

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

In the Matter of)	
)	
Amendment of the Commission’s Rules)	
Regarding Maritime Automatic Identification)	WT Docket No. 04-344
Systems)	
)	
Petition for Rule Making Filed by National)	RM-10821
Telecommunications and Information)	
Administration)	
)	
Emergency Petition for Declaratory Ruling Filed)	
by MariTEL, Inc.)	

MEMORANDUM OPINION AND ORDER AND NOTICE OF PROPOSED RULE MAKING

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By the Commission:

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I. INTRODUCTION

1. We initiate this rulemaking proceeding to identify the spectrum that should be used for maritime Automatic Identification Systems (AIS) in the United States and its territorial waters. AIS is an important tool for enhancing maritime safety and homeland security, and we are concerned that recent developments may have created uncertainty in the maritime community regarding the very high frequency (VHF) channels to be used for AIS, and that this in turn could impede efforts to expedite the broad deployment of AIS. We have received conflicting petitions and other pleadings on this subject from the National Telecommunications and Information Administration (NTIA), which is representing the interests of the Federal Government, including the United States Coast Guard (USCG or Coast Guard)¹ and the Department of Transportation (including the Saint Lawrence Seaway Development Corporation) in this matter, and from MariTEL, Inc. (MariTEL), the licensee of all nine of the maritime VHF Public Coast (VPC) station service areas. Based on these petitions and pleadings, as well as responsive comments from other stakeholders in the maritime community, we propose to designate VHF maritime Channels 87B and 88B for exclusive AIS use domestically, in keeping with the international allocation of those channels for AIS, because we believe the use of those channels will best secure to the United States the maritime safety and homeland security benefits of AIS. In addition, we tentatively conclude that we should deny MariTEL’s pending petitions that conflict with this proposal. We also determine that we should deny MariTEL’s petition seeking a declaratory ruling that it has the exclusive right to use VHF maritime Channels 88A/B in certain areas within seventy-five miles of the United States-Canada border, subject only to coordination with Canada.

II. BACKGROUND

A. VHF Maritime Channels 87 and 88

2. The regulation of maritime radio communication by the Federal Government can be traced back to 1910,² and the maritime mobile service³ is the oldest radio service administered by the Federal

¹ The Coast Guard, previously under the Department of Transportation, was transferred to the Department of Homeland Security by the Homeland Security Act of 2002, P.L. 107-296, 116 Stat. 2135, 2249 § 888(b) (2002).

² See Amendment of the Commission’s Rules Concerning Maritime Communications, *Notice of Proposed Rule Making and Notice of Inquiry*, PR Docket No. 92-257, 7 FCC Rcd 7863, 7863 ¶ 2 (1992) (*1992 Maritime NPRM/NOI*) (observing that the Wireless Ship Act of 1910, Pub. L. No. 262, 36 Stat. 629 (1910), authorized the Secretary of Commerce and Labor to establish requirements for carriage of wireless equipment on vessels).

³ The maritime mobile service is defined as a mobile service between coast stations and ship stations, or between ship stations, or between associated on-board communication stations. Survival craft stations and emergency position-indicating radio beacon stations may also participate in this service. A coast station is defined as a land station in the maritime mobile service. A ship station is defined as a mobile station in the maritime mobile service located on board a vessel which is not permanently moored, other than a survival craft station. 47 C.F.R. § 2.1(c).

Communications Commission (FCC or Commission).⁴ VHF channels in the 156-162 MHz band are used in the maritime mobile radio service by ship stations at sea or on inland waterways to communicate with other ship stations or with coast stations. These maritime channels are available for safety communications, distress alerting, operational and navigational communications, and public correspondence communications.⁵ The present proceeding principally involves VHF maritime Channels 87B (161.975 MHz) and 88B (162.025 MHz).⁶

3. Channel 87B is currently allocated for public correspondence, and Channel 88B is allocated to Federal Government non-military agencies.⁷ A 1962 treaty between the United States and Canada provides for coordinated use of VHF maritime channels (as well as radio frequencies above 30 megacycles per second generally) in areas near the border of the two countries.⁸ Under the 1962 treaty, Channel 88 is listed as a Canadian channel, but is assignable to United States stations within the frequency coordination zone, subject to successful coordination with Canada.⁹

4. In 1976, the Commission amended both its Table of Frequency Allocations and the predecessor rule parts to Part 80 of its Rules to allow public correspondence use of Channel 88 in the Great Lakes and the Saint Lawrence Seaway, in order to relieve frequency congestion in those areas.¹⁰ In the Notice of Proposed Rule Making in that proceeding, the Commission stated, “The frequency 162.025 MHz is in the Government frequency band 162.0125-173.2 MHz, however, it has been cleared for the proposed usage. In areas other than the Great Lakes and Saint Lawrence Seaway, 162.025 MHz will continue to be used by Government stations.”¹¹ In 1984, the Commission extended the use of Channel 88

⁴ See Amendment of the Commission’s Rules Concerning Maritime Communications, *Further Notice of Proposed Rule Making*, PR Docket No. 92-257, 10 FCC Rcd 5725, 5725 ¶ 2 (1995).

⁵ See 47 C.F.R. § 87.373(f). Public correspondence communications are personal or private communications between two or more persons. Public correspondence is defined under the Part 80 Maritime Service Rules as “[a]ny telecommunication which the offices and stations must, by reason of their being at the disposal of the public, accept for transmission.” 47 C.F.R. § 80.5.

⁶ The 156-162 MHz maritime channels are designated numerically in accordance with a numbering scheme established at the International Telecommunication Union (ITU) World Administrative Radio Conference of 1967, and adopted by the Commission in 1968. See Amendment of Parts 2, 81, and 83 – Reduction of Channel Spacing to 25 kc/s, Allotment of Channels, Establishment of Revised Technical Criteria and Categories of Communication in the Maritime Mobile Service Band 156-162 Mc/s for VHF Radiotelephony, *Report and Order*, Docket No. 17295, 13 FCC 2d 874, 879 ¶¶ 17-18 (1968), *recon. denied*, 15 FCC 2d 819 (1969). Thus, for example, the frequency 156.800 MHz, the international VHF distress frequency, is designated VHF maritime Channel 16. See 47 C.F.R. §§ 80.371(c)(1)(i), 80.373(f).

⁷ See Amendment of the Commission’s Rules Concerning Maritime Communications, *Third Report and Order and Memorandum Opinion and Order*, PR Docket No. 92-257, 13 FCC Rcd 19853, 19875 ¶ 47 (1998) (*Public Coast Third Report and Order*) (citing 47 C.F.R. § 2.106 n.G5).

⁸ See Exchange of Notes Between the Government of the United States of America and the Government of Canada Concerning the Coordination and Use of Radio Frequencies Above 30 Megacycles per Second, Attachments A through F (Oct. 24, 1962) (*Above 30 MHz Coordination Agreement*).

⁹ *Id.*; see also 47 C.F.R. § 80.57. Channel 87 is listed as a United States channel under the treaty.

¹⁰ See Amendment of Parts 2 and 83 – On the Great Lakes and Along the Saint Lawrence Seaway: To Change the Status of 157.425 and 162.025 MHz, to Form Them into VHF Channel 88, and to Make Channel 88 Available for Assignment to Ship Stations for Public Correspondence, *Report and Order*, Docket No. 20838, 62 FCC 2d 445, 445-46 ¶ 4 (1976) (*1976 Report and Order*).

¹¹ See Ship Stations for Public Correspondence — Great Lakes and Saint Lawrence Seaway, *Notice of Proposed Rule Making*, 41 Fed. Reg. 24914, 24914 (1976) (*1976 NPRM*).

for public correspondence to Puget Sound and the Strait of Juan de Fuca.¹² Consequently, note US223 to the Table of Frequency Allocations now reads:

Within 75 miles of the United States/Canada border on the Great Lakes, the Saint Lawrence Seaway, and the Puget Sound and the Strait of Juan de Fuca and its approaches, use of coast transmit frequency 162.025 MHz and ship station transmit frequency 157.425 MHz (VHF maritime mobile service Channel 88) may be authorized for use by the maritime mobile service for public correspondence.¹³

B. Automatic Identification Systems

5. AIS is a maritime navigation safety communications system standardized by the ITU for use in collision avoidance and vessel monitoring and tracking. It employs on-board transponders, electronic charts, Differential Global Positioning System technology, and a technique called Self-Organizing Time Division Multiple Access (SOTDMA) to provide a VHF ship-to-ship and ship-to-shore radio service in which vessels and designated shore stations broadcast a unique identifier, coupled with safety-related data on, for example, ship positions, routes, dimensions, and navigational status. AIS-transmitted information can be received by similarly equipped vessels and shore stations in order to mitigate the risk of collisions and facilitate vessel monitoring and tracking.¹⁴

6. At the World Radiocommunication Conference of 1997 (WRC-97), Channels 87B and 88B were allocated internationally for AIS.¹⁵ However, Administrations were permitted to designate other channels if Channels 87B and/or 88B were not available.¹⁶ In December 2000, the International Maritime Organization (IMO) mandated that ships subject to the International Convention for Safety of Life at Sea (SOLAS) carry AIS transceivers.¹⁷ In August 2001, the ITU approved an international standard for AIS equipment. This standard, ITU-R M.1371-1, contemplates that AIS equipment will operate on the internationally allocated AIS channels, *i.e.*, it defaults to Channels 87B and 88B.¹⁸ The phase-in schedule

¹² See Frequency Allocations and Treaty Matters; General Rules and Regulations; Stations on Shipboard in the Maritime Services; Stations on Land in the Maritime Services and Alaska-Public Fixed Stations, *Report and Order*, Docket No. 83-664, 49 Fed. Reg. 11838 (1984).

¹³ 47 C.F.R. § 2.106 n.US223; *see also* 47 C.F.R. § 80.371(c)(1)(i) n.3.

¹⁴ See Amendments of Parts 13 and 80 of the Commission's Rules Concerning Maritime Communications, *Second Report and Order, Sixth Report and Order, and Second Further Notice of Proposed Rule Making*, WT Docket No. 00-48 & PR Docket No. 92-257, 19 FCC Rcd 3145, 3179 ¶ 64 (2004) (*GMDSS Second Report and Order*).

¹⁵ See WRC-97 Final Acts (amending ITU Radio Regulations App. S18). Channel 87B was denominated AIS 1 and Channel 88B was denominated AIS 2. *Id.*

¹⁶ *Id.*

¹⁷ See Amendments to the International Convention for the Safety of Life at Sea, 1974, Chapter V, Regulation 19.2.4, "Carriage requirements for shipborne navigational systems and equipment," as amended by IMO Resolution MSC.99(73) – 2000 Amendments to the Safety of Life at Sea 1974 Convention, as Amended – London, 5 December 2000 (*IMO AIS Carriage Requirements*). The *IMO AIS Carriage Requirements* apply to all ships of 300 gross tons or more on international voyages, cargo ships of 500 gross tons or more not on international voyages, and all tankers and passenger ships, and to other ships as determined by the flag State. Passenger ships are defined under SOLAS as ships carrying more than twelve passengers.

¹⁸ Recommendation ITU-R M.1371-1, "Technical characteristics for a universal shipborne automatic identification system using time division multiple access in the VHF maritime mobile band," with Annexes, at Annex 1, § 2.1.1, Table 2 (2001). In addition to ITU-R M.1371-1, applications for AIS equipment certification must meet the following standards: IMO Resolution MSC.74(69), IEC 61162-1, IEC 61162-100, and IEC 61993-2. *See* 47 C.F.R. § 80.1101(c)(12), as amended in the *GMDSS Second Report and Order*; *see also* IMO Resolution A.917(22), "Guidelines for the On Board Operational Use of Shipborne Universal Automatic Identification System."

for deployment of AIS began on July 1, 2002, and the IMO accelerated the schedule to require installation on all ships subject to SOLAS on international voyages by the first safety equipment survey after July 1, 2004, or by December 31, 2004, whichever is earlier, and on ships not engaged on international voyages by July 1, 2008.¹⁹

7. In the wake of the events of September 11, 2001, AIS has been recognized as an important tool in service of Maritime Domain Awareness (MDA), a critical component of homeland security.²⁰ On November 25, 2002, the President signed the Maritime Transportation Security Act of 2002 (MTSA), which mandates domestic deployment of AIS.²¹ The MTSA directs the Coast Guard to promulgate regulations imposing AIS carriage requirements on certain vessels while they are operating on the navigable waters of the United States, namely, self-propelled commercial vessels of at least sixty-five feet in overall length; passenger vessels carrying more than a threshold number of passengers to be determined by the Coast Guard; and towing vessels of more than twenty-six feet in length and 600 horsepower.²² The MTSA also empowers the Coast Guard to impose AIS carriage requirements on “any other vessel [if it is determined] that an automatic identification system is necessary for the safe navigation of the vessel.”²³ The MTSA did not, however, specify that any particular channels must be used for AIS. Pursuant to the MTSA and the Ports and Waterways Safety Act of 1972,²⁴ in 2003 the Coast Guard and the Saint Lawrence Seaway Development Corporation adopted AIS carriage and operational requirements for specified classes of vessels.²⁵ These AIS regulations specify that equipment installed in satisfaction of the AIS carriage requirement must meet the performance standard established by the IMO and be approved as complying with, *inter alia*, ITU-R Recommendation M.1371-1, the

¹⁹ See *IMO AIS Carriage Requirements*. The initial implementation schedule provided that vessels built on or after July 1, 2002 were required to carry AIS immediately. With respect to vessels built prior to July 1, 2002, passenger ships engaged on international voyages were required to carry AIS by July 1, 2003; tankers on international voyages were required to carry AIS by the first survey for safety equipment on or after July 1, 2003; and ships other than passenger ships and tankers were required to carry AIS by the following deadlines: July 1, 2004, for ships of 50,000 gross tons or more; July 1, 2005, for ships of 10,000 gross tons or more but less than 50,000 gross tons; July 1, 2006, for ships of 3,000 gross tons or more but less than 10,000 gross tons; and July 1, 2007, for ships of 300 gross tons or more but less than 3,000 gross tons. Ships not engaged on international voyages were required to carry AIS by July 1, 2008. The IMO subsequently adopted a United States recommendation to require the installation of AIS on all vessels on international voyages by 2004, while retaining the July 1, 2008 deadline for all vessels not on international voyages. See IMO Maritime Safety Committee, 75th Session, Agenda Item 17 – Prevention and Suppression of Acts of Terrorism Against Shipping; Automatic Identification System (submitted by the United States) – London, 15 January 2002.

²⁰ See U.S. General Accounting Office, *Homeland Security: Efforts to Improve Information Sharing Need to be Strengthened*, Report to the Secretary of Homeland Security (GAO-03-760 August 2003) (viewable at <http://www.gao.gov/new.items/d03760.pdf>) at 39 (“MDA is a concept that captures total awareness of vulnerabilities, threats, and targets of interest on the water. MDA is the comprehensive information, intelligence, and knowledge of all entities within America’s waterways that could affect our safety, security, economy, or environment.”).

²¹ See P.L. 107-295, § 102(e), 116 Stat. 2082 (2002) (codified at 46 U.S.C. § 70114).

²² *Id.* The statute also authorizes the Coast Guard to exempt vessels from AIS carriage requirements and to issue waivers of those requirements. *Id.*

²³ *Id.*

²⁴ See 33 U.S.C. §1221 *et seq.*

²⁵ See, e.g., 33 C.F.R. §§ 161.21(a) (specifying that, unless otherwise directed, AIS-equipped vessels must make continuous, all stations, AIS broadcasts in lieu of Voice Position Reports), 164.46 (imposing mandatory carriage requirements on specified classes of vessels, with varying compliance deadlines of July 1, 2003, July 1, 2004, and December 31, 2004), and 401.20 (establishing AIS requirements for vessels transiting the Saint Lawrence Seaway).

international standard premised on AIS operating on Channels 87B and 88B.²⁶

C. VHF Public Coast Stations and the *Public Coast Third Report and Order*

8. The maritime mobile radio service is comprised of both ship radio stations and land stations. The two major categories of land stations are public coast stations and private coast stations. Although private coast stations are limited to serving the operational and business needs of ships, public coast stations are permitted to also provide public correspondence services that can be interconnected to the public telephone network.²⁷ Accordingly, they are generally classified as commercial mobile radio service (CMRS) providers, and are subject to common carrier regulation.²⁸ In addition, however, coast stations are subject to special requirements in the interest of maritime safety.²⁹

9. In July 1998, the Commission adopted the *Public Coast Third Report and Order*, amending Part 80 of the Commission's Rules to streamline the licensing process for VPC stations and promote regulatory symmetry in the treatment of VPC licensees vis-à-vis other CMRS providers.³⁰ In the *Public Coast Third Report and Order*, the Commission adopted a geographic area licensing approach for VPC stations. The Commission established predefined regional service areas for new licenses in lieu of the traditional site-based licensing approach.³¹ It specifically established nine licensing regions near major waterways, terming them maritime VHF Public Coast areas,³² and thirty-three inland licensing regions based on Economic Areas (EAs), terming those inland VHF Public Coast areas.³³ The Commission further determined that it would authorize just a single licensee to operate on all unassigned VHF public correspondence frequencies in each of the newly established regional service areas.³⁴ Incumbent site-based VPC licensees were permitted to continue operating, and incumbent licensees and geographic area licensees were required to afford each other interference protection.³⁵ In addition, the Commission affirmed an earlier determination that mutually exclusive applications for geographic area VPC licenses should be resolved through competitive bidding, pursuant to Section 309(j) of the Communications Act of

²⁶ See 33 C.F.R. § 164.46(a) Note; IMO Resolution A.917(22), "Guidelines for the On Board Operational Use of Shipborne Universal Automatic Identification System."

²⁷ See 1992 *Maritime NPRM/NOI*, 7 FCC Rcd at 7864 ¶ 7; 47 C.F.R. § 80.5.

²⁸ See 47 C.F.R. § 20.9(a)(5). Although presumptively classified as a CMRS provider under the Commission's Rules, a VPC licensee or applicant may propose to use VPC spectrum to provide private land mobile radio service. The licensee or applicant must certify to that effect and must demonstrate that the proposed service does not come within the definition of a commercial mobile radio service. 47 C.F.R. § 20.9(b), (b)(1).

²⁹ See, e.g., 47 C.F.R. § 80.153 (requiring that operation of a coast station transmitter be performed by a person who is on duty at the station control point); §§ 80.301-80.303 (watch requirements); § 80.1119 (requirements to relay distress alerts to search and rescue personnel).

³⁰ See n.7, *supra*.

³¹ *Public Coast Third Report and Order*, 13 FCC Rcd at 19859-60 ¶ 10. Under the site-based licensing approach, the VPC applicant proposed a base station site of its choosing by reference to geographic coordinates, and the service area was defined on the basis of predicted signal strength over the waterway to be served. Generally, the service areas of site-based VPC stations extend twenty to thirty miles from the transmitter.

³² *Id.* at 19861-63 ¶¶ 14-16. The nine maritime VHF Public Coast areas roughly correspond with U.S. Coast Guard Districts. The regions served are Northern Atlantic (VPC 1), Mid-Atlantic (VPC 2), Southern Atlantic (VPC 3), Mississippi River (VPC 4), Great Lakes (VPC 5), Southern Pacific (VPC 6), Northern Pacific (VPC 7), Hawaii (VPC 8), and Alaska (VPC 9).

³³ *Id.* at 19861-62 ¶¶ 13, 15. EAs are areas designated and defined by the U.S. Department of Commerce.

³⁴ *Id.* at 19866 ¶ 25.

³⁵ *Id.* at 19863-64 ¶ 18.

1934, as amended (the Act),³⁶ and it adopted competitive bidding procedures for such auctions.³⁷ The Commission cautioned, in connection with its adoption of competitive bidding rules, that it “does not endorse any particular services, technologies, or products, and grant of an FCC license does not guarantee business success.”³⁸

10. In the *Public Coast Third Report and Order*, the Commission also determined to provide additional technical flexibility to VPC licensees. It observed that the ITU *Radio Regulations* had established a channel plan for VPC spectrum based on a 25 kHz channel bandwidth.³⁹ The Commission concluded that VPC licensees also should be permitted to use narrowband 12.5 kHz channels that are offset 12.5 kHz from the 25 kHz marine VHF band public correspondence channels where the licensee is authorized to operate on both adjacent frequencies or has acquired the consent of the licensee on the other side of the offset frequency.⁴⁰ In authorizing the use of these narrowband offset channels, the Commission noted that 12.5 kHz channelization had been approved for this maritime spectrum internationally at WRC-97,⁴¹ and reasoned that without access to narrowband channel pairs, VPC licensees would be hampered in their efforts to compete effectively against other CMRS providers.⁴²

11. In the *Public Coast Third Report and Order*, the Commission also adopted section 80.371(c)(3) of the Rules,⁴³ regarding AIS frequencies. The genesis of section 80.371(c)(3) is a petition for rulemaking filed by the Coast Guard on August 4, 1997, which the Commission elected to treat as a comment in the Public Coast proceeding.⁴⁴ The Coast Guard had requested that the Commission set aside two duplex channel pairs offset 12.5 kHz from the marine VHF band public correspondence channels, as well as VHF maritime Channel 228B (162.0125 MHz), for use in AIS and related safety systems in support of the Coast Guard’s Vessel Traffic Services (VTS) program.⁴⁵ The Coast Guard had earlier established the Ports and Waterways Safety System (PAWSS) as an acquisition program to enhance its VTS operations, which are intended to prevent vessel collisions and other maritime accidents.⁴⁶

³⁶ 47 U.S.C. § 309(j).

³⁷ See *Public Coast Third Report and Order*, 13 FCC Rcd at 19883-88 ¶¶ 64-73.

³⁸ *Id.* at 19858 ¶ 7.

³⁹ *Id.* at 19874 ¶ 44.

⁴⁰ *Id.* at 19874-75 ¶ 45; see 47 C.F.R. § 80.371(c)(1)(iii).

⁴¹ *Public Coast Third Report and Order*, 13 FCC Rcd at 19874-75 ¶ 45 (citing Final Acts of the World Radiocommunication Conference (WRC-97), Geneva, 1997 (amending ITU Radio Regulations Art. S52, App. S18).

⁴² *Id.*

⁴³ 47 C.F.R. § 80.371(c)(3).

