

BEFORE THE
Federal Communications Commission
WASHINGTON, D.C. 20554

In the Matter of)
)
Procedures to Govern the Use of Satellite Earth) IB Docket No. 02-10
Stations on Board Vessels in the)
5925-6425 MHz/3700-4200 MHz Bands and)
14.0-14.5 GHz/11.7-12.2 GHz Bands)

To: The Commission

CONSOLIDATED RESPONSE OF
MARITIME TELECOMMUNICATIONS NETWORK, INC.

Maritime Telecommunications Network, Inc. (“MTN”), by its attorneys and pursuant to Section 1.429 of the Commission’s rules, 47 C.F.R. § 1.429, hereby submits this consolidated response to the petitions for reconsideration of the Commission’s July 31, 2009 *Report and Order* in the above-captioned proceeding¹ that were filed separately by The Boeing Company (“Boeing”) and ViaSat, Inc. (“ViaSat”).

MTN is the nation’s leader in maritime communications, delivering broadband voice, data, Internet and compressed video services to the mobile maritime industry using cutting edge earth station on-board vessels (“ESV”) technology. MTN worked closely with the Commission for years to develop a regulatory framework for ESVs, which culminated in the adoption of rules authorizing the establishment of Commission rules in Sections 25.221 and 25.222.

¹ See *Procedures to Govern the Use of Satellite Earth Stations on Board Vessels in the 5925-6425 MHz/3700-4200 MHz Bands and 14.0-14.5 GHz/11.7-12.2 GHz Bands*, IB Docket No. 0-2-10, Order on Reconsideration, 24 FCC Rcd 10369 (2009) (“*ESV Reconsideration Order*”).

MTN fully supports the *ESV Reconsideration Order*, and opposes any actions that delay or cast uncertainty on the implementation of ESVs – including actions that would weaken or undermine the Commission’s obligation to provide a secure two-degree spacing environment for FSS satellite and all users of FSS capacity.

MTN’s responses to the petitions for reconsideration from Boeing (“Boeing Petition”) and ViaSat (“ViaSat Petition”) are provided below.

I. MTN Conditionally Supports Boeing’s Proposal to Align ESV and VMES Provisions Regarding the Value of “N” for Purposes of the 10Log(N) Rule for CDMA-Based Variable Power ESV Networks.

In its Petition, Boeing contends that in revising the initial Ku-band ESV rules in Sections 25.222, the Commission unexpectedly changed a provision applicable to ESV systems that employ variable-power code division multiple access (“CDMA”) techniques.² Boeing urges the Commission to either make revisions to the rule to reverse the negative effect Boeing claims, or align the subject aspect of the ESV rules with the new vehicle-mounted earth station (“VMES”) rules (as proposed to be clarified by Boeing in its Petition for Reconsideration of the Report and Order in IB Docket No. 07-101),³ which contain language addressing variable-power systems.

MTN would have no objection if the Commission were to modify Section 25.222 to state clearly that for ESV systems using variable power-density control of individual simultaneously transmitting co-frequency ESVs in the same receiving beam, the variable “N” in the 10Log(N) formulations in the various subsections of Section 25.222(a)(1) be equal to one.⁴ In this regard,

² Boeing Petition at 6.

³ *Amendment of Parts 2 and 25 of the Commission’s Rules to Allocate Spectrum and Adopt Service Rules and Procedures to Govern the Use of Vehicle-Mounted Earth Stations in Certain Frequency Bands Allocated to the Fixed-Satellite Service*, FCC 09-64 (released July 31, 2009) (“*VMES R&O*”).

⁴ Boeing Petition at 14.

adopting for ESVs a provision that parallels Section 25.226(a)(3), as Boeing proposes to modify that rule,⁵ would be appropriate.

