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Before The
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF SECRETARY

In re Application of)
)
L/Q LICENSEE, INC.)
)
For Authority to Construct, Launch and)
Operate GLOBALSTAR™, a Low-Earth)
Orbiting Satellite System to Provide)
Mobile-Satellite Services)
in the 1.6/2.4 GHz Bands)
_____)

88-SAT-WAIV-96

File Nos. 19-DSS-P-91(48)
and CSS-91-014

Received

MAR 11 1996

Satellite Policy Branch
International Bureau

REQUEST FOR WAIVER

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SUMMARY

L/Q Licensee, Inc. ("LQL"), a wholly-owned subsidiary of Loral/QUALCOMM Partnership, L.P. ("LQP"), hereby requests a waiver of Section 2.106 of the Commission's Rules for authority to construct, launch and operate Globalstar™, a low-Earth orbit satellite telecommunications system ("the Globalstar system"), with feeder links in the 5091-5250 MHz (Earth-to-space) and 6875-7055 MHz (space-to-Earth) bands. LQL requests that it be authorized to use frequencies consistent with the recently modified International Table of Frequency Allocations adopted at the 1995 World Radiocommunication Conference ("WRC-95").

On January 31, 1995, the International Bureau granted LQP a license to construct, launch, and operate the Globalstar system to provide MSS in the 1.6/2.4 GHz bands. However, final action on LQP's feeder link request was deferred until after WRC-95. With the support of the United States, WRC-95 adopted allocations for non-geostationary MSS feeder links at 5091-5250 MHz (Earth-to-space) and at 6700-7075 MHz (space-to-Earth). The U.S. Table of Frequency Allocations has not yet been amended to conform to the international table, and a proceeding to adopt such allocations may take substantial time.

LQL's request for waiver is consistent with the Commission's standard for waivers of Section 2.106 and with the domestic Big LEO proceedings. The Bureau deferred assignment of feeder links because there was insufficient spectrum available for such assignments prior to WRC-95. Now, the international community has recognized that an allocation for NGSO MSS feeder links in the 5 GHz and 7 GHz bands is feasible and that adequate spectrum is available for

sharing with existing services. The interests of existing services in these bands will be protected because LQL will coordinate in accordance with ITU and United States procedures.

Grant of this waiver request will serve the public interest by enabling the rapid development of a global Big LEO system which will bring new global, mobile communications services to subscribers in the United States. The Globalstar system is proceeding on an expeditious schedule toward satellite launches in the second half of 1997 and full constellation operation by January 1, 1999. Grant of this request will not only complete the licensing process in the United States, it will also facilitate obtaining "landing rights" by Globalstar service providers in multiple countries to help ensure that the appropriate authorizations are in place by the time the system is operational. Moreover, assignment of these feeder links to the Globalstar system will permit use of spectrum which would be available internationally, and thereby, enable the Globalstar system to provide U.S. subscribers with global coverage as required by the Commission's Rules.

In light of the Commission's policies to expedite implementation of U.S.-licensed Big LEO systems and to bring new services to the public at the earliest possible time, LQL's request for waiver of Section 2.106 should be granted, and it should be authorized to construct, launch and operate the Globalstar space segment with feeder links in the 5091-5250 MHz (Earth-to-space) and 6875-7055 MHz (space-to-Earth) bands in accordance with the international allocations adopted at WRC-95.

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in the 1.6/2.4 GHz Bands)	
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REQUEST FOR WAIVER

L/Q Licensee, Inc. ("LQL"), a wholly-owned subsidiary of Loral/QUALCOMM Partnership, L.P. ("LQP"), hereby requests a waiver of the U.S. Table of Frequency Allocations (47 C.F.R. § 2.106) for authority to construct, launch and operate its MSS Above 1 GHz system with feeder links in the 5091-5250 MHz (Earth-to-space) and 6875-7055 MHz (space-to-Earth) bands. Grant of this waiver will permit LQL to operate feeder links consistent with the recently modified International Table of Frequency Allocations adopted at the 1995 World Radiocommunication Conference ("WRC-95").¹

LQL requests that this waiver be granted on an expedited basis to permit a prompt, unconditional grant of LQL's application to construct, launch and operate

¹ Consistent with the Order and Authorization, 10 FCC Rcd 2333 (Int'l Bur. 1995), issued to LQP, this waiver is sought in connection with assignment of feeder link frequencies for the space stations. Applications for gateway earth stations for communications with the space stations will be filed at a later date.

