**UNITED STATES DEPARTMENT OF COMMERCE**
**National Telecommunications and Information Administration**
Washington, D.C. 20230



Ms. Marlene H. Dortch
Secretary
Federal Communications Commission
445 Twelfth Street, S.W.
Washington, DC 20554

Re: *Amendment of the Commission's Rules Regarding Maritime Automatic Identification Systems*, WT Docket No. 04-344, *Petition for Rule Making Filed by National Telecommunications and Information Administration*, RM-10821.

Dear Ms. Dortch:

Enclosed please find an original and six (6) copies of comments of the National Telecommunications and Information Administration in the above-referenced proceedings. Please direct any questions you may have to the undersigned at (202) 482-1816.

Respectfully submitted,

Milton Brown

Milton Brown
Deputy Chief Counsel

Enclosures

**Before the**
**Federal Communications Commission**
**Washington, DC 20554**



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

# COMMENTS OF THE NATIONAL TELECOMMUNICATIONS AND INFORMATION ADMINISTRATION

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December 29, 2004

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## Executive Summary

The National Telecommunications and Information Administration (NTIA) supports the Federal Communications Commission's proposal to dedicate very high frequency (VHF) maritime Channels 87B and 88B for Automatic Identification System (AIS) use in the United States. NTIA believes that such a designation is both sound domestic policy and is in the public interest. AIS must be deployed in the United States using wideband simplex channels. Provisions should be made for the nationwide allocation of AIS channels on 87B and 88B, not simply the nine maritime very high frequency public coast (VPC) station service areas.

The record in this proceeding shows that deployment of AIS in accordance with the Commission's proposal will not adversely affect VPC system performance. Standard signal fading mitigation techniques will also provide protection to VPC systems that may experience interference as a result of AIS. The International Telecommunication Union (ITU) has designated Channel 87B as an international AIS frequency. NTIA believes that in accordance with international agreements, interference to foreign ships from domestic VPC operations must be addressed.

NTIA also supports the Commission's intention to reject two proposals submitted by MariTEL. MariTEL's Frequency Coordinator Proposal is not in the public interest because there is no need for an AIS coordinator, nor would such a coordinator provide value to the maritime community. MariTEL's Sharing Proposal should likewise be rejected because it sets unacceptable limits on AIS deployment. NTIA also supports the Commission's determination that a change in its rules to designate frequencies for AIS does not entitle MariTEL to compensation.

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**COMMENTS OF THE**
**NATIONAL TELECOMMUNICATIONS AND INFORMATION ADMINISTRATION**

The National Telecommunications and Information Administration (NTIA), an Executive Branch agency within the Department of Commerce, is the President's principal adviser on domestic and international telecommunications policy, including policies relating to the nation's economic and technological advancement in telecommunications. NTIA is also responsible for managing the Federal Government's use of the radio frequency spectrum. NTIA, in coordination with the United States Coast Guard (Coast Guard)[1] and the Department of Transportation (including the Saint Lawrence Seaway Development Corporation "SLSDC"), submits these comments in response to the Federal Communications Commission's ("Commission" or "FCC") Memorandum Opinion and Order and Notice of Proposed Rulemaking issued in the above-

[1] The Coast Guard is part of the Department of Homeland Security. *See* Homeland Security Act of 2002, P.L. 107-296, 116 Stat. 2135, 2249 § 888(b) (2002).

captioned proceeding.[2]

## I. INTRODUCTION

NTIA commends the Commission's efforts, consistent with the Maritime Transportation Security Act (MTSA) of 2002 which mandated the domestic deployment of Automatic Identification Systems (AIS) on the navigable waters of the United States,[3] to ensure maritime safety and homeland security by identifying spectrum that will be used for maritime AIS in the United States. Specifically, NTIA applauds the Commission's proposal to dedicate very high frequency (VHF) maritime Channels 87B (161.975 MHz) and 88B (162.025 MHz) for exclusive AIS use in the United States and its territorial waters as requested by NTIA in its Petition for Rulemaking,[4]and in accordance with the International Telecommunication Union (ITU) Radio Regulations.[5]

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[2] *See* Amendment of the Commission's Rules Regarding Maritime Automatic Identification Systems, *Memorandum Opinion and Order and Notice of Proposed Rulemaking*, WT Docket No. 04-344, RM-1021, FCC 04-207, 59 Fed. Reg. 65570 (Nov. 15, 2004) (*AIS NPRM*).