MTN cautions that its endorsement here is only to clarify that the value of “N” is one for variable-power CDMA systems. MTN does not support Boeing’s alternative/additional proposal to exclude from ESVs the VMES rule provision that requires that the effective aggregate EIRP-density from all variable-power VMES terminals shall be at least 1 dB below the limits in Section 25.226(a)(1)(A)-(C).⁶ MTN believes that the potential for harmful interference needs to be assessed on a case-by-case basis, and there is a mechanism in Section 25.226(a)(3)(ii) that, if applied to ESVs, would enable ESV systems to employ off-axis ERIP spectral densities in excess of the levels in Section 25.226(a)(3)(i).⁷ The Commission determined in the VMES proceeding that an additional 1 dB of limitation needs to be built into Section 25.226(a)(3)(i); the same determination would be needed if Section 25.226(a)(3) were adapted for application to ESVs.

II. The Commission Should Proceed with Caution if it Opts to Address the Antenna Pointing Error Clarifications ViaSat Seeks.

ViaSat seeks several clarifications or revisions of one of the ESV rules with respect to the accuracy with which ESV antennas must be pointed at their target satellites.⁸ While MTN does not oppose ViaSat’s Petition on the antenna pointing issues, MTN is not convinced that these

⁵ See Boeing Petition for Reconsideration in IB Docket No. 07-101, at 14.

⁶ In Boeing’s Petition, the proposal MTN supports regarding clarification of the value of “N” in Section 25.226(a)(3)(i) is an alternative to Boeing’s proposal to eliminate the additional 1 dB restriction for systems covered in Section 25.226(b). See Boeing Petition at 11-12. ViaSat proposes that both the removal of the 1 dB restriction and the clarification of “N” be made. See ViaSat Petition at 11-12.

⁷ MTN recognizes that reliance on Section 25.226(a)(3)(ii) for an exceedance may be incompatible with ALSAT designation (see ViaSat Petition at 13), but agrees with the Commission that this level of regulatory precaution is appropriate and will not preclude any VMES operations that can be technically accommodated.

⁸ ViaSat Petition at 2-8.

clarifications and revisions are truly required to make the ESV rules understandable.⁹ MTN is concerned, moreover, that the clarifications and revisions ViaSat seeks here will need to be carefully implemented in the ESV rules and in all of the corresponding VMES rules or else the risk of confusion and inconsistency between comparable provisions will be exacerbated rather than relieved. If all “necessary” changes are not made properly, there is the potential for a non-deliberate error to creep into the rules.

This is no idle concern. While ViaSat seeks to make changes to antenna pointing language in Section 25.222 that conform to those it seeks in the VMES proceeding for Section 25.226,¹⁰ ViaSat does not propose any changes to the similar language in Section 25.221. A proposal it touts as clarifying would end up creating a discrepancy between Section 25.221 on the one hand and Sections 25.222 and 25.226 on the other – directly undoing the benefits of clarification.

In sum, MTN has no objection in principle to the antenna pointing revisions and clarifications ViaSat seeks in its Petition. If, however, the Commission is unable to institute common changes across related provisions applicable to ESVs and VMESs, it runs the risk of creating real confusion and ambiguity. The latter is not something MTN would support.

⁹ In MTN’s view, the 0.2 degree antenna pointing error figures in Section 25.222 are understood to be peak levels; otherwise, the relationship between this level and the automatic cessation level of 0.5 degrees of mispointing would be indecipherable. Similarly, MTN understands that pointing error is an objective measure, and without more encompasses both deliberate and non-deliberate antenna misorientation.

¹⁰ See ViaSat Petition for Clarification or Reconsideration in IB Docket No. 07-101 (filed December 4, 2009).

CONCLUSION

For the foregoing reasons, MTN urges the Commission to grant in part and deny in part the Petitions for Reconsideration filed separately by Boeing and ViaSat.

Respectfully submitted,

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CERTIFICATE OF SERVICE

I, Judith J. Settles, hereby certify that on this 29th day of April, 2010, a copy of the foregoing Consolidated Response of Maritime Telecommunications Network, Inc. is being sent via first class, U.S. mail, postage prepaid, to the following:

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