146 [Reserved]

19. Section 80.148 is amended by removing paragraph (c) and revising the introductory text to read as follows:

§ 80.148 Watch on 156.8 MHz (Channel 16).

Until February 1, 2005, each compulsory vessel, while underway, must maintain a watch for radiotelephone distress calls on 156.800 MHz whenever such station is not being used for exchanging communications. For GMDSS ships, 156.525 MHz is the calling frequency for distress, safety, and general communications using digital selective calling and the watch on 156.8 MHz is provided so that ships not fitted with DSC will be able to call GMDSS ships, thus providing a link between GMDSS and non-GMDSS compliant ships. The watch on 156.800 MHz is not required:

* * * * *

20. Section 80.151 is amended by adding new paragraphs (b)(7) and (b)(8) to read as follows:

§ 80.151 Classification of operator licenses and endorsements.

* * * * *

(b) * * * * *

(7) GOL. GMDSS Radio Operator License (General Operator's Certificate).

(8) ROL. Restricted GMDSS Radio Operator License (Restricted Operator's Certificate).

* * * * *

21. Section 80.159 is amended by redesignating paragraph (d) as paragraph (e) and adding a new paragraph (d) to read as follows:

§ 80.159 Operator requirements of Title III of the Communications Act and the Safety Convention.

* * * * *

(d) Each passenger ship equipped with a GMDSS installation in accordance with subpart W of this part shall carry at least two persons holding an appropriate GMDSS Radio Operator License or, if the passenger ship operates exclusively within twenty nautical miles of shore, at least two persons holding either a GMDSS Radio Operator License or a Restricted GMDSS Radio Operator License, as specified in § 13.7 of this chapter.

* * * * *

22. Section 80.165 is revised to read as follows:

§ 80.165 Operator requirements for voluntary stations.

Minimum operator license

Ship Morse telegraph.....	T-2.
Ship direct-printing telegraph.....	MP.
Ship telephone, with or without DSC, more than 250 watts carrier power or 1,000 watts peak envelope power.....	G.
Ship telephone, with or without DSC, not more than 250 watts carrier power or 1,000 watts peak envelope power.....	MP.
Ship telephone, with or without DSC, not more than 100 watts carrier power or 400 watts peak envelope power:	
Above 30 MHz.....	None.\1\
Below 30 MHz.....	RP.
Ship earth station.....	RP.

\1\ RP required for compulsory ships and international voyages.

23. Section 80.179 is amended by revising paragraph (e)(1) to read as follows:

§ 80.179 Unattended operation.

(e) ***

(1) The equipment must be using DSC in accordance with ITU-R Recommendations 493-10 and 541-8 as modified by this section.

24. Section 80.203 is amended by removing and reserving paragraph (e) and revising paragraph (g) to read as follows:

§ 80.203 Authorization of transmitters for licensing.

(e) Reserved.

(g) Manufacturers of ship earth station transmitters intended for use in the INMARSAT space segment must comply with the verification procedures given in part 2 of this chapter. Such equipment must be verified in accordance with the technical requirements provided by INMARSAT and must be type approved by INMARSAT for use in the INMARSAT space segment. The ship earth station input/output parameters, the data obtained when the equipment is integrated in system configuration and the pertinent method of test procedures that are used for type approval of the station model which are essential for the compatible operation of that station in the INMARSAT space segment must be disclosed by the manufacturer upon request of the FCC. Witnessing of the type approval tests and the disclosure of the ship earth station equipment design or any other information of a proprietary nature will be at the discretion of the ship earth station manufacturer.

25. Section 80.205 is amended by adding an entry to the table in paragraph (a) between J2C and J3C to read as follows:

§ 80.205 Bandwidths.

Class of emission	Emission designator	Authorized bandwidth (kHz)
***	***	***
J2D ¹⁴	2K80J2D	3.0
*****	*****	*****

¹⁴ The information is contained in multiple very low level subcarriers.

26. Section 80.207 is amended by revising paragraph (d) to read as follows:

§ 80.207 Classes of emission.

