

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

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

**ORDER**

Adopted: June 11, 2003

Released: June 11, 2003

By the Deputy Chief, Satellite Division, International Bureau:

**I. INTRODUCTION**

1. In this Order, we modify the authorization of Iridium Constellation, LLC and Iridium, US LP (collectively "Iridium") to operate its "Big LEO" mobile-satellite service (MSS) system on 2.5 megahertz of additional spectrum for a one-month period. We find that grant of this authorization furthers important public interest requirements by supporting stated communications needs of U.S. forces in Iraq and the Middle East region. Consequently, pursuant to Section 316(a) of the Communications Act, 47 U.S.C. § 316(a), Iridium is authorized to operate on these additional frequencies through June 12, 2003.

**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.<sup>1</sup> It also holds a license for mobile user terminals that operate in the same band.<sup>2</sup> 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 frequency band.<sup>3</sup> The Division

<sup>1</sup> *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.

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

<sup>3</sup> 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). Globalstar consented to each of Iridium's requests except for the one requesting authority to operate on

granted the STA's after determining that it would allow Iridium to support the communications needs of U.S. military 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 operations.

3. Due to extraordinarily high levels of demand of its service in the Middle East region, primarily from U.S. Government and Coalition Forces, Iridium requested an extension of its May 13, 2003 STA to June 12, 2003.<sup>4</sup> The U.S. Department of Defense filed a letter supporting Iridium's request, noting improved system performance since the availability of additional spectrum and anticipating "continued heavy usage of Iridium's satellite system ... for mobile time-sensitive communications."<sup>5</sup> Globalstar opposed an extension of the STA, stating it has experienced a degradation in service that it believes may be attributable to Iridium's operations.<sup>6</sup>

4. On May 16, 2003, pursuant to Section 316(a) of the Communications Act, the Division issued an Order to Show Cause proposing to modify Iridium's space station and earth station licenses to use the 1618.85-1621.35 MHz frequency bands until June 12, 2003.<sup>7</sup> The Division stated the proposed modification was intended to allow Iridium to continue to provide essential communications services to support vital U.S. government operations in the Middle East region.<sup>8</sup> The Order to Show Cause also granted Globalstar, and any other similarly affected licensees, an opportunity to protest the proposed modification by May 23, 2003.<sup>9</sup>

5. Globalstar, L.P. and Globalstar USA L.L.C. (Globalstar), Cornell University, and the National Radio Astronomy Observatory responded to the Order to Show Cause. Globalstar questions Iridium's need for additional spectrum and asserts that the spectrum may be needed to augment the inefficiencies of Iridium's system.<sup>10</sup> Globalstar also suggests that the Commission lacks the authority to modify Iridium's operations in non-U.S. territories.<sup>11</sup> Nonetheless,

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Globalstar's Channel 8 (1618.85-1620.10 MHz) from May 2, 2003 through May 13, 2003. Globalstar, however, did not provide any facts to establish that Iridium's operations on Channel 8 were in any way degrading Globalstar's operations. *See* letter from William F. Adler, Vice President – Legal and Regulatory Affairs, Globalstar L.P., to Thomas S. Tycz, Chief, Satellite Division, FCC (May 1, 2003).

<sup>4</sup> Letter from Peter D. Shields, Counsel, Iridium, to Thomas S. Tycz, Chief, Satellite Division, FCC (May 9, 2003).

<sup>5</sup> Letter from Carl Wayne Smith, General Counsel, Defense Information Systems Agency, to Karl Nebbia, Deputy Associate Administrator, National Telecommunications and Information Administration (May 13, 2003).

<sup>6</sup> Letter from William F. Adler, Vice President – Legal and Regulatory Affairs, Globalstar L.P., to Thomas S. Tycz, Chief, Satellite Division, FCC (May 13, 2003).

<sup>7</sup> Iridium Constellation, LLC and Iridium, US LP, *Order to Show Cause*, DA 03-1722 (rel. May 16, 2003) (*Order to Show Cause*).

<sup>8</sup> *Order to Show Cause*, ¶ 5.

<sup>9</sup> *Order to Show Cause*, ¶¶ 1, 9; 47 U.S.C. § 316(a)(2).

<sup>10</sup> Protest of Globalstar, L.P. and Globalstar USA, L.L.C., Filed May 23, 2003 (*Globalstar Protest*) at 2.

<sup>11</sup> *Globalstar Protest* at 5.

