Before The
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

In the Matter of	)	
	)	
Review of Part 87 of the	)	WT Docket No. 01-289
Commission's Rules Concerning	)	
The Aviation Radio Service	)	

REPLY COMMENTS OF GLOBALSTAR, L.P.

Pursuant to Section 1.415 of the Commission's Rules, Globalstar, L.P., submits the following reply comments to the initial comments filed in this docket on March 14, 2002. GLP owns and operates the international Mobile-Satellite Service ("MSS") business offered through the Globalstar™ non-geostationary satellite constellation.[1] The Globalstar system currently operates earth-to-space user links in the 1610-1626.5 MHz band and also uses the 5091-5250 MHz band for earth-to-space feeder links.

In the United States, commercial service over the Globalstar system commenced in January 2000, and there are now about 68,000 subscribers. Globalstar service is available in 109 countries through 25 gateway earth stations operated by Globalstar service providers.

---

[1] The satellite constellation is licensed to L/Q Licensee, Inc. See Loral/Qualcomm Partnership, L.P., 10 FCC Rcd 2333 (Int'l Bur. 1995) (1.6/2.4 GHz user links); L/Q Licensee, Inc., 11 FCC Rcd 16410 (Int'l Bur. 1996) (5/7 GHz feeder links). The Globalstar constellation license was assigned to LQL by its parent, Loral Qualcomm Partnership, L.P.

In the NPRM, the Commission proposed to add the 1610-1626.5 MHz and 5000-5150 MHz bands to the frequencies available for aviation services under Part 87, specifically for the Aeronautical Mobile Satellite (Route) Service ("AMS(R)S").[2] The band 1610-1626.5 MHz is currently used as the earth-to-space transmission link for mobile earth stations operating with Globalstar and other Above 1 GHz MSS systems. The Globalstar system and other MSS systems are authorized to use the 5091-5250 MHz band at gateway earth stations for earth-to-space feederlinks.[3]

Four parties supported the Commission's proposals for the 1610-1626.5 MHz and 5000-5150 MHz band segments: Aeronautical Radio, Inc. and the Air Transport Association (jointly "ARINC-ATA"), The Boeing Company and Rockwell Collins, Inc. However, these parties split on the Commission's proposal not to adopt priority and pre-emptive access requirements for either the 1.6 GHz band or 5 GHz band segment. ARINC-ATA and Rockwell Collins both recommended adoption of priority and pre-emptive access requirements for these bands, similar to those in Footnote US308 which apply in the L-band frequencies 1549.5-1558.5 MHz and 1651-1660 MHz. Boeing supported the Commission's original proposal.

As a user of both the 1.6 GHz and 5 GHz bands, GLP has a vested interest in preserving its ability to use these bands for important MSS services, including

---

[2] Notice of Proposed Rulemaking, FCC 01-303, ¶¶ 10-11 (released Oct. 16, 2001) ("NPRM").

[3] See Amendment of Parts 2, 25 and 97 of the Commission's Rules with Regard to the Mobile Satellite-Service Above 1 GHz, FCC 02-23, ¶¶ 7-9 (released Feb. 7, 2002).

aviation services, which GLP expects to provide in the relatively near future. GLP supports the Commission's proposal to add these frequencies to Part 87 but not to adopt specific priority and pre-emptive access requirements for AMS(R)S in either the 1610-1626.5 MHz or 5000-5150 MHz band. Adopting the Commission's proposal would allow use of the bands for new AMS(R)S service without injuring existing services, and, therefore, would be consistent with principles of sound spectrum management and avoidance of unnecessary, prescriptive regulation.

I. THE COMMISSION SHOULD PERMIT AMS(R)S IN THE 1610-1626.5 MHZ AND 5000-5150 MHZ BANDS.

As the Commission notes, by making the 1610-1626.5 MHz and 5000-5150 MHz bands available for AMS(R)S under Part 87, the Commission will make additional spectrum available for important Aeronautical MSS services. NPRM, ¶ 11. GLP agrees with this goal and intends to include aviation services among its array of niche services. Currently, Qualcomm Incorporated is developing in-flight cockpit and air passenger services to be delivered over the Globalstar system. The first product is in the final stages of Federal Aviation Administration ("FAA") approval.[4] Thus, adding the 1610-1626.5 MHz band to Part 87 would expedite use of this new Globalstar service for aviation safety purposes.