(d) The authorized classes of emission are as follows:

Types of stations	Classes of emission
<p style="text-align: center;">Ship Stations¹</p> <p>Radiotelegraphy: ***** 1605-27500 kHz: Manual^{15 16 17} DSC¹⁶ NB-DP^{14 16} ***</p> <p>Radiotelephony: 1605-27500 kHz^{5 16} ***</p>	<p>A1A, J2A, J2B, J2D F1B, J2B F1B, J2B, J2D ***</p> <p>H3E, J2D, J3E, R3E</p>
<p style="text-align: center;">Land Stations¹</p> <p>Radiotelegraphy: ***** 4000-27500 kHz: Manual¹⁶ DSC¹⁸ NB-DP^{14 18} *** Alaska--Fixed^{17 18} ***</p> <p>Radiotelephony: 1605-27500 kHz^{18 19} *****</p>	<p>A1A, J2A, J2B, J2D F1B, J2B F1B, J2B, J2D ***</p> <p>A1A, A2A, F1B, F2B, J2B, J2D</p> <p>H3E, J2D, J3E, R3E</p>
<p>Distress, Urgency and Safety^{8 9} 2182 kHz^{10 11} 121.500 MHz ***</p>	<p>A2B, A3B, H2B, H3E, J2B and J3E A3E, A3X, N0N</p>

¹ Excludes distress, EPIRBs, survival craft, and automatic link establishment.

⁵ Transmitters type accepted prior to December 31, 1969, for emission H3E, J3E, and R3E and an authorized bandwidth of 3.5 kHz may continue to be operated. These transmitters will not be authorized in new installations.

* * * * *

⁸ For direction finding requirements see § 80.375.

⁹ Includes distress emissions used by ship, coast, EPIRBs and survival craft stations.

¹⁰ On 2182 kHz A1B, A2B, H2B and J2B emissions indicate transmission of the auto alarm signals.

¹¹ Ships on domestic voyages must use J3E emission only.

* * * * *

¹⁴ NB-DP operations which are not in accordance with ITU-R Recommendation 625 or 476 are permitted to utilize any modulation, so long as emissions are within the limits set forth in § 80.211(f) of this chapter.

¹⁵ J2B is permitted only on 2000-27500 kHz.

¹⁶ J2D is permitted only on 2000-27500 kHz, and ship stations employing J2D emissions shall at no time use a peak envelope power in excess of 1.5 kW per channel.

¹⁷ J2B and J2D are permitted provided they do not cause harmful interference to A1A.

¹⁸ Coast stations employing J2D emissions shall at no time use a peak envelope power in excess of 10 kW per channel.

¹⁹ J2D is permitted only on 2000-27500 kHz.

* * * * *

27. Section 80.209 is amended by revising the table in paragraph (a) to read as follows.

§ 80.209 Transmitter frequency tolerances.

(a) * * * * *

(1) * * * * *	
(ii) Ship stations:	
For transmitters with narrow-band direct printing and data emissions	20 Hz.
For transmitters with digital selective calling emissions	10 Hz. ²
For all other transmitters.....	10 Hz.
(iii) Ship stations for emergency only:	
For all emissions	20 Hz.
(iv) Survival craft stations:	
For all emissions	20 Hz.

* * *

² The frequency tolerance for narrow-band direct printing and data transmitters installed before January 2, 1992, is 15 Hz for coast stations and 20 Hz for ship stations. The frequency tolerance for narrow-band direct printing and data transmitters approved or installed after January 1, 1992, is 10 Hz.

³ [Reserved]

* * *

⁵ [Reserved]

* * * * *

28. Section 80.213 is amended by revising paragraphs (h) and (i) to read as follows:

§ 80.213 Modulation requirements.

* * * * *

(h) Radar transponder coast stations using the 2900-3100 MHz or 9300-9500 MHz band must operate in a variable frequency mode and respond on their operating frequencies with a maximum error equivalent to 100 meters. Additionally, their response must be encoded with a Morse character starting with a dash. The duration of a Morse dot is defined as equal to the width of a space and 1/3 of the width of a Morse dash. The duration of the response code must not exceed 50 microseconds. The sensitivity of the stations must be adjustable so that received signals below -10 dBm at the antenna will not activate the

transponder. Antenna polarization must be horizontal when operating in the 9300-9500 MHz band and either horizontal or both horizontal and vertical when operating in the 2900-3100 MHz band. Racons using frequency agile transmitting techniques must include circuitry designed to reduce interference caused by triggering from radar antenna sidelobes.