[3] P.L. 107-295, § 102(e), 116 Stat. 2064 (2002) *codified at* 46 U.S.C. 70101 *et seq.* (MTSA).

[4] *See* Letter dated October 24, 2003 from Fredrick R. Wentland, Associate Administrator, Office of Spectrum Management, NTIA, to John B. Muleta, Chief, Wireless Telecommunications Bureau, FCC, RM-10821 (*NTIA Petition for Rulemaking*).

[5] *See* WRC-97 Final Acts, *amending* ITU Radio Regulations App. S18.

## II. DISCUSSION

### A. TO ACHIEVE MARITIME DOMAIN AWARENESS, THE INTERNATIONAL DESIGNATIONS OF CHANNELS 87B AND 88B MUST BE ADOPTED FOR AIS.

In designating Channels 87B and 88B for AIS, the Commission correctly recognizes that Channel 88B is, and always has been, a federal government channel and that MariTEL is entitled to use Channel 88B *only* after successful coordination with NTIA and Canada on a non-interference basis to the United States Government.[6] With respect to Channel 87B, however, the Commission invites comment on the impact to MariTEL of its proposal to require MariTEL to set aside a single 25 kHz channel as opposed to two narrowband duplex channels (50 kHz) as required under existing section 80.371(c)(3) of the Commission's rules.[7]

It is difficult to disagree with the Commission's statement that circumstances in the United States have changed since the adoption of the *VPC Third Report and Order* in 1998. Accordingly, the Commission's 1998 decision to dedicate two narrowband duplex channel pairs for AIS needs to be revisited.[8] The Commission correctly notes the heightened concern for maritime safety and homeland security since the tragic events of September 11. As asserted by the Coast Guard in a previous filing, in order for maritime domain awareness to be accomplished, at a minimum, shore-based receivers capable of detecting transmissions from any

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[6] AIS NPRM at ¶ 33.

[7] *Id.; see also* 47 C.F.R. § 80.371(c).

[8] AIS NPRM at ¶ 35.

AIS-equipped vessel approaching or operating off United States coasts are necessary.[9] Because AIS units on vessels entering United States navigable waters operate on Channels 87B and 88B, both frequencies must be free of interference from other traffic to ensure that the weakest of signals can be detected. Subsequent technical analyses and operational experience have confirmed the necessity for operating AIS on wideband channels, for reasons that include both safety and security. The International Electrotechnical Commission (IEC) certification tests show that units operating in the narrowband mode have reduced sensitivity and frequency modulation discrimination capacity over those operating in wideband mode. As a result, AIS signal detection is limited at long distances and in the presence of multiple AIS transmissions at shorter distances. Thus, for AIS to operate effectively in the United States, it must operate on wideband channels.

AIS was designed from the beginning to operate as a default in a simplex, ship-to-ship mode. Operation on duplex channels requires the presence of AIS base stations capable of operation on duplex channels. Even if such stations were commercially available and installed, shipboard AIS units outside the range of those stations would still operate on their default channels in a simplex mode, and detection of those shipboard AIS simplex transmissions would be just as necessary for maritime domain awareness purposes as detection of those coastwide AIS units operating in a duplex mode. Consequently both sets of channels are necessary for that purpose.

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[9] *See Erratum* to NTIA Petition for Rulemaking, November 3, 2003. The erratum includes a letter dated September 16, 2003 from C. I. Pearson, Rear Admiral, United States Coast Guard to Fredrick R. Wentland, Associate Administrator, Office of Spectrum Management, NTIA.