⁴⁴ See *Public Coast Third Report and Order*, 13 FCC Rcd at 19875 ¶ 46.

⁴⁵ See *id.* VTS is a national transportation system that collects, processes, and disseminates information on the marine operating environment and maritime vessel traffic in major U.S. ports and waterways. The VTS program is administered by the Coast Guard under authority of the Ports and Waterways Safety Act of 1972, 33 U.S.C. § 1221 *et seq.*

⁴⁶ The Coast Guard uses VTS systems as a mandatory communications service to coordinate vessel movement and prevent collisions in certain congested waterways or port areas. Information pertaining to, among other things, vessel position, navigation and conditions affecting navigation is transmitted to the Coast Guard, which tracks the vessels’ movements and exchanges pertinent information to aid navigation in VTS areas. See 33 C.F.R. Part 161. VTS systems use VHF maritime channels that are dedicated to exclusive VTS operation in certain Coast Guard-designated VTS areas. The Coast Guard requires that vessels subject to the Bridge-to-Bridge Radiotelephone Act, P.L. 92-63, including certain large ships, passenger vessels and towing vessels participate in VTS. See Amendment of Part 80 of the Rules Concerning U.S. Coast Guard Vessel Traffic Services (VTS) Systems in Sault Ste. Marie,

(continued....)

12. The Commission took notice that Channels 87B and 88B had been set aside for AIS internationally at WRC-97, but that Administrations could select other frequencies if those were unavailable.⁴⁷ It also noted that Channel 87, including Channel 87B, was allocated to VHF public correspondence, and that Channel 88 was allocated to Government non-military agencies, but could be authorized in certain border areas for maritime public correspondence.⁴⁸ The Commission concluded that “the Coast Guard request should be granted, and two channel pairs (plus Channel 228B, where it is a maritime frequency) should be set aside in each maritime VPC for AIS.”⁴⁹ The Commission added that it had considered designating Channel 87B as one of the AIS channels, but ultimately decided against doing so because “the public interest benefits flowing from such an approach are minimal as compared to the potential adverse impact on our licensing of public coast stations.”⁵⁰ The Commission explained:

First, setting aside Channel 87B as an AIS channel would require relocation of the thirty-four public coast stations currently authorized to use Channel 87. Second, we believe that setting aside one broadband channel and one narrowband channel for AIS might complicate AIS implementation or raise the cost of the necessary equipment. Third, this approach would encumber one broadband channel and *three* narrowband channels, instead of encumbering two narrowband channels as proposed by the Coast Guard, because setting aside Channel 87B would leave the surrounding narrowband channels unavailable. Finally, setting aside Channel 87B would harm maritime VPC licensees’ ability to construct wide-area systems by leaving most with no more than eight broadband channels.⁵¹

13. The Commission concluded that, rather than designating channels for AIS by regulatory fiat, it would be better to rely in the first instance on negotiations between the Coast Guard and each individual maritime VPC area licensee to select channels for AIS use in the United States and its territorial waters. The Commission set a timetable for mandatory good faith negotiations, requiring initiation of such negotiations within six months after conclusion of the VPC license auction and requiring maritime VPC area licensees that object to a Coast Guard proposal to make a counterproposal within three months of receipt of that proposal.⁵² If good faith negotiations failed to yield an agreement within one year of the

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Michigan; San Francisco, California; and Morgan City, Louisiana, *Report and Order*, WT Docket No. 95-132, 11 FCC Rcd 12942, 12943 ¶ 3 (1996). The Commission first allocated maritime VHF channels for VTS in 1975. *See* Amendment of Parts 81 and 83 of the Rules to Designate in the Ports of New York and New Orleans the Frequencies 156.55 MHz, 156.6 MHz and 156.7 MHz (Very High Frequency Channels 11, 12 and 14) in the Maritime Mobile Service for Exclusive Use in the Vessel Traffic Services, *Report and Order*, Docket No. 20444, 56 FCC 2d 1089 (1975). At present, there are ten VTS areas. *See* 33 C.F.R. Part 161, Subchapter C. Eight of these VTS areas are protected by Commission regulations: New York City, New Orleans, Houston, Seattle (Puget Sound), San Francisco, Prince William Sound, Sault Ste. Marie, and Berwick Bay. *See* 47 C.F.R. § 80.383(b). Frequencies allotted for VTS communications may be used for other purposes outside the VTS areas, provided they cause no interference to VTS communications. *See* 47 C.F.R. § 80.383(c).

⁴⁷ *See Public Coast Third Report and Order*, 13 FCC Rcd at 19876 ¶ 47.

⁴⁸ *Id.* at 19875-76 ¶¶ 46-47.

⁴⁹ *Id.* at 19876 ¶ 48.

⁵⁰ *Id.* at 19876 ¶ 48. The Commission made no mention, in this context, of Channel 88, presumably because the Coast Guard’s requested allocation of Channel 228B (162.0125 MHz) for AIS would preclude AIS use of Channel 88B (162.025 MHz).

⁵¹ *Id.* at 19876-77 ¶ 48 (emphasis in original).

⁵² *Id.* at 19877 ¶ 49.

date the Coast Guard submitted its initial proposal, the Commission said, “the Coast Guard may ask the Commission to revisit this issue and select the channels and locations.”⁵³ The Commission concluded that this approach should be beneficial to the Coast Guard and the geographic area VPC licensees alike in comparison to immediate Commission designation of channels for AIS.⁵⁴ The approach adopted by the Commission is codified in section 80.371(c)(3), which states:

VPCSA [VHF public coast station area] licensees may not operate on Channel 228B (162.0125 MHz), which is available for use in the Coast Guard's Ports and Waterways Safety System (PAWSS). In addition, within six months of the conclusion of the competitive bidding procedures to determine the licensees in each VPCSA, the U.S. Coast Guard shall submit to each licensee of VPCSA 1–9 [*i.e.*, the maritime VPCSA] a plan specifying up to two narrowband channel pairs offset 12.5 kHz from the channels set forth in the table in paragraph (c)(1)(i) of this section, for use in the PAWSS. The final selection of the PAWSS channel pairs can be negotiated (if the VPCSA licensee objects to the Coast Guard proposal, it shall make a counterproposal within three months) and established by an agreement between the parties. All parties are required to negotiate in good faith. If no agreement is reached within one year of the date the Coast Guard submitted its plan, the Coast Guard may petition the Commission to select the channel pairs.⁵⁵

D. The VPC License Auction

14. On July 23, 1998, the Wireless Telecommunications Bureau (Bureau) announced that the auction of the 42 VPC licenses – FCC Auction No. 20 – was scheduled to begin on December 3, 1998.⁵⁶ On September 4, 1998, the Bureau announced in a public notice the procedures and minimum opening bids for the auction.⁵⁷ This *VPC Auction Procedures Public Notice* included a Due Diligence section, which specifically alerted potential bidders to (a) the need to provide interference protection to incumbent site-based VPC licensees and incumbent private land mobile radio licensees operating in the 156-162 MHz band; and (b) the existence of agreements between the United States and Canada that may affect the assignment and use of VHF frequencies in areas near the Canadian border.⁵⁸ In addition, the *VPC Auction Procedures Public Notice* cautioned prospective bidders to familiarize themselves with the *Public Coast Third Report and Order*.⁵⁹ Further, a September 21, 1998 Erratum to the *VPC Auction Procedures*

⁵³ *Id.*

⁵⁴ *Id.*

⁵⁵ 47 C.F.R. § 80.371(c)(3).

⁵⁶ See 156-162 MHz VHF Public Coast Station Spectrum Auction Scheduled for December 3, 1998; Comment Sought on Reserve Prices or Minimum Opening Bids and Other Auction Procedural Rules, *Public Notice*, 13 FCC Rcd 17612 (WTB 1998).

⁵⁷ See Auction of 156-162 MHz VHF Public Coast Station Service Licenses; Auction Notice and Filing Requirements for 42 Geographic Area Licenses Scheduled for December 3, 1998; Minimum Opening Bids and Other Procedural Issues, *Public Notice*, 13 FCC Rcd 19443, as corrected by Public Notices of September 8, 1998, and September 21, 1998 (WTB 1998) (*VPC Auction Procedures Public Notice*).

⁵⁸ *Id.* at 19446. The Auction No. 20 Bidder Information Package also contained Due Diligence sections in which prospective bidders were specifically alerted to the possibility that geographic area VPC operations in certain areas could be constrained by the need to protect incumbent licensees from interference or because of agreements between the United States and Canada. See Auction 20 Bidder Information Package at 47 (Tab A), 54-55 (Tab B) (1998). The Auction No. 20 Bidder Information Package and other documents pertinent to Auction No. 20 can be viewed on the Commission's web site at <http://wireless.fcc.gov/auctions/20/releases.html#bip>.

⁵⁹ See *VPC Auction Procedures Public Notice*, 13 FCC Rcd at 19447.

Public Notice added a note to the Due Diligence section specifically directing potential bidders to paragraphs 46-49 of the *Public Coast Third Report and Order*, i.e., the discussion of the requirement to set aside spectrum for Coast Guard use, “[f]or information regarding other issues that may affect the availability of channels 87 and 88 throughout maritime and inland border VPCs.”⁶⁰

15. Auction No. 20 began as scheduled on December 3, 1998, with eight qualified bidders. The auction ended on December 14, 1998. MariTEL submitted the winning bids for all nine of the maritime VHF Public Coast areas, bidding \$6,804,000 in aggregate for the nine licenses.⁶¹ MariTEL⁶² was duly licensed for the nine areas on May 19, 1999, and thus became subject to the Section 80.371(c)(3) requirement to negotiate with the Coast Guard to set aside two 12.5 kHz offset channel pairs for AIS.

E. The Coast Guard-MariTEL Memorandum of Agreement and the June 2002 Public Notices

16. On March 7, 2001, and pursuant to section 80.371(c)(3) of the Commission’s Rules, the Coast Guard and MariTEL executed a Memorandum of Agreement (MOA) setting aside frequencies 157.375 MHz and 161.975 MHz for exclusive AIS use in VPCsAs 1-9.⁶³ The MOA was by its terms to continue in effect for a period of ten years, with automatic renewal thereafter for ten-year terms.⁶⁴ However, the MOA also included a provision for termination of the MOA by either party upon thirty days’ written notice.⁶⁵ The Bureau announced that the parties had agreed to the MOA in a public notice released on April 13, 2001.⁶⁶

17. By letter dated May 6, 2002, the Coast Guard informed the Bureau that NTIA had approved the use of Channels 87B and 88B throughout the United States and its possessions for AIS and related safety systems in support of homeland security as well as navigation safety.⁶⁷ The Coast Guard further informed the Bureau that it intended to operate AIS on Channels 87B (pursuant to the Coast Guard/MariTEL MOA) and 88B (pursuant to the NTIA authorization).⁶⁸ On June 13, 2002, the Bureau released a public notice relating this information, and adding that, until such time as the Commission establishes licensing, equipment certification and other requirements for AIS, “the Bureau will consider use of shipborne AIS equipment to be authorized by existing ship station licenses, including vessels that

⁶⁰ See Further Correction to Public Notice, Auction of 156-162 MHz VHF Public Coast Station Service Licenses, *Public Notice*, 1998 WL 564017 at [Second] Erratum n. 4.

⁶¹ See VHF Public Coast Service Auction Closes; Winning Bidders in the Auction of 42 Licenses in the 156-162 MHz VHF Public Coast Service, *Public Notice*, DA 98-2542 (rel. Dec. 16, 1998).

⁶² The nine licenses are held by separate wholly-owned subsidiaries of MariTEL. For convenience, we refer to the licensees simply as MariTEL.

⁶³ Memorandum of Agreement Between United States Coast Guard and the Maritime VHF Public Coast Area Licensee, March 7, 2001.

⁶⁴ MOA § VIII.A.

⁶⁵ MOA § VIII.B.

⁶⁶ See Wireless Telecommunications Bureau Announces the Selection of Two VHF Channel Pairs for the United States Coast Guard’s Ports and Waterways Safety System, *Public Notice*, 16 FCC Rcd 7968 (WTB PSPWD 2001). Because Channels 87A/B are *non-offset* channels, and Section 80.371(c)(3) mandates that the parties negotiate to select *offset* channel pairs, the Commission also granted a waiver of Section 80.371(c)(3). *Id.*

⁶⁷ See Letter dated May 6, 2002 from J. Hersey, Chief, Spectrum Management Division, USCG, to Thomas J. Sugrue, Chief, Wireless Telecommunications Bureau, FCC.

⁶⁸ *Id.*

are licensed by rule.”⁶⁹ Two weeks later, on June 27, 2002, the Commission’s Office of Engineering and Technology (OET) issued a second public notice pertaining to AIS equipment. In its public notice, OET indicated that, during the pendency of the rulemaking proceeding in which certification requirements for AIS equipment were under consideration, “the FCC Laboratory will coordinate review of applications for certification of AIS equipment with the United States Coast Guard to ensure that the equipment meets all applicable international standards and requirements.”⁷⁰ The effect of these two public notices (*June 2002 Public Notices*), then, was to clarify that, in the interest of homeland security, deployment of AIS equipment designed to operate on Channels 87B and 88B could continue in the interim before AIS licensing, operating and equipment certification requirements were codified in the Commission’s Rules.

18. At some point a disagreement developed between the Coast Guard and MariTEL as to what was required of the parties under the terms of the MOA. Citing the parties’ failed efforts to “resolve the bandwidth and geography issues” dividing them, MariTEL gave the Coast Guard notice of its termination of the MOA on May 5, 2003, effective June 4, 2003.⁷¹ While indicating that it remained willing to continue to negotiate with the Coast Guard to meet its obligations under Section 80.371 of the Commission’s Rules, MariTEL stated that, by virtue of its termination of the MOA, “the full use of channel 87 will revert to MariTEL and the Coast Guard will no longer be permitted to employ VHF channel 87.”⁷² In addition, prior to the termination of the MOA, MariTEL informed the Commission that, due to a precipitous decline in voice traffic over its network, it would cease providing VPC service of any kind, effective June 6, 2003.⁷³ At present, MariTEL is not providing service on Channels 87 and 88, or on any other VPC channels.

F. The MariTEL and NTIA Petitions and Proposals

19. MariTEL and NTIA have filed a number of pleadings that relate to VHF maritime Channels 87 and 88 and to AIS implementation within the United States.⁷⁴ On April 4, 2003, prior to the

⁶⁹ Wireless Telecommunications Bureau Announces Use of an Additional Frequency for the United States Coast Guard’s Ports and Waterways Safety System, *Public Notice*, 17 FCC Rcd 10960 (WTB PSPWD 2002) (*Additional Frequency Public Notice*).

⁷⁰ Applications for Equipment Authorization of Universal Shipborne Automatic Identification Systems to be Coordinated with U.S. Coast Guard to Ensure Homeland Security, *Public Notice*, 17 FCC Rcd 11983 (OET 2002). The Commission identified the relevant international standards and requirements, including ITU-R 1371-1. *Id.* at 11983 n.2.

⁷¹ See Letter dated May 5, 2003 from Dan Smith, President/CEO, MariTEL, to Capt. Richard S. Hartman, Jr., Chief, Office of Communications System, USCG.

⁷² *Id.* Subsequently, MariTEL afforded the Coast Guard a six-month transition period. See Letter dated May 27, 2003 from Dan Smith, President/CEO, MariTEL, to Capt. Richard S. Hartman, Jr., Chief, Office of Communications, USCG. The Coast Guard asserted that the terms of the MOA provided a six-month transition period beginning thirty days after MariTEL notified the Coast Guard of its termination of the MOA. See Letter dated Sept. 16, 2003 from Rear Admiral C.I. Pearson, U.S. Coast Guard Director of Information and Technology, to Frederick R. Wentland, Associate Administrator, Office of Spectrum Management, NTIA, Enclosure 4 n.22.

⁷³ See MariTEL, Inc. Request for Waiver and Extension of Construction Deadline, FCC File No. 0001252148 at 3 n.4 (filed Mar. 27, 2003). This is one of nine waiver and construction extension requests filed by MariTEL, one for each of the nine VPCSA licenses. MariTEL filed identical requests for each of these licenses.

⁷⁴ We do not intend here to resolve all pending matters involving MariTEL or VPC stations. For example, MariTEL filed a still-pending petition for rulemaking seeking additional flexibility for VPC stations to provide private land mobile radio service to units on land. MariTEL, Inc., Petition for Rulemaking, RM-10743 (filed May 16, 2003.) The issues raised by that petition, as well as a companion petition for rulemaking filed by Mobex, Inc., are being addressed in a separate proceeding. See MariTEL, Inc and Mobex Network Services, LLC Petitions for Rule Making to Amend the Commission’s Rules to Provide Additional Flexibility for AMTS and VHF Public Coast Station Licensees, *Notice of Proposed Rule Making*, WT Docket No. 04-257, FCC 04-171 (rel. July 30, 2004). In

(continued....)

termination of the MOA, MariTEL filed a petition for declaratory ruling⁷⁵ regarding the use of Channels 88A/B above “Line A,” an area encompassing that portion of the continental United States that is within approximately seventy-five miles of the Canadian border.⁷⁶ MariTEL seeks a ruling that it holds the exclusive right in the United States to operate on the paired frequencies in specified areas above Line A, subject only to coordination with the government of Canada.⁷⁷ MariTEL argues that note US223 to the Table of Frequency Allocations,⁷⁸ the note specifying that Channel 88 may be authorized for maritime public correspondence use in the Great Lakes, the Saint Lawrence Seaway, and the Puget Sound and the Strait of Juan de Fuca, reflects an intention to make Channel 88 available exclusively for public coast station use in those areas.⁷⁹ The Bureau requested comment on the *MariTEL Channel 88 Petition* on July 9, 2003.⁸⁰

20. On October 15, 2003, after the MOA was terminated, MariTEL filed an Emergency Petition for Declaratory Ruling requesting that the Commission clarify that shipborne AIS transmitters may not operate on Channels 87B and 88B or any other channels designated for VPC stations.⁸¹ According to MariTEL, with the termination of the MariTEL/USCG MOA, there is no longer any basis for authorizing shipborne AIS stations to operate on Channel 87B, yet the *June 2002 Public Notices* have created uncertainty on that score.⁸² MariTEL therefore asks the Commission to clarify that the *June 2002 Public Notices* do not authorize shipborne AIS stations to operate on Channels 87B and 88B.⁸³ MariTEL asserts that if the *June 2002 Public Notices* were in fact intended to authorize the use of Channels 87B and 88B by ship stations, they would violate the Administrative Procedure Act (APA) because they would have effectively amended section 80.371(c)(3) of the Commission’s Rules without complying with the notice-

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addition, we note that on December 4, 2003, the Bureau granted MariTEL’s request for a waiver and two-year extension of the five-year construction requirement applicable to geographic area VPC licensees under 47 C.F.R. § 80.49(a)(1). MariTEL, Inc., *Order*, 18 FCC Rcd 24670 (WTB PSPWD 2003) (*MariTEL Construction Extension*). Pursuant to the waiver and extension, MariTEL is not required to demonstrate that it is providing substantial service within these service areas until May 19, 2006. On January 5, 2004, the Coast Guard filed an Application for Review of the grant of the waiver and extension to MariTEL. The Application for Review remains pending.

⁷⁵ MariTEL, Inc. Petition for Declaratory Ruling (filed Apr. 4, 2003) (*MariTEL Channel 88 Petition*).

⁷⁶ See 47 C.F.R. §§ 1.928(e), 2.1.

⁷⁷ The *MariTEL Channel 88 Petition* is concerned solely with the use of Channel 88 in the United States in the Great Lakes, Saint Lawrence Seaway, and Puget Sound and the Strait of Juan de Fuca and its approaches above Line A. *MariTEL Channel 88 Petition* at 1-2 n.2.

⁷⁸ 47 C.F.R. § 2.106 n.US223.

⁷⁹ See *MariTEL Channel 88 Petition* at 4-6.

⁸⁰ See Wireless Telecommunications Bureau Seeks Comment on MariTEL, Inc. Petition for Declaratory Ruling Regarding the Use of Maritime VHF Channel 88, *Public Notice*, 18 FCC Rcd 14250 (WTB PSPWD 2003).

⁸¹ MariTEL, Inc., Emergency Petition for Declaratory Ruling (filed Oct. 15, 2003) (*MariTEL Emergency Petition*), supplemented Oct. 27, 2003 (*MariTEL Emergency Petition Supplement*). In addition, MariTEL requests that, in light of the termination of the *USCG-MariTEL MOA*, we withdraw authorization of shipborne AIS equipment that was authorized pursuant to the *June 2002 Public Notices*. See Letter dated July 30, 2003 from Russell H. Fox, counsel for MariTEL, to D’wana R. Terry, Chief, Public Safety and Private Wireless Division, FCC (*July 30 Letter Request*). The *July 30 Letter Request* raises essentially the same issue and seeks essentially the same relief as the *MariTEL Emergency Petition*, and our resolution of the *MariTEL Emergency Petition*, *infra*, applies equally to the *July 30 Letter Request* for the same reasons.

⁸² *MariTEL Emergency Petition* at 1, 7, 9.