---

[4] See Qualcomm Incorporated Press Release, "Qualcomm Introduces Technology to Enhance Aviation Safety Services; Enables Real-Time Video and Audio Communications Between Aircraft and Ground Network" (Oct. 29, 2001) (attached as Exhibit A).

II. THERE IS NO BASIS FOR THE COMMISSION TO ADOPT PRIORITY AND PRE-EMPTIVE ACCESS REQUIREMENTS FOR AMS(R)S IN THE 1610-1626.5 MHZ AND 5000-5150 MHZ BANDS.

GLP agrees with Boeing that, as stated in the NPRM, the Commission should not adopt priority and pre-emptive access requirements for AMS(R)S in the 1610-1626.5 MHz and 5000-5150 MHz bands. ARINC-ATA and Rockwell Collins have not presented any persuasive reason to adopt a footnote similar to US308 for these bands. The L-band MSS and Above 1 GHz MSS allocations do not share a common origin or common technical and operational characteristics. Accordingly, they should not be treated identically for AMS(R)S purposes.

First, US308 was adopted for L-band MSS under circumstances that are substantially and significantly different from MSS Above 1 GHz. In the L-band MSS proceeding, the Commission decided to adopt co-primary allocations for MSS and AMS(R)S in the 1651-1660 MHz (earth-to-space) band and to authorize only one domestic L-band MSS system for use of those same frequencies.[5] Although MSS systems licensed by foreign administrations were also using those bands, the foreign systems were not authorized for U.S. domestic service. Accordingly, the providers of U.S. domestic MSS and AMS(R)S at L-band would use a common

---

[5] See Amendment of Parts 2, 22 and 25 of the Commission's Rules to Allocate Spectrum for, and to Establish Other Rules and Policies Pertaining to the use of Radio Frequencies in a Land Mobile Satellite Service, Report and Order, 2 FCC Rcd 1825, 1844-45 (1986) (spectrum allocation decision); Second Report and Order, 2 FCC Rcd 485 (1987) (licensing rules decision).

satellite system. Under such circumstances, where all providers of MSS and AMS(R)S were using one satellite system, there was a rationale for the Commission to mandate co-primary status for AMS(R)S transmissions with priority access for AMS(R)S.

The MSS Above 1 GHz systems were authorized in the 1610-1626.5 MHz band under substantially different circumstances. The Commission adopted a multiple entry policy, licensing no fewer than five competitive systems using two incompatible air interface technologies, CDMA and TDMA. In order to maximize efficient use of the spectrum, the licensed systems are required to coordinate with each other.

In this competitive environment, the Commission should allow each MSS system that desires to make capacity available for AMS(R)S determine how to meet the safety requirements of such a service within the existing technical boundaries that have been established among other services and licensed MSS systems. Otherwise, the Commission may prejudice the competitive environment that it sought to establish for Above 1 GHz MSS to the detriment of subscribers to non-aviation safety services.

Moreover, adoption of priority and pre-emptive access requirements in the 1.6 GHz and 5 GHz bands could undermine the rights and obligations of existing services in the bands. Three "Big LEO" systems still hold licenses (Globalstar, Constellation and Iridium) to use the 1610-1626.5 MHz band for earth-to-space links, and two are serving subscribers. These operators are required to, and do,

take certain measures to protect not only each other, but also the Radio-Astronomy Service and the Radio-Navigation Satellite Service. Also, Globalstar and ICO, share the 5 GHz feeder link frequencies under a coordination agreement that prevents harmful interference. Adoption of generic priority and pre-emptive access requirements could jeopardize the ability of operating systems to continue to meet the interservice protection requirements of the Commission's rules (47 C.F.R. § 25.213) and the coordination agreements established among these MSS systems.[6]

Not adopting priority and pre-emptive access requirements will not prejudice providers of AMS(R)S. As Boeing points out: "Intranetwork priority and preemption can already be ensured through other means, such as FAA regulations, RTCA standards, International Telecommunication Union ("ITU") Radio Regulations, or through contractual arrangements."[7]

---

[6] Globalstar terminals are also designed to take into account the secondary space-to-earth link in the 1613.8-1626.5 MHz band. Adopting some form of priority and pre-emptive access requirements for the 1.6 GHz band without exempting the secondary downlink could require redesign of these handsets at significant costs to the system and disruption to existing service. See L/Q Licensee, Inc., "Petition to Deny or To Grant with Conditions," File No. 18-SAT-ML-97, Application of Motorola Satellite Services, Inc., to modify its Above 1 GHz MSS license to provide AMS(R)S.

