

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

In the Matter of)
)
Flexibility for Delivery of Communications by)
Mobile Satellite Service Providers in the 2 GHz)
Band, the L-Band, and the 1.6/2.4 GHz Bands)

IB Docket No. 01-185

RECEIVED

To: The Commission

JUN 11 2003

PETITION FOR RECONSIDERATION

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

The U.S. GPS Industry Council ("Petitioner"), by its attorneys and pursuant to 1.429 of the Commission's rules, 47 C.F.R. § 1.429, hereby petitions the Commission to reconsider its decision reached in the above-captioned proceeding¹ to adopt limits on the out-of-band emissions ("OOBE") that are less protective than those jointly proposed in this proceeding by Mobile Satellite Ventures L.P. ("MSV") and the U.S. GPS Industry Council ("GPS Industry Council").² The Commission's decision should be reversed because the technical record clearly and uniquely indicates the need to apply, in the 1525-1559 MHz and 1626.5-1660.5 MHz portions of the spectrum, more protective OOBE limits in order to ensure the adequate protection of the service provided by the Global Positioning System ("GPS") from Mobile Satellite Service ("MSS") ancillary terrestrial components ("ATCs").

At the outset, Petitioner emphasizes the narrow scope of its reconsideration request, which is based on the four corners of the original joint industry agreement on appropriate OOBE

¹ *Flexibility for Delivery of Communications by Mobile Satellite Service Providers in the 2 GHz Band, the L-Band, and the 1.6-2.4 GHz Band*, Report and Order and Notice of Proposed Rulemaking, FCC 03-15, IB Docket No. 01-185 (released February 10, 2003) ("*Flexibility Order*"). The Commission adopted an OOBE protection level of -70 dBW/MHz (and -80 dBw/MHz for discrete spurious emissions) for ATCs in the 1525-1559 MHz and 1626.5 and 1660.5 MHz MSS bands. *Id.* at ¶183 (requiring L-band ATC base stations and terminals to meet the established levels provided in Section 25.213(b) of the Commission's rules).

² See Letter from Bruce D. Jacobs, Counsel, Mobile Satellite Ventures L.P. and Raul R. Rodriguez, Counsel, U.S. GPS Industry Council to Marlene H. Dortch, Secretary, Federal Communications Commission, IB Docket No. 01-185 (dated July 17, 2002) ("*MSV/Industry Council Agreement*").

limits for MSS ATCs operating in the 1525-1559 MHz and 1626.5-1660.5 MHz bands. These bands pose a particularly heightened risk of harmful interference to GPS because ATC operations there will produce transmissions on both sides of the spectrum (1559-1610 MHz) in which the GPS L-1 signal is transmitted.

Petitioner believes that the Commission should instead adopt appropriate OOB levels taking into account the applicable technology or service and the density of the intended use of its characteristics (e.g., whether the use is licensed or unlicensed).³ Indeed, the OOB limit adopted by the Commission in this proceeding for the 1525-1559 MHz and 1626.5-1660.5 MHz MSS ATC service cannot reasonably be deemed appropriate in all cases because it was developed for a specific aviation application of GPS only.⁴ The MSV/Industry Council Agreement recognized the need for tailored OOB limits that would allow for the introduction of ATCs in the 1525-1559 MHz and 1626.5-1660.5 MHz bands both to protect the GPS service's present and future operations and to provide a stable environment for the development and operation of MSV's proposed system. These limits, presented to the Commission on July 17, 2002, are: (i) -100 dBW/MHz for ATC base stations; and (ii) -90 dBW/MHz for ATC mobile terminals initially, improving to -95 dBW/MHz for new terminals in five years from commencement of service.⁵

The proposed MSV/ GPS Industry Council OOB limits elicited broad support from both the public and private sectors. The National Telecommunications and Information Administration endorsed these OOB limits as "attainable by the MSS ATC and agreeable with

³ In its recent decision authorizing the marketing and operation of devices using ultra-wideband ("UWB") technology, the Commission adopted more than one OOB limit for protection of the GPS service. *See Revision of Part 15 of the Commission's Rules Regarding Ultra-wideband Transmissions Systems*, 17 FCC Rcd 7435, 7511-12 (2002) ("UWB Order"). The use of multiple OOB limits in the UWB context serves as precedent for use of multiple limits in the MSS ATC context.

⁴ *Flexibility Order* at ¶ 181; *see also* ITU-R M. 1477, Annex 5, Note 1.

⁵ *See* MSV/Industry Council Agreement at 1. The increase in OOB limits applicable to MSS ATC terminals is intended to account for a greater density of users and the need to protect GPS receivers from the aggregation of interference from multiple sources.

the GPS community.”⁶ The Commission acknowledged that it typically supports and encourages negotiations among private parties.⁷ Nothing in the record of this proceeding supports any other OOB limits than the ones jointly proposed by the MSV/Industry Council Agreement.

