

January 15, 2008

**VIA ELECTRONIC FILING**

Marlene H. Dortch  
Secretary  
Federal Communications Commission  
445 12<sup>th</sup> Street, S.W.  
Washington, DC 20554

Re: Permitted Oral *Ex Parte* Presentation  
IB Docket Numbers 07-101 and 05-20

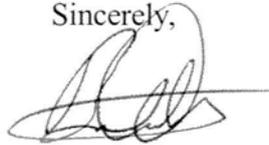
Dear Ms. Dortch:

On this date, representatives of The Boeing Company met with representatives of the Federal Communications Commission to discuss Boeing's comments in the above captioned proceeding. Participating for the Commission were Jim Ball, Howard Griboff, Paul Locke, and Kathleen Collins of the International Bureau ("IB"), Policy Division; Steven Spaeth, Karl Kensinger, and Scott Kotler of the IB Satellite Division; and James Miller of the Office of Engineering and Technology. In attendance for Boeing were Audrey Allison, Alan Rinker, and the undersigned.

During the meeting, Boeing addressed positions that are presented in detail in Boeing's comments, reply comments and written ex parte filings in the above captioned proceedings. Boeing particularly emphasized its recent filings in the VMES proceeding. The attached summary was distributed at the meeting. Boeing also addressed procedural issues involved in resolving outstanding issues that exist in IB Docket Numbers 07-101 and 05-20.

Please contact the undersigned if you have any questions.

Sincerely,

A handwritten signature in black ink, appearing to read "Bruce A. Olcott", with a horizontal line extending to the right from the end of the signature.

Bruce A. Olcott

cc: Jim Ball  
Howard Griboff  
Paul Locke  
Kathleen Collins  
Steven Spaeth  
Karl Kensinger  
Scott Kotler  
James Miller

## Vehicle Mounted Earth Stations NPRM

### The Boeing Company

IB Dockets 07-101 & 05-20

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- The Commission should adopt VMES rules that are technologically and application neutral.
  - Application neutrality should be achieved by including all motorized vehicles in the definition of VMES, revising the definition as follows:

Vehicle-Mounted Earth Station. A VMES is an earth station, operating from a motorized vehicle ~~that travels primarily on land~~, that receives from and transmits to fixed-satellite space stations and operates pursuant to the requirements set out in § 25.XXX of this part.
  - Technology neutrality should be achieved by authorizing VMES systems to operate on a primary basis in the Ku-band if they either:
    - Meet the off-axis e.i.r.p. density mask and pointing accuracy requirements included in Section 25.222 of the Commission’s rules, or
    - Demonstrate equivalent protection to adjacent satellites through various combinations of pointing accuracy and power levels (but not on a non-conforming basis pursuant to Section 25.220 of the rules), or
    - Coordinate with adjacent satellite operators to operate at more relaxed limits.
  - Boeing and others provide important services using innovative technologies to protect adjacent satellite systems, such as active radio frequency tracking, predictive tracking antennas, electronic phased array antennas and spread spectrum modulations.
    - General Dynamics argues that spread spectrum techniques result in “reduced efficiency” and permitting their routine use is “imprudent.” *See General Dynamics Comments* at 33; *see also id.* at 28 & 35.
    - General Dynamics then acknowledges that spectrum spreading may be attractive to “many” customers that “see the application of larger antenna sizes to be a particular disadvantage.” *See id.* at 33.
  - The VMES rules should address interference avoidance and not make business decisions about antennas and technologies with varying costs and pointing accuracies but equal interference protections.
- The adoption of technologically and application neutral VMES rules would eliminate concern about protecting secondary AMSS, expediting resolution of this proceeding.
  - “inter-system coordination among FSS operations can be more readily accomplished if each service within the allocation is afforded primary status.” *ESV Order*, ¶ 78.

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- The adoption of technologically and application neutral VMES rules is widely supported.
  - ViaSat, ARINC and SIA (representing the consensus position of satellite industry) support designating AMES as a primary application of Ku-band FSS.
  - Even General Dynamics appears to acknowledge the public interest benefits of serving the aeronautical market, promoting its Ku-band Warrior™ SATCOM and Troposcatter Communications Terminals in FCC presentations as supporting “*airborne applications.*” (See *General Dynamics Ex Parte*, 10/25/07 at 28 of pdf)
- Any additional VMES rules should also be technologically and application neutral.
  - Implement an aggregate e.i.r.p. density envelop rather than the  $10 \cdot \log(N)$  rule.
  - Provide blanket licensing and ALSAT authority to VMES licensees.
  - Refrain from restricting VMES to government customers, or other limited user groups.
  - Do not require control by an earth station hub in the United States (an unnecessary requirement if 24/7 U.S. point of contact required to address interference).
  - Require VMES terminals to protect other Ku-band systems only to the extent that they meet requirements of Sections 25.209(a) and (c), regardless of antenna size.