[7] Boeing Comments, at 5-6 (footnotes omitted). However, the Commission should not insert an allocation for AMS(R)S in the 1990-2025 MHz band, which is also allocated for earth-to-space MSS user links in the United States, or add that band to Part 87, as Boeing suggests. Id. Unlike the 1.6 GHz and 5 GHz bands, there is currently no allocation in the U.S. or internationally for Aeronautical Radionavigation in the 1990-2025 MHz band. Accordingly, the only aeronautical services that can be provided in that band are those authorized under an MSS license.

As Boeing notes, any system that proposes an AMS(R)S service for in-flight navigation would be required to meet the necessary safety standards established by the FAA. The FAA is the primary agency with responsibility for such standards. It is not necessary for the Commission to step into this role. Indeed, adoption of generic priority and pre-emptive access requirements, such as US308, could hamstring satellite operators in designing their systems to meet these requirements. The Commission should allow potential service providers the flexibility to negotiate such contracts with the aviation industry and FAA and to decide how to meet aviation safety requirements without prejudicing other services in these bands. An overlay of priority and pre-emptive access is likely to impose a hardship with no countervailing benefit to the aviation community.

Finally, assuming that the Commission adopts its proposal, its policies and precedent mandate that it must do so within the existing framework for these MSS bands. AMS(R)S service authorized under Part 87 in the 1.6 GHz or 5 GHz frequencies would very likely be offered over a commercial satellite system authorized under Part 25. Accordingly, the Commission should generally leave the technical requirements for aircraft earth stations in these bands flexible so that licensees of the earth stations can operate consistently with the technical parameters for satellite systems previously authorized in these bands under Part 25.

Systems such as Globalstar were designed to meet the known requirements of the interference environment in the 1610-1626.5 MHz and 5000-5150 MHz

bands. Imposing new standards could have a deleterious impact on the ability of the system to function in the existing environment. Where interference concerns are at issue, it is well-settled Commission policy that applications filed after applications which are already cut-off cannot be authorized other than on an unprotected basis with respect to the previously-proposed or licensed stations.[8] Accordingly, AMS(R)S station licensees should not be offered de facto super-primary status simply by obtaining an authorization for AMS(R)S.

---

[8] See Preparation for International Telecommunication Union World Radio Communications Conferences, 10 FCC Rcd 12783, ¶ 55 (1995) ("all proposed allocations are subject to the fundamental principle that all existing co-primary spectrum users are protected from harmful interference that may be caused by later-in-time co-primary users"); Amendment of Parts 21 and 74 of the Commission's Rules with regard to Filing Procedures in the Multipoint Distribution Service and in the Instructional Television Fixed Service, 10 FCC Rcd 13821, ¶ 41 (1995) ("Among coequal services, we have traditionally used the 'first in time, first in right' approach for appropriating interference protection rights"); Midnight Sun Broadcasting Co., 11 FCC 1119 (1947) (proposed station must protect operation of previously-licensed station).

III. CONCLUSION

For the reasons set forth above, GLP urges the Commission to include 1610-1626.5 MHz and 5000-5150 MHz in the bands available for AMS(R)S aviation earth stations in Part 87, but not to adopt priority and pre-emptive access requirements for these band segments.

Respectfully submitted,

GLOBALSTAR, L.P.