Globalstar™, a low-Earth orbit satellite telecommunications system ("the Globalstar system"), with the requested feeder link frequencies and thereby facilitate delivery of new and innovative services to United States markets and the process of obtaining authorizations for Globalstar services throughout the world.

I. BACKGROUND

On January 31, 1995, the International Bureau granted LQP a license to construct, launch, and operate the space segment for the Globalstar system to provide Mobile-Satellite Service ("MSS") in the 1.6/2.4 GHz bands.² See Order and Authorization, 10 FCC Rcd 2333 (Int'l Bur. 1995). While LQP received construction, launch and operation authority for specific frequencies for its service links, final action on LQP's feeder link request was deferred until after WRC-95. See Big LEO Report and Order, 9 FCC Rcd 5936, 5998 (1994), modified on recon., FCC 96-54 (released Feb. 15, 1996). However, the International Bureau authorized LQP to construct at its own risk a mobile satellite system capable of operating with feeder links in the 5025-5225 (Earth-to-space) and 6875-7075 MHz (space-to-Earth) bands.³

² The Globalstar space segment license was issued to LQP; pursuant to grant of pro forma assignment dated September 15, 1995 (File No. 148-SAT-AL-95), the license was assigned to LQL, a wholly-owned corporate subsidiary of LQP.

³ On February 14, 1995, LQL filed a request that the Commission modify Globalstar's Section 319(d) waiver to reflect the recently-adopted international allocation for nongeostationary MSS feeder uplinks at 5091-5250 MHz.

Currently, the 5000-5250 MHz band is allocated on a primary basis to the Aeronautical Radio-Navigation Service (ARNS) in the U.S. Table of Frequency Allocations. The 6875-7075 MHz band is allocated to Fixed and Mobile terrestrial services and the Fixed-Satellite Service (Earth-to-space).

As the Commission is aware, WRC-95, with the support of the United States, adopted an allocation for non-geostationary MSS ("NGSO MSS") feeder links at 5091-5250 MHz (Earth-to-space). See Final Acts of the World Radiocommunication Conference, Pt. I, at 153 & ADD S5.444A, ADD S5.447A (Nov. 17, 1995). The member nations of the ITU also adopted an allocation for NGSO MSS feeder links in the space-to-Earth direction at 6700-7075 MHz. See id., at 158 & ADD S5.458D.

The Commission generally amends the Table of Frequency Allocations through a rulemaking to conform to the international allocations which the U.S. has supported in ITU proceedings. In the case of the 5/7 GHz bands, the United States recommended and supported at WRC-95 the international allocations for NGSO MSS feeder links.⁴ However, the Commission has not yet initiated a proceeding to amend the U.S. Table of Frequency Allocations to conform to the international table, and such a proceeding may take substantial time.

Meanwhile, consistent with the Commission's goals for the new Big LEO MSS service, LQL is proceeding on an expeditious schedule toward satellite launches in the second half of 1997 and full constellation operation by January 1,

⁴ See United States Proposals for WRC-95, at 165-69, 170-72 (July 1995).

1999. See Big LEO Report and Order, 9 FCC Rcd at 5953 (noting statutory and public interest objective "of bringing new and innovative services to the public at the earliest possible time"). Accordingly, concurrently with this request, LQL is filing an application to modify the 1995 Order and Authorization for unconditional assignment of feeder links at 5091-5250 MHz (Earth-to-space) and 6875-7055 MHz (space-to-Earth). To enable this assignment of feeder links in light of the Commission's policy to expedite implementation of U.S.-licensed Big LEO systems, LQL is requesting this waiver of the U.S. Table of Frequency Allocations to use the 5091-5250 (Earth-to-space) and 6875-7055 MHz (space-to-Earth) bands in accordance with the international allocations adopted at WRC-95.