Class B AIS devices, currently being developed by IEC Technical Committee TC80 Working Group 8A, are intended as low cost (*i.e.*, less than $500) devices for non-compulsory (*e.g.* recreational) vessels. Because these vessels are under no obligation to acquire and use AIS equipment, reducing costs is vital to promoting their use. To keep costs low, these devices will be capable of operating only in the wideband mode, and only on simplex channels in the 161-162 MHz band.[10] Because Class B devices will be used for navigation safety as well as maritime domain awareness, Class A AIS devices must operate on the same channels as Class B devices in areas where Class B devices exist.

In order for the Coast Guard to meet the requirements for maritime domain awareness, it is necessary for as many vessels as possible to be equipped with interoperable AIS devices. For that reason, the international designation of Channels 87B and 88B must be adopted for AIS.

### B. THE DESIGNATION OF CHANNELS 87B AND 88B FOR AIS IS SOUND DOMESTIC POLICY AND IN THE PUBLIC INTEREST.

The Commission correctly recognizes that it is within its legal authority to change the terms of the AIS set-aside codified in section 80.371(c) of the Commission's rules.[11] The Commission, however, seeks comment on whether and under what terms the designation of Channels 87B and 88B for AIS is sound domestic policy and is in the public interest.[12] There are a number of reasons in the record that support this designation as sound domestic policy as well

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[10] See draft IEC 62287, Class B AIS using CSTDMA technology. Review of draft requires membership in TC 80 technical advisory group. See http://www.navcen.uscg.gov/marcomms/iec.htm.

[11] AIS NPRM at ¶ 34.

[12] *Id.* at ¶¶ 34, 39.

as being within the public interest, including the foremost reason to promote and enhance America's maritime domain awareness -- the effective understanding of anything associated with the global maritime environment that could adversely impact the security, safety, economy or environment of the United States. At the outset, the security of the United States, as well as the safety of the ships that use its waterways, is of paramount concern. Congress recognized the importance of homeland security and maritime safety in our coastal waterways by enacting legislation requiring certain ships to be equipped with and to operate AIS systems pursuant to Coast Guard regulations.[13]

Seamless operation of AIS is essential to permit the United States to work with the international community to ensure maritime domain awareness. The world's oceans are global thoroughfares. A cooperative, international approach involving partnerships of nations, navies, coast guards, law enforcement agencies, and commercial shipping interests is essential – with all parties collaborating to confront broadly defined threats to our common and interdependent maritime security.[14]

It is important to understand the scope of America's maritime interests -- its reliance upon the seas and inland waterways for food, commerce and defense – in order to appreciate the need for seamless AIS operations and their important role in protecting and enhancing maritime

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[13] *See* MTSA *supra* n. 3. In December 2000, the International Maritime Organization (IMO) mandated that ships subject to the International Convention for Safety of Life at Sea (SOLAS) be equipped with AIS equipment. Amendments to the SOLAS, 1974, Chapter V, Regulation 19.2.4, "Carriage requirements for shipborne navigational systems and equipment."

[14] Department of Homeland Security Secretary Ridge recently illustrated multinational aspect of maritime shipping. On a ship he boarded in New Orleans, he noted that: "the vessel was registered in Singapore; the crew was from India; the cargo was American grain; on its way to Japan." Hartford *Courant,* July 20, 2004.

domain awareness. The United States is a major maritime nation with 95,000 miles of coastline along the Arctic, Atlantic and Pacific Oceans, the Bering Sea, the Caribbean, and the Gulf of Mexico. In addition, the United States has approximately 26,000 miles of commercially navigable inland waterways. Over 95 percent of overseas trade enters through 361 ports in the United States, accounting for 2 billion tons and $800 billion of domestic and international freight annually. Approximately 9 million sea containers enter the United States via our seaports each year, and there is seaborne shipment of approximately 3.3 billion barrels of oil each year. This maritime domestic and international trade is expected to double in the next 20 years. In addition, 6 million cruise ship passengers travel each year from ports in the United States, and ferry systems transport 113 million passengers and 32 million vehicles annually. The United States' waterways also support 110,000 commercial fishing vessels, contributing $111 billion to the United States economy. There are some 8,100 foreign vessels making 50,000 U.S. port calls each year. Finally, there are approximately 78 million Americans engaged in recreational boating. AIS supports, and is an essential tool for, the safe and secure functioning of all of these maritime activities.

