

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matter of)	
)	
Modification of Licenses held by)	File Nos.
)	
Iridium Constellation, LLC and)	SAT-MS-20030515-00089
Iridium, US LP)	SES-MS-20030515-00666
)	
For a Mobile Satellite System in the 1.6 GHz)	
Frequency Band)	

ORDER

Adopted: October 7, 2003

Released: October 7, 2003

By the Chief, Satellite Division, International Bureau:

I. INTRODUCTION

1. In this Order, we modify the licenses of Iridium Constellation, LLC and Iridium, US LP (collectively "Iridium") and authorize Iridium to operate satellites in the "Big LEO" mobile-satellite service (MSS) system in the 1620.10-1621.35 MHz frequency band (Globalstar Channel 9) until November 14, 2003 or until levels of usage and U.S. Government requirements no longer justify the need for additional spectrum, whichever occurs first. We also make a conforming modification to Iridium's U.S. earth station license. We find that these actions will further important public interest requirements by supporting stated communications needs of U.S. forces in Iraq and the Middle East region.

II. BACKGROUND

2. Iridium holds a license for a Big LEO MSS system that is authorized to operate both uplink and downlink transmissions in the 1621.35-1626.5 MHz frequency band.¹ It also holds a license for the U.S. operations of mobile user terminals that operate in the same band.² Another MSS system, Globalstar, L.P., is licensed to operate uplinks in the 1610-1621.35 MHz band. In April and May 2003, the International Bureau, Satellite Division, granted Iridium special temporary authority (STA) to expand its operations into the 1618.85-1621.35 MHz

¹ *Motorola Satellite Communications, Inc.*, 10 FCC Rcd 2268 (1995), *corrected* 10 FCC Rcd 3925 (1995), *affirmed in part and modified*, 11 FCC Rcd 18502 (1996). "Big LEO" refers to low-Earth orbit (LEO) mobile satellite services above 1 GHz.

² *U.S. Leo Services, Inc.*, 11 FCC Rcd 20474 (Int. Bur. 1996).

frequency band.³ The Satellite Division granted the STAs after determining that doing so would allow Iridium to support the stated communications needs of U.S. and Coalition forces in Iraq and the Middle East region, and further, that there was no evidence that Iridium operations in the band would degrade Globalstar's MSS operations. Thereafter, on May 16, 2003, the International Bureau issued an Order to Show Cause proposing to modify Iridium's license to authorize such operations through June 12, 2003. Based on all considerations, the Satellite Division subsequently modified Iridium's authorization, over a protest by Globalstar, concluding that overall the modification would further important public interest requirements.⁴

3. On June 9, 2003, Iridium requested a further extension of its authorization through July 12, 2003. In light of an incremental decrease in demand, Iridium reduced the bandwidth requested to the 1620.10-1621.35 MHz frequency band only. This band is Channel 9 of the Globalstar system. On June 16, 2003, the Division authorized the continued temporary use of Channel 9 stating it was necessary to allow Iridium to provide "critical support to U.S. forces engaged in peace enforcement operations in Iraq and the Middle East Region" through July 12, 2003.⁵ The Division also directed Iridium to discontinue operations if use was no longer necessary or in the public interest.⁶

4. Stating that demand for services has remained relatively unchanged, on July 9, 2003, Iridium again requested an additional 30 days to use the 1620.10-1621.35 MHz frequency band.⁷ Iridium claims that its continued access to Channel 9 on a temporary basis will serve the public interest by allowing Iridium to provide continued support to U.S. forces engaged in the Middle East region. Iridium states that it continues to experience "extraordinarily high" demand for service by Coalition Forces in the Middle East region. It also states that its ability to use Channel 9 has significantly reduced the frequency of calls denied or dropped due to poor channel quality.⁸ Iridium also states that its continued use of Channel 9 spectrum on a temporary basis will not cause harmful interference to other spectrum users, and specifically notes that use of Channel 9 has not interfered with Globalstar's operations.⁹ Iridium further notes that interference

³ See File Nos. SAT-STA-20030414 (grant dated April 11, 2003 and April 14, 2003); SAT-STA-20030425-00074 (granted on April 25, 2003); and SAT-STA-20030502-00077 (granted on May 13, 2003).

⁴ Modification of Licenses held by Iridium Constellation LLC and Iridium US LP, *Order*, 18 FCC Rcd 11480 (Sat. Div., Int'l Bur. 2003). In addition, two entities operating radio astronomy observatories commented on the Order to Show Cause. The 1610.6-1613.8 MHz band is allocated to the radio-astronomy service on a co-primary basis with MSS. These entities, Cornell University, and the National Radio Astronomy Observatory, did not oppose the short term authorization proposed in the Order to Show Cause.