William D. Wallace

CROWELL & MORING LLP
1001 Pennsylvania Avenue, N.W.
Washington D.C. 20004
(202) 624-2500

Its Attorneys

Of Counsel:

William F. Adler
Vice President, Legal and
Regulatory Affairs
Globalstar, L.P.
3200 Zanker Road
San Jose, CA 95134
(408) 933-4401

Date: April 15, 2002

EXHIBIT A

Press Release >>

Press Releases 1999 / Press Releases 2000 / Press Releases 2001 /

QUALCOMM Incorporated
Christine Trimble,
Corporate Public Relations
858/651-3628
Fax 858/651-2590
ctrimble@qualcomm.com

or

Julie Cunningham,
Investor Relations
858/658-4224
Fax 858/651-9303
jcunningham@qualcomm.com

Qualcomm successfully demonstrated a set of aviation safety solutions using the Globalstar Satellite Communications System and onboard hardware incorporating CDMA technology.

SAN DIEGO, CA, October 29, 2001 - See the Qualcomm Press release.

REMOTE COMMU
At Baja 2000, the wor non-stop point-to-poin Globalstar satellite ph used by SCORE race event staff, by all med Airvac teams, and by race teams themselve Globalstar's private, r fast communications SCORE relay up-to-th race times and updat allowed race teams to and chase cars to dia from the middle of the course.

READ AB
GLOBALS
MOBILE SOL

Click here for archived news available from Corporate News on the Net

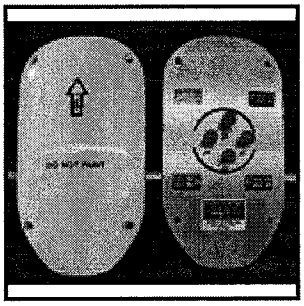
Click here for QCOM stock quote Click here for QCOM historical charting

BW0710 OCT 29,2001 13:32 PACIFIC 16:32 EASTERN

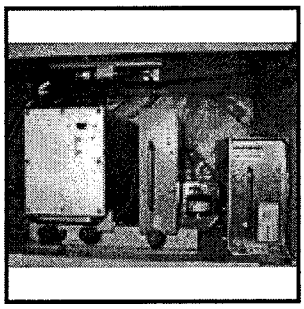
(BW)(CA-QUALCOMM-INCORPORATED)(QCOM) QUALCOMM Introduces Technology to Enhance Aviation Safety Services; Enables Real-Time Video and Audio Communications Between Aircraft and Ground Network

Business Editors & High-Tech Writers

NOTE TO MEDIA: Photos are available in a Smart News Release (TM) on Business Wire's Home Page at www.businesswire.com and at www.newstream.com



To download high-resolution, print-ready JPEG images, click on the thumbnail image above.
WARNING: these images are very large (800K+)
Click here for caption



To download high-resolution, print-ready JPEG images, click on the thumbnail image above.
WARNING: these images are very large (800K+)
Click here for caption

SAN DIEGO--(BUSINESS WIRE)--Oct. 29, 2001--QUALCOMM Incorporated (Nasdaq: QCOM), pioneer and world leader of Code Division Multiple Access (CDMA) digital wireless technology, today successfully demonstrated a set of aviation safety solutions using the Globalstar(TM) Satellite Communications System and onboard hardware incorporating CDMA technology. The MDSS Globalstar Communications System (MDSS), developed by QUALCOMM through the Globalstar System, offers unique capabilities for enabling aviation safety services by providing high-speed (up to 128 kbps), high-quality digital voice and data communications.

The Globalstar System's two-way communications capability allows access to and from ground services, private networks, Web sites and e-mail. Through the Globalstar pipeline, QUALCOMM's technology can support potential aviation safety applications, including real-time video and audio monitoring of aircraft cabins and cockpits; an Air Traffic Control service to alert aviation authorities of emergency situations, allowing ground support teams to rapidly assess and respond to crisis situations; remote control of onboard aircraft cameras; transmission of real-time aircraft flight data to the ground; on-the-ground access to and possible automated real-time monitoring of flight data and cockpit voice recorders; dedicated voice communications for Air Marshals to the cockpit and ground; in-flight emergency safety and medical services; and back-up transponders with aircraft identification, altitude, speed and location information.