As the lead agency for maritime homeland security, the Coast Guard has the primary responsibility within the Department of Homeland Security (DHS) to protect the U.S. maritime domain and our marine transportation system, and to deny their use and exploitation by terrorists. The first and foremost strategic element of the Coast Guard's Maritime Strategy for Homeland Security is to increase maritime domain awareness and, as stated previously, AIS is essential to accomplish this goal. AIS will assist the Coast Guard with various aspects of its multifaceted

missions. In an average day, the Coast Guard will save 11 lives, assist 192 people in distress, receive 110 calls for assistance, interdict 14 illegal immigrants at sea, conduct 106 search and rescue cases, seize $10.7 million worth of illegal drugs, respond to 20 oil and hazardous chemical spills, and board and inspect 138 vessels (not counting the boarding of all foreign vessels entering U.S. ports mandated by the MTSA which began July 1, 2004). AIS will be a major element in each of these operations.

NTIA supports the Commission and firmly believes that designating specific channels for AIS operations provides the necessary regulatory certainty to foreclose delay in resolving the critical AIS issue as well as to provide MariTEL with a clear understanding of its regulatory requirements so that it can proceed with the development and implementation of its business plans. Thus, designating Channels 87B and 88B for AIS is both sound domestic policy and in the public interest, and the Commission is urged to proceed expeditiously in this matter.

### C. AIS MUST BE DEPLOYED IN THE UNITED STATES USING WIDEBAND SIMPLEX CHANNELS.

The Commission invites comments on its proposal to eliminate note US223 to the Table of Frequency Allocations inasmuch as VPCSAs 1, 5 and 7 completely encompass the areas above Line A identified in note US223.[15] As an alternative to deleting note US223, the Commission also proposes to 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.[16] Noting

[15] AIS NPRM at ¶ 40.

[16] *Id.*

MariTEL's assertion that AIS can be deployed in the United States using duplex narrowband channels, the Commission requests comment on whether it is 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.[17]

NTIA disagrees with MariTEL's assertion that AIS can be deployed in the United States using narrowband duplex channels.[18] As explained by the Coast Guard in a previous filing, in order for maritime domain awareness to be accomplished, at a minimum, shore-based receivers capable of detecting transmissions from any AIS-equipped vessel approaching or operating off United States coasts are necessary.[19] AIS was designed from the beginning to operate as a default in a simplex, ship-to-ship mode. Operation on duplex channels requires the presence of AIS base stations capable of operation on duplex channels. However, it is conceivable that not all AIS ship stations will have the capability to support duplex operations (e.g., Class B devices). Therefore, in order to detect all AIS equipped ships and achieve maritime domain awareness, it is necessary to operate in simplex mode.

During development of the AIS certification standard IEC 61993-2, AIS developers found that AIS performance in the narrowband mode is degraded below what is needed to support the ship traffic density in busy ports and the necessary receiving range of AIS shore stations. A problem with narrowband mode operations arises from the degraded co-channel rejection which

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[17] *Id.*

[18] *See e.g.* NTIA Petition for Rulemaking at 3.

[19] *See supra* n. 9.

is necessary to allow the shipborne AIS to receive signals from near stations while simultaneously rejecting conflicting signals from more distant stations. Another problem with narrowband mode operation arises from the degraded receiver sensitivity that is necessary to support the AIS shore stations that need to receive weak signals from ships at a distance. Accordingly, for AIS to operate effectively in the U.S., it must operate on wideband simplex channels.[20]

**D. AIS OPERATIONS WILL NOT IMPACT VPC SYSTEM PERFORMANCE.**

The Commission tentatively concludes that the 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 than if two narrowband offset channel pairs were chosen.[21] The Commission, however, reviewed two interference analysis reports submitted in the proceeding – the JSC Report, as well as the inCode Telecom Group, Inc. (inCode) Report submitted by MariTEL.[22] The Commission noted that the JSC Report provided greater detail on how it established interference parameters on the technical characteristics of the radios used in the tests, whereas the inCode Report provided insufficient information to ascertain how the different levels of interference were determined. The Commission indicated its difficulty in comparing the two reports.[23] The Commission tentatively concludes that the ability of MariTEL to incorporate

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[20] *See* IEC 61993-2 section 15.3. *See also* "IALA Guidelines on AIS as a VTS Tool", International Association of Marine Aids to Navigation and Lighthouse Authorities, December 2001, page 5.