(i) Variable frequency ship station transponders operating in the 2900-3100 MHz or 9300-9500 MHz band that are not used for search and rescue purposes must meet the following requirements:

(1) * * * * *

(vii) Antenna polarization must be horizontal when operating in the 9300-9500 MHz band and either horizontal or both horizontal and vertical when operating in the 2900-3100 MHz band.

* * * * *

29. Section 80.215 is amended by removing paragraph (g)(2), redesignating paragraphs (g)(3) to (g)(5) as (g)(2) to (g)(4), revising paragraphs (c)(1), (e)(1) and (g)(1)-(3) to read as follows:

§ 80.215 Transmitter power.

* * * * *

c) Coast station frequencies above 27500 kHz. The maximum power must not exceed the values listed below.

(1) Coast stations:

156-162 MHz--50W ^{1, 2, 13}

216-220 MHz ²

* * * * *

(e) Ship stations frequencies above 27500 kHz. The maximum power must not exceed the values listed below.

(1) Ship stations 156-162 MHz--25W ^{6 13}

Marine utility stations and hand-held portable transmitters: 156-162 MHz--10W

¹ Maximum authorized power at the input terminals of the station antenna.

² See paragraph (h) of this section.

* * *

⁶ Reducible to 1 watt or less, except for transmitters limited to public correspondence channels and used in an automated system.

* * *

¹² The frequencies 156.375 MHz and 156.650 MHz are primarily intership frequencies. When authorized for coast stations on a secondary basis, the normal output power must not exceed 1 watt and the maximum output power must not exceed 10 watts.

¹³ The frequencies 156.775 and 156.825 MHz are available for navigation-related port operations or ship movement only, and all precautions must be taken to avoid harmful interference to channel 16. Transmitter output power is limited to 1 watt for ship stations, and 10 watts for coast stations.

(g) * * * * *

(1) All transmitters and remote control units must be capable of reducing the carrier power to one watt or less;

(2) Except as indicated in (3) of this paragraph, all transmitters manufactured after January 21, 1987, or in use after January 21, 1997, must automatically reduce the carrier power to one watt or less when the transmitter is tuned to 156.375 MHz or 156.650 MHz, and must be provided with a manual override switch which when held by an operator will permit full carrier power operation on 156.375 MHz and 156.650 MHz;

(3) Hand-held portable transmitters are not required to comply with the automatic reduction of carrier power in (g)(2) of this section; and

* * * * *

30. Section 80.219 is amended to read as follows:

§ 80.219 Special requirements for narrow-band 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 ITU-R Recommendation 476 or ITU-R 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 ITU-R 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 ITU-R Recommendation 625.

* * * * *

31. Section 80.223 is revised to read as follows:

§ 80.223 Special requirements for survival craft stations.

(a) Survival craft stations capable of transmitting on:

(1) 2182 kHz must be able to operate with A2B and A3E or H2B and H3E and J2B and J3E emissions;

(2) 121.500 MHz must be able to operate with A3E or A3N emission.

(b) Survival craft stations must be able to receive the frequency and types of emission which the transmitter is capable of using.

(c) Any EPIRB carried as part of a survival craft must comply with the specific technical and performance requirements for its class contained in subpart V of this chapter.

32. Section 80.225 is amended by revising the introductory paragraph and paragraphs (a) and (c)(2) 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. Reference to any ITU-R Recommendation in this section is to the most recent ITU-R approved Recommendation that does not prevent the use of existing equipment.

(a) DSC equipment voluntarily installed in coast or ship stations must meet either the requirements of ITU-R Recommendation 493-10 (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) * * *

(2) Equipment used to perform a selective calling function during narrow-band direct-printing (NB-DP) operations in accordance with ITU-R Recommendation 476 or 625, and

* * * * *

33. Section 80.251 is amended by revising paragraph (a) to read as follows:

§ 80.251 Scope.

(a) This subpart gives the general technical requirements for certification of equipment used on compulsory ships. Such equipment includes automatic-alarm-signal keying devices, survival craft radio equipment, watch receivers, and radar.

* * * * *

34. Sections 80.253, 80.255, 80.257, 80.259, 80.261, 80.263, 80.265, and 80.267 are removed.

35. Section 80.269 is amended by revising paragraphs (b)(1) and (b)(2) to read as follows:

§ 80.269 Technical requirements for radiotelephone distress frequency watch receiver.

