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March 19, 2004

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

RE: IB Docket No. 02-364

Dear Ms. Dortch:

On December 18, 2003, Globalstar, L.P. ("GLP") filed responses in this docket to certain questions posed by the International Bureau with a request for confidential treatment.

GLP is withdrawing its request for confidential treatment and submitting the text from the enclosure in the December 18, 2003, filing for the public record. A copy of the text is enclosed with this letter.

Respectfully submitted,

William D. Wallace

Enclosure

17 December 2003

Globalstar Response to November 21, 2003 Questions

In a letter dated November 21, 2003, the FCC's International Bureau requested that Globalstar, L.P., respond to a request for additional information pertaining to the Bureau's consideration of the issues raised in IB Docket No. 02-364, "Review of the Spectrum Sharing Plan Among Non-Geostationary Satellite Orbit Mobile Satellite Service Systems in the 1.6/2.4 GHz Bands."

The questions are as follows:

1. On average, how many of Globalstar's downlink satellite beams are required to provide for coverage of CONUS?

2. What is Globalstar's current average link margin in dB used to overcome propagation impairments relative to free space?

3. What is the minimum operating Eb/No (energy per bit to noise density) required by a typical Globalstar user terminal?

4. What is Globalstar's average beam overlap factor?

We are assuming that the questions all refer to the Globalstar system downlink as the first question specifically refers to downlink coverage. The answers for the uplink are different in some cases. The answers to these questions are as follows:

- The average number of downlink beams serving CONUS is 33; the average number of non-overlapping beams is 16.

- The average extra power needed to overcome propagation impairments is approximately 2 dB for the downlink.

- The operating Eb/No for the downlink is 3.5 dB.

- The beam overlap factor for the downlink is 2.0.

Based on conversations with International Bureau Staff, we assume that the Bureau has requested this information for comparison of Globalstar's current operating system with the expected 1.6/2.4 GHz MSS systems that were the subject of the Big LEO Negotiated Rulemaking Report ("NRM").

While we are providing the information requested, we believe that the information needs to be placed into context. The CDMA systems' capacity equations that use this

information developed during the NRM in 1993 were simplified, and we now know that, in some cases, the assumptions made in 1993 were incorrect. For example, the NRM assumed that the capacity equations for the Big LEO systems should use non-overlapping beams only. At that time, Globalstar was unsure of the gain of diversity combining, and we agreed to this limitation for the purpose of the equations. Now that the system has been developed and operated, we know that the assumption to limit to only non-overlapping beams is incorrect. Also, the NRM equations do not take into account satellite RF limitations or satellite DC power limitations.

Moreover, at the time of the 1993 NRM, all the MSS applicants assumed that their primary markets would be voice services. This has turned out to be, at best, partially correct for Globalstar. The critical markets for MSS services turned out to be a variety of niche services and telecommunications solutions for a diverse set of contexts. In response, Globalstar has had to diversify its services from the strictly voice market envisioned in 1993, including services for maritime, aviation, and simplex telemetry, to fulfill the need for more than voice services. Globalstar has also developed a system design for ATC and demonstrated ATC service. But, the equations used in the NRM in 1993 assumed all voice traffic.

And, while the NRM capacity equations treated all frequencies as equivalent, in practice, the frequency restrictions on the CDMA spectrum limit its usefulness to provide this variety of diverse services. The current FAA/RTCA standards for protection of the Global Navigation Satellite System (GNSS) restrict full usage of L-band frequencies to those above 1616 MHz. This requires that Globalstar must have at least two channels allocated above 1616 MHz. Globalstar has developed and is now selling a simplex telemetry service that requires 2.5 MHz of L-band for commercially-acceptable quality of service. Globalstar and Qualcomm have separately developed medium data rate products to fulfill MSS customers needs. These products use more spectrum than simple voice services, which requires Globalstar to have more spectrum available for these products and voice services.

Also, as discussed in the Globalstar Joint Comments filed in IB Docket No. 02-364, on July 11, 2003, sharing with GNSS and the Radio Astronomy Service (RAS) limits the usefulness of the lower L-band spectrum. Radio Astronomy holds a primary allocation at 1610.6 to 1613.8 MHz that Globalstar must protect through exclusion zones. The exclusion zones applicable to RAS are significantly larger for MSS aeronautical services. In order to offer service within these exclusion zones and protect RAS, Globalstar needs a spectrum allocation with at least 2.5 MHz above 1616.27 MHz. The Global Navigation Satellite System (GPS and GLONASS) operates into the lower Big LEO L-band. There are out-of-band emissions limits that restrict Globalstar's capacity in the lower L-band.

As we have described in the Globalstar "Joint Comments" filed in IB Docket No. 02-364 on July 11, 2003, the Globalstar operating system was designed in accordance to the amount of spectrum currently licensed to Globalstar, and the current Globalstar

business plans were made in accordance with our current spectrum allocation. The services that Globalstar provides were developed in response to the market and to make full use of the available spectrum. These business plans were part of the recent sale of Globalstar assets to Thermo Capital Partners, L.L.C. and its affiliates in the U.S. Bankruptcy Court for the District of Delaware.

I participated in the NRM and helped develop the capacity equations included in the NRM Report, and I have worked with Globalstar during the 10 years since the NRM. Depending upon how they are used, the capacity equations developed during the NRM may not reflect what we have learned since the NRM and how Globalstar has used the available spectrum to respond to the market for MSS.

Paul Monte
Director of Regulatory Engineering
Globalstar, L.P.