⁵ Iridium Constellation LLC and Iridium US LP, Request for Special Temporary Authorization, *Order*, DA 03-1949 (rel. June 16, 2003) at ¶ 9.

⁶ *Id.* at ¶ 8.

⁷ Letter from Peter D. Shields, Counsel, Iridium Constellation LLC to Thomas S. Tycz, Chief, Satellite Division, FCC (July 9, 2003), file no. SAT-STA-20030709-00129 (*Iridium July 9 STA*). Because we modify Iridium's authorization pursuant to Section 316(a), 47 U.S.C. § 316(a), we dismiss this STA as moot.

⁸ *Iridium July 9 STA* at 3.

⁹ *Id.*

to radio astronomy is unlikely because it seeks to use spectrum far from the radio astronomy band.¹⁰

5. In response to Iridium's request, on July 17, 2003, the Satellite Division issued an Order to Show Cause proposing to modify Iridium's space station and earth station licenses pursuant to Section 316(a) of the Communications Act.¹¹ In the July Order to Show Cause, the Satellite Division noted that Iridium's demand for service has remained unchanged since the last extension order and that there was no indication that demand for Iridium's service will decrease substantially within the next several months. Accordingly, to benefit the public interest and the resources of the Commission and other licensees, the Division proposed authorizing Iridium to operate on the additional frequencies for 120 days, up to November 14, 2003, or until levels of usage and U.S. Government requirements no longer justify the need for additional spectrum, whichever occurs first. The July Order to Show Cause also proposed to require Iridium to file a report with the Commission, commencing September 1, 2003, demonstrating its continued need for use of the 1620.10-1621.35 MHz frequency band.¹² It further stated that Iridium and Globalstar would be required to reconcile between themselves any interference issues between their two Big LEO MSS systems at issue here.¹³ The July Order to Show Cause gave Globalstar and any other similarly affected licensees the opportunity to protest the proposed modification.¹⁴

6. Globalstar, L.P. and Globalstar USA, LLC (Globalstar) filed joint comments in response to the July Order to Show Cause.¹⁵ Globalstar objects to the proposed four month extension in the July Order to Show Cause on three grounds. First, Globalstar asserts that Iridium has not demonstrated its alleged need for use of additional MSS spectrum to provide service in the Middle East Region.¹⁶ Rather, Globalstar states that factors other than increased call traffic, such as radio link failures attributable to interference from "high-power radars and other interferers" in the region may be causing congestion to Iridium's system. Globalstar maintains that there are substantial and material questions of fact regarding the existence and cause of any congestion, the effect of Iridium's use of the additional spectrum on its quality of service, and the interference that the temporary grant creates with respect to Globalstar's own operations both within and outside of the Middle East Region. Second, Globalstar asserts that if Iridium's temporary authority is extended, the Commission must require Iridium to operate on a "non-harmful interference" basis with Globalstar's system outside of, and within, the Middle East Region.¹⁷ Third, Globalstar claims that the Communications Act does not permit the Commission

¹⁰ *Id.*

¹¹ 47 U.S.C. § 316(a); Iridium Constellation, LLC and Iridium, US LP, *Order to Show Cause*, DA 03-2298 (rel. July 17, 2003) (*July Order to Show Cause*).

¹² *July Order to Show Cause* at ¶ 10. Iridium filed a status report on September 2, 2003. See Letter to Thomas S. Tycz, Chief, Satellite Division, from Peter D. Shields, Counsel to Iridium Constellation, LLC (Sept. 2, 2003).

¹³ *July Order to Show Cause* at ¶ 11.

¹⁴ *July Order to Show Cause* at ¶ 12.

¹⁵ Protest of Globalstar, L.P. and Globalstar USA, LLC, filed July 28, 2003 (*Globalstar July Protest*).

¹⁶ *Globalstar July Protest* at 2.