II. GRANT OF LQL'S REQUESTED WAIVER IS CONSISTENT WITH THE PUBLIC INTEREST AND WITH COMMISSION PRECEDENT.

The Commission may grant a waiver of its Rules when such grant would not undermine the policy of the rule sought to be waived and would serve the public interest. See WAIT Radio v. FCC, 418 F.2d 1153, 1157 (D.C. Cir. 1969). In the context of another new satellite service, the Commission granted a waiver of a footnote in the U.S. Table in order to assign feeder links, stating that "[w]e have an obligation to seek out the public interest in particular, individualized cases when, for example, an applicant seeking a waiver of a rule proposes a new service that will not undermine the policy served by the rule." Hughes Communications Mobile Satellite, Inc., 4 FCC Rcd 6041, 6051 (1989) (footnote and subsequent history omitted). LQL's request for waiver fully complies with the

WAIT Radio standard and is consistent with rationale of Hughes.⁵ As shown below, grant of LQL's requested waiver will be in full accord with the Commission's domestic Big LEO proceedings and the ITU's international spectrum allocations, will not adversely affect existing U.S. allocations in these bands, and will serve the public interest by enabling rapid development of a global Big LEO system.

A. Both the Commission and ITU Have Supported Use of the 5/7 GHz Bands for NGSO MSS Feeder Links.

Prior to WRC-95, the Commission found that there was insufficient spectrum available in the United States for assignment of feeder link frequencies to the pending Big LEO MSS systems. See Big LEO Report and Order, 9 FCC Rcd at 5998. The International Bureau thus deferred assignment of feeder links to all three licensed MSS Above 1 GHz systems until additional spectrum became available for feeder links. See Loral/QUALCOMM Partnership, L.P., 10 FCC Rcd at 2335; TRW Inc., 10 FCC Rcd 2263, 2265 (Int'l Bur. 1995); Motorola Satellite Communications, Inc., 10 FCC Rcd 2268, 2271 (Int'l Bur. 1995). Although ample spectrum has now been made available internationally for NGSO MSS feeder

⁵ Grant of this waiver to LQL is also consistent with grant of the waiver in Nevada Bell, 5 FCC Rcd 5661, 5662 (1990).

links, the Commission has yet to adopt new allocations to meet the identified need.⁶

The Globalstar constellation would operate with Earth-to-space feeder links in the 5091-5250 MHz band. This spectrum is currently allocated for ARNS; however, recognizing that this service does not yet make substantial use of this band, the Commission and the United States supported its use for NGSO MSS feeder uplinks.⁷ Similarly, the 6875-7075 MHz band is lightly used for FSS uplinks and can be shared with NGSO MSS feeder downlinks.⁸ The availability of these two bands for use by the new NGSO MSS service is explicitly recognized by the allocations adopted at WRC-95.

B. Grant of the Requested Waiver Will Not Adversely Affect Existing Services in the 5 GHz and 7 GHz Allocations.

The interests of existing services in 5 GHz and 7 GHz bands will be protected pursuant to the conditions on the WRC-95 allocations and Commission and ITU requirements for the NGSO MSS service. Prior to adoption of the international allocation, LQP had demonstrated to the Commission that co-

⁶ The allocation for NGSO MSS feeder links in the 20/30 GHz band is the subject of a "Third Notice of Proposed Rule Making," FCC 95-287, released July 28, 1995. TRW and Motorola have requested feeder links in these bands.

⁷ See Report on Preparation for ITU World Radiocommunication Conferences, 10 RR 2d 12783, 12802 (1995); see also Report of the Conference Preparatory Meeting for WRC-95, § 3.7.1.1, at 63 (April 1995).

⁸ See LQP's Comments in CC Docket No. 92-166, Tech. App., Vol. I, at 44 (filed May 5, 1994).

primary use of the 5 GHz band for NGSO MSS feeder uplinks and ARNS is feasible, and that sufficient spectrum is available in the band to accommodate both ARNS and MSS feeder links.⁹ The international allocation recognizes the feasibility of using the band for both NGSO MSS feeder links and ARNS.

Moreover, Globalstar has worked with and will continue to cooperate with the Federal Aviation Administration to ensure compatible operations of its MSS system and any ARNS system in the 5 GHz band. Similarly, Globalstar will coordinate with foreign ARNS systems through established ITU procedures.