⁸³ *Id.* at 7

and-comment rulemaking procedures mandated by the APA.⁸⁴

21. On October 24, 2003, NTIA filed a Petition for Rulemaking urging the Commission to work with NTIA to allocate Channels 87B and 88B for exclusive AIS use on a shared Federal Government/non-Federal Government basis.⁸⁵ NTIA says that Channels 87B and 88B need to be used in the United States for AIS operations that are essential for maritime safety and homeland security.⁸⁶ According to NTIA, because Channels 87B and 88B are designated internationally for AIS use on the high seas as wideband channels, each comprising 25 kHz of spectrum, designating Channels 87B and 88B for AIS domestically will ensure a seamless worldwide AIS operation.⁸⁷ Otherwise, vessels entering U.S. waters would have to identify and switch to other AIS channels, and this switching of channels could have adverse consequences for maritime safety by increasing the risk of collisions.⁸⁸ In addition, NTIA contends that a failure to designate Channel 87B for AIS would compromise the ability of the United States and Canada to monitor international commercial maritime traffic in, for example, the Saint Lawrence Seaway, and would otherwise compromise the ability of the U.S. to coordinate with other countries.⁸⁹ In a November 7, 2003 public notice, the Commission requested comment on both the *NTIA Petition* and the *MariTEL Emergency Petition*.⁹⁰

22. On November 7, 2003, MariTEL proposed that it serve as AIS frequency coordinator, offering this proposal as an avenue for resolving the present controversy in a manner that gives the Coast Guard access to the spectrum it desires for AIS while at the same time protecting MariTEL's interests as the maritime VPC licensee.⁹¹ Under this proposal, in lieu of providing narrowband channel pairs to the Coast Guard pursuant to Section 80.371(c)(3) of the Commission's Rules, MariTEL would accommodate the NTIA's request for nationwide use of channel 87B for AIS in a wideband simplex mode while remaining the licensee of the channel, "charged with administration of the channel for the benefit of the Coast Guard and mariners."⁹² As the exclusive AIS frequency coordinator, MariTEL would, for a fee, process Maritime Mobile Service Identity (MMSI)⁹³ applications and maintain a database of all AIS transponders on vessels, irrespective of whether the vessels' carriage of the transponder is mandatory or voluntary, including foreign flag vessels required to carry AIS equipment under the SOLAS Convention.⁹⁴ MariTEL also proposes to process MMSI applications for all shore stations and aids to

⁸⁴ *Id.* at 7-8.

⁸⁵ Letter dated Oct. 24, 2003 from Frederick R. Wentland, Associate Administrator, Office of Spectrum Management, NTIA, to John B. Muleta, Chief, Wireless Telecommunications Bureau, FCC, RM-10821 (*NTIA Petition*).

⁸⁶ *Id.* at 1.

⁸⁷ *Id.* at 2.

⁸⁸ *Id.*

⁸⁹ *Id.* at 3-4.

⁹⁰ Wireless Telecommunications Bureau Seeks Comment on MariTEL, Inc. Petition for Declaratory Ruling and National Telecommunication and Information Administration Petition for Rulemaking Regarding the Use of Maritime VHF Channels 87B and 88B, *Public Notice*, 18 FCC Rcd 23260 (WTB PSPWD 2003) (*AIS PN*).

⁹¹ Letter dated November 7, 2003 from Dan Smith, President and CEO, MariTEL, to Catherine W. Seidel, Deputy Chief, Wireless Telecommunications Bureau, FCC (*MariTEL Frequency Coordinator Proposal*).

⁹² *Id.* at 1.

⁹³ An MMSI is a unique nine-digit number assigned to commercial and recreational vessels participating in the Global Maritime Distress and Safety System (GMDSS). Required under the ITU *Radio Regulations*, the MMSI functions as a "phone number" for the vessel and must be programmed into the vessel's digital selective calling (DSC) radio. MMSIs are also used for AIS transponders.

⁹⁴ *Id.* at 2-3.

navigation.⁹⁵ MariTEL adds that, for an additional fee, it would provide AIS Information Services, including vessel location services derived from real-time data, to vessel operators, port and harbor authorities, and state and local governments.⁹⁶ In a public notice released on November 19, 2003, the Bureau solicited comment on the *MariTEL Frequency Coordinator Proposal*.⁹⁷

23. On February 9, 2004, MariTEL submitted an alternative proposal that it believes would resolve this controversy in a manner favorable to the Coast Guard and the maritime community as well as itself.⁹⁸ Specifically, MariTEL states that it would support the *NTIA Petition* for the reallocation of Channels 87B and 88B for exclusive AIS use, and that it would not seek payment from either the Coast Guard or ship station licensees as a prerequisite to allowing them to use spectrum licensed to MariTEL for AIS, provided that a sharing plan developed by MariTEL is adopted by the Commission.⁹⁹ Under the *MariTEL Sharing Proposal*, (a) NTIA would authorize the use of Channel 88B by only the Coast Guard, MariTEL, and ship stations for AIS, giving MariTEL access to that Federal Government Channel 88B in return for MariTEL providing the Coast Guard and mariners with free access to Channel 87B; (b) the Coast Guard would use the two channels for shore station operations to support VTS and surveillance applications for homeland security that are consistent with the MTSA, but its use of the channels would be confined to those purposes; and (c) MariTEL would have the right to use the two channels in all maritime areas for shore station operations to support non-Coast Guard AIS applications.¹⁰⁰ According to MariTEL, the proposed sharing can be accomplished using channel loading and time slot allocation, and could be implemented in such a way that Coast Guard and ship station use of the channels for safety and homeland security communications would always have priority over other types of communications.¹⁰¹ The *MariTEL Sharing Proposal* is also premised on the Commission's adoption of regulations precluding reception and use of AIS transmissions except by MariTEL, the Coast Guard, and ship stations.¹⁰² MariTEL also requests that the Commission suspend its current AIS equipment authorization process pending consideration of MariTEL's proposed new methodology for determining whether AIS devices adhere to emissions mask limitations that will ensure that 25 kHz simplex operations on Channels 87B and 88B do not cause interference to adjacent duplex maritime channels.¹⁰³ On February 13, 2004, the

⁹⁵ *Id.* at 3. An aid to navigation is any device external to a vessel (or aircraft) intended to assist a navigator to determine position or safe course, or to warn of dangers or obstructions to navigation. See 33 C.F.R. § 62.3(a). In the context of MariTEL's proposal, we assume the term refers to radionavigation coast stations operated for the benefit of mariners.

⁹⁶ *MariTEL Frequency Coordinator Proposal* at 3.

⁹⁷ Wireless Telecommunications Bureau Seeks Comment on MariTEL, Inc. Proposal to Serve as Automatic Identification System (AIS) Frequency Coordinator, *Public Notice*, 18 FCC Rcd 24057 (WTB PSPWD 2003) (*Coordinator Proposal PN*).

⁹⁸ Letter dated February 9, 2004 from Dan Smith, President and CEO, MariTEL, to Catherine W. Seidel, Deputy Chief, Wireless Telecommunications Bureau (*MariTEL Sharing Proposal*).

⁹⁹ *Id.* at 2.

¹⁰⁰ *Id.*

¹⁰¹ *Id.* at 3-4.

¹⁰² *Id.* at 2.

¹⁰³ *Id.* at 5. Channels used in full-duplex mode allow transmissions to occur in two directions simultaneously, *i.e.*, both parties can communicate at once. In simplex mode, the channel is used for one-way communications, so that one party only transmits on the channel and the other party only receives on the channel. (In half-duplex mode, both parties can transmit on the channel but only one at a time, as with a walkie-talkie.)

Commission requested comment on the *MariTEL Sharing Proposal*.¹⁰⁴

III. MEMORANDUM OPINION AND ORDER

24. In this *Memorandum Opinion and Order*, we address the issue raised in the *MariTEL Channel 88 Petition*: Does MariTEL have the exclusive right to use Channels 88A/B¹⁰⁵ in areas above Line A, subject only to coordination with Canada? Based on our review of the record and analysis of the pertinent regulatory history, we conclude that, while MariTEL is the only non-Government licensee eligible to use the spectrum, it is not entitled to exclusive use of the channels above Line A. Accordingly, we deny the *MariTEL Channel 88 Petition*.¹⁰⁶

25. MariTEL asserts that the *1976 NPRM*¹⁰⁷ and note US223 to the Table of Frequency Allocations clearly evince an intent by the Commission that Channel 88 should be used exclusively for public correspondence in the relevant geographic areas above Line A, subject only to coordination with the Canadian government.¹⁰⁸ It contends that, in adopting note US223, the Commission specifically determined that use of Channel 88B for public correspondence in the Great Lakes and the Saint Lawrence Seaway should not be subject to coordination with any Federal Government operations on the channel.¹⁰⁹ We disagree. The language of note US223 is merely permissive; it provides that Channel 88 *may* be authorized for use by the maritime mobile service for public correspondence. Standing alone, the permissive language of note US223 simply does not support MariTEL's assertion that the note should be interpreted as effectively reallocating Channel 88B from Federal Government to exclusive non-Federal Government use in those areas above Line A. Nor can an intent to reallocate Channel 88B in this manner be discerned from a reading of note US223 in conjunction with the *1976 NPRM* and other pertinent regulatory history.¹¹⁰ As noted, there is no allocation for non-Federal Government use of Channel 88B in the Table of Frequency Allocations. We do not believe this is an administrative oversight, as MariTEL

¹⁰⁴ See Wireless Telecommunications Bureau Seeks Comment on MariTEL, Inc. Proposal for Shared Use of Maritime VHF Channels 87B and 88B for Automatic Identification Systems, *Public Notice*, 19 FCC Rcd 2666 (WTB PSCID 2004) (*Sharing Proposal PN*).

¹⁰⁵ We note that Channel 88B is allocated exclusively to the Federal Government, but Channel 88A is allocated exclusively for non-Federal Government use. See 47 C.F.R. § 2.106. Although the *MariTEL Channel 88 Petition* seeks a declaratory ruling pertaining to Channels 88A/B, and the disputed spectrum is sometimes referred to in the pleadings simply as Channel 88, the point of contention appears to be over the use of Channel 88B. NTIA does not assert rights paramount to MariTEL with respect to Channel 88A.

¹⁰⁶ In addition to the *MariTEL Channel 88 Petition*, we have in the record of this proceeding a written *ex parte* presentation by NTIA, Letter dated August 1, 2003 from Frederick R. Wentland, Associate Administrator for Spectrum Management, NTIA, to John B. Muleta, Chief, Wireless Telecommunications Bureau, FCC (*NTIA Channel 88 Comments*), and MariTEL's responsive written *ex parte* presentation, Letter dated August 11, 2003 from Russell H. Fox, Mintz Levin Cohn Ferris Glovsky and Popeo PC, to John B. Muleta, Chief, Wireless Telecommunications Bureau, FCC (*MariTEL Channel 88 Reply*).

¹⁰⁷ See n.11, *supra*.

¹⁰⁸ See *MariTEL Channel 88 Petition* at 3-5.

¹⁰⁹ *Id.*

¹¹⁰ MariTEL relies on the language in the *1976 NPRM* stating that Channel 88B "has been cleared for the proposed usage [*i.e.*, public correspondence]. In areas other than the Great Lakes and Saint Lawrence Seaway, 162.025 MHz will continue to be used by Government stations." *MariTEL Channel 88 Petition* at 4; *MariTEL Channel 88 Reply* at 3. We do not believe the quoted language unambiguously indicates an intent to provide for *exclusive* public correspondence use of Channel 88B in the Great Lakes and Saint Lawrence Seaway, particularly given the absence of any language limiting Federal Government use of the channel. As noted above, however, MariTEL did obtain the exclusive right to use Channel 88 for non-Government public correspondence.

asserts,¹¹¹ inasmuch as note G5 to the Table clearly specifies that the frequency band 162.0125–173.2 MHz, the spectrum block encompassing Channel 88B, is allocated to Federal Government non-military agencies.¹¹² We believe that if the Commission and NTIA had intended to alter a Federal Government allocation of Channel 88, or otherwise restrict Federal Government use of Channel 88 above Line A, they would have done so expressly. We agree with NTIA that note US223, like a number of other notes to the Table of Frequency Allocations, simply authorizes the Commission to make the channel available for a specified non-government use, subject to prior coordination with NTIA and any limitations set forth in the notes.¹¹³

26. MariTEL argues that the Auction No. 20 bidder information package informed prospective bidders that use of Channel 88 was subject to Canadian coordination,¹¹⁴ but did not notify them of any requirement to coordinate with NTIA.¹¹⁵ It contends that it was therefore entitled to conclude that there was no Federal Government coordination requirement, and the geographic area VPC licensee would hold the exclusive right to operate on Channel 88 in the United States along the Canadian border.¹¹⁶ First, we disagree with MariTEL regarding the contents of the bidder information package. After the bidder information package noted the Canadian coordination requirement, it referred the reader to the *Public Coast Third Report and Order*.¹¹⁷ The cited portion of the *Public Coast Third Report and Order*, in turn, expressly states that “Channel 88B is allocated to Government non-military agencies.”¹¹⁸ Thus, we agree with NTIA that the bidder information package put prospective bidders on notice of the potential preclusive effect of Federal Government operations on Channel 88.¹¹⁹

27. Moreover, even assuming *arguendo* that the bidder information package did not disclose the need to coordinate operations on Channel 88 with the Federal Government, MariTEL was not entitled to assume that something was not the case simply because it was not mentioned in the bidder information package.¹²⁰ The bidder information package is but one tool the Commission utilizes to provide information to auction participants,¹²¹ and bidders are not entitled to rely on it as their sole source for

¹¹¹ *MariTEL Channel 88 Petition* at 4-5 n.12; *see also MariTEL Channel 88 Reply* at 4 (contending that the omission of an entry in the “Non-Federal Government” column of the Table of Frequency Allocations providing a Channel 88 allocation for VPC stations was “no more than a ministerial oversight”).

¹¹² *See* 47 C.F.R. § 2.106 n.G5; *see also NTIA Channel 88 Comments* at 1 and n.4.

¹¹³ *See NTIA Channel 88 Comments* at 3.

¹¹⁴ As MariTEL recognizes, coordination with Canada is required under Section 80.57 of the Commission’s Rules, 47 C.F.R. § 80.57. *See MariTEL Channel 88 Petition* at 2.

¹¹⁵ *MariTEL Channel 88 Petition* at 5-6.

¹¹⁶ *Id.* at 6; *MariTEL Channel 88 Reply* at 5.

¹¹⁷ Auction 20 Bidder Information Package at 56 (Tab B) (1998).

¹¹⁸ *Public Coast Third Report and Order*, 13 FCC Rcd at 19875 ¶ 47.

¹¹⁹ *See NTIA Channel 88 Comments* at 4-5.

¹²⁰ *See* Cellular Service and Other Commercial Mobile Radio Services in the Gulf of Mexico, *Order on Reconsideration*, WT Docket No. 97-112, 18 FCC Rcd 13169, 13182 ¶ 41 (2003) (rejecting argument that absence of discussion in bidder information package indicated that Commission had foreclosed the possibility of creating a licensing area in the Gulf of Mexico at some time in the future); Two Way Radio of Carolina, Inc., *Memorandum Opinion and Order*, 14 FCC Rcd 12035, 12043 ¶ 13 (1999) (*Two Way Radio*) (rejecting the argument that bidder should be allowed to change its small business classification after the close of the auction simply because the bidder information package did not explicitly prohibit it); *see also* Melodie A. Virtue, *Letter*, 15 FCC Rcd 2824, 2824-25 (WTB AIAD 2000).

¹²¹ Black Hills Broadcasting, L.L.C., *Order*, 14 FCC Rcd 16146, 16148 ¶ 5 (WTB AIAD 1999).

interpretation of the Commission's Rules.¹²² Indeed, the public notice announcing the procedures and minimum opening bids for Auction No. 20 specifically instructed bidders that it was their responsibility to remain current with the Commission's Rules.¹²³ A thorough review of the Commission's Rules would have alerted bidders of the possible need to coordinate Channel 88 operations with NTIA.

28. Finally, MariTEL argues that the Commission has never auctioned spectrum subject to Federal Government rights (other than at specified locations), and should not be deemed to have done so here.¹²⁴ We disagree, for the Commission has in fact used competitive bidding to assign geographic licenses for spectrum on which the Federal Government also may operate.¹²⁵ More fundamentally, we reject as unsupported the tacit premise of this argument, that the Commission implicitly guarantees auction participants that any spectrum they are awarded will not be subject to or need to be coordinated with Federal Government operations. We do not believe reliance on such a supposition is reasonable.¹²⁶ Rather, the Commission has consistently required potential bidders to perform due diligence, assuring themselves of familiarity with the Commission's Rules. MariTEL cannot reasonably claim to not have received adequate notice that Channel 88B is allocated to the Federal Government; it need only have reviewed the portions of the Table of Frequency Allocations, and the associated notes, pertaining to the spectrum for which it intended to bid. We accordingly conclude that MariTEL has only the exclusive right to use Channel 88 in the specified areas above Line A for non-Government public correspondence, but it does not have the right to use the spectrum free of Federal Government operations and subject only to coordination with Canada.¹²⁷

29. We further conclude that, under note US223, MariTEL must coordinate with NTIA as well as with Canada prior to initiating public correspondence operations on Channel 88B above Line A. Since Channel 88B is allocated to the Federal Government in the Section 2.106 Table of Frequency Allocations, its use for non-Government public correspondence communications pursuant to note US223 is governed by Section 2.102(c) of our Rules.¹²⁸ Section 2.102(c) specifies that non-Government stations may be authorized to use Federal Government frequencies in the bands above 25 MHz only after Commission

¹²² *Two Way Radio*, 14 FCC Rcd at 12043 ¶ 13.

¹²³ *See VPC Auction Procedures Public Notice*, 13 FCC Rcd at 19448.

¹²⁴ *MariTEL Channel 88 Petition* at 6 n.17.

¹²⁵ *See Amendment of the Commission's Rules Regarding the 37.0-38.6 GHz and 38.6-40.0 GHz Bands, Report and Order and Second Notice of Proposed Rule Making*, ET Docket No. 95-183, 12 FCC Rcd 18600, 18612 ¶ 18, 18615 ¶ 25 (1997) (adopting geographic licensing rules and competitive bidding procedures for the 38.6-40.0 GHz band, while noting that the 39.5-40.0 GHz segment of the band is allocated on a co-primary basis to Government military systems that would be implemented in the future).

¹²⁶ MariTEL argues that the Auction 20 Bidder Information Package plainly indicated that the Commission intended to auction rights to use Channel 88B north of Line A. *See MariTEL Channel 88 Reply* at 5. This does not suggest, however, that the Commission intended to auction *exclusive* rights to the channel in that geographic area, notwithstanding MariTEL's claim that, without exclusivity above Line A, the spectrum would be worthless to the auction winner. *MariTEL Channel 88 Petition* at 6; *MariTEL Channel 88 Reply* at 5.

¹²⁷ We note, moreover, that it is unclear that such status on Channel 88B above Line A would have been of significant value to MariTEL in light of the representations made to the Commission by the Embassy of Canada. Noting that under the *Above 30 MHz Coordination Agreement*, Canada has the right to preclude any U.S. assignments of Channel 88 above Line A, the Embassy states that Channel 88B, along with Channel 87B, has been reserved in Canada "for the exclusive purpose of AIS operations, by land and mobile stations in the maritime mobile service, and will no longer be available for public correspondence in Canada." Canadian Embassy Comments at 2-3. Even if we had granted the *MariTEL Channel 88 Petition* in full, according MariTEL exclusive authority to operate on Channel 88 above Line A, subject only to Canadian coordination, such a victory would be of limited benefit to MariTEL if Canada steadfastly refuses to coordinate public correspondence operations.

¹²⁸ 47 C.F.R. § 2.102(c).

consultation “with the appropriate Government agency or agencies,” and provided that, *inter alia*, the non-Government operation conforms with the conditions agreed upon by the Commission and NTIA, and does not cause harmful interference to Government stations.¹²⁹ Thus, any proposed use of Channel 88B above Line A for public correspondence must be coordinated in advance with NTIA and Canada.¹³⁰ Given that NTIA has determined that Channel 88B should be used exclusively for AIS, it is clear that successful coordination of a proposed public correspondence service offering will depend on assurances that AIS will have priority over public correspondence, and that AIS communications will not be subject to harmful interference from public correspondence communications.¹³¹

IV. NOTICE OF PROPOSED RULE MAKING

A. Designation of Channels for AIS

30. As we have discussed, Section 80.371(c)(3) of the Commission’s Rules directs the licensee of VPCSAAs 1-9, *i.e.*, MariTEL, and the Coast Guard to negotiate in good faith to select two narrowband offset channel pairs to be dedicated to AIS use, and specifies that if an agreement cannot be reached, the Coast Guard may petition the Commission to select the channel pairs.¹³² Although MariTEL and the Coast Guard did in fact reach an agreement to designate frequencies 157.375 MHz and 161.975 MHz for AIS and executed the MOA to that effect, MariTEL later exercised its right to terminate the MOA. Following termination of the MOA, NTIA petitioned the Commission on behalf of the Coast Guard to select Channels 87B and 88B¹³³ for AIS and to work with NTIA to reallocate the channels for exclusive AIS use nationwide on a shared Federal Government/non-Federal Government basis.¹³⁴ We have carefully considered the various proposals submitted by MariTEL and NTIA, including their technical submissions, and the comments filed in response to the various public notices.¹³⁵ We tentatively agree

¹²⁹ 47 C.F.R. § 2.102(c), (c)(1), (c)(3). We observe that nothing in note US223, the *1976 NPRM* or the *1976 Report and Order* expresses an intention inconsistent with Section 2.102(c) in this regard.

¹³⁰ Accordingly, prior to initiating any new public correspondence operations on Channel 88B above Line A, MariTEL must file an individual application with the Commission, see 47 C.F.R. s 80.371(c)(4)(ii), which the Commission will coordinate with NTIA through the Interdepartmental Radio Advisory Committee (IRAC) and with Canada through Industry Canada. MariTEL may not initiate any new public correspondence operations on Channel 88B above Line A without completing IRAC coordination.

¹³¹ To date, MariTEL has not initiated coordination through the Commission with NTIA or Canada for authorization to use Channel 88B above Line A. Should MariTEL intend at some future point to provide public correspondence service in the areas above Line A, we do not anticipate that NTIA would withhold consent to such proposed MariTEL operations unreasonably, *i.e.*, other than to protect genuine Federal Government interests.

¹³² 47 C.F.R. § 80.371(c)(3).

¹³³ We note that this request pertains to Channel 88B only in the geographic areas above Line A identified in note US223. In the rest of the country, Channel 88B is a Government frequency, and already has been designated for AIS use. See *Additional Frequency Public Notice*, 17 FCC Red at 10960.

¹³⁴ MariTEL expresses willingness to resume negotiations with the Coast Guard, and urges the Commission to direct the parties to resume good faith negotiations. MariTEL Comments at 17-19; *accord* Havens Reply Comments at 2-3. However, the Coast Guard and NTIA have expressed no similar willingness. Moreover, we believe we need to act now, without further delay, in order to provide the maritime community with certainty and stability with respect to AIS implementation in the United States.

