

BEFORE THE
Federal Communications Commission
 WASHINGTON, DC 20554

In the Matter of)
)
 GLOBALSTAR LICENSEE LLC)
)
 Application for Minor Modification)
 Of Space Station License)

File No. SAT-MOD-20080516-00106
 Call Sign: S2115

RECEIVED - FCC

To: International Bureau

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Federal Communications Commission
 Bureau / Office

COMMENTS AND REQUEST FOR CLARIFICATION
OF U.S. GPS INDUSTRY COUNCIL

The U.S. GPS Industry Council (“USGPSIC”), by counsel and pursuant to Section 25.154 of the Commission’s rules, 47 C.F.R. § 25.154, hereby comments on and requests clarification of the above-captioned application of Globalstar Licensee LLC (“Globalstar”), which requests modification of its authorization for operation of Ancillary Terrestrial Component (“ATC”) stations in the 1.6-2.4 GHz Mobile Satellite Service bands (“Modification Application”). Contradictory portions of Globalstar’s application require clarification to make clear that the modified ATC operations, if authorized, properly protect Radionavigation Satellite Service (“RNSS”) operations in the 1559-1610 MHz band from out-of-band emissions. As an additional protection against interference, USGPSIC also requests that Globalstar be required to apply to its ATC base stations filters which reduce emissions in the 1559-1610 MHz band.

USGPSIC first requests clarification of the out-of-band emission limits proposed by Globalstar for its ATC mobile earth terminals (“METs”). The International Bureau (“Bureau”) conditioned Globalstar’s existing ATC operations on comporment with the MET emission limits specified in Paragraph 23 of the authorization order. *See Globalstar LLC*, Order and

Authorization, 21 FCC Rcd 398, 414 (¶ 44) (IB 2006) (“*Authorization Order*”). As the Bureau observed, these limits, which were agreed to by Globalstar and the National Telecommunications and Information Administration (“NTIA”) following discussions between the parties, were stricter than those “originally proposed” by Globalstar. *Id.* at 406 (¶ 23). Globalstar, however, now proposes modifications that “will not result in any changes to the certifications and demonstration of compliance with the Commission’s rules governing ATC services set forth in Globalstar’s *original* ATC Application” *See* Attachment to Modification Application at 7 (emphasis added). Taken literally, Globalstar’s modification request can be interpreted as a proposal to operate in compliance with the less restrictive out-of-band emission limits Globalstar originally sought rather than the stricter limits agreed to with NTIA and incorporated into the license authorized by the *Authorization Order*.

To be sure, Globalstar elsewhere in its application indicates that its proposed MET operations will comply with the stricter emission limits, as evidenced by the inclusion of these limits in the Technical Exhibit accompanying the application. *See* Technical Exhibit at 19-20 (reproducing the out-of-band emission limits specified in Paragraph 23 of the *Authorization Order*), which is attached hereto as Attachment 1. Nevertheless, because of the ambiguity introduced by Globalstar’s reference to its “original” ATC application, USGPSIC believes it is incumbent on Globalstar to make clear in the record of this proceeding that the instant application proposes to operate its METs in compliance with the out-of-band emission limits imposed on Globalstar’s MET operations by the *Authorization Order*. Likewise, USGPSIC respectfully requests that the Bureau condition the grant of the instant application on Globalstar’s operating its METs consistent with the Modification Application’s Technical Exhibit at 19-20. Requiring anything less than the existing protection of RNSS will risk harmful interference to

vital Global Positioning System operations – a condition that USGPSIC will be compelled to oppose.

To meet the emission limits agreed to with NTIA and imposed by the *Authorization Order*, Globalstar must fit its METs with filters that restrict out-of-band emissions in the 1559-1610 MHz band. USGPSIC believes that filters serving this same critical purpose should also be required of Globalstar's ATC base stations. Today's commercial off-the-shelf filters should make this addition to the base stations technically and economically feasible. In the event Globalstar objects to adding base station filters that provide out-of-band emission protection in the 1559-1610 MHz band, USGPSIC believes it should have to demonstrate why such a minor requirement is not necessary.

Respectfully submitted,

U.S. GPS INDUSTRY COUNCIL

By: 

Stephen D. Baruch
Philip A. Bonomo
Leventhal Senter & Lerman PLLC
2000 K Street, NW
Suite 600
Washington, DC 20006-1809
(202) 429-8970

Raul R. Rodriguez
Of Counsel

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Its Attorneys

ATTACHMENT 1

The following user equipment (UE) power classes pertain to the different ATC technology options. Note that the ATC terminal falls within the particular power classes identified, but will not exceed a maximum transmit power of 23 dBm.