¹⁷ *Globalstar July Protest* at 6.

to authorize Iridium to operate on Channel 9 within the Middle East Region.¹⁸ Globalstar maintains that the Commission cannot authorize the terms and conditions under which Iridium can operate in foreign countries.¹⁹

7. Related to this matter, the Department of Defense (DOD), Defense Information Systems Agency (DISA), which contracts with Iridium for satellite communications services, submitted a letter to the National Telecommunications and Information Administration (NTIA) in support of Iridium's request for an additional temporary authorization.²⁰ DISA states that the temporary allocation of additional channels for Iridium's system has had a positive effect on Iridium MSS services provided to DOD in the Southwest Asia region. DISA states that the present rate of use was unsustainable prior to the allocation of the additional spectrum. According to DISA, Iridium use by DOD personnel in the Southwest Asia region had increased steadily since March 2003 and there has been no drop in usage in the DOD's support of peace enforcement operations in Iraq. DISA also states that DOD is closely monitoring its use of the Iridium system and will advise the NTIA when the use of the Iridium system by U.S. and Coalition forces subsides to a level that would permit Iridium to relinquish the additional spectrum without degrading service to the deployed forces.²¹ Further, DISA states that it supports Iridium's request for extension with the understanding that it will not have a negative impact on the Globalstar system.²² The NTIA informed the Commission that it has no objection to Iridium's request.

III. DISCUSSION

8. Section 316(a) of the Communications Act authorizes the Commission to modify any station license for a limited time, or the duration of the license, if the Commission determines that such action will promote the public interest, convenience and necessity.²³ We previously granted Iridium authority to use additional spectrum to support the use of its system by U.S. and Coalition forces in the Middle East region. Because the operations involved critical support to the Office of Rehabilitation and Humanitarian Assistance to ensure the safety of life and property, we determined that the temporary authorization was in the public interest.²⁴ Iridium, with support from DISA, has provided information indicating that use of its system continues to justify the need for additional MSS spectrum. Consequently, we reject Globalstar's assertion that Iridium has failed to demonstrate that the additional spectrum is necessary to support DISA's expressed needs. Further, although Globalstar asserts that Iridium's need for additional spectrum may be the result of inefficiencies in Iridium's satellite system design or "other interferors" in the

¹⁸ *Globalstar July Protest* at 6.

¹⁹ *Globalstar July Protest* at 8.

²⁰ Letter to Fredrick R. Wentland, Associate Administrator, Office of Spectrum Management, National Telecommunications and Information Administration from Carl Wayne Smith, General Counsel, Defense Information Systems Agency (August 7, 2003). (*DISA letter*).

²¹ *DISA Letter* at 2.

²² *DISA Letter* at 2.

²³ 47 U.S.C. § 316(a).

²⁴ Iridium Constellation LLC and Iridium US LP, *Order*, DA 03-1917 (rel. June 11, 2003) at 3.

region, Globalstar has failed to allege specific facts showing that a short term authorization allowing Iridium to provide communication services to U.S. and Coalition forces will not serve the public interest.

9. Given the critical nature of the communication services at issue, we find that it will serve the public interest to allow Iridium to continue to provide these essential services to support vital U.S. Government operations in the Middle East. Over the course of the last several months, Iridium has made repeated requests for continued temporary authority to use the additional frequency. There is no indication that the traffic levels on the Iridium system will decrease substantially before November 2003. Therefore, we find that it would serve the public interest and conserve the resources of the Commission and other licensees, to authorize Iridium to use the additional spectrum, as needed, up to November 14, 2003 or until such time as demand for Iridium's service in the Middle East region no longer justifies its use of the additional frequencies, whichever occurs first. In this regard, as set forth in the July Order to Show Cause, we require Iridium to file a report with the Commission on November 1, 2003, demonstrating its need for the use of the 1620.10-1621.35 MHz frequency band. Iridium's report must include information regarding system loading and system capacity over the Middle East region, from April 1, 2003 to the date of the report.

10. We also note Globalstar's request that Iridium operate on a non-harmful interference basis with the Globalstar system both in the Middle East region and outside the Middle East region. Given the importance of these communications, we will allow Iridium to operate on a co-equal basis with Globalstar in the Middle East region only. Requiring Iridium to operate on a non-harmful interference basis in the Middle East region could jeopardize vital U.S. Government and Coalition communications needs in that area. Thus, we conclude that the parameters established here balance the competing interests and will best serve the public interest. Further, while there has been no demonstrated interference between the Iridium and Globalstar systems, we expect both parties to cooperate to resolve any problems in the Middle East region. In areas outside of the Middle East region, we require Iridium to operate in these frequencies only on a non-harmful interference basis to the Globalstar system, and Iridium must reconcile any such reported interference with Globalstar.