¹³⁵ As noted, three separate public notices requested comment on this subject: the *AIS PN* (inviting comment generally on both the *MariTEL Emergency Petition* and the *NTIA Petition*); the *Coordinator Proposal PN* (inviting comment limited to the *MariTEL Frequency Coordinator Proposal*); and the *Sharing Proposal PN* (inviting comment limited to the *MariTEL Sharing Proposal*). In the interest of clarity, we will refer to comments filed by a party in response to the *AIS PN* simply as the party’s Comments or Reply Comments, while comments filed in response to the *Coordinator Proposal PN* or *Sharing Proposal PN* will be referred to as Comments re Coordinator Proposal or Comments re Sharing Proposal, as appropriate. All three sets of comments have been incorporated into

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with NTIA and the Coast Guard, as well as the vast majority of interested parties who filed comments in response to the public notices concerning this matter, that the public interest would be served by designating Channels 87B and 88B¹³⁶ for exclusive AIS use in the nine maritime VPCSAAs.¹³⁷ We therefore grant the *NTIA Petition* to the extent that it seeks initiation of a rulemaking proceeding to consider this issue, deny the *MariTEL Emergency Petition*,¹³⁸ and adopt the instant *Notice of Proposed Rule Making* in which we propose to designate Channels 87B and 88B for exclusive AIS use in the nine maritime VPCSAAs. We tentatively conclude, moreover, that neither the *MariTEL Frequency Coordinator Proposal* nor the *MariTEL Sharing Proposal* should be adopted, because the *NTIA Petition* offers a better means of promoting the widespread and effective use of AIS for maritime safety and homeland security.¹³⁹

31. MariTEL opposes the *NTIA Petition*, asserting that shipborne transmission of AIS messages on Channels 87B and 88B on a wideband simplex basis, as proposed by NTIA, will preclude MariTEL from using not only those two channels, but all or almost all of the VPC spectrum for which it is licensed.¹⁴⁰ According to MariTEL, it will result in destructive interference to both MariTEL's operations and the operation of site-based incumbent VPC licensees, and will prevent MariTEL from recouping its substantial investment in the spectrum.¹⁴¹ MariTEL states that granting the NTIA request without providing for compensation to MariTEL would be unfair to MariTEL and would have a chilling effect on

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the record of this rulemaking proceeding. See Appendix A for a list of all of the commenters, and the acronyms or abbreviations by which they are referred to in the text.

¹³⁶ Since non-Federal Government use of Channel 88B is limited to that authorized by note US223, *i.e.*, within the specified areas above Line A, our proposal with respect to Channel 88B is similarly circumscribed. In the remainder of the country, Channel 88B is allocated for exclusive Federal Government use, and NTIA already has authorized the use of the channel for AIS. See *Additional Frequency Public Notice*. Thus, there is no need for the Commission to redesignate Channel 88B for AIS except with respect to the specified areas above Line A. Accordingly, references herein to Commission action regarding Channel 88 should be construed to refer only to the use of that channel in the specified areas above Line A, unless otherwise indicated.

¹³⁷ The *NTIA Petition* asks that we reallocate Channel 87B for exclusive AIS use nationwide, and reallocate Channel 88B for such use in those areas where it is within our authority, *i.e.*, in the areas above Line A, as NTIA already has with respect to Channel 88B in the rest of the country. It is unclear whether NTIA intends that non-AIS use of Channels 87B and 88B be prohibited throughout the United States, or just in the nine maritime VPCSAAs, or on some other geographic basis. Section 80.371(c)(3) specifies that channels be designated for AIS use only in VPCSAAs 1-9, and we are not persuaded on the record compiled thus far that it is essential to the interference-free operation of AIS that we prohibit non-AIS use of the channels outside VPCSAAs 1-9. See ¶ 63, *infra*.

¹³⁸ Given the Commission's determination to initiate this rulemaking and deny the *MariTEL Emergency Petition*, we do not address Nauticast's argument that MariTEL does not have standing to file the *MariTEL Emergency Petition* because it has not provided specific evidence of how it will be injured by the use of Channels 87B and 88B for AIS. See Nauticast Comments at 7-8. We also disagree with RTCM to the extent it argues that we can and should resolve this matter summarily because MariTEL has voluntarily terminated its VPC operations for business reasons, and so has no current commercial operations on Channel 87B to protect. See RTCM Comments at 2-3. As noted above, the Commission has granted MariTEL a two-year extension of its build-out deadline. See n.74, *supra*.

¹³⁹ NTIA and others have described the designation of Channels 87B and 88B for AIS as essential or necessary to implementation of AIS. See, *e.g.*, *NTIA Petition* at 1; *NTIA Reply Comments* at 1-2; *Lockheed Martin Comments* at 4-5. We do not reach the question of whether the use of other channels is technically feasible because we believe that, even if so, the relative benefits of using Channels 87B and 88B are great and should be given paramount weight.

¹⁴⁰ See *MariTEL Emergency Petition* at 10-11; see also *MariTEL Supplement to Emergency Petition* at 3.

¹⁴¹ See *MariTEL Emergency Petition* at 10-11. MariTEL says that AIS operations on Channels 87B and 88B under these conditions would make the spectrum unusable to MariTEL even for land mobile operations in close proximity to AIS operations. *Id.*; see also *MariTEL Reply Comments re Sharing Proposal* at 9.

future auctions, causing prospective auction participants to think twice before placing bids.¹⁴² In MariTEL's view, it would also constitute a *per se* regulatory taking, entitling MariTEL to just compensation either in cash or in alternative spectrum.¹⁴³

32. In addition, MariTEL contends that NTIA has not demonstrated why the Commission's earlier determination in the *VPC Third Report and Order* not to codify specific channels for AIS in the Rules was incorrect, or why circumstances have changed in a manner that makes the Commission's earlier decision invalid.¹⁴⁴ MariTEL further contends that, with the termination of the MOA between MariTEL and the Coast Guard, there is no longer any legal basis to permit AIS operations on Channel 87.¹⁴⁵ MariTEL adds that the Coast Guard can easily use other channels for AIS if Channels 87B or 88B are unavailable,¹⁴⁶ and that the United States should not allocate Channels 87B and 88B for AIS simply because other countries have designated those channels for AIS.¹⁴⁷

33. In response to MariTEL's arguments, we note at the outset that the *Memorandum Opinion and Order* herein clarifies that MariTEL is entitled to use Channel 88B only in a geographically

¹⁴² See MariTEL Comments at 11; MariTEL Reply Comments at 6; *accord* Havens Reply Comments at 2. In addition, AMTA states that, whatever the merits of MariTEL's and NTIA's respective arguments with respect to the specific issues addressed herein, on which AMTA does not take a position, the Commission should take care to avoid taking any action that would undermine the integrity of the auction process. AMTA is concerned that significant post-auction changes to the rules governing the use of the licensed spectrum would create uncertainty in the auction process. See AMTA Reply Comments at 2-3.

¹⁴³ See MariTEL Comments at 13-15; MariTEL Reply Comments at 6.

¹⁴⁴ See MariTEL Comments at 10-11; MariTEL Reply Comments at 4-5. MariTEL also contends that granting the *NTIA Petition* would violate Section 80.371(c) of the Commission's Rules as it is presently constituted because both channels are designated in the rule for coast station transmissions (and therefore may not be used for ship station transmissions), see *MariTEL Emergency Petition* at 7, and because the rule in any event provides only for the Coast Guard's use of two narrowband offset channel pairs on a duplex basis. See MariTEL Comments at 10; *accord* Tittle Reply Comments at 2. We agree with MariTEL that designating Channels 87B and 88B for AIS requires notice-and-comment rulemaking, and we have accordingly initiated the instant rulemaking proceeding for that purpose.

¹⁴⁵ See *MariTEL Emergency Petition* at 9. MariTEL argues that the *June 2002 Public Notices* violate the APA if they are construed as authorizing the use of Channels 87B and 88B by ship stations for AIS because they would alter the requirements of Section 80.371(c) without public notice or opportunity for comment. *MariTEL Emergency Petition* at 7-8. The *June 2002 Public Notices*, issued by the Bureau under delegated authority, clearly did not purport to amend Section 80.371(c), but simply apprised the maritime community, in accord with the MOA (and NTIA's authorization of Channel 88B for AIS) and without timely objection from MariTEL, that pending completion of a rulemaking on the subject, (a) use of shipborne AIS equipment designed to operate on Channels 87B and 88B was authorized under existing ship station licenses, and (b) the FCC Laboratory would coordinate with the Coast Guard in reviewing applications for certification of AIS equipment to ensure conformance with applicable international standards and requirements. See ¶ 17, *supra*. We believe MariTEL's APA challenge to the *June 2002 Public Notices* is both inapposite and extremely untimely, coming as it does approximately sixteen months after the *June 2002 Public Notices* were released. We believe, in any event, that the initiation of this notice-and-comment rulemaking ensures that a final decision on the spectrum to be used for AIS will be made only on the basis of a complete record compiled in compliance with APA procedural requirements, and effectively moots MariTEL's APA-based arguments and the responsive arguments, and we therefore see no need to consider whether the military exemption to APA rulemaking requirements, 5 U.S.C. § 553(a)(1), might apply to the *June 2002 Public Notices*, or whether the *June 2002 Public Notices* might be deemed logical outgrowths of antecedent rulemaking proceedings. See *Nauticast Comments* at 12-13; MariTEL Reply Comments at 11-13.

¹⁴⁶ See *MariTEL Emergency Petition* at 9-10; MariTEL Reply Comments at 12-13.

¹⁴⁷ See MariTEL Reply Comments at 7-8. MariTEL states that the Commission is required to conform to international frequency allocations or equipment standards only when the U.S. public interest warrants such action. *Id.*

circumscribed area, *i.e.*, within 75 miles of the United States-Canada border, and, more importantly, that MariTEL is entitled to use Channel 88B in that geographic area for public correspondence only after successful coordination with both NTIA and Canada, and on a non-interference basis to Federal Government operations on the channel.¹⁴⁸ Channel 88B is and always has been a Federal Government channel under the control of NTIA at all relevant times, including the period prior to the VPC auction. NTIA has determined that Channel 88B should be used for AIS exclusively, and has already authorized the Coast Guard and the maritime community to use Channel 88B for AIS. Accordingly, we do not consider Channel 88B as entirely MariTEL's to give up. Our analysis of the impact of our proposal on MariTEL will therefore focus on the impact to MariTEL of Channel 87B being set aside for AIS in lieu of two narrowband duplex channel pairs. Under existing Section 80.371(c)(3), MariTEL is subject to providing up to two 12.5 kHz narrowband channel pairs for AIS, so the total amount of spectrum potentially to be set aside for AIS is 50 kHz. Our proposal, in contrast, requires that only a single 25 kHz channel, Channel 87B, be designated for AIS from the VPC spectrum to which MariTEL currently has primary status throughout VPCAs 1-9. Thus, our proposal would require MariTEL to set aside for AIS use only one half of the total spectrum contemplated under Section 80.371(c)(3). We do not by this observation intend to suggest that the relative impact of the proposed AIS set-aside on MariTEL's operations vis-à-vis a set-aside of two narrowband channel pairs can be determined conclusively by simply looking to the total amount of spectrum involved in each alternative. We recognize, for example, that the proposed use of Channel 87B on a simplex rather than a duplex basis must also be factored in, along with the fact that the use of Channel 87B will encumber three narrowband channels. But we do believe that the total amount of VPC spectrum to be set aside is a consideration. We invite comment on this tentative conclusion.

34. We also note, as a preliminary legal matter, that MariTEL has no vested right to the continuation without change of the VPC rules that were in effect when it formulated its bids in Auction No. 20. It is well established that the Commission retains the power to alter the terms of existing licenses by rulemaking.¹⁴⁹ It also has been established that the Commission retains this power to alter the terms of existing licenses even with respect to licenses acquired through the auction process.¹⁵⁰ Indeed, the Act expressly provides that the statutory provisions regarding spectrum auctions do not "diminish the authority of the Commission ... to regulate or reclaim spectrum licenses" and should not be construed "to convey any rights ... that differ from the rights that apply to other licenses"¹⁵¹ Here, we are not proposing to change the terms of any of MariTEL's licenses, but proposing only to change the terms of the AIS set-aside codified in Section 80.371(c) of the Commission's Rules. Our legal authority to take this action is not in issue. The question before us is whether and under what terms the designation of Channels 87B and 88B for AIS would be sound domestic policy.¹⁵²

¹⁴⁸ See ¶¶ 24-29, *supra*.

¹⁴⁹ See, e.g., *United States v. Storer Broadcasting Co.*, 351 U.S. 192, 205, 76 S. Ct. 763, 100 L. Ed. 1081 (1956); *National Broadcasting Co. v. United States*, 319 U.S. 190, 225, 63 S. Ct. 997, 87 L. Ed. 1344 (1943); *Committee for Effective Cellular Rules v. FCC*, 53 F.3d 1309, 1319-20 (D.C. Cir. 1995); *WBEN, Inc. v. FCC*, 396 F.2d 601, 617-18 (2d Cir. 1968).

¹⁵⁰ See *Celtronix Telemetry, Inc. v. FCC*, 272 F.3d 585, 589 (D.C. Cir. 2002), *cert. denied*, 536 U.S. 923, 122 S. Ct. 2589, 153 L. Ed. 2d 778.

¹⁵¹ 47 U.S.C. § 309(j)(6)(c), (j)(6)(D).

¹⁵² MariTEL argues that too many questions remain about NTIA's proposal to justify the immediate adoption of a final rule designating Channels 87B and 88B for AIS. See MariTEL Comments at 17-19. We believe our decision to initiate this Notice of Proposed Rule Making and augment the record on this matter before taking final action effectively moots this argument. We also believe that we need not give further attention to MariTEL's argument that the Commission should not amend its Rules to conform with international standards unless to do so would serve United States interests. We clarify that our aim in this proceeding is to reach a resolution that will best advance the

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35. We disagree with MariTEL's contention that the record does not reveal that circumstances have changed since the adoption of the *VPC Third Report and Order* in 1998 such that the Commission's decisions therein, in particular the decision mandating identification through negotiation of two narrowband duplex channel pairs for AIS, need to be revisited. Most obviously, the termination of the MOA suggests that reliance on negotiation to identify the VPC spectrum to be used for AIS may no longer be in the public interest. We believe that at this juncture the Commission needs to step in to codify the AIS channels, in the interest of providing certainty to the maritime community and encouraging widespread deployment of AIS. In addition, the need for wideband simplex operation of AIS was not foreseen in 1998 when the Commission determined that two narrowband channel pairs would be sufficient. NTIA states that it was initially thought that AIS could be operated on narrowband channels, but that subsequent technical analysis and operational experience now confirm that effective use of AIS for both maritime safety and homeland security requires the use of wideband channels.¹⁵³ Further, the tragic events of September 11, 2001, have underscored the importance of AIS in protecting the United States against terrorist attack, in turn heightening the importance of ensuring that AIS is implemented quickly, widely, and effectively. In 1998, moreover, there existed a possibility that many other nations might also opt out of the international standard, and employ channels other than Channels 87B and 88B for AIS in their territorial waters, but that has not happened. We now understand that if the United States employs channels other than Channels 87B and 88B for AIS, it will be departing from the approach adopted by the rest of the international maritime community almost without exception.¹⁵⁴ The use in the United States of channels other than Channels 87B and 88B would thus preclude a seamless worldwide or near-worldwide AIS network that might otherwise be established. Finally, as noted above, a primary reason that the Commission declined in 1998 to designate Channel 87B for AIS use was the potential impact on co-channel site-based incumbents.¹⁵⁵ Now, in light of industry consolidation and a downturn in the maritime public correspondence market,¹⁵⁶ there are only seven co-channel site-based incumbents.¹⁵⁷ We believe, in sum, that these developments occurring after the adoption of Section 80.371(c)(3) in 1998 warrant revisiting the domestic AIS spectrum allocation.

36. MariTEL also argues that the Coast Guard can easily use other VPC channels for AIS if Channels 87B and 88B are unavailable, but it does not identify specific alternative channels, does not represent that any alternative channels would be better suited for AIS or otherwise better advance the public interest, and, for that matter, does not explain why the use of any other of its licensed VPC channels for AIS would be more advantageous to MariTEL's commercial interests. On the other hand, commenters overwhelmingly favor the designation of Channels 87B and 88B for domestic AIS use, and

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domestic public interest. (In addition, we find MariTEL's apparent argument that the Commission cannot at this juncture adopt a rule that accords with international standards simply because it did not do so initially in adopting Section 80.371(c)(3) to be without merit. See MariTEL Reply Comments re Sharing Proposal at 5, 8, 14.)

¹⁵³ See *NTIA Petition* at 3. We note that the Coast Guard asserts that it was clear to both parties when they negotiated the MOA that the selection of Channels 87A/B referred to 25 kHz channels. See USCG Reply Comments at 2. (The USCG Reply Comments were submitted to NTIA and then submitted to the Commission as an attachment to NTIA's Reply Comments.) We need not and do not attempt to resolve the issue of whether the parties to the MOA contemplated wideband or narrowband channels.

¹⁵⁴ See, e.g., Lockheed Martin Comments at 4 (observing that the use of Channels 87B and 88B for AIS "is rapidly becoming the de facto standard throughout the world").

¹⁵⁵ See *Public Coast Third Report and Order*, 13 FCC Rcd at 19877 ¶ 48.

¹⁵⁶ See *MariTEL Construction Extension*, 18 FCC Rcd at 24670-71 ¶ 3 ("[MariTEL] now believes that the advent and proliferation of other wireless technologies, such as cellular and personal communications services, has drastically reduced the market for VPC voice communications.").

¹⁵⁷ We address the impact of our proposals on these remaining incumbents *infra* at ¶ 65.

identify a number of important public interest benefits from the use of those channels.

37. Designating Channels 87B and 88B for AIS in the United States and its territorial waters will permit seamless worldwide AIS operations.¹⁵⁸ If the United States were to designate channels other than 87B and 88B for AIS, vessels entering United States waters would have to switch to those alternative channels, instead of being able to use the same channels that were employed in international waters. Commenters indicate that requiring such switching would increase the risk of vessel collisions.¹⁵⁹ If ships must switch channels as they approach and transit an AIS “fence” between international and United States waters, there is a risk that they will disappear temporarily from the screens of vessel traffic management systems as well as from the screens of AIS receivers located on the bridges of vessels.¹⁶⁰ RTCM says that these gaps in AIS coverage could be especially problematic in busy maritime border areas where maintaining port security is critical, such as San Diego, Puget Sound, and U.S. possessions in the Caribbean.¹⁶¹

38. Further, domestic use of Channels 87B and 88B for AIS would facilitate the speedy and efficient deployment of AIS, allowing the United States to take full advantage of existing AIS standards and infrastructure. According to some commenters, mandating the use of other channels could prolong implementation schedules for future PAWSS installations and delay full implementation of AIS as a component of homeland security because of the need for additional technical analysis, possible design changes, and conceivably more extensive shore infrastructure to accommodate AIS channel shifting.¹⁶² In addition, AIS operations on Channels 87B and 88B already have been deployed in, for example, the Saint Lawrence Seaway. A switch to other channels on the United States side would not only necessitate a costly reconfiguration of the AIS network on the Seaway but, more importantly, would compromise the ability of the United States to coordinate with Canada in monitoring vessel traffic on the Seaway and in other areas, since Canada uses Channels 87B and 88B for AIS.¹⁶³ In addition to implementation delays and coordination difficulties, the use of channels other than 87B and 88B would affect the United States adversely because it would cause the U.S. Government to expend considerably more time, money and resources to implement a domestic AIS infrastructure.¹⁶⁴

39. We agree with NTIA that designating specific channels for AIS should provide greater

¹⁵⁸ See *NTIA Petition* at 2; Lockheed Martin Comments at 4-5; Nauticast Comments at 9; SLSMC Comments at 1; RTCM Comments at 2; NMEA Comments at 1.

¹⁵⁹ See *NTIA Petition* at 2; Nauticast Comments at 10-11.

¹⁶⁰ See Lockheed Martin Comments at 5; see also MMC Comments at 3-4 (asserting that if the U.S. is forced to use a channel other than 87B for AIS, ships approaching the AIS fence will be at risk of collision due to less frequent updating of position and identification data).

¹⁶¹ See RTCM Comments at 3.

¹⁶² See Lockheed Martin Comments at 5; Nauticast Comments at 10.

¹⁶³ See *NTIA Petition* at 3-4; see also SLSMC Comments at 2 (stating that MariTEL’s proposal may “render unusable” the AIS system already deployed in the Seaway); Canadian Embassy Comments at 3 (strongly discouraging the designation of channels other than 87B and 88B for AIS in the United States because of the difficulties which would result from using AIS frequencies in the United States that differ from the AIS frequencies used in Canada). NTIA points out that there would be similar problems in coordinating with other nations if the United States alone uses channels other than 87B and 88B. *NTIA Petition* at 3-4.

¹⁶⁴ See *NTIA Petition* at 5. Canada fully supports the *NTIA Petition*. See Canadian Embassy Comments at 3 (stating that “Canada strongly shares the view that the implementation of AIS on channels 87B and 88B is a matter of national and international importance with respect to ensuring the safety and security of ship movement in the Great Lakes and Saint Lawrence Seaway. Like the NTIA, we believe that these concerns must take precedence over any conflicting claims by any other stakeholders.”)

regulatory certainty, which in turn should encourage investment in AIS technology.¹⁶⁵ Calling for another round of negotiations to identify channels for AIS would likely result in greater delay before this critical issue could be definitively resolved, and the resultant uncertainty would doubtless retard the pace of AIS deployment in the United States. Further, a resolution premised on a new MOA between the parties would still leave open the possibility that either party would terminate that future MOA, returning us to the present predicament.¹⁶⁶ Specifically designating AIS channels in the Commission's Rules, in contrast, would eliminate that possibility. Therefore, we see important public interest benefits in designating specific channels for AIS, and the record developed thus far overwhelmingly militates in favor of designating Channels 87B and 88B for this purpose rather than any other channels.¹⁶⁷ In addition, although MariTEL opposes our proposal, at least insofar as it is not linked to simultaneous adoption of the *MariTEL Frequency Coordinator Proposal* or the *MariTEL Sharing Proposal*, we believe it is in the interest of MariTEL to have this matter resolved expeditiously with some degree of certainty. Resolving the issue through a rulemaking will allow MariTEL to adjust its business plans, as needed, on the basis of a clear understanding that Channels 87B and 88B, and not different channels, will be used domestically for AIS. We invite comment on our tentative conclusion that the public interest will be served by designating Channels 87B and 88B exclusively for AIS use.