GlobalStar accedes to the one-month extension subject to the terms and conditions outlined in the Order to Show Cause. In doing so, however, Globalstar states that Iridium must be required to operate on a non-harmful interference basis with the Globalstar system in the Middle East region.<sup>12</sup>

6. 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. Cornell University (Cornell), which operates the Arecibo Observatory in Arecibo, Puerto Rico, states that it does not oppose the short term temporary expansion of Iridium's authorized frequencies, provided its operations do not cause "prohibited interference" to the Arecibo Observatory.<sup>13</sup> Cornell also requests advance notification and an opportunity to comment on future requests by Iridium to use the additional frequencies.<sup>14</sup> The National Radio Astronomy Observatory (NRAO) seeks to ensure that the terms of a Memorandum of Understanding (MOU) between NRAO and Iridium are maintained.<sup>15</sup> NRAO states that the MOU is a condition of Iridium's license, and specifies, in part, certain protections to be afforded to NRAO sites.<sup>16</sup> NRAO also indicates it intends to file additional comments should Iridium's temporary authorization be further extended.

### III. DISCUSSION

7. Section 316(a)(1) of the Communications Act authorizes the Commission to modify any station license for a limited time, if the Commission determines that such action will promote the public interest, convenience and necessity.<sup>17</sup> In this instance, Iridium's use of additional frequency bands allows Iridium to provide critical support to U.S. Forces engaged in operations in Iraq and the Middle East region. These operations include support to the Office of Rehabilitation and Humanitarian Assistance. Because Iridium's use of the additional frequencies assists U.S. Forces with ensuring the safety of life and property, we find that this modification promotes the public interest.

8. None of the commenters oppose a short term modification of Iridium's authorization until June 12, 2003. Consequently, we need not reach the other issues raised by Globalstar or Cornell in their comments.<sup>18</sup> We do, however, note Globalstar's request that

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<sup>12</sup> *Globalstar Protest* at 4.

<sup>13</sup> Comments of Cornell University, Filed May 23, 2003 (*Cornell Comments*). The Arecibo Observatory is part of the National Astronomy and Ionosphere Center, a national research center operated under a cooperative agreement with the National Science Foundation. The Observatory is the site of the world's largest single-dish radio telescope. *Cornell Comments* at 2.

<sup>14</sup> *Cornell Comments* at 5.

<sup>15</sup> Comments from the National Radio Astronomy Observatory to the FCC, Filed May 23, 2003 (*NRAO Comments*).

<sup>16</sup> *NRAO Comments*.

<sup>17</sup> 47 U.S.C. § 316(a)(1).

<sup>18</sup> We do respond, however, to Globalstar's assertion that the Communications Act does not permit the Commission to authorize Iridium's operations in non-U.S. territories. *Globalstar Protest* at 5. We note that the Order to Show Cause proposed to modify the license initially granted in 1996. See footnote 1 *supra*.

Iridium operate on a non-harmful interference basis with the Globalstar system in 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-interference basis in the Middle East region could jeopardize vital U.S. Government communications needs in that area. Thus, 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. We will, however, require Iridium to operate in the 1618.85-1621.35 MHz band on a non-interference basis to other allocated services outside of the Middle East region. In this regard, we recognize that neither Cornell nor NRAO has demonstrated interference to their operations resulting from Iridium's use of the additional frequencies. Accordingly, we modify Iridium's licenses as proposed in the Order to Show Cause.

#### IV. CONCLUSION AND ORDERING CLAUSES

9. Based on the foregoing, we find that this temporary 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.

10. Accordingly, IT IS ORDERED, that the authorizations of Iridium Constellation, LLC and Iridium US LP are modified to include operations in the 1618.85-1621.35 MHz frequency band until June 12, 2003.

11. IT IS FURTHER ORDERED, that the Iridium satellite system shall operate on co-equal status with the Globalstar satellite system in the 1618.85-1621.35 MHz band within the Middle East region.

12. IT IS FURTHER ORDERED, that in areas outside of the Middle East region, the Iridium satellite system must operate in the 1618.85-1621.35 MHz frequency band on a non-harmful interference basis with respect to any other allocated radio service in that band.

13. 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

Fern J. Jarmulnek  
Deputy Chief, Satellite Division  
International Bureau

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Iridium is authorized to operate satellites on frequencies specified in its authorization. The Commission has jurisdiction with respect to those satellites pursuant to, *inter alia*, 47 U.S.C. §§ 151, 152, 301, 303(r). *See also*, 47 C.F.R. § 25.102; International Telecommunication Union Radio Regulation 18.1; Establishment of Domestic Communication Satellite Facilities by Nongovernmental Entities, 22 FCC 2d 86, Appendix C Memorandum on Legal Issues (1970).