Nevertheless, the Commission adopted the less protective -70 dBW/MHz OOB limit for MSS ATCs in the 1525-1559 MHz and 1626.5 and 1660.5 MHz MSS bands, stating that “[t]he record before us does not support the adoption of [more stringent] out-of-band emission levels.”⁸

To the contrary, Petitioner believes that the Commission, in adopting its OOB limits, ignored the only piece of evidence before it – namely, the unique technical analysis submitted in conjunction with, and in support of, the MSV/Industry Council Agreement – without providing any countervailing technical justification. No other party submitted alternative OOB limits, so the volume of material that required the Commission’s careful consideration was not extensive. Yet, after adopting the less protective OOB limits, the Commission failed to offer any explanation why it rejected the MSV/Industry Council limits. It is axiomatic that the Commission must exercise its decision-making authority based on the consideration of relevant factors contained in the record, and then “articulate a satisfactory explanation for its action

⁶ See Letter from Frederick R. Wentland, Acting Associate Administrator, Office of Spectrum Management to Edward Thomas, Chief, Office of Engineering and Technology, IB Docket No. 01-185 at 3 (dated January 24, 2003).

⁷ See *Flexibility Order* at ¶ 184. See also *Assignment of Orbital Locations to Space Stations in the Ka-Band*, 13 FCC Rcd 1030 (¶ 1) (IB 1997) (adopting orbital assignment plan that was the “direct result” of negotiations among the affected applicants); *Assignment of Orbital Locations to Space Stations in the Ka-Band*, 11 FCC Rcd 13737 (¶1) (IB 1996); *Amendment of the Commission’s Rules to Establish Rules and Policies Pertaining to a Mobile-Satellite Service in the 1610-1626.5/2483.5-2500 MHz Frequency Bands*, 9 FCC Rcd 5936, 5954 (¶43) (1994) (Commission adopts rules “based, in part, upon partial settlement proposals filed by two groups of LEO applicants”); *Amendment to the Commission’s Rules to Establish Rules and Policies Pertaining to a Non-Voice, Non-Geostationary Mobile-Satellite Service*, 8 FCC Rcd 8450 (¶1) (1993) (Commission adopts rules proposed by “affected parties who assisted the Commission in the development of regulations through the negotiated rulemaking process”).

⁸ *Flexibility Order* at ¶ 184.

including a rational connection between the facts found and the choice made.”⁹ Where, as here, the entire record before the Commission is ignored and decisions are reached without explanation, the Commission’s action is fundamentally arbitrary and capricious.

MSV and the U.S. GPS Industry Council considered all relevant issues concerning potential interference to GPS, conducted the necessary analyses to determine feasible OOB limits, and presented the Commission with their best thinking on what is appropriate under these circumstances. All relevant stakeholders have agreed to or have indicated their support of the MSV/Industry Council Agreement limits. The Commission is currently reviewing a requirement for MSS operators to deploy E911 capability. If this occurs, MSV has indicated the intent to adopt GPS-enabled E911 capability that further merits protection under appropriate OOB limits for this service. Indeed, MSV recently filed with the Commission its application to provide MSS ATC service in the 1525-1559 MHz and 1626.5-1600.5 MHz frequency bands. In its application, MSV makes clear its ability, willingness and commitment to operate its ATC service in keeping with the OOB limits set out in the MSV/Industry Council Agreement.¹⁰

Petitioner stresses the very real consequences that could result if the Commission fails adequately to protect the various GPS-dependent services. The importance of GPS to safety-of-life, national security and the U.S. economy is well established and beyond question.¹¹ Any harmful interference to GPS will have a serious impact on countless businesses and consumers, as well as on the E-911 emergency response system.

⁹ See *Motor Vehicle Mfrs Ass'n v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43 (1983); see also *Citizens to Preserve Overton Park, Inc. v. Volpe*, 401 U.S. 402, 416 (1971) (agency action must be “based on a consideration of the relevant factors”).

¹⁰ See *Request of Mobile Satellite Ventures Subsidiary LLC for Minor Modification of L-band Space Station License (AMSC-1) for Authority to Construct and Operate an Ancillary Terrestrial Component* filed on June 4, 2003 at page 17 and footnotes 23 and 25.

¹¹ See, e.g., *Flexibility Order* at ¶ 184; *UWB Order* at 7450-51 (“GPS will be increasingly relied upon for air navigation and safety, and is a cornerstone for improving the efficiency of the air traffic system. GPS also may be used by commercial mobile radio E-911 services to enable police and fire departments to quickly locate individuals in times of emergency.”).

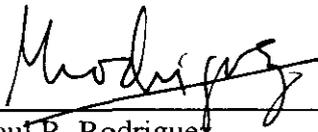
The decisions reached by the Commission in the instant proceeding will also have international ramifications. The Commission's failure to respond to this petition will set an unfortunate and misleading example for other nations worldwide looking to the U.S. for leadership on protection of the GPS service.

CONCLUSION

By adopting OOBÉ limits previously developed for a specific aviation application , the Commission ignored the unique record that clearly, and exclusively, indicated the need for more protective limits in the 1525-1559 MHz and 1626.5-1660.5 MHz bands to protect terrestrial use, especially E911, from ATC transmissions bracketing the GPS L1 band. Petitioner urges the Commission to reconsider its decision, and to adopt the appropriate OOBÉ limits jointly proposed by MSV and the U.S. GPS Industry Council.

Respectfully submitted,

U.S. GPS Industry Council

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