40. We also propose to eliminate note US223 to the Table of Frequency Allocations if we adopt our proposal to designate Channels 87B and 88B for exclusive AIS use in all maritime VPCAs inasmuch as VPCAs 1, 5 and 7 completely encompass the areas above Line A identified in note US223. We invite comment on this proposal. As an alternative to deleting note US223, we could modify the note to make clear that AIS communications are to be accorded priority over all other communications on Channel 88B in the specified areas. We accordingly request comment on whether we should modify note US223 in lieu of deleting it. Finally, although we here propose to provide for AIS use of Channels 87B and 88B on a wideband simplex basis, we note that MariTEL asserts that AIS can be deployed in the United States using duplex narrowband channels, notwithstanding the inconsistency with the international standards. We ask commenters to address the question of whether it is truly essential that AIS be provided in the United States using wideband simplex channels, or whether the use of narrowband duplex channels is a reasonable alternative. Commenters favoring the use of narrowband duplex channels should describe the public interest benefits to be derived from such an approach, including the potential to mitigate interference between AIS and VPC operations.

B. Interference Issues

41. The gist of MariTEL's opposition to the NTIA proposal to designate Channels 87B and 88B for AIS is that it would cause harmful interference to MariTEL's VPC operations to a much greater extent than would the designation of two duplex narrowband channel pairs.¹⁶⁸ Indeed, MariTEL claims that the

¹⁶⁵ *Id.*; see also APA Comments re Sharing Proposal at 4.

¹⁶⁶ NTIA and supporting commenters also express great reservations over any regulatory scheme that would allow a private company such as MariTEL to dictate the use of frequencies needed for AIS, as might be the case if MariTEL retained a unilateral right to terminate any future MOA assigning frequencies for AIS. See, e.g., *NTIA Petition* at 4; Nauticast Comments at 11; BoatUS Comments I at 1.

¹⁶⁷ We also note that using channels other than Channels 87B and 88B could have adverse economic consequences for manufacturers and vessel operators. See, e.g., Nauticast Comments at 10-11 (claiming that the use of other channels would disadvantage AIS equipment manufacturers that developed AIS equipment to operate on Channels 87B and 88B in reasonable reliance on the MOA and the *June 2002 PNs*); MMC Comments at 4 (claiming that the use of other channels would increase the costs of the Class B AIS transceivers likely to be purchased by small pleasure boats since the receivers will have to be frequency agile, and the higher costs would act as a disincentive to voluntary AIS carriage).

¹⁶⁸ We note that two site-based incumbent VPC licensees have argued that the *NTIA Petition* should be denied or conditioned because of the potential interference impact on incumbent operations. ShipCom Comments at 3-5;

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interference would be of such a magnitude that MariTEL could not commercially exploit any of its licensed geographic area VPC spectrum, not just the AIS-designated channels. For the reasons that follow, we tentatively conclude that the proposed designation of Channels 87B and 88B for AIS should not have an adverse effect on MariTEL's use of its VPC channels to a materially greater extent, if at all, than would designation of two narrowband offset channel pairs of the Commission's choosing.¹⁶⁹

42. MariTEL and NTIA each submitted an analysis of potential interference to public correspondence (PC) frequencies from AIS transmissions. The interference analysis submitted by MariTEL was prepared by inCode Telecom Group, Inc. (inCode),¹⁷⁰ and the analysis submitted by NTIA was prepared by the Department of Defense Joint Spectrum Center (JSC).¹⁷¹ The inCode Report and the JSC Report both purport to show AIS interference to PC analog and digital receivers. The inCode Report also includes a study of PC transmitter interference to AIS receivers. The reports use different test methodologies. The voice and data tests in the JSC Report were performed in a benign environment, eliminating the impacts of the surrounding RF environment.¹⁷² The inCode Report used a combination of free space calculations along with calculations taking into account free space loss, fading and other "design characteristics" that were not defined in the inCode Report.¹⁷³ The JSC Report provided greater detail on how it established interference parameters and on the technical characteristics of the radios used in the tests.¹⁷⁴

43. Assuming AIS shore station operation in "high seas" simplex mode using Channels 87B and 88B, the inCode Report used four interference levels to determine the impact on a PC analog receiver: very low, low, medium and high.¹⁷⁵ The levels were based on the interference to "Harvard phrases" sent from the PC transmitter.¹⁷⁶ However, there is insufficient information in the inCode Report to ascertain how the different levels were determined. This makes it difficult to compare the results of the inCode Report to the results of the JSC Report. The inCode Report indicated "high" interference to a PC analog voice receiver.¹⁷⁷ For the tests determining interference to a PC data receiver, the inCode Report

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Titlle Reply Comments at 2. We elsewhere ask for comments specifically addressing the potential impact of our proposal on site-based incumbent VPC licensees. See ¶ 65, *infra*.

¹⁶⁹ Pursuant to the express language of the *VPC Third Report and Order* and 47 C.F.R. § 80.371(c)(3), MariTEL was on notice that if negotiations to identify the narrowband AIS channel pairs failed, it would have to set aside narrowband channel pairs selected by the Commission.

¹⁷⁰ See "Interference Considerations of Simplex Operation 1371 AIS Technologies With Respect to MariTEL's Spectrum," inCode Telecom Group, Inc. (October 2003) (inCode Report). In addition, MariTEL has discussed the commercial ramifications of AIS interference in several *ex parte* presentations, all of which have been incorporated in the record of this proceeding.

¹⁷¹ See "EMC Analysis of Universal Automatic Identification and Public Correspondence Systems in the Maritime VHF Band," Joint Spectrum Center, Department of Defense (February 2004) (JSC Report).

¹⁷² *Id.* at 1-4, 1-5.

¹⁷³ See inCode Report at 15.

¹⁷⁴ See JSC Report at 1-4, 2-1 and 2-2, including appendices B and D.

¹⁷⁵ See inCode Report at 15.

¹⁷⁶ While it is not explicitly stated in the inCode Report, it is assumed that "Harvard phrases" refers to material in the report, "The Intelligibility of Interrupted Speech," Psycho-Acoustic Laboratory, Harvard University, Cambridge, Massachusetts, October 22, 1949.

¹⁷⁷ We note that the measurements of interference to analog voice communications are of limited relevance to the present controversy because of MariTEL's exit from the voice market and its intention to provide a data-only service in the future. We nonetheless discuss briefly the conclusions of the two reports with respect to voice

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provided plots showing different levels of data throughput for varying levels of AIS signal into the receiver. The plots show throughput levels reduced by up to fifty percent for a 8500 bps baseline.¹⁷⁸ The inCode Report concluded that there is a “distinct probability of interference problems” to the AIS system from VPC radios operating in the vicinity of the AIS transponder, and that VPC radios would also suffer interference from the AIS system on the shipborne unit.¹⁷⁹ The inCode Report also concluded that obtaining enough vertical separation may be impractical due to the “severity of transmitter noise interference levels identified;” that adjacent channel interference “will severely hamper the ability of the AIS system to ‘listen’ to boats in the open seas and could very well destroy operations all together;” and that joint planning and implementation is warranted to address these interference issues.¹⁸⁰

44. The JSC Report also indicated interference to PC voice and data communications, but at significantly different levels than indicated in the inCode Report. The JSC Report used articulation scores (AS) to determine the levels of interference.¹⁸¹ The JSC Report indicates that under near-perfect conditions, the maximum AS attainable is about ninety-five percent.¹⁸² It also indicates that an AS of eighty percent enables a listener to understand every sentence without significant effort. The JSC Report recorded a worst-case AS of 93.1, compared to a baseline AS of 95.3 if AIS is not a factor. The JSC Report also examined the interference potential of AIS to a PC data receiver with no error correction. It recorded a worst-case bit error rate of 3.1×10^{-2} bits per second, with a baseline of less than 1×10^{-6} bits per second if AIS is not a factor.¹⁸³ This corresponds to a worst-case bit rate of approximately ninety-seven percent, a significant difference from the fifty percent worst-case throughput indicated in the inCode Report. The JSC Report also concludes that “the use of FEC [Forward Error Correction] codes and block interleaving in the receiver should allow it [to] operate normally in the presence of AIS emissions.”¹⁸⁴

45. In its cover letter accompanying the JSC Report, NTIA states that it has been recognized for many years that paging transmitters operating in the 152-153 MHz and 157-158 MHz bands and National Oceanic and Atmospheric Administration (NOAA) weather radio transmitters in the upper adjacent Federal Government band interfere with VHF marine radio receivers.¹⁸⁵ NTIA also observes that the RTCM formed a special committee comprised of government and non-government experts – RTCM SC 117 – to address this problem.¹⁸⁶ The committee produced a voluntary standard for marine radios that

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communications as well as data communications because they may be relevant to the issue of AIS interference to and from incumbent site-based VPC operations.

¹⁷⁸ See inCode Report at 18-19.

¹⁷⁹ *Id.* at 23.

¹⁸⁰ *Id.*

¹⁸¹ See JSC Report at 1-4. The AS methodology incorporates statistical methods to determine the intelligibility of words. Each word is “symbolized” into a number of phoneme fragments, or elements.

¹⁸² *Id.*

¹⁸³ *Id.* at 2-4, Table 2-3. This value is based on a horizontal antenna separation of ten feet.

¹⁸⁴ *Id.* at 3-2.

¹⁸⁵ See Letter dated Feb. 26, 2004 from Frederick R. Wentland, Associate Administrator, Office of Spectrum Management, NTIA, to John B. Muleta, Chief, Wireless Telecommunications Bureau, FCC at 1-2 (*NTIA Cover Letter*).

¹⁸⁶ *Id.* at 2.

significantly improves VHF marine receiver performance.¹⁸⁷

46. NTIA concludes, “The current state-of-the-art in digital radio communications provides mitigation techniques that would provide adequate protection against this potential AIS interference to MariTEL’s proposed data service. Given the congested radio environment in the VHF band, MariTEL would likely need to employ these mitigation techniques even if no AIS operations were present.”¹⁸⁸ MariTEL disputes the conclusions of NTIA and the JSC Report that the use of FEC codes and other methods is a reasonable and adequate solution to the identified interference issues. MariTEL says this solution is not commercially viable and would impair future product capabilities. According to MariTEL, “Any requirement to implement FEC codes severely limits MariTEL’s wireless data business plans due to the difficulty of providing new and innovative higher-bandwidth applications to the maritime industry.”¹⁸⁹

47. We tentatively conclude that the ability of MariTEL to incorporate FEC codes and block interleaving to prevent interference to VPC data transmissions further undermines its claim that designating Channels 87B and 88B for AIS will preclude any opportunity for MariTEL to take commercial advantage of the VPC spectrum it acquired at auction. As NTIA points out, FEC and interleaving techniques are used by public safety entities in the land mobile radio service to mitigate the effects of that congested signal environment, and digital selective calling radios employ FEC and interleaving in the marine environment.¹⁹⁰ It may add to MariTEL’s costs of doing business, but we do not think it is beyond the bounds of reasonableness, especially in a spectrum environment posing a significant interference challenge even in the absence of AIS, if MariTEL finds that it needs to incorporate state-of-the-art technology in order to operate at the minimum throughput levels it believes are essential for commercial success.¹⁹¹ We invite comment on this tentative conclusion and on all aspects of the inCode and JSC interference analyses, including the reasonableness of their assumptions, the accuracy of their methods, and the validity of their conclusions.

48. In addition, we believe that, regardless of whether we designate Channels 87B and 88B for domestic AIS use, MariTEL’s ability to use Channels 87B and 88B for non-AIS communications potentially could be limited in coastal areas because of the use of those channels for AIS in international

¹⁸⁷ RTCM Paper 87-99/SC117-STD (Oct. 10, 1999). We note that the RTCM SC 117 standard applies only to voice communications, and is therefore not relevant to MariTEL’s proposed data offerings. We cite it here simply as evidence that concerns about the interference environment in the marine VHF bands have existed for some time, and to an extent warranting formal standards-setting efforts to address those concerns.

¹⁸⁸ *NTIA Cover Letter* at 3.

¹⁸⁹ See MariTEL Reply Comments re Sharing Proposal at 12. MariTEL claims that the “significant commercial challenges” associated with the employment of FEC include a roughly forty percent reduction in channel throughput, plus the time and expense of developing new maritime devices instead of being able to use commercial off-the-shelf devices. *Id.* at 11-12.

¹⁹⁰ *NTIA Cover Letter* at 3.

¹⁹¹ We note that the emissions mask and out-of-band emissions limitations for AIS, as specified in IEC 61993-2, Section 15.1.3, are more stringent than those applicable to similar equipment that may be certified for operation under Part 80 of our Rules. For example, at a frequency 25 kHz removed from the center frequency of the emission, *i.e.*, at the center frequency of the adjacent channel, the IEC standard requires the emission to be attenuated 70 dB below the carrier power. Under Part 80, in contrast, such an emission is only required to be attenuated 35 dB below the carrier power. See 47 C.F.R. § 80.211(f). Further, the spurious emission limit for AIS emissions, excluding the channel on which the transmitter is operating and its adjacent channels, is -36 dBm. The corresponding limit for non-AIS Part 80 equipment is $43 + 10 \log(p)$, or -13 dBm for emissions removed from the center frequency by more than 62.5 kHz. *Id.* Therefore, the emissions profile for AIS devices is significantly more stringent than the emissions profile for devices typically authorized under Part 80, including devices used for public correspondence. Notwithstanding the interference issues related to ship transmission on the “B” side, we believe this point is significant.

waters¹⁹² or conceivably even by vessels exercising the right of innocent passage in U.S. waters.¹⁹³ U.S. territorial waters extend twelve nautical miles from the shore.¹⁹⁴ However, AIS transmission ranges at sea typically reach at least twenty to thirty nautical miles depending on antenna.¹⁹⁵ Thus, vessels on international voyages would be transmitting AIS communications on Channels 87B and 88B as they approach the AIS fence, since they would not switch to another channel in any event until the ship is within VHF range and contacted by a Coast Guard shore station. These AIS transmissions could have the potential to cause interference to VPC communications on Channels 87B and 88B while the vessels were between twelve and twenty nautical miles from shore, and likely at even greater distances. We request comment on the extent, if any, to which the use of Channels 87B and 88B for AIS by vessels in international waters potentially may cause interference to, or otherwise restrict, domestic VPC operations on Channels 87B and 88B. If such interference would be significant, it further reduces the potential effect on MariTEL of a domestic designation of Channels 87B and 88B for AIS.¹⁹⁶

49. For the above reasons, and after reviewing the comments submitted in response to the various public notices, we tentatively conclude that there is no basis in public policy or equity either to forego designating Channels 87B and 88B for AIS in order to protect MariTEL's interests or to provide some mechanism to compensate MariTEL if we do so. We believe that the action we propose here is essential to public safety, a reasonable regulatory response to changed circumstances, does not limit the licensed VPC spectrum available for MariTEL's proposed data offerings to any greater degree than would the designation of four narrowband offset channels, does not unfairly undermine MariTEL's reasonable investment-backed expectations, and does not undermine the integrity of the auction process. We invite comment on these tentative conclusions as well as on our overall proposal. In addition, we encourage the Coast Guard and Maritel to cooperate in an effort to avoid interference to and from AIS and VPC operations, and to take reasonable measures to remedy any instances of interference that occur. Should

¹⁹² *Accord* Nauticast Comments at 10 (averring that Channels 87B and 88B will not have any significant commercial value to MariTEL in any event because they will be utilized for AIS in international waters); *see also* MMC Comments at 4.

¹⁹³ The "right of innocent passage" is defined in Section 3 of the Convention on the Territorial Sea and the Contiguous Zone, which is part of the 1982 United Nations Convention on the Law of the Sea. The right of innocent passage is accorded to ships of all States subject to the Convention. Under Article 18 of Section 3, passage means "navigation through the territorial sea [of a coastal State] for the purpose of: (a) traversing that sea without entering internal waters or calling at a roadstead or port facility outside internal waters; or (b) proceeding to or from internal waters or a call at such roadstead or port facility." Article 19 specifies, "Passage is innocent so long as it not prejudicial to the peace, good order or security of the coastal State." It then lists a number of activities that shall be considered prejudicial, including "any act aimed at interfering with any systems of communication or any other facilities or installations of the coastal state." However, Article 21 provides that coastal States may adopt rules and regulations pertaining to, *inter alia*, the safety of navigation and the regulation of maritime traffic, and that foreign vessels exercising the right of innocent passage through territorial waters shall comply with all such rules and regulations. We assume that, under current U.S. policy, the right of innocent passage could allow foreign vessels to use Channel 87B for AIS in U.S. waters. *See* United States Proposed Modifications to the Draft ITU-R Conference Preparatory Meeting for WRC-03, November 1, 2002, Document CPM02-2/08E. We ask commenters to address the extent to which the use of Channel 87B for AIS by foreign vessels on innocent voyage within U.S. waters could restrict the use of that channel for VPC communications.

¹⁹⁴ *See* Presidential Proclamation No. 5928, 54 Fed. Reg. 777 (1988); 50 U.S.C. § 50.195(2).

¹⁹⁵ *See* IMO Resolution A.917(22), Annex ¶ 9; *see also* Nauticast Comments at 10 (stating that AIS signal range is twenty to fifty miles).

¹⁹⁶ The development of ITU-R M.1371-1 began in March 1998, and the standard was not approved until August 2001. In Annex 2 of the standard, Channels 87B and 88B – which are also listed as 2087 and 2088 respectively, the ITU number extension given for channels used in the wideband simplex mode – are designated as the required default channels for AIS. ITU Working Party 8B (WP8B), which developed ITU-R M.1371-1, conducted domestic working party meetings in which there was an opportunity for public comment on the standard.

any disagreement arise, either party could request the Commission's assistance. Although we do not propose here to mandate any particular type of cooperative interference mitigation measures, we seek comment on whether there are specific actions we could take (including but not limited to imposing particular obligations in our rules) to facilitate such collaboration. Commenters may consider, for example, whether the Coast Guard and MariTEL should negotiate regarding a coordination agreement or similar arrangement to mitigate interference.

50. We note that commenters besides MariTEL have contended that MariTEL should be compensated in some manner if Channels 87B and 88B are designated for AIS.¹⁹⁷ While we have tentatively concluded otherwise for the reasons explained above, interested parties who continue to believe that MariTEL should be compensated in some way should explain in detail why that is so. Proponents of compensation should also identify appropriate compensation and discuss whether the Commission has legal authority to provide that compensation.

C. MariTEL Proposals

51. We also tentatively conclude that it would not serve the public interest to adopt the *MariTEL Frequency Coordinator Proposal* or the *MariTEL Sharing Proposal*. We discern little concrete benefit from either proposal beyond providing a resolution of this controversy that is acceptable to MariTEL by offering a potential revenue stream. As discussed below, there are significant problems with each proposal that, we believe, outweigh any benefits.

1. Frequency Coordinator Proposal

52. With respect to the *MariTEL Frequency Coordinator Proposal*, commenters assert that the service MariTEL proposes to provide is not frequency coordination¹⁹⁸ and that there is no need for AIS frequency coordination.¹⁹⁹ Commenters note, moreover, that where frequency coordination is required, the Commission generally favors competition among frequency coordinators, rather than giving a single coordinator exclusivity, as MariTEL proposes.²⁰⁰ Commenters also complain that MariTEL, unlike the Part 90 frequency coordinators, would not be representative of the user community,²⁰¹ and some commenters question MariTEL's qualifications to serve as AIS frequency coordinator.²⁰² In response,

¹⁹⁷ See Port of New York/New Jersey Comments re Sharing Proposal at 1; United Sandy Hook Pilots Comments re Sharing Proposal at 1; Shine Micro Comments re Coordination Proposal at 2; cf. MMC Comments at 4 (arguing that the best solution would be for the FCC to revoke MariTEL's license for Channel 87B and offer MariTEL another marine mobile channel to replace it, if one is available, or, alternatively, "the FCC could buy back Channel 87B from MariTEL for current market value.")

¹⁹⁸ See Ingram Barge Comments re Coordination Proposal at 3-4; Tidewater Marine Comments re Coordination Proposal at 1.

¹⁹⁹ See Ingram Barge Comments re Coordination Proposal at 3-4; RTCM Comments re Coordination Proposal at 2-3; Shine Micro Comments re Coordination Proposal at 1; Nauticast Comments re Coordination Proposal at 4; Furuno U.S.A. Comments re Coordination Proposal at 1; NTIA Comments re Coordination Proposal at 2; DOT/SLSDC Comments re Coordination Proposal at 4-5. (The DOT/SLSDC Comments re Coordination Proposal were submitted to NTIA, and then submitted to the Commission as an attachment to NTIA's Comments re Sharing Proposal.)

²⁰⁰ See Ingram Barge Comments re Coordination Proposal at 5; NTIA Comments re Coordination Proposal at 2; see also BoatUS Comments re Coordination Proposal at 1 (suggesting that if there is a need for a single AIS frequency coordinator, the selection of that coordinator should be subject to the federal bidding and procurement process).

²⁰¹ See Ingram Barge Comments re Coordination Proposal at 4; Task Force Comments re Coordination Proposal at 2.

