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April 11, 2005

SUBMITTED ELECTRONICALLY

Mr. Michael Wilhelm
Chief, Public Safety and Critical Infrastructure Division
Wireless Telecommunications Bureau
Federal Communications Commission
445 12th Street, S.W.
Washington, D.C. 20555

Re: FCC Docket No. 04-344, Amendment of the Commission's Rules Regarding Maritime Automatic Identification Systems; **Written Ex Parte Communication**

Dear Mr. Wilhelm:

When representatives of MariTEL and I recently met with you, we noted that manufacturers of equipment currently approved for use under Parts 80 and 90 of the FCC's rules could not ensure the effective use of their products on vessels that operate with or near simplex Automatic Identification System ("AIS") transmitters. We noted that although MariTEL is anxious to proceed with the long planned introduction of a maritime data service, it cannot responsibly do so because any equipment it might reasonably wish to use with MariTEL's system will not operate in a commercially acceptable manner in a simplex AIS environment.[1/] Moreover, even if MariTEL was willing to accept the detrimental commercial impact caused by simplex AIS transmissions, no equipment is available which contains the technical characteristics[2/] that the National Telecommunications and Information Administration ("NTIA") asserts is necessary to overcome the effects of AIS transmissions on VHF public coast ('VPC") operations.

Attached are letters from two such manufacturers, representative of responses received from many others. As IP MobileNet points out, it does not employ erasure technology in its data

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1/ In fact, MariTEL has available to it off-the shelf equipment that it is ready to deploy based on testing it has already conducted. However, it is hesitant to widely initiate service because of the interference threat caused by AIS.

2/ Including extreme levels of Forward Error Correcting ("FEC") codes and block interleaving plus so called "erasure" technology.

products. More importantly, it notes that erasure technology is not needed even in the harsh public safety radiofrequency environment. Similarly, RF Neulink notes in its correspondence that its current and future products are not expected to incorporate erasure technology. It also confirms that neither erasure technology nor interleaving is needed for operations in the harsh public safety radiofrequency environment.

Accordingly, as MariTEL pointed out in the past, the use of the technology that the USCG suggests be used to overcome interference from AIS is not commercially available today. More importantly, the use of this technology is not required today in the maritime environment and even exceeds the requirements of equipment operated in the harsh public safety environment. It would, therefore, be unjust and unduly burdensome for MariTEL to be required to develop this technology -- even assuming it could be developed on a technically and commercially successful basis -- in order to overcome interference from AIS. These are technologies that are otherwise not required even in today's demanding radiofrequency environments. Moreover, even if it were technically possible to overcome AIS interference, as RF Neulink alludes, it may not be commercially feasible to introduce a "marine only" device to the market, based on the projected size of the maritime market.

There is no reason to burden MariTEL with the development of a cure to a problem it did not create. As it recognized in its 800 MHz rebanding decision, the FCC should require the entity introducing the disruptive technology -- in this instance the USCG -- to pay for the resolution of the interference caused by its operations.

I trust that the foregoing is useful. If you have any questions, please let know.

Very truly yours

/s/ Russell H. Fox

Russell H. Fox

Attachments

rf neulink
DIVISION OF RF INDUSTRIES

March 1, 2005

MariTEL Inc,
13000 Deerfield Parkway
Suite 105
Alpharetta, GA 30004

Dear Mr. Smith,

Thank you for your recent questions concerning erasure technology in RF Neulink's current and future products. In addition to your inquiry, I have reviewed the NTIA/USCG/JSC filing of January 31st discussing erasure technology as a "common technique" of forward-error-correction codes. While I am familiar with erasure technology for convolutional coding, where Viterbi or sequential decoding is used, I am not aware of commercial technology which uses erasure techniques with Reed Solomon (RS) coding. While such technology can be developed, our current and future products do not anticipate the need for such technology.

More importantly, and consistent with comments previously filed with the FCC, neither 16 level interleaving (our current products have 6 level interleaving) nor "erasure" technology is needed for the Public Safety or commercial wireless data markets. As such, requirements for these and potentially other specific technologies for successful operation in the maritime spectrum requires a new development cycle which will substantially increase the cost of "maritime only" devices. Additionally, Dorr Engineering's test results clearly show the limitations of JSC's "mathematical models" when compared with actual equipment testing. RF Neulink continues to believe that FEC codes and now "erasure" technology, as proposed by NTIA/USCG/JSC, is at best a speculative solution which cannot be guaranteed with equipment performance. Further, even if the suggested technology is ultimately successful at mitigating RF interference unique to the maritime spectrum, FEC codes / interleaving techniques unnecessarily limit the long term usefulness of maritime channels in a manner that other techniques, such as filtering techniques, do not.

Based on the above uncertainty, RF Nulink can not devote additional resources toward a "marine only" device until the technical needs and market for such a device are better defined.

Sincerely,

Robert White
RF Industries

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March 14, 2005

MariTEL Inc,
13000 Deerfield Parkway
Suite 105
Alpharetta, GA 30004

Dear Mr. Smith,

Thank you for your recent inquiry concerning IP Mobile Net's inclusion of erasure technology in our state-of-the-art wireless data products. IPMN does not employ "erasure" technology in our data radio products.

IPMN products employ Forward Error Correction (FEC) code that matches our short burst data packets in the urban environment. This method has a small overhead and is appropriate for the message success rate that we require. Technology, such as "erasure" is not currently needed even for the harsh public safety RF environment and therefore, would unnecessarily increase the cost of units and reduce the data throughput with no technical or market advantage.

IP Mobile Net is prepared to discuss the possibility of developing a maritime centric wireless data product to incorporate FEC code interleaving and if needed "erasure" technology unique to the maritime market if required.

Sincerely,

D. A Godfrey

David Godfrey
Director, Federal and International Sales