* * * * *

(b) * * * * *

(1) The receiver must be capable of being switched to 2182 kHz and of receiving signals of at least A2A and A2B emissions;

(2) The receiver sensitivity must provide a SINAD of 20 dB at the audio output when a 30 microvolt signal with A2A or A2B emission modulated 30% at 400 Hz is applied to the receiver RF terminals;

36. Section 80.273 is revised to read as follows:

§ 80.273 Technical requirements for radar equipment.

(a) Radar installations on board ships that are required by the Safety Convention or the U.S. Coast Guard to be equipped with radar must comply with either the document referenced in subparagraph (1) of this paragraph or the applicable document referenced in subparagraphs (2) through (4) of this paragraph. These documents are incorporated by reference in accordance with 5 USC 552(a). These documents contain specifications, standards and general requirements applicable to shipboard radar equipment and shipboard radar installations. For purposes of this part the specifications, standards and general requirements stated in these documents are mandatory irrespective of discretionary language. Radar documents are available for inspection at the Commission Headquarters in Washington, D.C. or may be obtained from the Radio Technical Commission for Maritime Services (RTCM), Suite 600, 1800 Diagonal Road, Alexandria, Virginia 22314-2480.

(1) Radar installed on or after July 1, 1988, on ships of 500 gross tons and upwards that were constructed on or after September 1, 1984, must comply with the provisions of RTCM Paper 13387/SC 103-33 including Appendix A. Title: "RTCM Recommended Performance Specification for a General Purpose Navigational Radar Set for Oceangoing Ships of 500 Gross Tons and Upwards for New Radar Installations." Title of Appendix A: "General Purpose Shipborne Navigational Radar Set for Oceangoing Ships Design and Testing Specifications." Document originally approved by RTCM August 15, 1985 and revised May 15, 1987.

(2) Radar installed on ships of 1,600 gross tons and upwards on or before April 27, 1981, must comply with the provisions of Volume II of RTCM Special Committee No. 65 Final Report; Part II. Title: "Performance Specification for a General Purpose Navigational Radar Set for Oceangoing Ships of 1,600 Tons Gross Tonnage and Upwards for Ships Already Fitted." Document approved by RTCM July 18, 1978; effective as FCC requirement on April 27, 1981.

(3) Radar installed on ships of 1,600 gross tons and upwards after April 27, 1981 and before July 1, 1988, must comply with the provisions of Volume II of RTCM Special Committee No. 65 Final Report with Change 1 entered; Part I including Appendix A. Title: "Performance Specification for a General Purpose Navigational Radar Set for Oceangoing Vessels of 1,600 Tons Gross Tonnage and Upwards for New Radar Installations." Title of Appendix A: "General Purpose Shipborne Navigational Radar Set for Oceangoing Ships Design and Testing Specifications." Document approved by RTCM July 18, 1978; effective as FCC requirement on April 27, 1981.

(4) Ships between 500 and 1,600 gross tons constructed on or after September 1, 1984, with radar installed before July 1, 1988, must comply with Regulation 12, Chapter V of the Safety Convention and with the provisions of Inter-Governmental Maritime Consultative Organization (IMCO) [now International Maritime Organization] Resolution A.477 (XII). Title: "Performance Standards for Radar Equipment." Adopted by IMCO November 19, 1981.

(b) For ships of 10,000 gross tons or more and any other ship that is required to be equipped with two radar systems, each of these systems must be capable of operating independently and must comply with the specifications, standards and general requirements established by paragraph (a) of this section. One of the systems must provide a display with an effective diameter of not less than 340 millimeters (13.4 inches), (16 inch cathode ray tube). The other system must provide a display with an effective diameter of not less than 250 millimeters (9.8 inches), (12 inch cathode ray tube).

(c) Recommendations for tools, test equipment, spares and technical manuals are contained in Part IV of Volume III of the RTCM SC-65 Final Report approved by RTCM July 18, 1978.

37. Section 80.302 is amended by revising paragraph (a) to read as follows:

§ 80.302 Notice of discontinuance, reduction, or impairment of service involving a distress watch.