²⁰² See BoatUS Comments re Coordination Proposal at 2; Sea Tow Comments re Coordination Proposal at 1; Task Force Comments re Coordination Proposal at 2; Ingram Barge Comments re Coordination Proposal at 4; USCG

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MariTEL says that those commenters who contend that MariTEL would not be acting like other frequency coordinators previously recognized by the Commission focus too narrowly on the traditional role of frequency coordination.²⁰³ In addition, other commenters support MariTEL's proposal to serve as AIS frequency coordinator, stating that MariTEL is uniquely qualified to serve in that role and that implementing the proposal will facilitate adoption of AIS by non-mandatory vessels and expand the utility of AIS to all maritime stakeholders.²⁰⁴

53. We agree with the commenters who contend that frequency coordination, in the traditional sense, is not required for AIS. If Channels 87B and 88B are designated for AIS, as is a premise of the *MariTEL Frequency Coordinator Proposal*, there is no need for a frequency coordinator to undertake an analysis of predicted interference in order to select a "best" frequency for the proposed operation. However, we do not believe that should be the end of the discussion. If the *MariTEL Frequency Coordinator Proposal* would provide a significant benefit to AIS users that would outweigh any detrimental effects, it would deserve further consideration. However, we are not convinced, on balance, that the benefits to be derived from adopting the *MariTEL Frequency Coordinator Proposal* outweigh the potential negative consequences for AIS deployment stemming from MariTEL's proposed fees. The benefits are not clearly described,²⁰⁵ and appear to be geared toward MariTEL's particular interests as a VPC licensee. MariTEL says in its reply comments to the *Coordinator Proposal PN* that AIS frequency coordination is indeed needed, for two reasons; first, it is needed to ensure that use of Channels 87B and 88B for AIS does not negatively affect MariTEL's use of not only those channels but also adjacent channels, and second, it is necessary for shared use of the channels by the Federal Government and by MariTEL and other non-Federal Government users.²⁰⁶ After review of the record on this issue, we tentatively conclude that private sector frequency coordination is not essential for the effective operation of AIS in the United States, and that the benefits to be derived from adoption of the *MariTEL Frequency Coordinator Proposal* are at best slight and in any event clearly outweighed by the attendant costs.

54. Many commenters view MariTEL's proposed frequency coordination fees as an unnecessary and unreasonable "toll booth" or "tax" that would be imposed on AIS users for the sole or primary purpose of enabling MariTEL to recoup its investment in VPC spectrum and facilities.²⁰⁷ Commenters

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Comments re Coordination Proposal at 4. (The USCG Comments re Coordination Proposal were submitted to NTIA, and then submitted by NTIA as an attachment to NTIA's Comments re Coordination Proposal.)

²⁰³ See MariTEL Reply Comments re Coordination Proposal at 10. MariTEL also notes that while traditional frequency coordinators may operate on a non-profit basis, traditional frequency coordinators, unlike MariTEL, are not licensees with a legitimate expectation of being able to profit from use of the licensed spectrum. *Id.* at 11. MariTEL also disputes that all frequency coordinators are representative of the industries they serve and provide service on a not-for-profit basis. *Id.* at 11-12.

²⁰⁴ See Mississippi DPSC Comments re Coordination Proposal at 2-3; Harris Corp. Comments re Coordination Proposal at 1; see also Tittle Comments re Coordination Proposal at 2 (stating that MariTEL should be permitted to serve as AIS Frequency Coordinator provided that MariTEL makes frequency recommendations that take into account and protect the operations of all existing site-based VPC stations, and not simply protect MariTEL's stations).

²⁰⁵ See, e.g., RTCM Comments re Coordination Proposal at 3 (asserting that it is not clear how MariTEL's proposed database would provide the Coast Guard or the Commission with information that is not already available through existing MMSI databases); Furuno U.S.A. Comments re Coordination Proposal at 1 (arguing that the services MariTEL proposes to provide appear to be available already at far less cost than MariTEL proposes). MariTEL of course may provide additional clarification on this point in its comments to this Notice of Proposed Rule Making.

²⁰⁶ See MariTEL Reply Comments re Coordination Proposal at 5-7.

²⁰⁷ See Ingram Barge Comments re Coordination Proposal at 1-2, 7-8; BoatUS Comments re Coordination Proposal at 1; Tidewater Marine Comments re Coordination Proposal 1; Shine Micro Comments re Coordination Proposal at 2; Nauticast Comments re Coordination Proposal at 3-4; Task Force Comments re Coordination Proposal at 2;

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state that the proposed initial fees are unreasonably high.²⁰⁸ MariTEL says that it agrees that its fees should be determined ultimately by “market pressures,”²⁰⁹ and that it is not wedded to its initially proposed charges and is willing to provide a justification to the Commission for any charges it intends to impose.²¹⁰ Nonetheless, we share the concerns of commenters over the fees MariTEL seeks to impose. We are puzzled as to how MariTEL expects the discipline of the marketplace to constrain its pricing policy if it is allowed to have a monopoly over AIS frequency coordination services, as it proposes.²¹¹ In addition, we do not believe the possibility of Commission oversight of MariTEL’s pricing provides a satisfactory solution to these concerns. Such oversight would be administratively burdensome,²¹² there would not be a clear benchmark for assessing the reasonableness of MariTEL’s proposed rates, and it remains that MariTEL proposes to impose fees that would not only recover its costs in providing frequency coordination services, but that would include a significant profit component as well.²¹³

55. We tentatively agree with the many commenters who contend that MariTEL’s proposed fees would create an unwarranted disincentive for voluntary carriage of AIS equipment.²¹⁴ The effectiveness of AIS as a tool in service of maritime safety and homeland security is directly proportional to the percentage of vessels that operate with AIS. Creating a disincentive for voluntary AIS carriage should be considered only if there are equally weighty reasons in favor of it. Here, as we have discussed, we see no countervailing public interest benefit in MariTEL’s proposal to act as AIS frequency coordinator that could justify a measure that would discourage fitting vessels with AIS equipment. In addition, we agree

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Ingram Barge Reply Comments re Coordination Proposal at 3-4; USCG Comments re Coordination Proposal at 1-2; DOT/SLSDC Comments re Coordination Proposal at 6-7. (The USCG Comments re Coordination Proposal and the DOT/SLSDC Comments re Coordination Proposal were submitted to NTIA, and then submitted to the Commission as attachments to the NTIA Comments re Coordination Proposal.)

²⁰⁸ See Task Force Comments re Coordination Proposal at 2; Ingram Barge Comments re Coordination Proposal at 6; Tidewater Marine Comments re Coordination Proposal at 1. Several commenters indicate that they find it particularly egregious that MariTEL proposes to charge fees for issuing MMSI numbers, when BoatUS and Sea Tow currently issue MMSIs free of charge. See Ingram Barge Comments re Coordination Proposal at 6; Shine Micro Comments re Coordination Proposal at 2. In addition, the Coast Guard points out that MariTEL intends to charge Federal Government vessels as well as private vessels for MMSIs that they can now acquire free of charge. USCG Comments re Coordination Proposal at 4. DOT/SLSDC adds that “[t]here is no justification for allowing MariTEL to charge a fee for an MMSI for which MariTEL has incurred no processing or application costs.” DOT/SLSDC Comments re Coordination Proposal at 6. In its Reply Comments, however, MariTEL clarifies that it is not essential to its proposal that it be the exclusive registrar of MMSIs. MariTEL Reply Comments re Coordination Proposal at 13.

²⁰⁹ See MariTEL Comments at 5.

²¹⁰ See MariTEL Reply Comments re Coordination Proposal at 12.

²¹¹ See Ingram Barge Reply Comments re Coordination Proposal at 2 n.5, 5-6; BoatUS Comments re Coordination Proposal at 1-2.

²¹² Accord Ingram Barge Comments re Coordination Proposal at 6. Commenters also point to other potential difficulties, apart from the need to police MariTEL’s prices. For example, it is unclear how a failure to pay a fee would be enforced or by whom. See, e.g., Ingram Barge Comments re Coordination Proposal at 6.

²¹³ See MariTEL Reply Comments re Coordination Proposal at 2-3 (stating that MariTEL’s imposition of charges for the use of Channels 87B and 88B and to coordinate those channels is consistent with its status as a CMRS provider, and if it were not allowed to impose such charges it would be receiving disparate treatment from similarly situated licensees).

²¹⁴ See BoatUS Comments re Coordination Proposal at 2; Tidewater Marine Comments re Coordination Proposal at 1; Shine Micro Comments re Coordination Proposal at 2; Nauticast Comments re Coordination Proposal at 4-5; Furuno U.S.A. Comments re Coordination Proposal at 1; USCG Comments re Coordination Proposal at 4; DOT/SLSDC Comments re Coordination Proposal at 6; cf. LMRWSAC Comments re Sharing Proposal at 2.

that the proposed fees would unfairly burden the owners and operators of vessels subject to mandatory AIS carriage requirements, who must already shoulder the costs of purchasing and installing AIS equipment to fulfill the requirement.²¹⁵ Having been required to bear this expense in order to comply with a Federal agency's requirement, these vessel owners and operators should not be forced by another Federal agency to pay additional up-front and recurring fees to a private sector entity unless there are compelling reasons to do so. We tentatively conclude that there are no such compelling reasons.²¹⁶ We accordingly propose not to adopt the *MariTEL Frequency Coordinator Proposal*.²¹⁷

2. Sharing Proposal

56. We also decline to propose adoption of the *MariTEL Sharing Proposal* because, like the *MariTEL Frequency Coordinator Proposal*, its public interest benefits are unclear, and do not outweigh the clear disadvantages of the proposal.²¹⁸ Although, for reasons discussed above, we have tentatively determined to reject MariTEL's assertion that it may not be deprived of the use of Channels 87B and 88B without compensation, we would nonetheless welcome a resolution of this matter that would be acceptable to MariTEL as well as the Federal Government, if for no other reason than it would remove a possible source of litigation over these issues, and thus provide even greater certainty for the maritime community in going forward with deployment of AIS on Channels 87B and 88B. However, we conclude that there are several serious problems with the *MariTEL Sharing Proposal*.

57. To begin with, the *MariTEL Sharing Proposal* would permit MariTEL to use on a shared basis not only Channel 87B but also the Federal Government channel 88B.²¹⁹ The Commission is not empowered to give MariTEL any rights to use a Federal Government channel, and NTIA has not

²¹⁵ See, e.g., Furuno U.S.A. Comments re Coordination Proposal at 2; SLSMC Comments re Coordination Proposal at 2.

²¹⁶ Although we rely primarily on the reasons explained in the text for tentatively rejecting MariTEL's proposal, we note that the record also provides additional public interest reasons to reject the proposal. For example, MariTEL's proposed fees would burden not only vessel operators but U.S. taxpayers insofar as fees would be assessed on shore stations established by the Coast Guard or other government agencies. See USCG Comments re Coordination Proposal at 2. Imposing fees for AIS frequency coordination could also harm U.S. manufacturers of AIS equipment by reducing demand for such equipment. See Furuno U.S.A. Comments re Coordination Proposal at 2. In addition, adding charges to the U.S. and Canadian regulatory charges already imposed on vessels transiting the Saint Lawrence Seaway could encourage vessel operators to use alternative routes or transportation modes. See DOT/SLSDC Comments re Coordination Proposal at 5. Finally, government agencies have expressed concerns about security, privacy and other issues that arise from MariTEL's proposal to have real-time access to AIS data and to provide vessel location services and database access to state and local governments and private entities. See SLSMC Comments re Coordination Proposal at 2-3; USCG Comments re Coordination Proposal at 4.

²¹⁷ Having determined tentatively not to adopt the *MariTEL Frequency Coordination Proposal* for reasons of policy, we will not at this time address, but will simply acknowledge, the comments questioning the Commission's legal authority to impose a requirement to pay fees to MariTEL, either on vessel owners generally, see BoatUS Comments re Coordination Proposal at 2, Coast Guard shore facilities, see USCG Comments re Coordination Proposal at 2, or foreign flagged vessels operating with AIS in United States waters, see USCG Comments re Coordination Proposal at 3; DOT/SLSDC Comments re Coordination Proposal at 5. In addition to these arguments, we note that the Coast Guard contends that MariTEL's proposal would impermissibly cede to MariTEL authority that should be exercised only by the Coast Guard with respect to coordinating deployment of AIS shore stations or imposing requirements on warships and other Federal Government vessels. See USCG Comments re Coordination Proposal at 3; see also NPRMC Comments re Sharing Proposal at 1.

²¹⁸ See MM&P I Comments re Sharing Proposal at 3 (stating that MariTEL's proposal does not add value to AIS).

²¹⁹ As noted above, ¶ 29, *supra*, Channel 88 is available for maritime public correspondence in only a small portion of the United States, and only after successful coordination with NTIA and Canada.

indicated any readiness to do so.²²⁰ For this reason alone, we are unable to propose adoption of the *MariTEL Sharing Proposal*.

58. In addition, we note that a number of commenters question MariTEL's assurance that its proposed sharing mechanism based on channel loading and slot sharing will be adequate to protect AIS operations from interference.²²¹ Lockheed Martin claims that MariTEL's suggested technology – FATDMA (Fixed Access Time Division Multiple Access) – is unproven, and that “[s]pectrum dedicated to critical safety and security purposes should not be the proving ground for new sharing techniques.”²²² In response, MariTEL reiterates that implementation of the *MariTEL Sharing Proposal* will not compromise the availability of AIS channels for legitimate Coast Guard operations, and says it will guarantee that Coast Guard operations and homeland security applications are not impaired.²²³ MariTEL also pledges that it will demonstrate the viability of the proposed time slot/channel loading technology prior to implementation.²²⁴ Finally, MariTEL states that, contrary to Lockheed Martin's assertion, implementation of its proposal is not dependent on use of FATDMA messaging.²²⁵ Because we believe that other aspects of the *MariTEL Sharing Proposal* warrant its rejection, we do not attempt here to resolve definitively the question of whether the *MariTEL Sharing Proposal* is technically feasible or technically appropriate given the maritime safety and homeland security purposes to which these channels are to be dedicated. We note, however, that we would be reluctant to accept it as sufficiently protective of AIS operations on the basis of the existing record. Were our other objections to the *MariTEL Sharing Proposal* completely resolved in the proposal's favor, we would still require the submission of more detailed technical information on how it would work. Accordingly, we invite commenters to consider the technical merits of MariTEL's proposal for shared use of the channels, without regard to the other facets of the *MariTEL Sharing Proposal*. Putting aside the particulars of the *MariTEL Sharing Proposal*, we seek comment on whether sharing of the channels by AIS and VPC stations is technically feasible through either MariTEL's channel loading/slot sharing proposal or some alternative technical solution.²²⁶

59. The aspect of the *MariTEL Sharing Proposal* that most concerned the commenters is that it would place restrictions on access to AIS data. As noted, the *MariTEL Sharing Proposal* is premised in part on the Commission adopting regulations precluding the reception and use of AIS transmissions except by MariTEL, the Coast Guard and ship stations.²²⁷ Commenters assert that if the full benefits of

²²⁰ See, e.g., NTIA Comments re Sharing Proposal at 2-3.

²²¹ See, e.g., APA Comments re Sharing Proposal at 3 (stating the *MariTEL Sharing Proposal* will unavoidably degrade AIS capacity); Nauticast Comments re Sharing Proposal at 3-4 (stating that the *MariTEL Sharing Proposal* is insufficiently specific to be properly evaluated, and that it could result in channel loading of a magnitude that would lower the quality of the service available to all users); LMRWSAC Comments re Sharing Proposal at 2 (stating that the *MariTEL Sharing Proposal* does not offer assurance that shared use of the frequencies will not result in a degradation of security and safety functions of AIS),

²²² See Lockheed Martin Comments re Sharing Proposal at 4.

²²³ See MariTEL Reply Comments re Sharing Proposal at 13.

²²⁴ *Id.*

²²⁵ *Id.*

²²⁶ With regard to AIS transmissions on the “shore” or “B” side of Channels 87 and 88, MariTEL asserts that it is impossible as a practical matter to filter interference from the AIS emission effectively enough to facilitate operation on the other VPC channels licensed to MariTEL. See MariTEL *ex parte* presentation dated June 30, 2004 at 4. MariTEL also contends that the only plausible means for other users of this spectrum to protect themselves from AIS interference is by designing a device that will not transmit during the 0.5% of the time AIS is transmitting. See MariTEL *ex parte* presentation dated May 17, 2004 at 7. We presume this functionality could be accomplished through different methods. Accordingly, we request comment on, *inter alia*, the feasibility of this approach, along with MariTEL's assertion that filtering AIS emissions is not an option.

²²⁷ See *MariTEL Sharing Proposal* at 2.

AIS are to be realized, AIS data must be widely available to a host of other federal and non-federal entities, such as pilot associations.²²⁸ Commenters point out that AIS is viewed as a critical component of future safety and security systems not only in VTS areas but also in other areas, and operated not only by the Coast Guard but also by, for example, the United States Navy, state and local port authorities, and maritime first responders.²²⁹ Precluding other entities from acquiring and using AIS information, or allowing such access and use only upon payment to MariTEL, could inhibit domestic implementation of AIS and could preclude beneficial public/private cooperative arrangements²³⁰ between the Coast Guard and private maritime associations.²³¹

60. Several commenters explain how adoption of MariTEL's proposed restrictions on AIS information will impact specific ongoing efforts to deploy AIS.²³² More generally, USGSC points out that the *MariTEL Sharing Proposal* could impair the ability of federal agencies, such as NOAA, or other entities, such as marine exchange or port authorities, to provide important information about oceanic conditions or for ships at sea to receive such information.²³³ In addition, commenters point out that the proposed restrictions on use of AIS information could have other negative consequences. For example, allowing free access to AIS information in VTS areas while charging users for such access in non-VTS areas, as MariTEL apparently proposes, could give the former an unfair commercial advantage over the latter.²³⁴ If shippers favor VTS ports because of this cost advantage, moreover, it could create additional traffic congestion at VTS ports, increasing the risk of collision.²³⁵ In sum, the consensus of the commenters is, as stated by LCA, that "[a]ccess to the AIS frequencies should be readily available and

²²⁸ See, e.g., APA Comments re Sharing Proposal at 4; Bar Pilots Comments re Sharing Proposal at 2; Port of New York/New Jersey Comments re Sharing Proposal at 1; MM&P I Comments re Sharing Proposal at 2; Lockheed Martin Comments re Sharing Proposal at 3; Nauticast Comments re Sharing Proposal at 4; NPRMC Comments re Sharing Proposal at 1; USCG Comments re Sharing Proposal; United Sandy Hook Pilots Comments re Sharing Proposal at 1.

²²⁹ See, e.g., LMRWSAC Comments re Sharing Proposal at 2; Lockheed Martin Comments re Sharing Proposal at 3.

²³⁰ MariTEL argues that the Commission did not contemplate public/private partnerships involving entities other than the Coast Guard using AIS, and that MariTEL should not be required to make its spectrum available for such public/private partnerships. See MariTEL Reply Comments re Sharing Proposal at 5, 7-8. We believe the public interest is served by accommodating such cooperative endeavors that employ AIS information, and that this is a factor militating against adoption of the *MariTEL Sharing Proposal* because it would limit access to AIS information in a way that could foreclose such arrangements. In addition to facilitating widespread use of AIS information, public/private partnerships could reduce AIS implementation costs incurred by the Federal Government, as the U.S. Government Accountability Office discusses in a recent report to Congress. See U.S. General Accountability Office, *Maritime Security: Partnering Could Reduce Federal Costs and Facilitate Implementation of Automatic Vessel Identification System*, Report to the Committee of Commerce, Science, and Transportation, U.S. Senate (GAO-04-868 July 2004) (viewable at <http://www.gao.gov/new.items/d04868.pdf>).

²³¹ See Bar Pilots Comments re Sharing Proposal at 2-4; LMRWSAC Comments re Sharing Proposal at 2; Coast Guard Comments re Sharing Proposal at 2. The Coast Guard observes that MariTEL's proposal potentially could not only end beneficial cooperative arrangements between the Coast Guard and various port authorities, but also arrangements between the Coast Guard and other federal agencies, such as NOAA. See Coast Guard Comments re Sharing Proposal at 2.

²³² See COLRIP Comments re Sharing Proposal at 1-2; Tampa Comments re Sharing Proposal at 2; Corps of Engineers – Detroit Comments re Sharing Proposal at 1; LMRWSAC Comments re Sharing Proposal at 1; *accord* TBHSC Comments at 1. AWO asserts that limiting use of Channels 87B and 88B to support just VTS operations and homeland security surveillance applications would “effectively render AIS unusable as a navigation tool.” AWO Comments re Sharing Proposal at 1.

²³³ USGSC Comments re Sharing Proposal at 1.

²³⁴ See Tampa Comments re Sharing Proposal at 2; Lockheed Martin Comments re Sharing Proposal at 3.

²³⁵ See Lockheed Martin Comments re Sharing Proposal at 3-4.

free of charge.”²³⁶ We agree.²³⁷

61. Finally, with respect to the portion of the *MariTEL Sharing Proposal* that calls for the Commission to modify the technical requirements for AIS devices in order to prevent interference from AIS operations on Channels 87B and 88B to adjacent channel VPC channels, we are not persuaded that the Commission needs to revisit the AIS equipment requirements it so recently adopted.²³⁸ Our technical requirements are based on the international standards, and we are unwilling to unilaterally revise those requirements, and effectively abandon the standards-setting efforts to date, solely at the behest of and for the benefit of a single company.²³⁹ This is especially so because some of the mandatory AIS carriage deadlines have come into effect, and it is at best uncertain that we could develop new technical requirements soon enough to give vessel operators a reasonable opportunity to come into compliance. PVA states in this regard that AIS carriage requirements already represent a substantial economic burden for many passenger vessel operators, many of which are small businesses or governmental entities, and that this burden should not be increased simply for the benefit of MariTEL.²⁴⁰ In sum, a new rulemaking proceeding to revise the AIS technical requirements could slow AIS deployment, potentially engender uncertainty in the manufacturing and maritime communities, possibly result in the premature obsolescence of AIS equipment already installed, leave AIS equipment manufacturers who reasonably relied on the existing standards with significant stranded inventory, and potentially hinder AIS interoperability.²⁴¹

D. Other Matters

62. Notwithstanding our determination not to propose to adopt either the *MariTEL Frequency Coordinator Proposal* or the *MariTEL Sharing Proposal*, we seek comment on whether MariTEL or other private sector entities can use maritime VPC spectrum to provide services that can add value to AIS or that will otherwise be of utility to the maritime industry, consistent with the deployment and use of AIS on Channels 87B and 88B. On February 12, 2004, MariTEL submitted an *ex parte* presentation in the form of a letter with the subject line “Evolution of Marine VHF Data Services Requires FCC Action.”²⁴² The *Feb. 12 Letter* provides “additional information regarding the evolution of marine VHF data services

²³⁶ See LCA Comments re Sharing Proposal at 1; see also MM&P I Comments re Sharing Proposal at 2-3; Nauticast Comments re Sharing Proposal at 5.