[21] AIS NPRM at ¶ 41.

[22] *Id.* at ¶ 42.

[23] *Id.*

forward error correction (FEC) codes and block interleaving to prevent interference to VPC data transmission undermines MariTEL's 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.[24] The Commission requests comment on this tentative conclusion, as well as all aspects of the inCode and JSC interference analyses, including the reasonableness of the assumptions, accuracy of the methods, and validity of the conclusions.

The JSC study sought to determine if either single or multiple AIS transmitters (simplex mode) cause electromagnetic interference to a typical maritime VPC system operating in either the data or the voice mode. It must be noted that MariTEL is not currently operating a system, nor has it provided any specifics about the type of system it proposes to operate. Accordingly, no actual tests or analysis can be conducted to prove that AIS wideband operations will not cause interference to MariTEL's VPC operations.

The maritime VPC system operates in a VHF mobile environment. Therefore, the desired signal will be subject to multipath (Rayleigh) fading. This type of fading has been shown to cause desired signal fades of 15 dB or more.[25] In order to overcome the effects of Rayleigh fading, it is common practice to employ error detecting and correction along with interleaving to improve the performance of digital transmissions. JSC assumed a typical error detection/correction along with interleaving scheme to be incorporated in the representative

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[24] *Id.* at ¶ 47.

[25] Theodore S. Rappaport, *Wireless Communications Principles and Practice*, Prentice Hall PTR (1996) at 172-173.

maritime VPC system that was modeled to determine the extent of AIS interference. In essence, the JSC study concluded that AIS interference to the VPC system was minimal, and that the service was adequately protected.

The Commission states that "[c]ommenters may consider, for example, whether the Coast Guard and MariTEL should negotiate regarding a coordination agreement or similar arrangement to mitigate interference."[26] The Coast Guard has already taken steps to mitigate interference to VPC operations by working with International Association of Marine Aids to Navigation and Lighthouse Authorities (IALA) and International Maritime Organization (IMO) to develop shipboard installation guidelines to reduce or eliminate detectable interference from AIS to VPC operations, and has referenced those guidelines in its MTSA regulations. Because MariTEL currently has no VPC operations, and has indicated that it plans to implement a data service for which interference can be easily addressed in place of a voice service, it is not apparent what can be negotiated.[27] Nevertheless, the Coast Guard has indicated its willingness to discuss with any VPC provider means for minimizing interference.

### E. FOREIGN SHIPS USING THE INTERNATIONALLY DESIGNATED AIS FREQUENCIES MUST BE PROTECTED FROM DOMESTIC VPC OPERATIONS.

The Commission recognizes that regardless of whether Channels 87B or 88B are designated for domestic AIS use, MariTEL's ability to use these channels could be limited

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[26] AIS NPRM at ¶ 49.

[27] MariTEL discontinued marine operator assisted telephone services effective June 6, 2003. *See* http://www.maritelusa.com/marine.htm; *see also* In the Matter of MARITEL, INC., Request to Extend Construction Deadline for Certain VHF Public Coast Station Geographic Area Licenses.

because of the use of those channels for AIS by vessels in international waters and in U.S. waters when foreign vessels are engaged in innocent passage. The U.S. territorial seas extend 12 nautical miles from the baseline; whereas AIS transmission ranges at sea typically reach at least twenty to thirty miles.[28] Thus, the Commission invites comment on the extent to which the use of Channels 87B and 88B for AIS by vessels in international waters, and by foreign vessels on innocent passage, may cause interference to domestic VPC operations on Channels 87B and 88B.[29]