UE Power Classes for WCDMA

Power Class 3		Power Class 3bis		Power Class 4	
Power (dBm)	Tol (dB)	Power (dBm)	Tol (dB)	Power (dBm)	Tol (dB)
+24	+1/-3	23	+2/-2	+21	+2/-2

UE Power Class for TD-CDMA

UE power classes for FDD TD-CDMA	Nominal maximum output power	Tolerance
2	+24 dBm	+1 dB / -3 dB

WirelessMAN-OFDMA Power Class profiles (802.16)

A power class profile contains the class(es) of BS and Subscriber Station (SS) transmitters used in a system. A power class profile may contain transmitters from more than one class, with the profile indicating the highest power level class permitted. The power classes for BS and SS transmitters in a system are listed below:

- Class identifier Tx power (dBm)
- Class 2 20 PTx,max < 23
- Class 3 23 PTx,max < 30
- Class 4 30 PTx,max

5.3.1 ATC Antenna Facilities

The internal ATC antenna for the handheld terminal will radiate with near spherical pattern coverage and a peak gain less than 2 dBi. The optional high gain ATC antenna will be separate and detachable. General characteristics are given below.

As with the ATC base stations, Globalstar will require its ATC terminal supplier(s) to provide equipment in compliance with the applicable FCC rules governing ATC, including:

- ATC mobile terminals will meet a peak EIRP density limit of 1.0 dBW/1.25 MHz.
- ATC mobile terminals will meet an out-of channel EIRP limit of -57.1 dBW/30 kHz at the edge of Globalstar’s licensed MSS frequency assignment.

- ATC mobile terminals placed into service before 2012 will not exceed an EIRP spectral density in the 1559-1610 MHz band per the following table:

Frequency (MHz)	ATC Mobile Terminal EIRP Spectral Density	
	dBW/MHz	dBW/kHz
1559 - 1590	-90	-100
1590 - 1600	-90 to -85, linearly interpolated	-100 to -95, linearly interpolated
1600 - 1605	-85	-95
1605 - 1610	-85 to -42, linearly interpolated	-95 to -52, linearly interpolated

- ATC mobile terminals placed into service after 2012 will not exceed an EIRP spectral density in the 1559-1610 MHz band per the following table:

Frequency (MHz)	ATC Mobile Terminal EIRP Spectral Density	
	dBW/MHz	dBW/kHz
1559 - 1605	-95	-105
1605 - 1610	-95 to -47, linearly interpolated	-105 to -57, linearly interpolated

5.3.1.1 ATC Handheld Antenna

Parameter	Value
Frequency Bands	1610-2500 MHz
Polarization	Vertical
Peak Gain	<2.0 dBi
Elevation Plane Coverage	-45 to 45 degrees
Azimuth Plane Coverage	360 degrees
Size	<0.5" diameter, <1" length

5.3.1.2 ATC High Gain External Antenna

Parameter	Value
Frequency Bands	2483.5-2495 MHz
Polarization	Vertical
Peak Gain	<12.0 dBi
Elevation Plane Coverage	-45 to 45 degrees
Azimuth Plane Coverage	360 degrees
Size	<1.5" diameter, < 11" length

5.3.2 ATC Antenna Heights

The extremely small size of the mobile terminal makes FAA notification unnecessary. See Section 17.14(b) of the FCC rules.

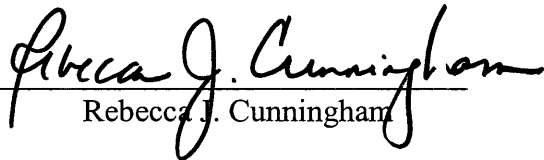
The MSS/ATC terminal is intended to be used as a handheld portable radio at roughly waist level of approximately three to four feet AGL, but will still operate if held higher or set

CERTIFICATE OF SERVICE

I, Rebecca J. Cunningham, hereby certify that a true and correct copy of the foregoing "Comments and Request for Clarification of U.S. GPS Industry Council" was sent by first-class mail, postage prepaid, on this 23rd day of June, 2008 to the following:

William F. Adler
Vice President
Legal and Regulatory Affairs
Globalstar, Inc.
461 S. Milpitas Boulevard
Milipitas, CA 95035

Mike Kozlowski
Globalstar, Inc.
461 S. Milpitas Boulevard
Milpitas, CA 95035


Rebecca J. Cunningham