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United States Coast Guard

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2400
Docket No. 04-344

27 March 2007

Marlene H. Dortch
Secretary
Federal Communications Commission
445 12th Street, SW
Washington, DC 20554

Re: WT Docket No. 04-344, Amendment of the Commission's Rules Regarding Maritime Automatic Identification Systems (AIS); **NOTICE OF *EX PARTE* FILING**

Dear Ms. Dortch,

Pursuant to the provisions of Section 1.1206 of the Commission's rules and regulations, the United States Coast Guard hereby submits this *ex parte* letter in the above-referenced proceeding. This letter contains a specific responses to the November 13, 2006 Comments of Shine Micro Inc. filed in this proceeding (the filing was mistakenly entitled "Reply Comments"). The United States Coast Guard respectfully requests the Commission to consider carefully the discussion contained herein, and to begin certification of Class B AIS equipment pending final rulemaking in this proceeding, consistent with the views expressed herein.

Class B AIS operation on AIS 1 only.

In order to minimize congestion on AIS channels monitored by satellite, Shine Micro proposed that Class B CS-TDMA AIS operation be allowed only on AIS 1 (161.975 MHz) and prohibited on AIS 2 (162.025 MHz) within 12 miles of the US coastline. While the Coast Guard agrees that this may be a necessary action, such restriction can be accomplished through on-air channel management without the need to hard-wire that restriction into Class B AIS units sold in the United States.

Exceptions to IEC 62287.

The Coast Guard believes waivers to or deviations from IEC 62287 should not be granted unless such waiver is approved by the Commission in accordance with the rules relating to waiver requests.

Vendor Identity number.

Shine Micro proposed certain MMSI assignment and activation procedures for Class B AIS units for reasons pertaining to Homeland Security, shortened emergency response time and general consumer confidence. The Coast Guard generally supports Shine Micro's proposal described in Appendix A of its comments, asking that manufacturers be allowed to manufacturer devices in the way prescribed. Further, the Coast Guard strongly supports the proposal that a unique Message 24 Part B 42-bit Vendor ID field be included on a mandatory basis. The Coast Guard agrees that use of this field is needed and its use should be required for reasons of security.

The International Association of Marine Aids to Navigation and Lighthouse Authorities (IALA) e-Navigation Committee met 19-23 March 2007 to consider this proposal that the Message 24 Part B 42-bit Vendor ID field include the manufacturers' identity, unit model, and unit serial number. IALA agreed to this recommendation, adopting the document "Proposed Clarification on Vender ID field in Message 24B" enclosed with this letter. The attached output will be included in the IALA Clarifications on ITU-R Recommendation M.1371-3. This clarifications document will be officially available after the ITU publication of ITU-R M.1371-3 is released, expected later this summer. IALA's Technical Clarifications become incorporated by reference into the ITU-R Recommendation M.1371 (series) specifying AIS equipment, under its *Recommends 4*.

The Coast Guard therefore proposes that Class B AIS equipment be required to include the Message 24 Part B 42-bit Vendor ID field information described in the enclosed document. The manufacturer's identity consists of a three-character (18 bit) ASCII symbol as described in ITU-R Recommendation M.1371 (series), based upon NMEA 0183 (version 3.01) Appendix III, available from the National Marine Electronics Association, Seven Riggs Avenue, Severna Park, MD 21146, http://www.nmea.org. Mr. Steve Spitzer, NMEA Technical Director, has informed us that it will assign a three-character NMEA 0183 mnemonic vendor code at no charge. He has concurred with the IALA document. The coding of the remaining 24 bits, containing unit model and serial number, is as described in the enclosed document.

Digital selective calling (DSC).

Shine Micro proposed a DSC capability not be required in order to keep unit costs low. While we agree that it is important to keep the cost of AIS equipment low, we believe that savings must be weighed against the value served by DSC's channel management capability and the need to maintain the integrity of the AIS VHF data link (VDL). Shine Micro's discussion regarding long range tracking by satellite, discussed above, backs such a need. Both the Coast Guard's Rescue 21 network currently being deployed nationwide, and the Nationwide AIS (NAIS) system, when deployed with a transmit capability, provide AIS channel management capability. Rescue 21 provides AIS channel management through DSC, and NAIS would provide it through AIS Message 24. While both systems provide AIS channel management capability, shore-to-ship radio coverage of both systems will likely

differ, and channel management by DSC alone can communicate with and correct shipboard AIS units even when operating on the wrong AIS frequency. If the DSC requirement is waived now, we give up this capability permanently because whatever VDL management scheme is used must be capable of accommodating all shipboard AIS units operating in an area, not just some units, and not just Class A units. If DSC channel management is found to be unnecessary at some time in the future, it can always be dropped at that time.

The Coast Guard agrees, however, that in order to keep costs to a minimum, a dedicated DSC receiver need not be required in Class B units. IEC 62287-1 Annex C's specification for DSC time sharing is sufficient. If a means for disabling the DSC function exists, the default setting should have this function enabled.

Certification for Software Link Layers.

Shine Micro proposes that certification for Software Link Layers be performed by a capable test lab. We agree. Coast Guard Type Approval certification of these devices requires that ALL tests be performed by a lab approved by the Coast Guard.

Sincerely,

J Hersey Jr.

Joseph D. Hersey, JR
Chief, Spectrum Management Division
U.S. Coast Guard
By direction

Enclosure: IALA Clarification on Vender ID field in Message 24B

cc: Shine Micro
RTCM
NMEA (Steve Spitzer)

Enclosure

Proposed Clarification on Vender ID field in Message 24B

In the ITU-R M.1371-3, the vender ID field (42bits) is prepared in the Message 24B for the Class-B AIS station, however the detail is not defined. The AIS Technical Working Group of IALA e-NAV committee considered the clarification of the field and proposes as follows:

Vender ID Field (42bits)

Bit (MSB)	41 ……..... 24	23 …....……. 20	19 …… 0
Information	Manufacturer's ID (18bits)	Unit Model Code (4bits)	Unit Serial Number (20bits)

- Manufacture's ID (18bits)

  The Manufacturer's ID bits indicate the manufacture's mnemonic code consisting of three 6bit ASCII characters. NMEA (National Marine Electronics Association) maintains a list of manufacturers mnemonics globally.

- Unit Model Code (4bits)

  The Unit Model Code bits indicate the binary coded series number of the model. The first model of the manufacture uses "1" and the number is incremented at the release of a new model. The code reverts to "1" after reaching to "15". The "0" is not used.

- Unit Serial Number (20bits)

  The Unit Serial Number bits indicate the manufacture traceable serial number. When the serial number is composed of numeric only, the binary coding should be used. If it includes figure(s), the manufacture can define the coding method. The coding method shall be mentioned in the manual.