"This demonstration affirms QUALCOMM's commitment to timely and useful technological innovation," said Dr. Irwin Mark

Jacobs, chairman and CEO, QUALCOMM Incorporated. "QUALCOMM began working on this technology for consumer use approximately two years ago. It became apparent that the critical need was for a solution to enhance aviation security, safety and passenger care. The technology, equipment and infrastructure are available today and it is possible to develop a wide range of applications - from remote diagnostics for medical usage to streaming video of cockpit and cabin activity."

"It is the broad reach of the Globalstar System and CDMA's efficient use of bandwidth that enable these high-speed data applications to be developed," said Scott Becker, senior vice president and general manager of QUALCOMM Wireless Systems. "The MDSS is a cost-effective, easily installed solution for delivering significant data bandwidth to aircraft."

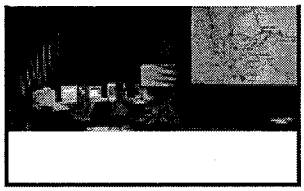
In the final stages of Federal Aviation Administration (FAA) certification, the MDSS features include:

-- Up to 128 kbps packet data now with extension to 600 kbps under study
-- Voice, data and video capabilities
-- Small, lightweight (less than 50 pounds)
-- FAA-approved antenna suitable for all aircraft (9.5"L x 3.75"W x 1.7"H and less than two pounds)
-- Rugged design allows for operation inside and outside of pressurized vessel
-- Meets all existing Federal Communications Commission requirements

Today's flight demonstration showcased the MDSS installed and integrated on a Challenger 604 with an FAA Supplemental Type Certification (STC) pending. High-speed, bi-directional voice and data applications demonstrated included live video streaming from cabin and cockpit to ground, video of cabin in co-pilot display, position location of aircraft, real-time Doppler weather downloaded on co-pilot display, e-mail, instant messaging and voice calls.

The Globalstar System has continued to operate successfully since its commercial launch in 1999. The Globalstar System is made up of 48 low-earth-orbiting satellites and a network of ground stations. The system provides low-cost mobile telephony and data communications services across vast reaches of the globe that are currently underserved or unserved by terrestrial communications systems, such as cellular and wireline phone systems. Globalstar offers the highest data rate (9600 bps per channel) of any mobile satellite telephone system, and is the only satellite-based system to use QUALCOMM's CDMA technology, assuring high signal clarity and security.

QUALCOMM Incorporated (www.qualcomm.com) is a leader in developing and delivering innovative digital wireless communications products and services based on the Company's



To download high-resolution, print-ready JPEG images, click on the thumbnail image above.
WARNING: these images are very large (800K+)
Click here for caption

To download high-resolution, print-ready JPEG images, click on the thumbnail image above.
WARNING: these images are very large (800K+)
Click here for caption

SMART NEWS HELP

Additional Multimedia Content available through Newstream.com

photo preview

Asset Caption: Pilot in cockpit, view of important flight information

photo preview

Asset Caption: Medium Data rate SATCOM System (MDSS) Equipment

photo preview

Asset Caption: Quad Patch

CDMA digital technology. The Company's business areas include CDMA chipsets and system software; technology licensing; the Binary Runtime Environment for Wireless(TM) (BREW(TM)) applications platform; Eudora(R) e-mail software; digital cinema systems; and satellite-based systems including portions of the Globalstar(TM) system and wireless fleet management systems, OmniTRACS(R) and OmniExpress(R). QUALCOMM owns patents that are essential to all of the CDMA wireless telecommunications standards that have been adopted or proposed for adoption by standards-setting bodies worldwide. QUALCOMM has licensed its essential CDMA patent portfolio to more than 100 telecommunications equipment manufacturers worldwide. Headquartered in San Diego, Calif., QUALCOMM is included in the S&P 500 Index and is a 2001 FORTUNE 500(R) company traded on The Nasdaq Stock Market(R) under the ticker symbol QCOM.

Antenna; (9.5L x 3.75W x 1.7H inches) weighs less than 2 pounds

photo preview

Asset Caption: MDSS Ground Operations Monitoring of Aircraft Activity

logo preview

Asset Caption: Web ready logo

full text preview

Asset Caption: Press release
Asset Description: Word document

Except for the historical information contained herein, this news release contains forward-looking statements (including without limitation, express and/or implied statements regarding the availability of applications for the MDSS and the potential for FAA Certification) that are subject to risks and uncertainties, including the Company's ability to successfully design and develop MDSS equipment, the extent to which applications are developed for MDSS, the extent and speed to which MDSS is deployed, change in economic conditions of the various markets the Company serves, as well as the other risks detailed from time to time in the Company's SEC reports, including the report on Form 10-K for the year ended September 24, 2000, and most recent Form 10-Q.