11. Finally, we address Globalstar's assertion that the Commission does not have authority to dictate the terms and conditions of Iridium's authorization to provide service in the Middle East region. Globalstar argues that systems such as Iridium and Globalstar must look for operating authority to the Administration from whose territory an earth station transmission occurs, and that the Communications Act does not give the Commission authority to grant such authorizations. In addressing this argument, we first note that a satellite system consists of both a space station segment and earth station facilities. As to authorizations for transmissions by earth stations, the Administration having jurisdiction with respect to the earth stations is typically the one in which the earth stations are physically located. The authorization for Iridium's earth stations modified by our action today is generally limited to earth station operations within the United States. To the extent Globalstar argues that the Commission lacks authority to modify the frequencies used for operations by earth stations not under Commission jurisdiction, we agree. We make clear that nothing in our previous authorizations allowing Iridium to use the additional 1.25 MHz of spectrum purported to authorize transmissions by earth stations outside the jurisdiction of the United States, and our prior orders did not modify the permitted geographic areas of operations for Iridium's U.S. licensed earth stations.

12. We disagree with Globalstar's assertion that the Communications Act does not authorize the Commission to condition a satellite *space* station authorization as we do here. The

fact that a satellite is located in space, and thus outside of U.S. territory, does not alter our statutory authority to prescribe restrictions and conditions concerning its operations that are in the public interest.²⁵ The Communications Act gives the Commission the authority to regulate "... communication by wire and radio so as to make available [a] ... Nation-wide, and world-wide wire and radio communication service with adequate facilities ... for the purpose of the national defense [and] promoting safety of life and property...."²⁶ The Communications Act also clearly contemplates that radio stations authorized by the Commission may be used for international communications, and does not limit the Commission's authority to condition the operations of such stations.²⁷ Further, the Communications Act provides the Commission greater discretion where international radio-frequency issues, particularly those involving treaty obligations, are involved.²⁸ The United States, as the licensing administration for Iridium, is responsible for its global operations in accordance with International Telecommunication Union treaty obligations. In this case, we believe the public interest justifies distinguishing between Middle Eastern and non-Middle Eastern coverage areas for these U.S. licensed satellites and Globalstar has offered no compelling reasons bearing on the public interest as to why such a distinction is improper.

IV. CONCLUSION AND ORDERING CLAUSES

13. Based on the foregoing, we find that this modification of Iridium's space and Earth station licenses will serve the public interest by allowing Iridium to provide essential communication services to support vital U.S. Government operations in the Middle East region. This action is taken without prejudice to Commission action in the ongoing rulemaking proceeding 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.

14. Accordingly, IT IS ORDERED, that the authorizations of Iridium Constellation, LLC and Iridium US LP (SAT-MSC-20030515-00089, SES-MSC-20030515-00666) are modified to include operations in the 1620.10-1621.35 MHz frequency band up to November 14, 2003 or until the use of the additional frequencies is not required, whichever occurs first.

15. IT IS FURTHER ORDERED, that the Iridium satellite system shall operate on a co-equal status with the Globalstar satellite system in the 1620.10-1621.35 MHz band within the Middle East region.

16. IT IS FURTHER ORDERED, that in areas outside of the Middle East region the Iridium satellite system must operate in the 1620.10-1621.35 MHz frequency band on a non-harmful interference basis with respect to any other allocated radio service in that band.

²⁵ See 47 U.S.C. § 303(r). See also Establishment of Domestic Communication Satellite Facilities by Non-Governmental Entities, 22 FCC 2d 86, Appendix C- Memorandum on Legal Issues (1970) (concluding that the Communications Act provides the authority for licensing radio frequency uses by satellite, even though the satellite is located in space).

²⁶ 47 U.S.C. § 151.

²⁷ See 47 U.S.C. § § 151, 152, 301, and 303(r).

²⁸ 47 U.S.C. § 303(r). See also International Telecommunication Union, Radio Regulation 18-1.

17. IT IS FURTHER ORDERED, that Iridium must file a report with the Commission on November 1, 2003, demonstrating its continued need and use of the 1620.10-1621.35 MHz frequency band. This report must include information regarding system loading and system capacity over the Middle East region, from April 1, 2003 to the date of the report.

18. IT IS FURTHER ORDERED, that Iridium shall maintain the capability of suspending operations in the 1620.10-1621.35 MHz band, upon notice from the Commission, within no less than 24 hours.

19. IT IS FURTHER ORDERED, that the request for Special Temporary Authority filed by Iridium on July 9, 2003, File No. 20030709-00129 is DISMISSED as moot.

20. This action is taken pursuant to 47 C.F.R. § 0.261; 47 U.S.C. § 316(a) and 47 U.S.C. § 4(i).

FEDERAL COMMUNICATIONS COMMISSION

Thomas S. Tycz
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