Furthermore, the international allocation for NGSO MSS feeder links includes conditions to ensure sufficient spectrum is available for the anticipated development of ARNS. With respect to scope, the allocation for the 5091-5250 MHz band is limited to feeder links for non-geostationary MSS systems.¹⁰ See Final Acts, at ADD S5.444A, ADD S5.447A. With respect to timing, no MSS system may be assigned feeder links in the 5091-5150 MHz band after January 1, 2008, and, NGSO MSS feeder links become secondary in those frequencies after January 1, 2010. See Final Acts, at ADD S5.444A.

⁹ See "Interference Assessment of MSS Gateway Uplink Transmissions Relative to MLS Airborne Users," prepared by Sat-Tech Systems, LQP Reply Comments in CC Docket No. 92-166, Tech. App., Att. 4 (June 20, 1994).

¹⁰ Although other Big LEO proponents have indicated plans to request feeder links at 5 GHz and/or 7 GHz, LQL is the only currently licensed U.S. MSS system proposing to use these C-band feeder links. The Commission recently stated that it would place limits on attempts by Big LEO applicants to request feeder link assignments in bands for which they had not previously sought authorization. See Memorandum Opinion and Order, FCC 96-54, ¶ 42 (released Feb. 15, 1996).

Thus, given the small number of potential users of the 5 GHz band for MSS feeder links, the limitations on the scope of the international allocation, and the recognized feasibility of sharing, grant of the requested waiver to operate feeder uplinks at 5091-5250 MHz will not adversely impact the allocation to ARNS in the United States. LQL's feeder link proposal will, in fact, promote Commission goals by putting to use spectrum in the 5000-5250 MHz band which is currently underutilized, and, therefore, ideally suited for the new MSS service.¹¹

Like the 5 GHz allocation, use of the 7 GHz band for MSS feeder downlinks in the space-to-Earth direction has been recognized as feasible and compatible with existing broadcast and cable TV auxiliary services, terrestrial fixed microwave services and the Fixed-Satellite Service (Earth-to-Space).¹² The allocation at 7 GHz by WRC-95 demonstrates that the international community has confirmed the feasibility of such NGSO MSS feeder link operations. Again, as required, LQL will coordinate with the existing services located within its feeder

¹¹ Grant of this request and assignment of feeder links to the Globalstar constellation should not be affected by any action that the Commission ultimately may take on the Apple Computer and Wireless Information Networks Forum petitions for rulemaking for an allocation at 5 GHz for unlicensed high speed wireless data services (RM-8648, RM-8653). The United States actively pursued, and obtained, an international allocation for NGSO MSS feeder links in the 5000-5250 MHz band at WRC-95. See United States Proposals for WRC-95, at 165-169 (July 1995). LQL's feeder uplink plans are consistent with that allocation. The decisions by the U.S. and international community on how best to use this band should not be vitiated by these requests.

¹² See LQP Reply Comments, in CC Docket No. 92-166, at 70-71 (filed June 20, 1994); Report of Conference Preparatory Meeting, *supra*, § 3.2, at 46; "Coordination of LEO Satellites with Terrestrial Users," LQP Comments in CC Docket No. 92-166, prepared by Comsearch, Tech. App., Att. 12 (May 5, 1994).

downlink frequencies pursuant to the Commission's Rules and established ITU procedures.

C. Grant of the Requested Waiver Will Serve the Public Interest.

Grant of LQL's requested waiver will serve the public interest by permitting development of the Globalstar constellation on its current expeditious schedule. The Commission has already recognized the public interest benefits inherent in the new services to be provided by Big LEO systems, see Big LEO Report and Order, 9 FCC Rcd at 5940, and the benefits of bringing these services to the market quickly, see id., at 5940-41. After it commences operations, the Globalstar system will have the capability to provide high quality, global mobile communications to subscribers in the United States and in foreign countries. Not only is assignment of feeder links on an expedited basis through a waiver of the U.S. Table consistent with these goals, the development of another satellite service has previously been grounds for grant of a similar waiver for the purpose of assigning feeder links to an MSS system. See Hughes Communications Mobile Satellite, Inc., 4 FCC Rcd at 6052.