The 1997 ITU World Radiocommunication Conference designated Channel 87B as an international AIS frequency. Beyond the United States territorial sea, as defined by the United Nations Convention on the Law of the Sea (UNCLOS), foreign flag vessels clearly have high seas freedoms, including the right to freely use the radio spectrum in accordance with their flag state laws, regulations, licenses, and consistent with international regulations, to ensure safety of navigation and/or security of the vessel. The United States has taken the position that international law, as codified in the 1958 Geneva Convention on the Territorial Sea and the Contiguous Zone, and the UNCLOS, allows for the appropriately licensed use of the radio spectrum by foreign-flagged vessels exercising their right of innocent passage in the territorial sea, an activity that a coastal State may not regulate in the territorial sea unless the vessel's use is intentionally aimed at interfering with systems of communication of the coastal State or other

[28] In general, the baseline is the low-water line along the coast. Article 5, United Nations Convention on the Law of the Sea (UNCLOS) 21 I.L.M. 1261; 33 C.F.R. 2.20, 2.22.

[29] AIS NPRM at ¶ 48.

facilities or installations.[30] Shipboard AIS operation on channels designated for that purpose under Appendix 18 of the ITU Radio Regulations exemplify the type of vessel communications that would appear to be protected as part of a vessel's right of innocent passage.

NTIA believes that if domestic VPC operations on Channels 87B and 88B employ the FEC and block interleaving techniques discussed previously, the use of AIS by foreign ships will not impact domestic VPC operations. However, issues related to the potential for interference to AIS operations on board foreign ships from domestic VPC operations cannot be addressed at this time, because the specifics of MariTEL's VPC systems have not been adequately defined. Interference to foreign ships using the internationally designated AIS Channels 87B and 88B will be a violation of the existing international agreements and must be avoided.

### F. MARITEL IS NOT ENTITLED TO COMPENSATION AS A RESULT OF A CHANGE IN COMMISSION RULES.

The Commission also tentatively concludes that there is no basis in public policy or equity to forego designating Channels 87B and 88B for AIS to protect MariTEL's interests or to provide some mechanism to compensate MariTEL.[31] The Commission encourages the Coast Guard and MariTEL to cooperate in an effort to avoid interference to and from AIS and VPC operations and to take reasonable steps to remedy instances of interference. The Commission invites comment on whether there are specific actions that it should take to facilitate such

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[30] *See* United States Proposed Modifications to the Draft ITU-R Conference Prepatory Meeting for WRC-03, November 1, 2002, Document CPM02-2/08-E.

[31] The Commission concluded that this proposal was "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

collaboration and states that the parties should consider whether the Coast Guard and MariTEL should negotiate a coordination agreement or similar arrangement to mitigate interference.[32]

As a preliminary matter, NTIA notes again that the Coast Guard has already taken steps to mitigate interference with VPC operations and that there is evidence in the record demonstrating that commonplace techniques would alleviate any interference problems. More fundamentally, should the FCC proceed to designate Channels 87B and 88B specifically for AIS use in the United States – as it should – then the obligation to mitigate interference to and from AIS and VPC becomes a responsibility for MariTEL. As a practical matter, MariTEL has not provided the technical parameters of the VPC system it intends to deploy in this band even though its construction deadline is approximately 18 months away.[33] As NTIA has previously stated, MariTEL will need to invest in a system that can operate in a congested VHF environment. As discussed above, NTIA believes that a system such as that proposed by MariTEL will have to employ FEC and interleaving techniques such as those found in existing digital land mobile systems (*e.g.*, Telecommunications Industry Association 102-Series of standards). These techniques have become common practice in both the land mobile and maritime services (*e.g.*, Digital Selective Calling).

As for compensation, the record clearly establishes that MariTEL had from the outset an obligation as a VPC licensee to make frequencies available for AIS. Thus, the Commission has

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auction process." AIS NPRM at ¶ 49.

[32] AIS NPRM at ¶ 49.

[33] An Application for Review of a decision extending MariTEL's build-out date is currently pending before the Commission. *See* Application for Review of United States Coast Guard, filed January 5, 2004.

correctly concluded that MariTEL has no vested rights in the continuation without change of the VPC rules in effect at the time of the auction.[34] Although it is within the Commission's authority to alter the terms of an existing license, in this case, the Commission is not proposing to change the terms of MariTEL's licenses, but only to change the terms of the AIS set-aside codified in section 80.371 (c) of the Commission's Rules.[35] Thus, MariTEL is not entitled to compensation as a result of the Commission clarifying an existing obligation.