²³⁷ We therefore do not need to reach the question of whether the Commission has legal authority under Section 705 of the Act to impose the restrictions on access to AIS information requested by MariTEL. We note that the commenters addressing this issue contend that Section 705 does not authorize such restrictions because MariTEL can make no legitimate claim to a proprietary interest in the AIS data. See Bar Pilots Comments re Sharing Proposal at 3 (stating that MariTEL does not own the data, and Section 705 is therefore inapplicable); Port of New York/New Jersey Comments re Sharing Proposal at 1 (observing that MariTEL has not revealed the amount of the royalty it intends to pay to vessels supplying AIS information that MariTEL wants to disseminate for a price); Lockheed Martin Comments re Sharing Proposal at 4 (arguing that MariTEL is essentially attempting to collect fees for AIS data that would otherwise be in the public domain by virtue of the broadcast nature of AIS).

²³⁸ See *GMDSS Second Report and Order*, 19 FCC Rcd at 3179-81 ¶¶ 64-67. In addition, we note that MariTEL may seek reconsideration of the AIS equipment standards promulgated in the *GMDSS Second Report and Order*, and our determination here not to propose adoption of the *MariTEL Sharing Proposal* is not intended to prejudice any such petition for reconsideration.

²³⁹ Accord COLRIP Comments re Sharing Proposal at 2; Nauticast Comments re Sharing Proposal at 6.

²⁴⁰ See PVA Comments re Sharing Proposal at 2-4.

²⁴¹ See, e.g., LMRWSAC Comments re Sharing Proposal at 2; MM&P I Comments re Sharing Proposal at 3; Nauticast Comments re Sharing Proposal at 5, 7.

²⁴² See Letter dated Feb. 12, 2004 from Dan Smith, President and CEO, MariTEL, to Catherine W. Seidel, Deputy Chief, Wireless Telecommunication Bureau, FCC (*Feb. 12 Letter*).

for the Commission's consideration in the various proceedings concerning the introduction of digital and data services using VPC spectrum."²⁴³ An exhibit to the *Feb. 12 Letter* gives an overview of a VHF data network service in Norway that demonstrates how VHF public correspondence channels may be used for data communications to and from vessels that enable a variety of applications potentially useful to the maritime community, such as e-mail, web browsing, payment transactions, group calls, and alarms for fleet management.²⁴⁴ We request comment on whether such services would be of utility for the domestic maritime community, and, if so, what actions, if any, the Commission should take to facilitate the provision of such services, consistent with protecting the integrity of AIS.²⁴⁵

63. MariTEL asks whether it can continue to employ Channels 87B and 88B²⁴⁶ in any fashion in any of its licensed service areas if the channels are designated for AIS exclusively.²⁴⁷ We note that the *NTIA Petition* requested that Channels 87B and 88B be allocated for AIS on an exclusive and nationwide basis, but that we are here proposing to limit the geographic scope of the allocation to the nine maritime VPCAs, as the Commission did in 1998.²⁴⁸ The current record does not reflect a need for AIS spectrum in the inland VPCAs, which do not contain or approach any major waterways. Moreover, limiting the AIS set-aside to the maritime VPCAs would preserve the ability of inland VPCSA licensees to provide service, especially given that two duplex channels in each inland VPCSA are set aside for public safety use.²⁴⁹ We request comment on our tentative conclusion that inland VPCSA licensees should be permitted to operate on Channel 87B.²⁵⁰ We also seek comment on whether Channels 87B and 88B must be set aside throughout all of each maritime VPCSA, or whether there are areas²⁵¹ where VPC operations would not pose an interference threat. MariTEL also questions whether, if Channels 87B and 88B are designated for AIS, the channels could be used for shore station operations by commercial entities other than MariTEL.²⁵² We ask interested parties to address this question as well.²⁵³

64. The Commission's Universal Licensing System (ULS) database indicates that there are currently seven site-based incumbent VPC licensees authorized to operate on Channels 87B or 88B: Murray Cohen (KMC972, Farmingville, New York); Pacific Bell (KMH828, Oakland, California); Pat

²⁴³ *Id.* at 1.

²⁴⁴ *Id.* at Exhibit A.

²⁴⁵ We will incorporate the *Feb. 12 Letter*, as well as all of the other pleadings and *ex parte* presentations filed in response to the Bureau's three Public Notices, in the record of this rulemaking. MM&P has submitted a critique of the *Feb. 12 Letter*. See MM&P Reply Comments re Sharing Proposal at 2.

²⁴⁶ We note that Appendix 18 of the ITU *Radio Regulations* designates the frequency 161.975 MHz as Channel AIS 1 and the frequency 162.025 MHz as Channel AIS 2 in listing the transmitting frequencies in the maritime mobile band. Although we have generally referred to those frequencies herein as Channels 87B and 88B, we propose to use the AIS 1 and AIS 2 channel designators in our Rules, in keeping with the international practice, if we designate those channels for exclusive AIS use in the United States.

²⁴⁷ See MariTEL Comments at 18.

²⁴⁸ See *Public Coast Third Report and Order*, 13 FCC Rcd at 19875-76 ¶ 48.

²⁴⁹ See 47 C.F.R. § 80.371(c)(1)(ii).

²⁵⁰ Channel 88 is not available to inland VPCSA licensees, even above Line A, because those VPCAs do not encompass any of the areas identified in note US223. See 47 C.F.R. § 80.57; Auction No. 20 Bidder Information Package Erratum (1998) at 3.

²⁵¹ *E.g.*, Idaho (VPCSA 7) or Vermont (VPCSA 1).

²⁵² MariTEL Comments at 19.

²⁵³ We note in this context that ShipCom argues that the *NTIA Petition* fails to provide sufficient detail about NTIA's proposal. See ShipCom Comments at 4-5. Commenters may identify any aspects of our proposal that they believe to be in need of clarification.

Gardenhire (KUF681, Boyce, Texas); Nextel of California, Inc. (KUF847, San Pedro, California); Avalon Communications Corp. (WAH, St. Thomas, Virgin Islands); Whidbey Telephone Company (WHU300, Freeland, Washington); and Shipcom, LLC (WRD704, Mobile, Alabama).²⁵⁴ Two commenters have argued that the *NTIA Petition* should be denied or conditioned because of the potential interference impact on their operations.²⁵⁵ ShipCom states that the interests of incumbent site-based VPC licensees could be compromised if Channels 87B and 88B are used for AIS on a wideband simplex basis.²⁵⁶ ShipCom argues that if the Coast Guard intends to use the incumbents' spectrum, the Coast Guard should either negotiate for such use with the incumbents or perform frequency management as contemplated under the Coast Guard's final AIS rules.²⁵⁷ In a similar vein, Tittle contends that NTIA's proposed AIS operations may result in destructive interference to co-channel and adjacent channel public correspondence communications carried by site-based incumbent VPC licensees.²⁵⁸

65. We now ask for comment regarding the effect on these site-based incumbent VPC licensees of adopting our proposal to designate Channels 87B and 88B for AIS. Can these existing VPC operations co-exist on a non-interference basis with AIS? If not, how should the interference problem be addressed? We note that incumbent site-based licensees are accorded interference protection from geographic area VPC operations under current rules.²⁵⁹ If we require that these existing operations continue to be protected from interference even after Channel 87B is designated for AIS, how will that affect AIS implementation in the United States? Commenters who believe it is necessary to migrate these operations to other spectrum or to compensate these licensees in some way should indicate how and under what authority such migration could occur or such compensation could be provided. In addition, we invite comment as to whether we should consider initiating a proceeding to modify any of the outstanding VPC licenses pursuant to Section 316 of the Act.²⁶⁰ In this regard, we seek comment as to whether these stations are in active operation, and, if not, whether these licenses should be cancelled or otherwise modified to delete the frequencies associated with Channels 87B and 88B.²⁶¹ We also note that most of these stations are authorized on other VPC channels in addition to Channels 87 or 88 or channels adjacent thereto, and we seek comment on the extent to which these other channels would provide sufficient capacity for the stations' current and future needs. In addition, we seek information about current traffic on the channels assigned to incumbent VPC licensees.

²⁵⁴ See Appendix D for a list of these incumbent site-based licenses. As shown in Appendix D, there are also a few private land mobile radio licensees operating on Channel 87B within one of the maritime VPCAs licensed pursuant to former Section 90.283 of the Commission's Rules, 47 C.F.R. § 90.283 (1997).

²⁵⁵ See ShipCom Comments at 3-5; Tittle Reply Comments at 2. Havens, a licensee of inland VPCAs, also argues that the *NTIA Petition* should be denied, and contends that the Commission should instead direct NTIA to enter negotiations to reach a mutually acceptable solution with VPC licensees. Havens Reply Comments at 2-3.

²⁵⁶ See ShipCom Comments at 3.

²⁵⁷ *Id.* at 3-4. ShipCom suggests that compensation to ShipCom (and, presumably, similarly situated incumbent site-based licensees) could include cash, grandfathering protection, or replacement spectrum. *Id.* at 5. See also Havens Reply Comments at 2.

²⁵⁸ Tittle Reply Comments at 2. In addition to the stations listed above, ULS lists twelve adjacent channel site-based incumbent VPC stations.

²⁵⁹ See 47 C.F.R. § 80.773(a).

²⁶⁰ 47 U.S.C. § 316.

²⁶¹ Because the Commission has forborne from Section 214 regulation of domestic CMRS carriers, it is possible that a licensee has discontinued service, but not turned in its license. See Implementation of Sections 3(n) and 332 of the Communications Act – Regulatory Treatment of Mobile Services, *Second Report and Order*, GN Docket No. 93-252, 9 FCC Rcd 1411, 1480-81 ¶ 182 (1994). Any such licensee should, however, have notified the Coast Guard if it was discontinuing a safety watch. 47 C.F.R. § 80.302(a).

66. If we adopt our proposal to designate Channels 87B and 88B for AIS exclusively, we propose to also modify the table in Section 80.371(c) of the Commission's Rules²⁶² to reflect that Channels 87 and 88 may be used for radiotelephony in the single channel (simplex) mode only. Currently, VHF radiotelephones manufactured and sold in the United States, when set to the U.S. channel mode, operate on a two frequency (duplex) mode when Channel 87 is selected, and on a single frequency (simplex) mode when Channel 88 is selected. Radiotelephones set to the international channel mode would follow the ITU *Radio Regulations*, Appendix 18, "Table of transmitting frequencies in the maritime mobile band," and, therefore, radiotelephones built or designed after these ITU changes came into effect would operate on a single (simplex) frequency on both channels. We seek comment on this proposal. We also seek comment on whether we should simply delete Channels 87 and 88 from the Section 80.371(c) table instead of modifying the table as proposed.

V. CONCLUSION

67. The development and deployment of AIS promises to significantly enhance the nation's maritime safety and homeland security by providing an effective tool to prevent vessel collisions and for vessel tracking in furtherance of Marine Domain Awareness. There are clear and important benefits to implementing AIS domestically on VHF maritime Channels 87B and 88B, consistent with the international allocation of those channels for AIS, rather than on any other maritime channels. Accordingly, we tentatively determine to work with NTIA to allocate both channels for exclusive AIS use in the nine maritime VPCsAs. As a consequence of MariTEL's termination of the MOA with the Coast Guard, we believe we must take this action now to provide certainty to the domestic maritime community with respect to AIS deployment. After fully reviewing the regulatory history, the comments submitted in response to the Bureau's public notices, and the interference analyses submitted by MariTEL and NTIA, we tentatively conclude that designating Channel 87B for AIS use domestically will not have a significantly greater preclusive effect, if any, on MariTEL's ability to use its licensed VPC spectrum compared to the designation for that purpose of two narrowband channel pairs, as contemplated in Section 80.371(c)(3) prior to MariTEL's participation in the VPC auction. We also tentatively conclude, therefore, that our action herein is both equitable and fully consistent with the Commission's competitive bidding policies and rules. We invite comment on all of our tentative conclusions and on all aspects of our proposal.

VI. REGULATORY MATTERS

A. Ex Parte Rules - Permit-But-Disclose Proceeding

68. 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 as provided in the Commission's rules.²⁶³

B. Regulatory Flexibility Act

69. As required by the Regulatory Flexibility Act (RFA),²⁶⁴ the Commission has prepared an Initial Regulatory Flexibility Analysis (IRFA) of the rules proposed or discussed in the *Notice of Proposed Rule Making* in WT Docket No. 04-xx. The IRFA for the *Notice of Proposed Rule Making* in WT Docket No. 04-xx is contained in Appendix C. Written public comments are requested on the IRFA. These comments must be filed in accordance with the same filing deadlines for comments on the *Notice*

²⁶² 47 C.F.R. § 80.371(c).

²⁶³ See generally 47 C.F.R. §§ 1.1202, 1.1203, 1.1206(a).

²⁶⁴ 5 U.S.C. § 603.

of *Proposed Rule Making* in WT Docket No. 04-xx, and they should have a separate and distinct heading designating them as responses to the IRFA. The Commission's Consumer and Governmental Affairs Bureau, Reference Information Center, will send a copy of the *Notice of Proposed Rule Making* in WT Docket No. 04-xx, including the IRFA, to the Chief Counsel for Advocacy of the Small Business Administration, in accordance with the Regulatory Flexibility Act.²⁶⁵

C. Comment Dates

70. Pursuant to sections 1.415 and 1.419 of the Commission's rules, 47 C.F.R. §§ 1.415, 1.419, interested parties may file comments on or before [45 days after Federal Register publication] and reply comments on or before [75 days after Federal Register publication]. Comments may be filed using the Commission's Electronic Comment Filing System (ECFS) or by filing paper copies.²⁶⁶

71. Comments filed through the ECFS can be sent as an electronic file via the Internet to <<http://www.fcc.gov/e-file/ecfs.html>>. Generally, only one copy of an electronic submission must be filed. If multiple docket or rulemaking numbers appear in the caption of this proceeding, however, commenters must transmit one electronic copy of the comments to each docket or rulemaking number referenced in the caption. In completing the transmittal screen, commenters should include their full name, Postal Service mailing address, and the applicable docket or rulemaking number. Parties may also submit an electronic comment by Internet e-mail. To get filing instructions for e-mail comments, commenters should send an e-mail to ecfs@fcc.gov, and should include the following words in the body of the message, "get form <your e-mail address>." A sample form and directions will be sent in reply. 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, commenters must submit two additional copies for each additional docket or rulemaking number. All filings must be addressed to the Commission's Secretary, Marlene H. Dortch, Office of the Secretary, Federal Communications Commission, 445 12th St., S.W., Washington, D.C. 20554. Filings can be sent first class by the U.S. Postal Service, by an overnight courier or hand and message-delivered. Hand and message-delivered paper filings must be delivered to 236 Massachusetts Avenue, N.E., Suite 110, Washington, D.C. 20002. Overnight courier (other than U.S. Postal Service Express Mail and Priority Mail) must be sent to 9300 East Hampton Drive, Capitol Heights, MD 20743.

72. Parties who choose to file by paper should also submit their comments on diskette. These diskettes should be submitted to: Jeffrey Tobias, Wireless Telecommunications Bureau, 445 12th St., S.W., Room 3-A432, Washington, D.C. 20554. Such a submission should be on a 3.5 inch diskette formatted in an IBM compatible format using Microsoft Word or compatible software. The diskette should be accompanied by a cover letter and should be submitted in "read only" mode. The diskette should be clearly labeled with the commenter's name, proceeding (including the lead docket number in this case, WT Docket No. 04-344), type of pleading (comment or reply comment), date of submission, and the name of the electronic file on the diskette. The label should also include the following phrase "Disk Copy - Not an Original." Each diskette should contain only one party's pleadings, preferably in a single electronic file. In addition, commenters should send diskette copies to the Commission's copy contractor, Best Copy and Printing, Inc., 445 12th St., S.W., Room CY-B402, Washington, D.C. 20054.

D. Paperwork Reduction Act

73. 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

²⁶⁵ *Id.* § 603(a).

²⁶⁶ See Electronic Filing of Documents in Rulemaking Proceedings, *Report and Order*, GC Docket No. 97-113, 13 FCC Red 11322 (1998).

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).

E. Further Information

74. For further information, contact Jeffrey Tobias, jeff.tobias@fcc.gov, or Tim Maguire, tim.maguire@fcc.gov, Wireless Telecommunications Bureau, (202) 418-0680, or TTY (202) 418-7233.

75. Alternative formats (computer diskette, large print, audiocassette and Braille) are available to persons with disabilities by contacting Brian Millin at (202) 418-7426, TTY (202) 418-7365, or at bmillin@fcc.gov. This *Memorandum Opinion and Order and Notice of Proposed Rule Making* can also be downloaded at: <http://www.fcc.gov/>.

F. Ordering Clauses

76. Accordingly, IT IS ORDERED that, pursuant to the authority of Sections 4(i), 303(r), and 332(a)(2) of the Communications Act of 1934, as amended, 47 U.S.C. §§ 154(i), 303(r), 332(a)(2), and Section 1.2 of the Commission’s Rules, 47 C.F.R. § 1.2, the Petition for Declaratory Ruling filed by MariTEL, Inc. on April 4, 2003, IS DENIED.

77. IT IS FURTHER ORDERED that, pursuant to the authority of Sections 4(i), 303(r), and 332(a)(2) of the Communications Act of 1934, as amended, 47 U.S.C. §§ 154(i), 303(r), 332(a)(2), the request by MariTEL, Inc. that we withdraw authorization of shipborne AIS equipment, as set forth in the Letter dated July 30, 2003 from Russell H. Fox, counsel for MariTEL, Inc. to D’wana R. Terry, Chief, Public Safety and Private Wireless Division, IS DENIED.

78. IT IS FURTHER ORDERED that, pursuant to the authority of Sections 4(i), 303(r), and 332(a)(2) of the Communications Act of 1934, as amended, 47 U.S.C. §§ 154(i), 303(r), 332(a)(2), the Emergency Petition for Declaratory Ruling filed by MariTEL, Inc. on October 15, 2003, and supplemented by MariTEL, Inc. October 27, 2003, IS DENIED.

79. IT IS FURTHER ORDERED that, pursuant to the authority of Sections 4(i), 303(r), and 332(a)(2) of the Communications Act of 1934, as amended, 47 U.S.C. §§ 154(i), 303(r), 332(a)(2), the Petition for Rule Making filed by the National Telecommunications and Information Administration on October 24, 2003 IS GRANTED to the extent set forth herein.

80. IT IS FURTHER ORDERED that, pursuant to Sections 4(i), 303(r), and 403 of the Communications Act of 1934, as amended, 47 U.S.C. §§ 154(i), 303(r) and 403, this *Memorandum Opinion and Order and Notice of Proposed Rule Making* IS HEREBY ADOPTED, and NOTICE IS HEREBY GIVEN of the proposed regulatory changes described in the *Notice of Proposed of Rule Making* and contained in Appendix B.

81. IT IS FURTHER ORDERED that the Commission’s Consumer Information Bureau, Reference Information Center, SHALL SEND a copy of this *Memorandum Opinion and Order and Notice of Proposed Rule Making*, including the Initial Regulatory Flexibility Analysis for the *Notice of Proposed Rule Making*, to the Chief Counsel for Advocacy of the Small Business Administration.

FEDERAL COMMUNICATIONS COMMISSION

Marlene H. Dortch

Secretary

APPENDIX A²⁶⁷**Parties Submitting Comments and Reply Comments in Response to Public Notice DA 03-3585**

The following list contains the names of parties filing comments and reply comments in response to the Bureau public notice seeking comment on the *MariTEL Emergency Petition* and the *NTIA Petition*.

Comments

Boat Owners Association of The United States (BoatUS)²⁶⁸
Canadian Embassy
Ingram Barge Company (Ingram Barge)
Lockheed Martin Corporation (Lockheed Martin)
Marine Management Consulting (MMC)
MariTel, Inc. (MariTEL)
National Marine Electronics Association (NMEA)
Nauticast Schiffsnavigationssysteme AG (Nauticast)
Radio Technical Commission for Maritime Services (RTCM)
The Saint Lawrence Seaway Management Corporation (SLSMC)
ShipCom, LLC (ShipCom)

Reply Comments

American Mobile Telecommunications Association (AMTA)
MariTEL
National Telecommunications and Information Administration (NTIA)
Thomas W. Tittle d/b/a Burns Harbor Radio (Tittle)
United States Coast Guard (USCG)
Warren C. Havens and Telesaurus Holdings GB LLC (Havens)

Parties Submitting Comments and Reply Comments in Response to Public Notice DA 03-3669

The following list contains the names of parties filing comments and reply comments in response to the Bureau public notice seeking comment on the *MariTEL Frequency Coordinator Proposal*:

Comments

MariTEL
Mississippi Department of Public Safety (Mississippi DPS)
RTCM
BoatUS
Furuno U.S.A., Inc. (Furuno USA)
Harris Corporation (Harris Corp.)
Ingram Barge

²⁶⁷ We note that some comments filed in this proceeding were filed late or otherwise did not comply with the Commission's pleading requirements. Given that we are initiating a Notice of Proposed Rule Making, we will incorporate all of the comments filed thus far into the record of the rulemaking proceeding in the interest of compiling as complete a record as possible, and because to do so will not prejudice any party. However, we remind interested parties in this proceeding that we reserve discretion to not accept comments that are filed late without a supported request for a waiver or motion to accept late-filed comments, or are otherwise filed incorrectly.

²⁶⁸ We received two separate comments from BoatUS in response to the *AIS Public Notice*: a letter, undated, from Michael G. Sciulla, Vice President, Government and Public Affairs, referred to as BoatUS I for citation purposes, and a letter, dated December 1, 2003, from Elaine Dickinson, Asst. Vice President, referred to as BoatUS II for citation purposes.