(a) When changes occur in the operation of a public coast station which include discontinuance, reduction or suspension of a watch required to be maintained on 2182 kHz or 156.800 MHz, notification must be made by the licensee to the nearest district office of the U.S. Coast Guard as soon as practicable. The notification must include the estimated or known resumption time of the watch.

* * * * *

38. Section 80.304 is amended by deleting paragraph (a), and redesignating paragraph (b) as the sole undesignated paragraph of this section.

39. Section 80.305 is amended by revising paragraph (a)(3) to read as follows:

§ 80.305 Watch requirements of the Communications Act and the Safety Convention.

(a) * * * * *

(3) Until February 1, 2005, keep a continuous and efficient watch on the VHF distress frequency 156.800 MHz from the room from which the vessel is normally steered while in the open sea outside a harbor or port. The watch must be maintained by a designated member of the crew who may perform other duties, relating to the operation or navigation of the vessel, provided such other duties do not interfere with the effectiveness of the watch. Use of a properly adjusted squelch or brief interruptions due to other nearby VHF transmissions are not considered to adversely affect the continuity or efficiency of the required watch on the VHF distress frequency. This watch need not be maintained by vessels subject to the Bridge-to-Bridge Act and participating in a Vessel Traffic Services (VTS) system as required or recommended by the U.S. Coast Guard, when an efficient listening watch is maintained on both the bridge-to-bridge frequency and a separate assigned VTS frequency.

* * * * *

40. Section 80.310 is revised to read as follows:

§ 80.310 Watch required by voluntary vessels.

Voluntary vessels not equipped with DSC must maintain a watch on 156.800 MHz (Channel 16) whenever the vessel is underway and the radio is not being used to communicate. Noncommercial vessels, such as recreational boats, may alternatively maintain a watch on 156.450 MHz (Channel 9) for call and reply purposes. Voluntary vessels equipped with VHF-DSC equipment must maintain a watch on either 156.525 MHz (Channel 70) or VHF Channel 16 aurally whenever the vessel is underway and the radio is not being used to communicate. Voluntary vessels equipped with MF-HF DSC equipment must have the radio turned on and set to an appropriate DSC distress calling channel or one of the radiotelephone distress channels whenever the vessel is underway and the radio is not being use to communicate. Voluntary vessels equipped with Inmarsat A, B, or C systems must have the unit turned on and set to receive calls whenever the vessel is underway and the radio is not being used to communicate.

41. Section 80.313 is amended by revising the table to read as follows:

§ 80.313 Frequencies for use in distress.

* * * * *

Frequency band	Emission	Carrier frequency
1605-3500 kHz	J3E	2182 kHz.
118-136 MHz	A3E	121.500 MHz.
156-162 MHz	F3E, PON	156.800 MHz 156.750 MHz.
243 MHz	A3N	243.000 MHz.

* * * * *

42. Section 80.314 is amended by removing paragraph (a), and redesignating paragraphs (b) and (c) as (a) and (b).

43. Section 80.315 is amended by removing paragraph (a), redesignating paragraph (b) as (a), and adding a new paragraph (b) to read as follows:

§ 80.315 Distress calls.

* * * * *

(b) The procedures for canceling false distress alerts are contained in section 80.335 of this part.

44. Section 80.316 is amended by removing paragraph (a), redesignating paragraphs (b) and (c) as paragraphs (a) and (b), and adding new paragraph (c) to read as follows:

§ 80.316 Distress messages.

* * * * *

(c) The procedures for canceling false distress alerts are contained in section 80.335 of this part.

45. Section 80.320 is amended by redesignating paragraphs (b), (c), (d) and (e) as paragraphs (c), (d), (e) and (f) respectively, and inserting a new paragraph (b) to read as follows:

§ 80.320 Radiotelephone distress call and message transmission procedures.

* * * * *

(b) The DSC distress procedure consists of:

- (1) Transmission by a mobile unit in distress;
- (2) Reception;
- (3) Acknowledgement of distress calls;

(4) Distress relays.

* * * * *

46. A new section 80.334 is added to read as follows:

§ 80.334 False distress alerts.