### G. MARITEL'S FREQUENCY COORDINATOR PROPOSAL IS NOT IN THE PUBLIC INTEREST.

The Commission tentatively concludes that it would not serve the public interest to adopt MariTEL's Frequency Coordinator Proposal. Under that proposal, MariTEL would accommodate NTIA's request for domestic 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."[36] The Commission correctly notes the significant problems with the proposal and agrees with commenters that frequency coordination is not required for AIS, and that the proposed fees would create an unwarranted disincentive for voluntary carriage of AIS equipment.

As NTIA states in its previous response to this proposal, there is no need for an AIS

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[34] AIS NPRM at ¶ 34. Similarly, the federal (and Canadian) authorization for SLSDC's use of channels 87B and 88B for its AIS program eliminates any question of compensation for MariTEL in this regard.

[35] AIS NPRM ¶ 34.

[36] *See* Letter dated November 7, 2003 from Dan Smith, President and CEO, MariTEL, to Catherine Seidel, Deputy Chief, Wireless Telecommunications Bureau, FCC (*MariTEL Frequency Coordinator Proposal*); AIS NPRM at ¶ 22.

frequency coordinator, nor would such a coordinator provide value to the maritime community.[37] The Coast Guard also argues that such services are already being offered by other entities at a fraction of the cost that MariTEL proposes to charge.[38] Moreover, to the extent that such a coordinator would provide a benefit, the public interest would best be served if all qualified entities were permitted to offer such services on a competitive basis.

### H. MARITEL'S SHARING PROPOSAL SETS UNACCEPTABLE LIMITS ON AIS DEPLOYMENT AND SHOULD BE REJECTED.

Likewise, the Commission correctly declines to adopt MariTEL's proposal for sharing use of Channels 87B and 88B for AIS.[39] As an initial matter, the Commission recognizes that it was not empowered to give MariTEL any rights with respect to Channel 88B, a federal government channel. Other commenters have questioned the technical merit of MariTEL's Sharing Proposal and the Commission states that if its other issues surrounding the proposal were resolved, it would require more detailed technical information on how it would work. Accordingly, the Commission invites comment on the technical feasibility of MariTEL's Sharing

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[37] *See* Letter dated December 12, 2003 from Fredrick R. Wentland, Associate Administrator, Office of Spectrum Management, NTIA, to John B. Muleta, Chief, Wireless Telecommunications Bureau, FCC.

[38] *See Id.* at Attachment A.

[39] In its proposal, MariTEL supports the designation of Channels 87B and 88B for AIS if: (1) NTIA only authorizes the use of Channel 88B for the Coast Guard, MariTEL and ship stations for AIS, giving MariTEL access to 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 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 (*MariTEL Sharing Proposal*).

Proposal. [40]

The Commission correctly rejects this proposal. MariTEL's Sharing Proposals sets unacceptable limitations upon AIS and Vessel Traffic System (VTS) obligations. MariTEL proposes that the Commission adopt regulations prohibiting anyone other than MariTEL, the Coast Guard, and shipborne stations from receiving AIS transmissions. As a result, marine exchanges, port authorities, fleet operators, state and local government agencies, and non-Coast Guard federal government entities would be forbidden from receiving or using AIS information. This would prevent agreements and cooperative arrangements that would improve maritime commerce while at the same time promoting maritime safety and national security.[41] Recognizing that cooperative arrangements are beneficial, the recent Coast Guard and Maritime Transportation Act of 2004[42] includes provisions for the Coast Guard to enter into cooperative arrangements with public or private entities to carry out maritime safety and security operations.[43] It is also premature to consider slot sharing or similar means of allowing MariTEL to offer commercial AIS services until it can be demonstrated that such use will not degrade AIS

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[40] AIS NPRM at ¶ 58.

[41] *See* Letter dated February 26, 2004 from Fredrick R. Wentland, Associate Administrator, Office of Spectrum Management, NTIA to John B. Muleta, Chief, Wireless Telecommunications Bureau, FCC, DA-04-378, RM-1031 (The letter includes an enclosed letter from C.I. Pearson, Rear Admiral, U.S. Coast Guard to Fredrick R. Wentland, Associate Administrator, Office of Spectrum Management, NTIA).

[42] P.L. 109-293, 118 Stat 1028.

[43] *Id.* at § 302. *See also* U.S. General Accountability Office, *Maritime Security: Partenering Couls 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) (Public/private partnerships could facilitate widespread use of AIS information and reduce Federal Government AIS implementation costs).

operation.[44] Since MariTEL's Sharing Proposal will impact the deployment of AIS while providing no public benefit, NTIA agrees with the FCC that it should be rejected.

## I. PROVISIONS SHOULD BE MADE FOR THE NATIONWIDE ALLOCATION OF AIS ON CHANNELS 87B AND 88B.

The Commission's proposal to designate Channels 87B and 88B exclusively for AIS is limited in geographic scope to the nine maritime VPCSAs. As discussed in the NPRM, the NTIA Petition for Rulemaking requested that Channels 87B and 88B be allocated for AIS on an exclusive and nationwide basis. However, consistent with a past rulemaking, the Commission is proposing to limit the scope of the allocation to the nine maritime VPCSAs.[45]

The FCC proposes to add a footnote to the U.S. Table of Frequency Allocations for AIS operations.[46] The footnote as proposed in the NPRM uses VPSCA to define even federal government operations on these frequencies. Because VPSCA is an FCC geographic licensing area that does not apply to United States Government operations, it should not be used to define such operations. Furthermore, the number and geographic areas of the VPSCAs are subject to change in future FCC rulemaking proceedings, potentially impacting AIS operations. Thus, NTIA proposes that references to the VPSCAs be deleted and the text of the new footnote expanded to accommodate a nationwide primary allocation for the maritime mobile service to support AIS operations on these frequencies. The modifications to the FCC's proposed footnote

[44] For example, standards for displaying base station messages on ships are still in development, and as a consequences AIS-equipped ship currently have no means for displaying most information transmitted by a base station. Base station standards are also still in development. *See* Section II. K., *infra*. Since use of fixed access slots reduces the capacity for ship position reports, channel capacity studies will be needed to ensure position reports are not lost.

[45] AIS NPRM at ¶ 63.

are shown below:

> **Usxxx** The bands 161.9625-161.9875 MHz and 162.0125-162.0375 MHz are allocated to the maritime mobile service (Automatic Identification System) on a primary basis for Federal and non-Federal use. The band 161.9625-161.9875 MHz is allocated to the maritime mobile service on a secondary basis for non-Federal use and the band 162.0125-162.0375 MHz is allocated to the fixed and mobile services on a secondary basis for Federal Government use.

### J. THE COMMISSION MUST UNDERTAKE APPROPRIATE ACTION REAGARDING THE INCUMBENT LICENSEES OPERATING ON CHANNELS 87B AND 88B.

The Commission notes that the Universal Licensing System (ULS) database reveals seven site-based incumbent VPC licenses currently authorized to operate on Channels 87B, and one incumbent has an FCC license to operate on Channel 88B.[47] Several commenters argue that designating Channels 87B and 88B for AIS would cause potential interference on the operations of these incumbents. The Commission requests comment on the effect of these site-based incumbent VPC licensees of adopting the proposal to designate Channels 87B and 88B for AIS.[48]

The Coast Guard strongly supports the public correspondence and watch-keeping operations of VPC stations and encourages their continued operations in support of the maritime community which has need for these services. If these licensed VPC facilities are not providing public correspondence maritime services, however, there does not appear to be a public interest requirement to ensure the continued operation of these facilities. In line with comments sought on this issue, the Commission is strongly encouraged to request information from these few

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[46] *Id.* at Appendix B.

[47] AIS NPRM at ¶¶ 65-65 and Appendix D.

[48] *Id.* at 65.