Grant of LQL's feeder link application and waiver is also consistent with the Commission's objectives to issue Big LEO licenses as quickly as possible. See Big LEO Report and Order, 9 FCC Rcd at 5953. Assignment of these bands to the Globalstar constellation will enable LQL to implement the system rapidly, with multiple, low-cost gateway earth stations which will permit the service to be

utilized for telecommunications infrastructures and for extension of existing terrestrial and wireless networks. The waiver will permit the Globalstar system to move forward with certainty as it and its service providers seek authorizations for gateway earth stations and interconnection agreements internationally, and will help ensure that deployment of the Globalstar system and delivery of the new services to the public is accomplished without delay.

Furthermore, assignment of these bands for Globalstar feeder links is necessary to ensure the full benefits of the Commission's policies for Big LEO systems. Globalstar will provide global coverage, as required by the Commission Rules (47 C.F.R. § 25.143(b)(2)(ii)), and requires feeder link spectrum, such as the 5 GHz and 7 GHz bands, which is available on a global basis in all three ITU regions. Thus, the most efficient and effective use of the 5091-5250 MHz and 6875-7055 MHz bands is for feeder links for a global, NGSO MSS system. See Hughes Communications Mobile Satellite Inc., 4 FCC Rcd at 6052 (assignment of feeder links to AMSC consistent with Canadian system would foster intergovernmental cooperation in implementation of new service); cf. Memorandum Opinion and Order, FCC 96-54, ¶ 53 (released Feb. 15, 1996) (Commission plans to recommend "complementary" band plans for global MSS systems in foreign countries). It should also be noted that service providers for the Globalstar system must obtain "landing rights" in each country and authority to construct and operate gateway earth stations using the system's feeder link frequencies; grant of this request will facilitate these on-going proceedings and

help ensure that the appropriate authorizations are in place by the time the system is operational.

Grant of this request will not prejudice other Big LEO systems. As the Commission is aware, Globalstar is the only currently licensed U.S. Big LEO system proposing to use the 5 GHz and 7 GHz bands for its feeder links. If other U.S. or foreign systems are authorized to use these bands, LQL will comply with the Commission's and ITU's coordination procedures. These processes ensure that the U.S. public achieves the benefits of this available spectrum and permit assignment of feeder links to LQL on an expedited basis without compromising the Commission's ability to evaluate other NGSO MSS systems.

The Commission has already determined that delay in licensing Big LEO systems is "unacceptable." Big LEO Report and Order, 9 FCC Rcd at 6019. As the Commission recognized, delay may not only impair international development of Big LEO services, it may also have an adverse impact on the ability of systems to attract and obtain financial investments. Id. Expeditious grant of this waiver request and LQL's modification application would avoid these secondary effects, as well as ensure the Commission's primary goal of "bringing new and innovative services to the public at the earliest possible time." Id., at 5953.

III. CONCLUSION

Accordingly, for the reasons set forth above, LQL requests a waiver of the U.S. Table of Frequency Allocations (47 C.F.R. § 2.106) for assignment of the 5091-5250 (Earth-to-space) and 6875-7055 MHz (space-to-Earth) bands to its space segment for use as NGSO MSS feeder links consistent with the international allocations adopted at WRC-95.

Respectfully submitted,

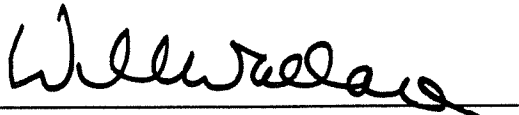
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CERTIFICATE OF SERVICE

I, William D. Wallace, hereby certify that I have on this 7th day of March 1996, caused copies of the foregoing Request for Waiver to be delivered via hand delivery (indicated with *) or by U.S. mail, postage prepaid, to the following:

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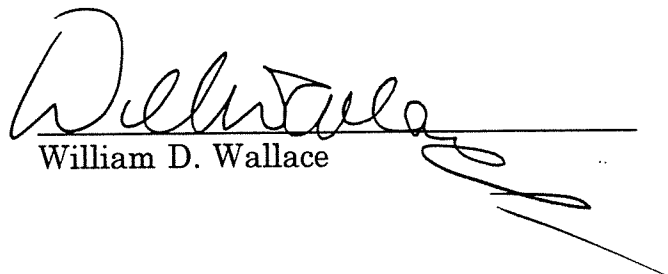
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