A distress alert is false if it was transmitted without any indication that a mobile unit or person was in distress and required immediate assistance. Transmitting a false distress alert is prohibited and may be subject to the provisions of part 1, subpart A of this chapter if that alert:

- (a) was transmitted intentionally;
- (b) was not cancelled in accordance with § 80.335;
- (c) could not be verified as a result of either the ship's failure to keep watch on appropriate frequencies in accordance with § 80.1123 or subpart G of this part, or its failure to respond to calls from the U.S. Coast Guard;
- (d) was repeated; or
- (e) was transmitted using a false identity.

47. A new section 80.335 is added to read as follows:

§ 80.335 Procedures for canceling false distress alerts.

If a distress alert is inadvertently transmitted, the following steps shall be taken to cancel the distress alert.

- (a) VHF Digital Selective Calling.
 - (i) Reset the equipment immediately;
 - (ii) Transmit a DSC distress alert cancellation (i.e., own ship's acknowledgment), if that feature is available;
 - (iii) Set to Channel 16; and
 - (iv) Transmit a broadcast message to "All stations" giving the ship's name, call sign or registration number, and MMSI, and cancel the false distress alert.
- (b) MF Digital Selective Calling.
 - (i) Reset the equipment immediately;
 - (ii) Transmit a DSC distress alert cancellation (i.e., own ship's acknowledgment), if that feature is available;
 - (iii) Tune for radiotelephony transmission on 2182 kHz; and
 - (iv) Transmit a broadcast message to "All stations" giving the ship's name, call sign or registration number, and MMSI, and cancel the false distress alert.
- (c) HF Digital Selective Calling.
 - (i) Reset the equipment immediately;
 - (ii) Transmit a DSC distress alert cancellation (i.e., own ship's acknowledgment), if that feature is available, on each frequency on which the distress alert was transmitted;

- (iii) Tune for radiotelephony on the distress and safety frequency in each band in which a false distress alert was transmitted; and
- (iv) Transmit a broadcast message to "All stations" giving the ship's name, call sign or registration number, and MMSI, and cancel the false distress alert frequency in each band in which a false distress alert was transmitted.
- (d) INMARSAT ship earth station. Immediately notify the appropriate rescue coordination center that the alert is cancelled by sending a distress priority message by way of the same land earth station through which the false distress alert was sent. Provide ship name, call sign or registration number, and INMARSAT identity with the cancelled alert message.
- (e) EPIRB. If for any reason an EPIRB is activated inadvertently, immediately contact the nearest U.S. Coast Guard unit or appropriate rescue coordination center by telephone, radio or ship earth station and cancel the distress alert.
- (f) General and other distress alerting systems. Notwithstanding the above, ships may use additional appropriate means available to them to inform the nearest appropriate U.S. Coast Guard rescue coordination center that a false distress alert has been transmitted and should be cancelled.

* * * * *

48. Section 80.353 is removed and reserved.

§ 80.353 [Reserved]

49. Section 80.355 is amended by removing paragraph (c)(1), redesignating paragraphs (c)(2) and (c)(3) as (c)(1) and (c)(2), and revising the text of the newly designated paragraph (c)(1) and paragraph (d)(2) to read as follows:

§ 80.355 Distress, urgency, safety, call and reply Morse code frequencies.

* * * * *

(c) Frequencies in the 2000-27500 kHz band—(1) Ship station frequencies. The following table describes the calling frequencies in the 4000-27500 kHz band which are available for use by authorized ship stations equipped with crystal-controlled oscillators for A1A, J2A, J2B, or J2D radiotelegraphy. There are two series of frequencies for worldwide use and two series of frequencies for each geographic region. Ship stations with synthesized transmitters may operate on every full 100 Hz increment in the 0.5 kHz channel for the frequencies listed, except for 100 Hz above and below those designated for worldwide use. During normal business hours when not communicating on other frequencies, all U.S. coast radiotelegraph stations must monitor the worldwide frequencies and the initial calling frequencies for the region in which it is located. The specific frequencies which must be monitored by a coast station will vary with propagation conditions. The calling frequencies which are routinely monitored by specific coast stations can be determined by reference to the ITU publication entitled "List of Coast Stations." Initial calls by ship stations must be made on the appropriate initial calling frequency first. Calls on the worldwide frequencies may be made only after calls on the appropriate initial calling frequency are unsuccessful.

* * * * *

(d) * * * * *

(2) EPIRB stations may be assigned 121.500 MHz and 243 MHz using A3E, A3X and NON emission or 406.0-406.1 MHz using G1D emission to aid search and rescue operations. See subpart V of this part.