QUALCOMM, OmniTRACS, OmniExpress and Eudora are registered trademarks of QUALCOMM Incorporated. BREW is a trademark of QUALCOMM Incorporated. Globalstar is a trademark of Loral QUALCOMM Satellite Services, Incorporated. All other trademarks are the property of their respective owners.

Note: Photos are available at URL: http://www.businesswire.com/cgi-bin/photo.cgi?pw.102901/bb10 http://www.businesswire.com/cgi-bin/photo.cgi?pw.102901/bb10a http://www.businesswire.com/cgi-bin/photo.cgi?pw.102901/bb10b http://www.businesswire.com/cgi-bin/photo.cgi?pw.102901/bb10c

--30--ts/sd* js/sd

CONTACT: QUALCOMM Incorporated
Christine Trimble, Corporate Public Relations
858/651-3628, Fax 858/651-2590
ctrimble@qualcomm.com
or
Julie Cunningham, Investor Relations
858/658-4224, Fax 858/651-9303
jcunningham@qualcomm.com

KEYWORD: CALIFORNIA
INDUSTRY KEYWORD: PHOTO PHOTOWIRE TELECOMMUNICATIONS AIRLINES COMPUTERS/ELECTRONICS SOFTWARE
SOURCE: QUALCOMM Incorporated
PHOTO: bb10, bb10a, bb10b, bb10c

©2002

CERTIFICATE OF SERVICE

I, William D. Wallace, hereby certify that I have on this 15th day of April, 2002, caused to be served true and correct copies of the foregoing "Reply Comments of Globalstar, L.P." upon the following parties via first-class United States mail, postage prepaid:

Jeffrey Tobias
Policy and Rules Branch
Public Safety and Private Wireless Division
Wireless Telecommunications Bureau
Federal Communications Commission
445 Twelfth Street, S.W.
Washington, D.C. 20554

Ghassan Khalek
Policy and Rules Branch
Public Safety and Private Wireless Division
Wireless Telecommunications Bureau
Federal Communications Commission
445 Twelfth Street, S.W.
Washington, D.C. 20554

John Bartlett
C. Heather Walker
Wiley Rein & Fielding LLP
1776 K Street, N.W.
Washington, DC 20006-2304

John C. Smith
Secretary and General Counsel
ARINC Incorporated
2551 Riva Road
Annapolis, MD 21401

James L. Casey
Vice President and Deputy General Counsel
Air Transport Association of America
1301 Pennsylvania Avenue, N.W.
Washington, D.C. 20004-1707

Charles A. Cooper
President
AFCCE
P.O. Box 19333, 20th Street Station
Washington, D.C. 20036-0333

David A. Nall
Bruce A. Olcott
Aspa Paroutsas
Squire, Sanders & Dempsey, L.L.P.
1201 Pennsylvania Avenue, NW.
P.O. Box 407
Washington, D.C. 20044-0407

Sheldon R. Bentley
Senior Manager
Spectrum Management and Radio Services
Shared Services Group
The Boeing Company
P.O. Box 3707, MC 3U-AJ
Seattle, WA 98124-2207

Dane E. Ericksen
Hammett & Edison, Inc.
Box 280068
San Francisco, CA 94128

William K. Coulter, Esq.
Coudert Brothers LLP
1627 I Street, N.W.
Washington, D.C. 20006

Linda C. Sadler
Director – Governmental and Regulatory Affairs
Rockwell Collins, Inc.
1300 Wilson Boulevard, Suite 200
Arlington, VA 22209

Stephen L. Goodman
Halprin, Temple, Goodman & Maher
Suite 950, North Tower
555 12th Street, N.W.
Washington, D.C. 20004

John Macnab
General Manager
UPS Aviation Technologies
P.O. Box 13549
Salem, OR 97309

William D. Wallace