MMC
National GMDSS Task Force (Task Force)
NTIA
Nauticast
SLSMC
Sea Tow Services International (Sea Tow)
Shine Micro, Inc. (Shine Micro)
Tidewater Marine
Tittle
USCG
U.S. Department of Transportation, on behalf of the Saint Lawrence Seaway Development Corporation
(DOT/SLSDC)

Reply Comments

MariTEL
Ingram Barge

Parties Submitting Comments and Reply Comments in Response to Public Notice DA 04-378

The following list contains the names of parties filing comments and reply comments in response to the Bureau public notice seeking comment on the *MariTEL Sharing Proposal*:

Comments

American Pilots Association, Inc. (APA)
The American Waterways Operators (AWO)
Associated Branch Pilots of the Port of New Orleans (Bar Pilots)
Columbia River Pilots (COLRIP)
DOT/SLSDC
The Harbor Safety, Operations and Navigation Committee of the Port of New York and New Jersey
(Port of New York/New Jersey)
International Organization of Masters Mates & Pilots (MM&P)
Lake Carriers' Association (LCA)
Lockheed Martin
The Lower Mississippi River Waterway Safety Advisory Committee (LMRWSAC)
NTIA
Nauticast
North Pacific Marine Radio Council (NPMRC)
Passenger Vessel Association (PVA)
Tampa Bay Harbor Safety Committee (TBHSC)
Tampa Port Authority (Tampa)
United New York Sandy Hook Pilots' Benevolent Ass'n/ United New Jersey Sandy Hook Pilots'
Benevolent Ass'n (United Sandy Hook Pilots)
U.S. Army Corps of Engineers, Detroit District (Corps of Engineers – Detroit)
USCG
U.S. Global Ocean Observing System Steering Committee (USGSC)

Reply Comments

MM&P
MariTEL

APPENDIX B

PROPOSED RULES

For the reasons discussed in the preamble, the Federal Communications Commission proposes to amend 47 C.F.R. parts 2 and 80 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 as follows:

a. Revise pages 30 and 31.

b. In the list of United States (US) Notes, add note USxxx and remove note US223.

§ 2.106 Table of Frequency Allocations.

The revisions and additions read as follows:

* * * * *

156.7625-156.8375 MARITIME MOBILE (distress and calling)				
5.111 5.226		5.226 5.227 US77 US106 US107 US266	5.226 5.227 US77 US106 US107 US266 NG117	
156.8375-174 FIXED MOBILE except aeronautical mobile	156.8375-174 FIXED MOBILE	157.0375-157.1875 MARITIME MOBILE	157.0375-157.1875	Private Land Mobile (90)
		5.226 US214 US266 G109	5.226 US214 US266	
		157.1875-157.45	157.1875-157.45 LAND MOBILE MARITIME MOBILE	Maritime (80) Private Land Mobile (90)
		5.226 US266	5.226 US266 NG111	
		157.45-161.575	157.45-161.575 FIXED LAND MOBILE	Public Mobile (22) Maritime (80) Private Land Mobile (90)
		5.226 US266	5.226 US266 NG6 NG28 NG70 NG111 NG112 NG124 NG148 NG155	
		161.575-161.625	161.575-161.625 MARITIME MOBILE	Public Mobile (22) Maritime (80)
		5.226 US77	5.226 US77 NG6 NG17	
5.226 5.229	5.226 5.230 5.231 5.232	161.625-161.775	161.625-161.775 LAND MOBILE	Public Mobile (22) Auxiliary Broadcasting (74)
		5.226	5.226 NG6	
5.226 5.229	5.226 5.230 5.231 5.232	161.775-162.0125	161.775-162.0125 LAND MOBILE MARITIME MOBILE	Public Mobile (22) Maritime (80) Private Land Mobile (90)
		5.226 US266 USxxx	5.226 US266 USxxx NG6	
		See next page for 162.0125-174 MHz		See next page for 162.0125-174 MHz

162.0125-322 MHz (VHF/UHF)					Page 31
International Table			United States Table		FCC Rule Part(s)
Region 1	Region 2	Region 3	Federal Government	Non-Federal Government	
See previous page for 156.8375-174 MHz			162.0125-173.2 FIXED MOBILE	162.0125-173.2	Auxiliary Broadcasting (74) Maritime (80) Private Land Mobile (90)
			5.226 US8 US11 US13 US216 US300 US312 USxxx G5	5.226 US8 US11 US13 US216 US300 US312 USxxx	
			173.2-173.4	173.2-173.4 FIXED Land mobile	Private Land Mobile (90)
			173.4-174 FIXED MOBILE G5	173.4-174	
174-223 BROADCASTING	174-216 BROADCASTING Fixed Mobile 5.234	174-223 FIXED MOBILE BROADCASTING	174-216	174-216 BROADCASTING NG115 NG128 NG149	Broadcast Radio (TV) (73) Auxiliary Broadcasting (74)
	216-220 FIXED MARITIME MOBILE Radiolocation 5.241 5.242		216-220 Fixed Mobile Radiolocation 5.241 G2 US210 US229	216-220 FIXED MOBILE except aeronautical mobile US210 US229 NG152 NG173	Maritime (80) Private Land Mobile (90) Personal Radio (95) Amateur (97)
	220-225 AMATEUR FIXED MOBILE Radiolocation 5.241		220-222 FIXED LAND MOBILE Radiolocation 5.241 G2 US335	220-222 FIXED LAND MOBILE US335	Private Land Mobile (90)
5.235 5.237 5.243		5.233 5.238 5.240 5.245	222-225 Radiolocation 5.241 G2	222-225 AMATEUR	Amateur (97)

UNITED STATES (US) NOTES

* * * * *

USxxx The bands 161.9625-161.9875 MHz (AIS 1 with its center frequency at 161.975 MHz) and 162.0125-162.0375 MHz (AIS 2 with its center frequency at 162.025 MHz) are allocated to the maritime mobile service on a primary basis for Federal and non-Federal Government use in VHF Public Coast Station Areas (VPCSA) 1-9. In these areas, the maritime mobile service shall be used exclusively for Automatic Identification Systems (AIS). In VPCSA 10-42, the band 161.9625-161.9875 MHz is allocated to the maritime mobile service on a primary basis for exclusive non-Federal Government use and the 162.0125-162.0375 MHz is allocated to the fixed and mobile services on a primary basis for exclusive Federal Government use. See 47 CFR § 80.371(c)(1)(ii) for the definitions of VPCSA.

* * * * *

II. PART 80 -- STATIONS IN THE MARITIME SERVICES

3. 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.

4. Section 80.5 is amended by adding an entry for Automatic Identification Systems (AIS) to read as follows:

§ 80.5 Definitions.

* * * * *

Automatic Identification Systems (AIS). A maritime navigation safety communications system standardized by the International Telecommunication Union (ITU) that provides vessel information, including the vessel's identity, type, position, course, speed, navigational status and other safety-related information automatically to appropriately equipped shore stations, other ships, and aircraft; receives automatically such information from similarly fitted ships; monitors and tracks ships; and exchanges data with shore-based facilities.

* * * * *

5. Section 80.13 is amended by revising paragraph (c) to read as follows:

§ 80.13 Station license required.

* * * * *

(c) A ship station is licensed by rule and does not need an individual license issued by the FCC if the ship station is not subject to the radio equipment carriage requirements any statute, treaty or agreement to which the United States is signatory, the ship station does not travel to foreign ports, and the ship station does not make international communications. A ship station licensed by rule is authorized to transmit radio signals using a marine radio operating in the 156–162 MHz band, any type of AIS, any type of EPIRB, and any type of radar installation. All other transmissions must be authorized under a ship station license. Even though an individual license is not required, a ship station licensed by rule must be operated in accordance with all applicable operating requirements, procedures, and technical specifications found in this part.

6. Section 80.371 is amended by revising paragraphs (c)(1)(i), (c)(2) and (c)(3) to read as follows:

§ 80.371 Public correspondence frequencies.

* * * * *

(c) Working frequencies in the marine VHF 156-162 MHz band. (1)(i) The frequency pairs listed in the following table are available for assignment to public coast stations for public correspondence communications with ship stations and units on land.

Working Carrier Frequency Pairs in the 156-162 MHz Band ¹

Channel designator	Carrier Frequency (MHz)	
	Ship Transmit	Coast Transmit
24.....	157.200	161.800
84.....	157.225	161.825
25.....	157.250	161.850
85 ²	157.275	161.875
26.....	157.300	161.900
86.....	157.325	161.925
27.....	157.350	161.950
87 ³	157.375	157.375
28.....	157.400	162.000
88 ⁴	157.425	157.425

¹ For special assignment of frequencies in this band in certain areas of Washington State, the Great Lakes and the east coast of the United States pursuant to arrangements between the United States and Canada, see subpart B of this part.

² The frequency pair 157.275/161.875 MHz is available on a primary basis to ship and public coast stations. In Alaska it is also available on a secondary basis to private mobile repeater stations.

³ Within VHF Public Coast Station Areas (VPCSA) 1 through 9 listed in the table in paragraph (c)(1)(ii) of this section, the frequency 161.975 MHz may be used only for Automatic Identification system communications.

⁴ Within that portion of VHF Public Coast Station Areas (VPCSA) 1 through 9 listed in the table in paragraph (c)(1)(ii) of this section within 120 km (75 miles) of the United States/Canada border, in the area of the Great Lakes, the Saint Lawrence Seaway, and the Puget Sound and the Strait of Juan de Fuca and its approaches, the frequency 157.425 MHz is available for use by ship stations for public correspondence communications and the frequency 162.025 MHz is available only for Automatic Identification System communications. One hundred twenty kilometers (75 miles) from the United States/Canada border 157.425 MHz is available for intership and commercial communications. Outside the Puget Sound area and its approaches and the Great Lakes, 157.425 MHz is available for communications between commercial fishing vessels and associated aircraft while engaged in commercial fishing activities.

* * * * *

(2) Any recovered channel pairs will revert automatically to the holder of the VPCSA license within which such channels are included, except the channel pairs listed in the table in paragraph (c)(1)(i) of this section. Those channel pairs, and any channel pairs recovered where there is no VPCSA licensee, will be retained by the Commission for future licensing.

(3) VPCSA licensees may not operate on Channel 228B (162.0125 MHz), which is available for use in the Coast Guard’s Ports and Waterways Safety System (PAWSS). In addition, VPCSA licensees in VPCSA 1-9 may not operate on Channel AIS 1 (161.975 MHz) or Channel AIS 2 (162.025 MHz), which are designated in those areas exclusively for Automatic Identification Systems (AIS), except to transmit and receive AIS communications to the same extent, and subject to the same limitations, as other shore stations participating in AIS.

* * * * *

7. Section 80.373 is amended by revising paragraph (j) to read as follows.

§ 80.373 Private communications frequencies.

* * * * *

- (j) Frequencies for portable ship stations. VHF frequencies authorized for stations authorized carrier frequencies in the 156.275 MHz to 157.450 MHz and 161.575 MHz to 162.025 MHz bands may also be authorized as marine utility stations. Marine-utility stations on shore must not cause interference to any Automatic Identification System, VHF or coast station, VHF or UHF land mobile base station, or U.S. Government station.

8. Section 80.393 is added under the heading AIS STATIONS to read as follows:

§ 80.393 Frequencies for AIS stations.

Automatic Identification Systems (AIS) is a maritime broadcast service provided by both the United States Coast Guard and Commission licensees. The simplex channels at 161.975 MHz (AIS 1) and 162.025 MHz (AIS 2), each with a 25 kHz bandwidth, may be authorized in VHF Public Coast Station Areas 1-9 for AIS. These areas are codified at 47 CFR § 80.371(c)(1)(ii). In accordance with the Maritime Transportation Security Act, the United States Coast Guard regulates AIS carriage requirements for non-Federal Government ships. These requirements are codified at 33 CFR §§ 164.46, 401.20.

APPENDIX C**INITIAL REGULATORY FLEXIBILITY ANALYSIS**

(*Notice of Proposed Rule Making* in WT Docket No. 04-344)

As required by the Regulatory Flexibility Act (RFA),²⁶⁹ the Commission has prepared this present Initial Regulatory Flexibility Analysis (IRFA) of the possible significant economic impact on small entities by the policies and rules proposed in the *Notice of Proposed Rule Making* in WT Docket No. 04-344 (*NPRM*). Written public comments are requested on this IRFA. Comments must be identified as responses to the IRFA and must be filed by the deadlines for comments on the *NPRM* as provided in paragraph 70, *supra*, of the item. The Commission will send a copy of the *NPRM*, including the IRFA, to the Chief Counsel for Advocacy of the U.S. Small Business Administration.²⁷⁰ In addition, the *NPRM* and IRFA (or summaries thereof) will be published in the Federal Register.²⁷¹

A. Need for, and Objectives of, the Proposed Rules

In the *NPRM*, we seek comment on rule amendments that are intended to identify the spectrum that should be used for maritime Automatic Identification Systems (AIS) in the United States and its territorial waters. AIS is an important tool for enhancing maritime safety and homeland security, and we are concerned that recent developments may have created uncertainty in the maritime community regarding the very high frequency (VHF) channels to be used for AIS, and that this in turn could impede efforts to expedite the broad deployment of AIS domestically.²⁷² In the *NPRM*, we propose to designate VHF maritime Channels 87B and 88B for AIS use domestically, in keeping with the international allocation of those channels for AIS, because we believe the use of those channels will best secure to the United States the maritime safety and homeland security benefits of AIS.

B. Legal Basis for Proposed Rules

The proposed action is authorized under sections 1, 4(i), 302, 303(f) and (r), and 332 of the Communications Act of 1934, as amended, 47 U.S.C. 1, 154(i), 302, 303(f) and (r), and 332.

C. Description and Estimate of the Number of Small Entities To Which the Proposed Rules Will Apply

The RFA directs agencies to provide a description of and, where feasible, an estimate of the number of small entities that may be affected by the proposed rules, if adopted.²⁷³ The RFA defines the term “small entity” as having the same meaning as the terms “small business,” “small organization,” and

²⁶⁹ See 5 U.S.C. § 603. 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. 104-121, Title II, 110 Stat. 857 (1996).

²⁷⁰ *Id.* § 603(a).

²⁷¹ *See id.*

²⁷² These developments include the termination of the Memorandum of Agreement between the U.S. Coast Guard and MariTEL, Inc. regarding the set-aside of channels for AIS, and the various petitions and pleadings filed by NTIA and MariTEL following the termination. *See* ¶¶ 16-23, *supra*.

²⁷³ 5 U.S.C. § 603(b)(3).

“small governmental jurisdiction.”²⁷⁴ In addition, the term “small business” has the same meaning as the term “small business concern” under the Small Business Act.²⁷⁵ 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).²⁷⁶

Small businesses in the aviation and marine radio services use a very high frequency (VHF) marine or aircraft radio and, as appropriate, an emergency position-indicating radio beacon (and/or radar) or an emergency locator transmitter. The Commission has not developed a small business size standard specifically applicable to these small businesses. For purposes of this analysis, the Commission uses the SBA small business size standard for the category “Cellular and Other Telecommunications,” which is 1,500 or fewer employees.²⁷⁷ Between December 3, 1998 and December 14, 1998, the Commission held an auction of 42 VHF Public Coast (VPC) licenses in the 157.1875-157.4500 MHz (ship transmit) and 161.775-162.0125 MHz (coast transmit) bands. For purposes of the auction, the Commission defined a “small” business as an entity that, together with controlling interests and affiliates, has average gross revenues for the preceding three years not to exceed fifteen million dollars. In addition, a “very small” business is one that, together with controlling interests and affiliates, has average gross revenues for the preceding three years not to exceed three million dollars.²⁷⁸ There are approximately 10,672 licensees in the Marine Coast Service, and the Commission estimates that almost all of them qualify as “small” businesses under the above special small business size standards.

D. Description of Projected Reporting, Recordkeeping, and Other Compliance Requirements

There are no projected reporting, recordkeeping or other compliance requirements.

E. Steps Taken to Minimize Significant Economic Impact on Small Entities, and Significant Alternatives Considered

The RFA requires an agency to describe any significant alternatives that it has considered in reaching its proposed approach, which may include the following four alternatives: (1) the establishment of differing compliance or reporting requirements or timetables that take into account the resources available to small entities; (2) the clarification, consolidation, or simplification of compliance or reporting requirements under the rule for small entities; (3) the use of performance, rather than design standards; and (4) an exemption from coverage of the rule, or any part thereof, for small entities.²⁷⁹

In the *NPRM*, we request comment on the proposal to designate Channels 87B and 88B for exclusive AIS use. We describe here, and seek comment on, possible alternatives to imposing these new rules that might minimize the economic impact on small entities. First, we ask commenters to consider

²⁷⁴ 5 U.S.C. § 601(6).

²⁷⁵ 5 U.S.C. § 601(3) (incorporating by reference the definition of “small business concern” in 15 U.S.C. § 632). Pursuant to the RFA, 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.” 5 U.S.C. § 601(3).

²⁷⁶ Small Business Act, 15 U.S.C. § 632 (1996).

²⁷⁷ 13 CFR § 121.201, NAICS code 517212 (2002).

²⁷⁸ Amendment of the Commission’s Rules Concerning Maritime Communications, *Third Report and Order and Memorandum Opinion and Order*, 13 FCC Rcd 19853 (1998).

²⁷⁹ See 5 U.S.C. § 603(c)(1)-(c)(4).

the interference impact on MariTEL, Inc., licensee of the nine maritime VPC service areas, or on any incumbent site-based VPC licensees or any Economic Area (EA) VPC licensees of the proposed designation of Channels 87B and 88B for AIS exclusively. We tentatively conclude that the proposed designation of Channels 87B and 88B for AIS should not have an adverse effect on MariTEL's use of its VPC channels to a materially greater extent, if at all, than would designation of two narrowband offset channel pairs of the Commission's choosing from the 156-162 MHz VHF maritime band.²⁸⁰ We request comment on this tentative conclusion. In addition, commenters are asked if incumbent site based VPC operations can co-exist on a non-interference basis with AIS and, if not, should the Commission require that these operations be migrated to other spectrum and/or should the licensees be compensated in some way.

Commenters are requested to identify potential means of minimizing or eliminating any adverse economic impact on any small entities, particularly VPC licensees that qualify as small entities, if Channels 87B and 88B are designated for AIS use. Such means may include, but are not limited to, exemptions, grandfathering protection, or geographic limitations on the use of Channels 87B and 88B for AIS. Additionally or alternatively, we seek comment on whether we could provide replacement spectrum for licensees who may find themselves unable to continue using their licensed VPC channels because of our proposal. For example, we might be able to modify their licenses to provide other channels in lieu of Channels 87B and 88B. We also could designate channels other than Channels 87B and 88B for AIS use in the United States as a means of minimizing any adverse economic impact on these licensee. We note, however, that mandating use of channels other than Channels 87B and 88B for AIS use in the United States may have an adverse economic impact on vessel operators and radio equipment manufacturers that qualify as small entities by, for example, increasing the cost of AIS equipment, causing premature obsolescence of AIS equipment already installed on vessels, or leaving manufacturers with stranded inventory. Accordingly, commenting parties, and particularly commenting parties who favor adopting an alternative to the Commission's proposal, are asked to address the potential economic impact of that alternative on small entities.

In Appendix D, we list all of the incumbent site-based licensees that currently operate within VHF Public Coast Service Areas (VPCAS) 1-9 on the channels which we are proposing to designate for exclusive AIS use. We assume for purposes of this IRFA that some or all of these licensees qualify as small entities. We specifically invite these licensees to address the expected economic impact on them of our proposal, and to suggest alternatives or additions to our proposal that would minimize that impact, including but not limited to the methods discussed in the preceding paragraph.

We also note that there are incumbent licensees operating on the specified channels in inland areas. We do not anticipate any significant adverse effect on any such licensee due to the geographic limitations of our proposal, *i.e.*, our limiting the AIS set-aside to areas near major navigable waterways. Commenters who believe differently are asked to describe the expected adverse economic impact on incumbent inland licensees operating on these or adjacent channels, and to provide suggested methods of minimizing any such impact. In addition, we note that, although we are proposing only to designate Channels 87B and 88B for AIS in the nine maritime VPCASs, we have not foreclosed the possibility of designating those channels for AIS on a nationwide basis. Accordingly, inland licensees and other interested parties should address the possible economic impact on small entities if we were to designate Channels 87B and 88B for AIS in inland areas as well as the nine maritime VPCASs.

²⁸⁰ See ¶¶ 41-50, *supra*.

F. Federal Rules that May Duplicate, Overlap, or Conflict With the Proposed Rules

None.

IT IS FURTHER ORDERED that the Commission's Consumer and Governmental Affairs Bureau, Reference Information Center, SHALL SEND a copy of this *Notice of Proposed Rule Making*, including the Initial Regulatory Flexibility Analysis, to the Chief Counsel for Advocacy of the Small Business Administration.

Appendix D: Licensees Operating on 161.975 MHz and 162.025 MHz

Table 1: Site-based Licenses Listed in the Universal Licensing System (ULS) for the Frequencies 161.975					
The Frequency 161.975 MHz is licensed for Use in a Geographic Area that is within One or More of the Nine Maritime VHF Public Coast					
Call Sign	Licensee Name	Location of Station	VPCSA	Radio Service	Station Class
KMC972	Cohen, Murray	Farmingville, NY	5	Coastal Group (MC)	Public Coast Station (FC)
KMH828	Pacific Bell	Oakland, CA	6		
KUF681	Gardenhire, Pat	Boyce, TX	4		
KUF847	Nextel of California Inc.	San Pedro, CA	6		
KZT919	Morris Coop Oil Association	Morris, MN	4	Conventional Industrial/Business Pool (IG)	Mobile Relay Station (FB2)
		40 km radius around Morris, MN			Mobile Station (MO)
WAH	Avalon Communications Corp.	Saint Thomas, VI	3	MC	FC
WHU300	Whidbey Telephone Company	Freeland, WA	7		
WPGA970	Arizona, State of	Operates throughout AZ	6 (La Paz and Yuma Counties), 36, 37, 39, 41, and 42	Conventional Public Safety Pool (PW)	Temporary Control Station (FX1T)
					MO
WPKA286	Kuehn, Stanley	Sanborn, MN	4	IG	FB2
		40 km radius around Sanborn, MN			MO
WRD704	Shipcom, LLC	Mobile, AL	4	MC	FC
The Frequency 162.025 MHz is licensed for Use in a Geographic Area within One of the Nine Maritime VHF Public Coast Station Areas:					
Call Sign	Licensee Name	Location of Station	VPCSA	Radio Service	Station Class
WAH	Avalon Communications Corp.	Saint Thomas, VI	3	MC	FC

Source: The Commission's Office of Engineering and Technology (OET) conducted this study on August 25, 2004.

Tools: The ULS is at <http://wireless.fcc.gov/uls/> and OET's "US County to FCC Area Cross-Reference Search" tool is at <http://www.fcc.gov/fcc-bin/cesearch.pl>.