50. Section 80.357 is amended by revising the title, introductory paragraph and the text of paragraph (b)(1) to read as follows:

§ 80.357 Working frequencies for Morse code and data transmission.

This section describes the working frequencies assignable to maritime stations for A1A, J2A, J2B (2000-27500 kHz band only), or J2D (2000-27500 kHz band only) radiotelegraphy.

* * * * *

(b) Coast station frequencies—(1) Frequencies in the 100-27500 kHz band. The following table describes the working carrier frequencies in the 100-27500 kHz band which are assignable to coast stations located in the designated geographical areas. The exclusive maritime mobile HF bands listed in the table contained in § 80.363(a)(2) of this chapter are also available for assignment to public coast stations for A1A, J2A, J2B, or J2D radiotelegraphy following coordination with government users.

* * * * *

51. Section 80.359 is amended by replacing “4209.5” with “4209.0” in the table in paragraph (a) and by revising paragraph (b) to read as follows:

§ 80.359 Frequencies for digital selective calling (DSC).

* * * * *

(b) Distress and safety calling. The frequencies 2187.5 kHz, 4207.5 kHz, 6312.0 kHz, 8414.5 kHz, 12577.0 kHz, 16804.5 kHz and 156.525 MHz may be used for DSC by coast and ship stations on a simplex basis for distress and safety purposes. The provisions and procedures for distress and safety calling are contained in ITU-R Recommendation 541-8 as modified by § 80.103(c) of this part.

* * * * *

52. Section 80.361 is amended by redesignating paragraph (a)(1) as paragraph (a) and removing paragraph (a)(2), and by revising the text of paragraph (b) to read as follows:

§ 80.361 Frequencies for narrow-band direct-printing (NBDP), radioprinter and data transmissions.

* * * * *

(b) The following table describes the frequencies and Channel Series with F1B, J2B, or J2D emission which are assignable to ship stations for NBDP and data transmissions with other ship stations and public coast stations. Public coast stations may receive only on these frequencies.

* * * * *

53. Section 80.363 is amended revising the table in paragraph (a)(1) to read as follows:

§ 80.363 Frequencies for facsimile.

(a) * * * * *

(1) Ship station frequencies. The following frequencies are available for use by authorized ship stations for facsimile.

Assignable Ship Frequencies For Facsimile (kHz)

2070.5	4154	6235	8302	12370	16551	18848	22182	25123
2072.5	4170	6259	8338	12418	16615	18868	22238	25159
2074.5	-----	-----	-----	-----	-----	-----	-----	-----
2076.5	-----	-----	-----	-----	-----	-----	-----	-----

* * * * *

54. Section 80.373 is amended by revising paragraph (c)(2)(ii) to read as follows:

§ 80.373 Private communications frequencies.

* * * * *

(c) * * * * *

(2) * * * * *

(ii) The emissions must be J3E or J2D except that when DSC is used the emission must be F1B or J2B; and

* * * * *

55. Section 80.374 is amended by revising the title and the introductory paragraph to read as follows:

§ 80.374 Provisions for frequencies in the 4000-4063 and the 8100-8195 kHz bands shared with the fixed service.

Coast station assignments in the 4000-4063 kHz band deviate from international provisions. Coast station assignments in the 4000-4063 kHz band are permitted provided that such stations must not cause interference to, and must accept interference from, stations operated by other countries in accordance with the Radio Regulations.

* * * * *

56. Section 80.375 is amended by removing paragraphs (a)(1), (a)(2), (d)(2)(vii), (d)(3), (d)(3)(i)-(iv), (d)(4), and (e)(1)-(11), and revising paragraphs (a) and (e) to read as follows:

§ 80.375 Radiodetermination Frequencies

* * * * *

- (a) Direction finding frequencies. The carrier frequencies assignable to ship stations for directional finding operations are:

CARRIER FREQUENCY

8364 KHZ
121.500 MHZ
243.00 MHZ

* * * * *

- (e) Search and Rescue Radar Transponder Stations. The technical standards for search and rescue transponder stations are in subpart W of this part.

57. Section 80.401 is amended to read as follows:

§ 80.401 Station documents requirement.

Licenses of radio stations are required to have current station documents as indicated in the following table: