04-344

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

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APR 28 2005
Federal Communications Commission
Office of Secretary

Ms. Marlene Dortch
Secretary
Federal Communications Commission
445 Twelfth Street, S.W.
Washington, DC 20544

Re: Opposition to Petition for Reconsideration of MariTel, Inc., Amendment of Parts 13 and 80 of the Commission's Rules Concerning Maritime Communications, WT Docket No. 0048, RM-9499, PR Docket No. 92-257.

Dear Ms. Dortch:

Pursuant to 47 C.F.R. § 1.429(f) please find an original an eleven (11) copies of the National Telecommunications and Information Administration's Opposition to MariTel's Petition for Reconsideration in the above referenced proceedings. Please direct any questions you may have regarding this filing to the undersigned. Thank you for your consideration.

Respectfully submitted

Kathy D. Smith
Chief Counsel

Enclosures

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Federal Communications Commission
Office of Secretary

Before the
Federal Communications Commission
Washington, DC 20554

In the Matter of	)	
	)	
Amendment of Parts 13 and 80 of the Commission's Rules Concerning Maritime Communications	)	WT Docket No. 00-48
	)	
Petition for Rule Making Filed by Globe Wireless, Inc.	)	RM-9499
	)	
Amendment of the Commission's Rules Concerning Maritime Communications	)	PR Docket No. 92-257

OPPOSITION TO PETITION FOR RECONSIDERATION OF THE NATIONAL TELECOMMUNICATIONS AND INFORMATION ADMINISTRATION

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OPPOSITION TO PETITION FOR RECONSIDERATION OF THE NATIONAL TELECOMMUNICATIONS AND INFORMATION ADMINISTRATION

The National Telecommunications and Information Administration (NTIA) submits these comments opposing the MariTEL Inc.[1] Petition for Reconsideration and Amended Petition for Reconsideration to the Federal Communications Commission's (Commission) Sixth Report and Order in PR Docket No. 92-257.[2] The petition and amended petition address the International Electrotechnical Commission ("IEC") standard for Automatic Identification System (AIS) equipment. In adopting service rules for AIS equipment, the

[1] Petition for Reconsideration of MariTEL, Inc., PR Docket No. 92-257 (December 8, 2004) ("MariTEL Petition"); Amended Petition for Reconsideration of MariTEL, Inc., PR Docket No. 92-257 (April 12, 2004) ("MariTEL Amended Petition").

[2] *See* Amendment of Parts 13 and 80 of the Commission's Rules Concerning Maritime Communications; Petition for Rulemaking Filed by Globe Wireless, Inc., Amendment of the Commission's Rules Concerning Maritime Communications, *Second Report and Order, Sixth Report and Order, and Second Further Notice of Proposed Rulemaking*, WT Docket No. 00-48, RM-9499, PR Docket No. 92-257, ___ 19 F.C.C. Rcd. 3120_____ (2004).

Commission correctly recognized that in order to achieve seamless operation, the domestic rules for AIS must be based on international standards such as those developed by the IEC.

On March 31, 2005 the Commission released a Public Notice announcing MariTEL's December 2004 Petition for Reconsideration of that portion of Docket 92-257, *Sixth Report and Order*, addressing certification of AIS equipment in accordance with IEC standards.[3] In its petition for reconsideration, MariTEL alleged that the Commission's certification process, as adopted, would create unpredictable results, and that many, if not most, of the certified AIS devices would violate the Commission's emission mask. On April 12, 2005, MariTEL filed an amendment to its petition for reconsideration showing different variations of the mask limits, but continuing its request for reconsideration.

There are three emission masks addressed in the MariTEL petition and amended petition for reconsideration: (1) the Commission's Part 80 emission mask (*see generally* 47 C.F.R. § 80.211); (2) the IEC 61993-2 standard emission mask; and (3) the Commission's Part 90 emission mask identified at 47 C.F.R. § 90.210. The Very High Frequency Public Correspondence (VPC) licenses which MariTEL purchased at auction are generally governed by Part 80 of the Commission's rules relating to stations in the Maritime Radio Service. The Commission proposed to expand the data transmissions permitted in these underlying Maritime Radio Services to accommodate a range of data services.[4] While generally adopting the emission mask for Part 80, the Commission indicated it would apply, with one exception, the narrowband emission mask contained at 47 C.F.R. § 90.210 to provide technical flexibility. The one exception to the applicability of this emission mask is related

[3] A Federal Register notice was published on April 13, 2005. *See* 70 Fed. Reg. 19469 (April 13, 2005).

[4] In the Matter of Amendment of the Commission's Rules Concerning Maritime Communications, *Fourth Further Notice of Proposed Rule Making*, 17 F.C.C. Rcd. 227, 236 (date 2001)).

to AIS narrowband operations, generally operating on Channels 87B and 88B, which are to be governed by the internationally approved standard for AIS, IEC 61993-2.[5] Based on a review of the petition as amended, there appears to be some confusion on how the three masks are being applied by MariTEL.

The Commission's requirement for AIS emission limits stem from two requirements: the existing general requirements of 47 C.F.R. § 80.211(f),[6] and the new requirements of the AIS certification standard IEC 61993-2, now referenced in 47 C.F.R. § 80.1101(c)(12)(v). Section 15.1.3 and Section 15.5.2 of the IEC 61993-2 standard define the emission mask for AIS transmitters.[7] It is in Section 15.5.2 that MariTEL seems to have misunderstood the Commission's emission mask requirements. Section 15.5.2 requires that spurious emission on any discrete frequency not exceed -36 dBm. MariTEL includes this -36 dBm emission limit as a mask in its Exhibit A relating to the FA-100, extending the line to the base of the primary AIS emission at 162 MHz, and to about 162.01 MHz in its amended Exhibit A. MariTEL then claims that noise at a level of -30 dBm appearing at about 162.02 MHz emitted from the FA-100 AIS unit violates this mask.[8] MariTEL's claim is incorrect. As shown in the enclosed Annex, IEC 61993-2 Section 15.5.2, from which the -36 dBm mask

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[5] AIS operating in the normal wideband mode meets 47 C.F.R. Section 80.207(d), note 20, and must additionally meet both the FCC emission limits of § 80.211(f), as well as the IEC limits of 61993-2. AIS normal emission mode is 20K00F1D.

[6] 47 CFR 80.211(f) requires emissions to be 25 dBc (below carrier) 50-100% bandwidth, 35 dBc 100-250% bandwidth, and 43 10log10 (mean power in w) dB for over 250% of bandwidth. A t 12.5w, AIS emissions must be -54 dBc over 250% of bandwidth. AIS bandwidth is 20 kHz.

[7] Section 15.1.3 specifies emission measurements at two points: -25 dBc at +/- 10 kHz removed from the carrier, and -70 dBc at +/- 25 kHz removed from the carrier. MariTEL seems to have placed these two points accurately in Exhibit A. Section 15.5.2 is attached at Annex A.

[8] The emission spectra for the FA-100 used in MariTEL's Exhibit A was taken from the Department of Defense's Joint Spectrum Center report, "EMC Analysis of Universal Automatic Identification and Public Correspondence Systems in the Maritime Band," February 2004. This report was filed by NTIA with the FCC on February 26, 2004 under Docket RM-10821.

was derived, "out-of-band emissions" are excluded by definition and consequently "the channel on which the transmitter is operating and its adjacent channels" are specifically excluded from the method of measurement. With this exclusion, the FA-100 appears to meet IEC 61993-2 emission requirements.

MariTEL references a second piece of equipment, the AIMS M1V, in its Exhibit 1. There is neither an indication of the source of the AIMS M1V emission spectra, nor an explanation of how this spectra was measured. Therefore, it is not possible to provide meaningful comments on it. NTIA did, however, review the certification test report on this device performed by Telefication and found it was certified as meeting both Sections 15.1.3 and 15.5.2 of IEC 61993-2.[9] Telefication's M1V spectra shown in its report differs significantly from that shown by MariTEL. MariTEL provides no explanation for this discrepancy.

MariTEL alleges that the "international emission mask associated with AIS equipment is not as stringent as the Commission's mask for similar devices" and "the international standards on which the AIS certification is based is inconsistent with Commission's rules."[10] This allegation is not supported in fact, as the IEC 61993-2 emission limitations appear more stringent than the Commission's as specified in 47 C.F.R. § 80.211(f). In fact, the Commission's rules require AIS equipment to meet both requirements.[11] MariTEL appears to be referring to narrowband flexibility that Commission

[9] This certification test report is available on the Commission's web site at https://gullfoss2.fcc.gov/cgi-bin/ws.exe/prod/oet/forms/reports/Search_Form.hts.

[10] MariTEL Petition for Reconsideration at 3, 7.

[11] *In the Matter of Amendment of the Commission's Rules Regarding Maritime Automatic Identification Systems*, *Memorandum Opinion and Order and Notice of Proposed Rule Making*, 19 F.C.C. Rcd. 20071, 20097 n. 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

granted them in 47 C.F.R. § 80.207(d), note 20, which requires land stations using "another type of emission" (*i.e.*, narrowband) to comply with 47 C.F.R. § 90.210. Since IEC 61993-2 already has a narrowband emission mask, note 20 exempts AIS from the Part 90 requirement. In comparing the 47 C.F.R. § 90.210 narrowband emission mask with that of IEC 61993-2, the two are nearly identical, with 47 C.F.R. § 90.210 slightly less strict in the upper portion of the mask, but slightly more strict in the lower portion, with the emission floor for both identical. Since the IEC 61993-2 and 47 C.F.R. § 90.210 narrowband emission masks are similar, and since AIS rarely operates in the narrowband mode anyway, this exception has little practical impact.

Finally, in its Petition for Reconsideration MariTEL argues that the equipment certification standards specified by the Commission "has produced a devastating impact on MariTEL."[12] However, MariTEL provides no evidence of this "devastating impact." AIS equipment meeting the international standards has been operating internationally for some time now, and to the best of the knowledge of the United States Coast Guard (USCG) there have been no reports of harmful interference being caused to any VPC operations.

NTIA believes, as the international community has confirmed by adopting the IEC standards, that a reconsideration of the Commission's decision in this matter is unwarranted. NTIA agrees with the Commission that in order to achieve seamless compatibility as required for AIS operations, internationally developed standard must be adopted.

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.*").

[12] MariTEL Petition, at 3.

NTIA therefore submits the foregoing opposition to the MariTEL petition and amended petition for reconsideration and requests the Commission to take actions consistent with the views expressed herein.

Respectfully submitted,

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Chief Counsel

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ANNEX A

Excerpt from IEC 61993-2

15.5.2 Spurious emissions from the transmitter
(ITU-R M.489-2)

Definition
Conducted spurious emissions are emissions on a frequency or frequencies which are outside the necessary bandwidth and the level of which may be reduced without affecting the corresponding transmission of information. Spurious emissions include harmonic emissions, parasitic missions, intermodulation products and frequency conversion products, but exclude out-of-band emissions.

Method of Measurement
Conducted spurious emissions shall be measured with the unmodulated transmitter connected to the artificial antenna. The measurement shall be made over a frequency range from 150 kHz to 2 GHz, excluding the channel on which the transmitter is operating and its adjacent channels.

Results Required
The power of any spurious emission on any discrete frequency shall not exceed -36 dBm (0,25 uW) in the frequency range 150 kHz to 1 GHz and -30 dBm (1 uW) in the frequency range 1 GHz to 2 GHz.

I, Milton Brown, do hereby certify that on this 28th day of April, 2005, the foregoing Opposition to MariTel's Petition for Reconsideration was served on the following persons (via hand-delivery or first class mail, postage prepaid):

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*Hand-delivery