

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

FILED/ACCEPTED
JUL - 9 2008
Federal Communications Commission
Office of the Secretary

In the Matter of)
)
GLOBALSTAR LICENSEE LLC)
)
Application for Minor Modification of Space) File No. SAT-MOD-20080516-00106
Station License)

OPPOSITION OF GLOBALSTAR TO PETITIONS TO DENY

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July 9, 2008

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I. INTRODUCTION AND SUMMARY.

Globalstar hereby opposes the petitions filed by Iridium^{1/} and Sprint^{2/} to deny the above-referenced Application.^{3/} Neither petitioner has shown any reason why the Commission should deny Globalstar's request that its authority to operate an Ancillary Terrestrial Component ("ATC") in the Big LEO Mobile Satellite Service ("MSS") band be modified to authorize the use of air interface protocols in addition to the cdma2000

^{1/} Petition To Deny of Iridium Satellite LLC, IBFS File No. SAT-MOD-20080516-00106 (filed June 23, 2008) ("*Iridium Petition*").

^{2/} Petition To Deny of Sprint Nextel Corporation, IBFS File No. SAT-MOD-20080516-00106 (filed June 23, 2008) ("*Sprint Petition*").

^{3/} Globalstar Licensee LLC, Application for Minor Modification of Space Station License, FCC File No. SAT-MOD-20080516-00106 (filed May 16, 2008) ("*Globalstar Application*").

and IS-95 air interface protocols referred to in its existing ATC Authorization.^{4/} The only other party to file, the U.S. GPS Industry Council (“USGPSIC”), filed comments requesting that Globalstar confirm that it will comply with certain requirements in its existing ATC Authorization.^{5/} As Globalstar confirms herein, its modified ATC operations will comply with those requirements. Therefore, the Commission should grant the relief requested in the Globalstar Application expeditiously for the reasons stated therein.

Neither Iridium nor Sprint asserts that Globalstar’s use of the additional protocols in its ATC operations will result in any greater potential interference than the use of the protocols encompassed by Globalstar’s existing ATC Authorization. Instead, their very similar petitions oppose Globalstar’s Application solely on the basis of the short-term challenges that Globalstar faces as a result of the aging of its first-generation constellation. Though, as discussed herein, Globalstar currently complies with all ATC gating criteria, Iridium and Sprint nowhere suggest that, once Globalstar’s second-generation constellation and ground system are operational, any doubt will exist in that regard.

The Commission should view the Iridium and Sprint petitions with extreme skepticism, as both would have the effect of stifling competition and innovation in the wireless marketplace. Iridium makes no pretense that its own operations might be

^{4/} See Globalstar LLC, Request for Authority to Implement an Ancillary Terrestrial Component for the Globalstar Big LEO Mobile Satellite Service (MSS) System, *Order and Authorization*, 21 FCC Red 398 (2006) (“*Globalstar ATC Authorization*”).

^{5/} See Comments and Request for Clarification of the U.S. GPS Industry Council, File No. SAT-MOD-20080516-00106 (filed June 23, 2008) (“*USGPSIC Comments*”).

adversely affected by Globalstar's proposed ATC operations. Iridium simply seeks to impede its competitors, a tactic that the Commission mentioned with disfavor in its first decision in the MSS/ATC proceedings.^{6/} Unlike Iridium,^{7/} Globalstar already has invested \$420 million in cash of its \$1.2 billion commitment through 2014 to its second-generation infrastructure; and its new constellation, construction of which is well underway, is scheduled to be launched starting in the third quarter of 2009 – just over a year from now.^{8/} Given that nothing in Iridium's petition demonstrates actual or potential interference from Globalstar's ATC operations, Iridium has no standing to challenge Globalstar's Application.^{9/}

^{6/} See, e.g., Flexibility For the Delivery of Communications By Mobile Satellite Service Providers in the 2 GHz Band, the L-Band, and the 1.6/2.4 GHz Bands, *Report and Order and Notice of Proposed Rulemaking*, 18 FCC Rcd 1962 (2003) (“*ATC Report and Order*”) at ¶ 63 (noting that Iridium has been far less concerned in the MSS/ATC proceedings with the public interest than with its goal to “prevent all other MSS licensees from trying to improve the efficiency of their respective MSS systems through deploying ATC” systems.).

^{7/} See, e.g., “Iridium Satellite Announces Q1 2008 Results,” Press Release (Apr. 28, 2008) (indicating that Iridium does not plan to even execute a contract for a second-generation constellation until mid-2009 at the earliest). Iridium acknowledges that it has not determined how it would pay for its second-generation system, which purportedly would cost more than \$2 billion. See, e.g., “Iridium Launches \$2 Billion ‘Next’ Plans.” *Communications Daily* (Feb. 20, 2007).

^{8/} As discussed in the Globalstar Application, in December 2006 Globalstar executed a contract with Thales Alenia Space (“Thales Alenia”) for the design, manufacture, and delivery of Globalstar's second-generation constellation of 48 LEO satellites. See *Globalstar Application* at n.30. Since October 2007, approximately 200 employees at Thales Alenia have been employed full time on the project and substantial progress has been made. Specifically, the satellite Bus and Payload designs are complete, the antenna subsystems are undergoing testing, the prototype and engineering qualification satellites are under construction and will begin testing next month, and the contract is on schedule to deliver production satellites in July 2009.

^{9/} In order to establish standing to challenge Globalstar's Application, Iridium must allege sufficient facts to show that it would suffer a “direct injury” if the Commission were to grant the Application. See, e.g., *Hispanic Information and Telecommunications*

For its part, Sprint has made only generalized assertions that Globalstar's planned ATC services might adversely affect its operations, and has provided no technical basis for denying Globalstar's Application. As Globalstar and Open Range have shown, together they will provide affordable, reliable broadband service to rural markets well ahead of any BRS operators, who will not serve those markets in the foreseeable future, if at all.^{10/} Having already had its objections thoroughly considered and addressed in IB Docket No. 07-253, Sprint, like Iridium, is left only with insubstantial protectionist claims.^{11/} Globalstar demonstrated in its Application and further shows herein that its

Network, Inc., 18 FCC Rcd 23872 (WTB 2003) (“*HITN*”) at ¶ 19; *Alaska Native Wireless LLC*, 17 FCC Rcd 4231 (WTB 2002) at ¶ 8; *Black Crow Wireless, LP*, 16 FCC Rcd 15643 (WTB 2001) at ¶ 4. To establish such a “direct injury,” Iridium must demonstrate that the harm that would result to it would be “both certain and great...actual and not theoretical.” See *Wisconsin Gas Co. v. FERC*, 758 F.2d 669, 674 (D.C. Cir. 1985 (per curiam)). Finally, Iridium also must establish that there is a “causal link between the claimed injury and the challenged action by demonstrating that the injury can be traced to the challenged action and the injury would be prevented or redressed by the relief requested.” See *HITN* at ¶ 19. Iridium has not purported to make any of these required showings. Iridium's suggestion that it “could be harmed financially” is too vague and speculative to establish the likelihood of injury necessary to confer standing under this standard. See *Iridium Petition* at 1 (citing *FCC v. Sanders Brothers Radio Station*, 309 U.S. 470 (1940)).

^{10/} For example, in their pending application to merge their BRS businesses, Sprint and Clearwire Corporation have committed to provide service only to the country's most populous areas, where customers already have ready access to broadband services. Specifically, the companies have suggested that they will provide service by August 2009 only to “areas within a minimum of nine of the nation's most populous 100 Basic Trading Areas (BTAs) and at least one BTA less populous than the nation's 200th most populous BTA,” and by August 2011 only to “areas within a minimum of nine additional BTAs in the 100 most populous BTAs, and at least one additional BTA less populous than the nation's 200th most populous BTA.” See File No. 0003462540, “Description of the Transaction and Public Interest Statement” (amended Jun. 24, 2008) at Exhibit 1, note 2.

^{11/} The Commission correctly concluded in its recent *ATC Modification Order* – over Sprint's objections – that Globalstar's provision of ATC services in its S-band spectrum assignment up to 2495 MHz can be accomplished without causing harmful

proposed ATC operations will comply with all applicable rules governing the provision of ATC services, and the expeditious grant of its Application would serve the public interest.

II. GLOBALSTAR AND OPEN RANGE HAVE SET FORTH A CLEAR TIMETABLE FOR THE ROLLOUT OF MSS/ATC SERVICES.

As Globalstar has shown,^{12/} the satellites that will comprise its second-generation constellation are scheduled to be launched beginning in the third quarter of 2009.

Globalstar currently projects that all of the first 24 satellites will have become fully operational by mid-2010, joining the eight satellites that were launched in 2007 to form the core of the second-generation constellation.^{13/} Globalstar's second-generation ground network is scheduled to be completed and operational by mid-2011.

Globalstar and Open Range have a complementary rollout schedule for their combined MSS/ATC service offerings. For their initial offering, Globalstar's SPOT satellite messenger device is being adapted to incorporate IEEE 802.16e WiMAX broadband capabilities, allowing users to make use of Globalstar's first-generation SPOT services as well as nomadic and mobile broadband service.^{14/} Once Globalstar's second-generation constellation and ground facilities are operational, Globalstar and Open Range will offer their customers an additional second-generation mobile device that will have

interference to BRS Channel 1 licensees. *See* Spectrum and Service Rules for Ancillary Terrestrial Components in the 1.6/2.4 GHz Big LEO Bands, *Report and Order and Order Proposing Modification*, 23 FCC Rcd 7210 (2008) ("ATC Modification Order") at ¶¶ 21-36.

^{12/} *See Globalstar Application* at 15.

^{13/} *Id.* at 16. With 32 fully operational satellites, Globalstar will indisputably meet the ATC gating criteria related to satellite coverage.

WiMAX capability along with MSS voice and higher speed duplex data capabilities, in addition to the SPOT technology. Because the deployment of the Globalstar/Open Range terrestrial network will parallel that of Globalstar's second-generation constellation, the second-generation Globalstar/Open Range device will be available to the public as soon as Globalstar's second-generation constellation and ground infrastructure become operational.

III. GLOBALSTAR HAS DEMONSTRATED THAT IT MEETS THE COMMISSION'S ATC GATING CRITERIA.

In their effort to defeat Globalstar's Application, Iridium and Sprint erroneously link Globalstar's compliance with the Commission's ATC gating criteria to the status of Globalstar's current satellite constellation. By doing so they ignore the substantial showing that Globalstar has made as to its compliance with each of those criteria. In addition, Iridium and Sprint mischaracterize many of the gating criteria in an attempt to hold Globalstar to a higher burden than these rules in fact require.

A. Globalstar Will Remain First and Foremost an MSS Provider.

Iridium's assertion that Globalstar will cease to remain "first and foremost a satellite" provider or will "migrate [its] service toward terrestrial-only operation" is preposterous.^{15/} First, Globalstar has committed \$1.2 billion to its second-generation network and as of March 31, 2008, had paid its vendors \$420 million under contracts.^{16/}

^{14/} *Id.*

^{15/} *See Iridium Petition* at 4.

^{16/} Globalstar, Inc., Quarterly Report (SEC Form 10-Q), filed May 12, 2008, *Capital Expenditures* at 30-32, available at <http://www.sec.gov/Archives/edgar/data/1366868/000110465908032046/0001104659-08-032046-index.htm>.

Second, the maximum annual payment that Globalstar can expect to receive from Open Range during the first six years of their lease agreement is \$10.3 million.^{17/} In contrast, when its replacement satellites are in service, Globalstar's MSS revenue should return to the level of 2006 before the satellites seriously degraded, and then increase. MSS-related revenue was \$137 million in 2006, more than 13 times the maximum annual revenue expected from the Open Range lease. Moreover, Globalstar continues to bring to the marketplace new MSS products and services – such as the SPOT offering and other mass consumer market products – to expand and broaden its MSS customer base. The fact that Globalstar seeks, as other MSS carriers have sought,^{18/} to enhance its revenue and the attractiveness of its MSS services to consumers by incorporating an ATC does not remotely alter the nature of its worldwide core MSS business. Rather, it will make innovative products and services available to the public to complement both its MSS service offerings and the wireless services of terrestrial operators for underserved market segments, just as the Commission intended when it adopted the ATC rules.^{19/}

Globalstar's financial commitments leave no doubt that it will remain “first and foremost” an MSS provider. They also flatly contradict Sprint's contention that the Commission should delay action on Globalstar's Application until Globalstar has “made

^{17/} *Id.* at 19

^{18/} See Mobile Satellite Ventures Subsidiary LLC, *Order and Authorization*, 19 FCC Rcd 22144 (Int'l Bur. 2004); New ICO Satellite Services G.P – Application to Modify Letter of Intent Authorization, FCC File No. SAT-MOD-20071130-00167 (filed No. 30, 2007); TerreStar Networks, Inc. – Application for 2 GHz band Mobile Earth Terminal Blanket License, FCC File No. SES-AMD-20070907-01253 (filed Sept. 7, 2007).

^{19/} See *ATC Report and Order* at ¶ 23 (ATC is intended “to allow MSS operators to develop new and innovative service offerings that satellite-only MSS systems cannot offer today.”).

the investment necessary to ensure continuous, robust, two-way MSS coverage.”^{20/}

Globalstar has more than adequately demonstrated its financial commitment to deploy its second-generation system.

B. Globalstar Complies with the Geographic and Temporal Coverage Requirements in the Commission’s ATC Rules.

Contrary to Iridium’s and Sprint’s contentions, Globalstar has shown that it complies with the geographic and temporal coverage requirements applicable to MSS carriers seeking ATC authority. Section 25.143 of the Commission’s rules requires that nongeostationary MSS licensees “be capable of providing mobile satellite services on a continuous basis throughout the fifty states, Puerto Rico and the U.S. Virgin Islands” and that “at least one satellite will be visible above the horizon at an elevation angle of at least 5 deg. at all times”^{21/} As Globalstar’s Application^{22/} and other filings with the Commission^{23/} make clear, the Globalstar system has met and continues to meet these

^{20/} See *Sprint Petition* at 12.

^{21/} 47 C.F.R. § 25.143(b)(2)(iii).

^{22/} See *Globalstar Application* at 16.

^{23/} See Globalstar Licensee LLC Request for Interim Operating Authority – Call Sign S2115 – FCC File No. SAT-STA-20070713-00098 (filed July 13, 2007); Globalstar Licensee LLC Request for Interim Operating Authority – Call Sign S2115 – FCC File No. SAT-STA-20080104-00003 (filed Jan. 4, 2008) (collectively, “*Requests for Interim Operating Authority*”). Sprint’s suggestion (see *Sprint Petition* at 12) that Globalstar be required to “submit detailed, up-to-date technical data regarding the performance of its MSS constellation” before the Commission grants its Application is misplaced. Globalstar has submitted such information in its *Requests for Interim Operating Authority* and in its MSS Annual Reports filed pursuant to section 25.143(e) of the Commission’s rules, 47 C.F.R. § 25.143(e), all of which contain a detailed discussion of the status of Globalstar’s satellites. Moreover, the coverage limitations caused by Globalstar’s aging first-generation constellation, which as Globalstar has shown are wholly out of its control, have no bearing on whether or not Globalstar has met the standards for the limited, short-term contingent waiver of the coverage requirements that it seeks.

coverage requirements at all times through its provision of Simplex data services. While duplex voice and data services do not currently meet the requirement, Globalstar has provided its voice customers with complementary access to an on-line Optimum Satellite Availability Tool (“OSAT”) which enables them to predict exactly when voice and duplex data service will be available in their locations. The OSAT mitigates the temporary adverse impact of the gaps caused by the S-band degradation. And in any event, any gaps in voice and other duplex services will be entirely eliminated in about two years, once the first 24 satellites that will comprise Globalstar’s second-generation constellation become operational.^{24/}

The rules adopted in the Above 1 GHz MSS (“Big LEO”) Proceeding make clear that data services are one of the many types of services that an MSS carrier may offer to satisfy its coverage requirements.^{25/} Accordingly, Globalstar continues to meet the coverage requirements. Neither Iridium nor Sprint has pointed to anything in the

^{24/} See note 13, *supra*.

^{25/} See, e.g., Amendment of the Commission's Rules To Establish Rules and Policies Pertaining To a Mobile Satellite Service in the 1610-1626.5/2483.5-2500 MHz Frequency Bands, *Report and Order*, 9 FCC Rcd. 5936 (1994) at ¶ 3 (“[T]he Big LEO service can offer an almost limitless number of services, including ubiquitous voice and data mobile services, position location services, search and rescue communications, disaster management communications, environmental monitoring, paging services, facsimile transmission services, cargo tracking, and industrial monitoring and control.”); Applications of Constellation Communications, Inc., Loral/Qualcomm Partnership, L.P., Mobile Communications Holdings, Inc., Motorola Satellite Communications, Inc., and TRW Inc., for Authority To Construct, Launch, and Operate, Low Earth Orbit Satellite Systems To Provide Mobile Satellite Services in the 1610-1626.5 MHz/2483.5-2500 MHz Bands, *Memorandum Opinion and Order*, 11 FCC Rcd 18502 (1996) at ¶ 1 (“[Big LEO systems] are capable of providing a wide range of voice and data services to handheld terminals on a global basis.”); Amendment of Part 25 of the Commission's Rules To Establish Rules and Policies Pertaining To the Second Processing Round of the Non-Voice, Non-Geostationary Mobile Satellite Service, *Notice of Proposed Rule Making*, 11

Commission's MSS rules or rulemaking proceedings that establishes the contrary. If, however, the Commission concludes that Globalstar's reading of these requirements is incorrect, then Globalstar has made an adequate showing for a temporary waiver of this requirement.^{26/}

C. Globalstar Has Satisfied the Commission's In-Orbit Spare Requirement.

The Commission similarly should reject Iridium's and Sprint's contentions that Globalstar fails to meet the in-orbit spare requirement. As Globalstar showed in its Application,^{27/} counting all satellites that are providing both L- and S-band communications to support duplex voice and data service, and the satellites that are providing only L-band service to support Globalstar's growing Simplex data products, there are now 48 satellites in commercial service and two spare satellites capable of providing service.^{28/}

There is no provision in the Commission's rules or ATC rulemaking orders that would preclude treatment of any one of the satellites with a fully functioning L-band subsystem as an in-orbit spare for purposes of the ATC gating requirements. As Iridium has acknowledged, the real purpose of the in-orbit spare requirement is "to ensure that

FCC Rcd 19841 at ¶ 27 ("Big LEO systems, for example, can also provide two-way, worldwide, mobile data services.").

^{26/} See *Globalstar Application* at 24-25.

^{27/} See *id.* at 15-16.

^{28/} Since Globalstar filed its Application, the last of the eight spare satellites launched in May and October of 2007 became operational, increasing the number of in-orbit spares from one to two.

MSS providers continue to invest in their satellite infrastructure.”^{29/} Globalstar obviously is doing that on a massive scale.

D. Globalstar Does Not Seek To Deploy ATC Services in a Separate Band from Its MSS Services.

Iridium and Sprint erroneously argue that Globalstar is impermissibly seeking to deploy ATC services in a separate band from its MSS services.^{30/} That argument is based on a gross mischaracterization of the Commission’s ATC orders and Open Range’s business plans.^{31/} The Commission has required that an MSS licensee meet the gating criteria in “each band” in which it is licensed, in order to ensure that a non-operational MSS licensee in one band is not able to acquire an operational licensee in another band and use the latter’s operational status to claim ATC rights across *both* spectrum bands.^{32/} This requirement was adopted in response to the concerns of Cingular and CTIA that ICO Global (a non-operational MSS licensee in the 2 GHz band) might acquire Globalstar (an *operational* MSS licensee in the Big LEO band) and then seek to claim eligibility for

^{29/} See *Iridium Petition* at 12 (citing *ATC Report and Order* at ¶ 81).

^{30/} See *Iridium Petition* at 8; *Sprint Petition* at 5.

^{31/} Open Range has secured the right to lease both L- and S-band spectrum and intends to use both. See *Globalstar, Inc., Quarterly Report (SEC Form 10-Q)*, filed May 12, 2008, Exhibit 10-3, “Spectrum Manager Lease Agreement,” at 1, available at <http://www.sec.gov/Archives/edgar/data/1366868/000110465908032046/0001104659-08-032046-index.htm> (granting Open Range “the right to use up to 20 MHz of spectrum covered by the FCC Licenses that is authorized today or in the future for Ancillary Terrestrial Component (“ATC”) service.”).

^{32/} See *Flexibility For the Delivery of Communications By Mobile Satellite Service Providers in the 2 GHz Band, the L-Band, and the 1.6/2.4 GHz Bands, Memorandum Opinion and Order and Second Order on Reconsideration*, 20 FCC Rcd 4616 (2005) (“*ATC MO&O*”) ¶ 34 (citing *Petition for Reconsideration of Cingular Wireless LLC in IB Docket Nos. 01-185 and 02-364* (filed July 7, 2003) (“*Cingular Petition for Reconsideration*”) at 15).

ATC in the 2 GHz band based on Globalstar's satisfaction of the gating criteria in the Big LEO band.^{33/} The requirement has no applicability to Globalstar, which is licensed to provide MSS services only in the *paired* Big LEO bands. The Commission has never required, and it would make no sense to require, an MSS licensee such as Globalstar to meet the ATC gating requirements in both its uplink and downlink frequency assignments.

E. The Globalstar/Open Range Offering Will Meet the Commission's Integrated Service Requirement.

Globalstar has shown that it will comply with the requirement that its ATC service offering be "integrated" with its MSS service at all stages of the parallel rollout of the Globalstar/Open Range wireless broadband network and Globalstar's second-generation satellite system. While both the second-generation MSS system and Globalstar/Open Range ATC ground network will require a period of time for full deployment, as Globalstar demonstrated in its Application,^{34/} they will result in a suite of robust and fully integrated two-way MSS/ATC services that meet all of the

^{33/} At the time that the pleadings were filed, ICO planned to acquire the assets of Globalstar in a Chapter 11 bankruptcy sale. *See Cingular Petition for Reconsideration* at 15-16 ("Given the fact that at least one non-operational 2 GHz licensee has already announced its intention to acquire an operational licensee in another band, the Commission should clarify its rules now rather than waiting to react to an attempt to abuse its ATC processes."); *Petition for Reconsideration of CTIA* in IB Docket Nos. 01-185 and 02-364 (filed July 7, 2003) at 8 ("An MSS licensee should not be able to avoid its satellite obligations ... in one band by claiming it has satisfied those obligations in another band."); *Reply to Oppositions to Petition for Reconsideration of CTIA* in IB Docket Nos. 01-185 and 02-364 (filed Sept. 4, 2003) at 9 ("CTIA reiterates its belief that an MSS licensee should not be able to avoid its satellite obligations ... in one band by claiming it has satisfied those obligations in another band CTIA notes that several MSS licensees either have, or may seek to obtain, licenses in more than one MSS band, and that accordingly, the Commission should clarify this obligation so there is no dispute as to MSS licensees' obligation in this regard.").

^{34/} *See Globalstar Application* at 16-21.

Commission's "safe harbor" integration requirements.^{35/} In the meantime, Globalstar and Open Range will offer integrated MSS/ATC services that make use of the capabilities of their existing facilities and also satisfy the Commission's "safe harbor" integration requirements.

Sprint's contention that the proposed first-generation Globalstar/Open Range device does not "contain all the hardware and software necessary to acquire and communicate with both the operator's MSS system's signal and its ATC system's signal"^{36/} is incorrect. Section 25.149(b)(4) of the Commission's rules requires that, to qualify for the safe harbor, an MSS ATC provider offer "a dual-mode handset that will communicate with both the MSS network and the MSS ATC component to provide the proposed ATC service."^{37/} The Commission has made clear that in this context "dual-mode" means that the device "actually incorporates the capability to communicate with both the satellite and the ATC base stations," as contrasted to a handset in which "the capability to access the satellite [is] merely a component available at the point of sale" and is not in fact housed within the device.^{38/} Globalstar has shown that the first- and second-generation Globalstar/Open Range MSS/ATC devices will be fully dual-mode in this respect.^{39/} Contrary to Iridium's and Sprint's claims, both generations of the device

^{35/} See *ATC Report and Order* at ¶ 87; 47 C.F.R. § 25.149(b)(4).

^{36/} See *Sprint Petition* at 3 (citing *ATC MO&O* at ¶ 29).

^{37/} 47 C.F.R. § 25.149(b)(4).

^{38/} See *ATC MO&O* at ¶ 28 and n. 75 (citing *Petition for Reconsideration of Cingular Wireless LLC* in IB Docket Nos. 01-185 and 02-364 (filed July 7, 2003) at 11).

^{39/} Similarly, Iridium's suggestion that the first-generation Globalstar/Open Range device is not integrated because it "does not allow for dual-mode communication in

will in fact enable the user to communicate with both Globalstar's satellites and the Globalstar/Open Range ATC base stations.^{40/} Moreover, as Globalstar's Application specifies, "the MSS and ATC components of the device will reside within a single device, and it thus will not be possible for customers to purchase the device without receiving both the MSS and ATC capabilities."^{41/}

Even if a temporary waiver of the integration requirement were needed – and it is not – the Commission's precedent in granting a temporary waiver of the integration requirement to Mobile Satellite Ventures Subsidiary LLC ("MSV")^{42/} indicates that one should be granted here as well. The Commission concluded that MSV had met the dual-mode integration requirement even though its proposed first-generation handset required the addition of an external apparatus to communicate with the satellite, based on MSV's demonstration that it would take all reasonable measures to provide a dual-mode handset pending the launch of its second-generation satellite.^{43/} In Globalstar's case, its proposed first-generation MSS/ATC device already is capable of communicating with its satellites without the need for any external equipment. Moreover, once Globalstar's second-

either the L-band or S-band," *see Iridium Petition* at 9, is merely a restatement of Iridium's argument discussed above about a nonexistent requirement that ATC and MSS be deployed equally in Globalstar's uplink and downlink spectrum.

^{40/} *See Globalstar Application* at 17.

^{41/} *Id.* at 19.

^{42/} *See Mobile Satellite Ventures Subsidiary LLC, Order and Authorization*, FCC File Nos. SAT-MOD-20031118-00333, SAT-AMD-20031118-00332, and SES-MOD-20031118-01879, 19 FCC Rcd 22114 (Int'l Bur. 2004) at ¶ 21 ("We find that MSV's proposal to deploy dual-mode handsets that will initially require use of a plug-in booster for MSS communication is a reasonable temporary solution that will enhance economic efficiency.").

^{43/} *Id.*

generation satellite system is operational, Globalstar and Open Range also will make available to their customers a dual-mode MSS/ATC device that supports MSS service, in addition to the SPOT service.^{44/} Globalstar's first-generation device thus represents a reasonable interim solution to the integration requirement.

There is no substance to Iridium's and Sprint's contention that the Globalstar/Open Range device fails to meet the Commission's integration requirement because it is not a traditional "handset."^{45/} The ATC rules do not require that an MSS/ATC provider use a traditional "handset" to meet the integration requirement. To the contrary, the Commission explicitly recognized in the ATC rulemaking proceeding that a "handset" for purposes of the rules includes "all types of communicating terminals operated by an individual user and capable of transmitting voice, data or both In other words, the terms "phone," "handset" and "terminal" are used interchangeably to refer to end-user devices."^{46/} Both the first- and second-generation Globalstar/Open Range devices thus are "handsets" within the rules.

Iridium and Sprint also miss the mark in arguing that the Globalstar/Open Range service is not integrated because "Globalstar and Open Range are different companies

^{44/} Iridium asserts with absolutely no support that "Globalstar will require users to purchase entirely new equipment to access its second generation satellite system." *Iridium Petition* at 17-18. In fact, Globalstar's second-generation constellation will be backward compatible with its first-generation constellation, and customers will continue to be able to use their existing handsets after the second-generation constellation becomes operational.

^{45/} See *Iridium Petition* at 10; *Sprint Petition* at 4.

^{46/} See *ATC Report and Order* at ¶ 23 n. 42.

that intend to offer two different services.”^{47/} The Commission has specifically recognized that an MSS licensee may partner with a terrestrial provider to implement its ATC system,^{48/} and Globalstar is not the only MSS licensee to have considered such an arrangement.^{49/} The Commission also has never required that an MSS licensee’s MSS and ATC services be identical. To the contrary, the ATC rules specifically “allow MSS operators to develop new and innovative service offerings that satellite-only MSS systems cannot offer today.”^{50/} As the Commission recognized, “MSS operators may choose to deploy a variety of new services through ATC-enabled MSS systems,” including, among others, “ubiquitous ... broadband services,” as Globalstar plans to do in partnership with Open Range.^{51/}

In any event, the first-generation MSS/ATC service offering Globalstar has proposed does not, as the petitioners assert, involve two distinct services of disproportionate value. Instead, the first-generation device is ideally suited to unmet needs of customers in rural and underserved areas. Globalstar/Open Range MSS/ATC

^{47/} See *Sprint Petition* at 4; *Iridium Petition* at 11.

^{48/} See *ATC Report and Order* at ¶ 44 (“[N]othing prohibits MSS providers from affiliating with terrestrial providers, through stock ownership, joint ventures, or other means, if a business relationship proves advantageous in the provision of integrated mobile services and as long as such arrangements comply with our rules and policies governing transfers of control.”).

^{49/} See, e.g., “Inmarsat Says It Could Support ATC with I-4 Satellites, In Talks With Potential Partners,” *Communications Daily* (Mar. 13, 2006).

^{50/} See *ATC Report and Order* at ¶ 23.

^{51/} *Id.* The Commission also has indicated that permissible MSS/ATC offerings need not include any voice component, by making clear that the ATC rules also cover “personal digital assistants (PDAs), laptop computers, and other digital devices communicating via MSS/ATC.” See *ATC MO&O* at ¶ 30.

services will be deployed initially in rural towns in which terrestrial wireless services are limited at best. As residents travel outside these towns, they often lose cell phone coverage, particularly in areas that are not near major highways. The emergency messaging and tracking capabilities provided by SPOT will prove invaluable to Globalstar/Open Range customers by providing a vital communications link that simply does not exist in such areas today. Since its commercial launch in the United States in November 2007, the SPOT product has been credited with facilitating over 40 rescues and has saved numerous lives.^{52/} The commercial success of the SPOT product confirms that, far from being a “low function” device,^{53/} it is likely on its own to be highly valued by Globalstar/Open Range customers. Finally, and most importantly, for public policy considerations, the modified SPOT product will allow Globalstar/Open Range to deploy WiMAX service in rural areas much more quickly and at a far lower cost than they would be able to do if they were to attempt to modify an existing Globalstar phone.

IV. THE GLOBALSTAR/OPEN RANGE SPECTRUM LEASE EXEMPLIFIES THE KIND OF PARTNERSHIP THE COMMISSION CONTEMPLATED IN ITS MSS/ATC PROCEEDING AND OTHERWISE COMPLIES WITH ALL APPLICABLE COMMISSION RULES AND POLICIES.

Globalstar has complied with all applicable Commission rules and policies regarding spectrum leases. The Commission specifically has recognized the possibility that an MSS provider might choose to implement ATC through a spectrum leasing arrangement, noting in the ATC rulemaking proceeding that an MSS licensee may “enter

^{52/} A representative listing of the rescues that the SPOT product has enabled is available at www.findmespot.com.

^{53/} *Sprint Petition* at 3.

an agreement to lease some or all of the access to its authorized MSS spectrum to a terrestrial licensee” so long as the applicable ATC gating requirements are met.^{54/}

While Iridium observes that the Commission’s Part 1 spectrum leasing rules do not cover MSS carriers seeking to enter into leasing arrangements,^{55/} that fact has no bearing on the lawfulness of the Globalstar/Open Range leasing arrangement. The Commission’s decision not to include satellite services among the services covered by the Part 1 leasing rules was based on the Commission’s express recognition that its satellite licensing policies *already* provided licensees with broad flexibility to lease their spectrum.^{56/} In particular, in considering whether to grant terrestrial wireless licensees the flexibility to lease their spectrum, the Commission made clear that it historically has “permitted licensees of satellite systems operating on a non-common carrier basis, such as most Big and Little Low-Earth Orbit (LEO) satellite systems, to offer capacity on their satellites to individual customers on individualized terms, ranging from short-term leases to sales.”^{57/} As the Commission noted, the primary requirement in such leasing

^{54/} See *ATC Report and Order* at ¶ 3 n. 5.

^{55/} *Iridium Opposition* at 13.

^{56/} See *Promoting Efficient Use of Spectrum through Elimination of Barriers to the Development of Secondary Markets, Second Report and Order, Order on Reconsideration, and Second Further Notice of Proposed Rulemaking*, 19 FCC Rcd 17503 at ¶ 66 n. 166 (*citations omitted*) (“We ... note that there already exists a robust secondary market for parties seeking to gain access to spectrum in our satellite services By encouraging satellite licensees to sell unused spectrum to other parties willing to put the spectrum into use, we allow parties flexibility to transfer satellite bandwidth to more efficient uses in response to changing market conditions and consumer demands, and we allow marketplace forces to determine which companies succeed.”).

^{57/} See *Promoting Efficient Use of Spectrum through Elimination of Barriers to the Development of Secondary Markets, Notice of Proposed Rulemaking*, 15 FCC Rcd 24203 (2000) at ¶ 66 (*citations omitted*).

arrangements is that the licensees “remain responsible for ensuring that their satellites operate within the relevant power limits and in conformance with [the Commission’s] international obligations and with International Telecommunications Union authorizations,”^{58/} which Globalstar has plainly done in its arrangement with Open Range.

Contrary to Iridium’s claims,^{59/} no provision in the Commission’s rules requires a satellite licensee to provide notice to or seek prior approval from the Commission when entering into a spectrum leasing arrangement. Iridium would have the Commission impose on satellite licensees a more onerous filing requirement than it applies to terrestrial wireless licensees – something the Commission specifically has chosen not to do.

In any event, Globalstar in fact *has* notified the Commission in writing of the existence and terms of the leasing arrangement in order to keep the Commission informed. The procedure Globalstar and Open Range followed was exactly the same procedure required of other spectrum lessors under Part 1 of the Commission’s rules governing “Spectrum Manager” leasing arrangements.^{60/}

Iridium’s and Sprint’s contention that Globalstar will impermissibly transfer either *de jure* or *de facto* control over its licensed spectrum to Open Range under the

^{58/} *Id.* In the case of leases in the Fixed Satellite Service, the Commission has specified that “licensees are not obligated to obtain Commission approval for those leases nor inform the Commission of the parties to whom they have leased transponders.” *Id.*

^{59/} *See Iridium Petition* at 13.

^{60/} *See* 47 C.F.R. § 1.9020(e) (“A licensee that seeks to enter into a spectrum manager leasing arrangement must notify the Commission of the arrangement in advance of the spectrum lessee’s commencement of operations.”).

companies' leasing arrangement is wild speculation unworthy of detailed response. Globalstar and Open Range specifically *certified in writing* that Globalstar will retain both *de jure* and *de facto* control over its licensed spectrum at all times during the term of the lease, whether used to provide MSS or ATC services. The rules do not require more. Moreover, the Lease Agreement is now public record. The Commission may see for itself that Open Range's operations on Globalstar's spectrum at all times will be subject to Globalstar's ultimate *de jure* and *de facto* control, and that Sprint and Iridium have either erred or attempted to mislead the Commission in their comments to the contrary.^{61/}

Iridium argues that the Globalstar/Open Range leasing arrangement must be analyzed under the *Intermountain Microwave* standards established in 1963.^{62/} However, the very decision that Iridium cites for this proposition in fact confirms that use of those

^{61/} See Globalstar, Inc., Quarterly Report (SEC Form 10-Q), *supra* note 16, at Exhibit 10.3, Spectrum Manager Lease Agreement (cited in *Sprint Petition* at 6 and *Iridium Petition* at 14) ("Lease Agreement"). Specifically, Section 4 of the Lease Agreement states that

Notwithstanding any other provision, and at all times during the term of this Lease Agreement, Lessor shall retain *de jure* and *de facto* control of the Leased Spectrum as required under the Communications Laws. This Lease Agreement (i) does not and will not vest in Lessee, or constitute, create or have the effect of constituting or creating, direct or indirect *de facto* or *de jure* control over Lessor or the Leased Spectrum, which ownership or control will remain exclusively and at all times in Lessor and its affiliates, and (ii) does not and will not constitute the transfer, assignment, or disposition in any manner, voluntary or involuntary, directly or indirectly, of the Leased Spectrum or the transfer of control of Lessor within the meaning of Section 310(d) of the Communications Act. Lessee will not take any action inconsistent with or contrary to the Lessor's *de jure* and *de facto* control, as those terms are construed by the FCC, over the Leased Spectrum. Lessee will not hold itself out to the public as the owner of the FCC Licenses or the Leased Spectrum.

See Lease Agreement at Section 4.

^{62/} See *Iridium Petition* at 15.

standards is no longer appropriate in many contexts, including spectrum leases.^{63/} As the Commission specifically recognized in that case, “[t]here have been significant changes in the communications industry since the *Intermountain Microwave de facto* standard was established over 40 years ago, including the rise of new technologies for the industry and the Commission's increasing efforts to afford quick and effective means for parties to adapt to markets and to the needs of consumers Under these circumstances, we no longer believe that it is necessary to continue to require that a licensee exercise immediate direct control over every facility that may be operating in connection with the provision of services using its spectrum.”^{64/}

In sum, there is nothing improper in the Globalstar/Open Range leasing arrangement, and Globalstar and Open Range have made all filings in connection with the arrangement that may be required.

V. NO TECHNICAL BASIS HAS BEEN PRESENTED FOR DENYING GLOBALSTAR'S APPLICATION.

Neither Iridium nor Sprint has provided any technical or operational justification for their requests that the Commission deny Globalstar's Application. Iridium, on the one hand, never even addresses in its pleading Globalstar's request to deploy the additional air interface protocols proposed in the Application, let alone challenges them.

^{63/} See Facilitating the Provision of Spectrum-Based Services to Rural Areas and Promoting Opportunities for Rural Telephone Companies To Provide Spectrum-Based Services; 2000 Biennial Regulatory Review Spectrum Aggregation Limits For Commercial Mobile Radio Services; Increasing Flexibility To Promote Access to and the Efficient and Intensive Use of Spectrum and the Widespread Deployment of Wireless Services, and To Facilitate Capital Formation, *Report and Order and Further Notice of Proposed Rulemaking*, 19 FCC Rcd 19078 (2004) (cited in *Iridium Petition* at 15).

^{64/} *Id.* at ¶ 108.

Sprint, on the other hand, raises only general, unsupported arguments as to why certain of the protocols Globalstar has proposed should not be permitted. Neither company's petition meets the standards set forth in the Commission's rules for petitions to deny.^{65/}

Sprint has not challenged on any technical or operational grounds Globalstar's request for authority to deploy WiMAX Time Division Duplex ("TDD") in its S-band ATC spectrum allocation, or Globalstar's request for waiver of section 25.149(a)(1) of the Commission's rules^{66/} to allow it to operate in the non-forward band mode. Globalstar is committed to participating in, and subscribing to, any WiMAX standards that are adopted by the Wireless Communications Association International ("WCA"). In fact, Globalstar has already endorsed the Sprint Proposal to the WCA Best Practices Committee regarding WiMAX 802-16e-2005 Synchronization. Contrary to Sprint's claims, Globalstar has provided an extensive technical analysis demonstrating that its use of WCDMA, TD-CDMA, and LTE protocols in both its L- and S-band ATC spectrum allocations would produce no greater potential threat of interference than that produced using the cdma2000 system protocols encompassed by Globalstar's existing ATC Authorization,^{67/} as required by the Commission's rules.^{68/} Absent some analysis demonstrating that Globalstar's technical showing is in error, Sprint's petition must be denied.

^{65/} The Commission's rules require that any petition to deny an application "contain specific allegations of fact ... to support the specific relief requested." *See* 47 C.F.R. § 25.154(a).

^{66/} 47 C.F.R. 25.149(a)(1).

^{67/} *See Globalstar Application* at 6-7 and attached Technical Exhibit at 5-9.

^{68/} *See* 47 C.F.R. § 25.254 at Note.

Sprint's assertion that Globalstar should not be permitted to apply for authority to deploy Long Term Evolution (LTE) because it "is not even standardized" is equally erroneous. LTE is an evolving standard being defined by 3GPP, with input provided by Sprint itself. Release 8 of 3GPP standards, which has now been finalized, defines the current standards for LTE. Release 8 of 36.104 and 36.101 establishes specific out-of-band emissions requirements for LTE base stations and user equipment intended, among other things, to protect BRS operations. In its Application, Globalstar provided a technical analysis demonstrating that MSS/ATC equipment using LTE will meet those requirements.^{69/}

Finally, the Commission has already considered and decided the level of protection to which BRS channel 1 licensees are entitled.^{70/} The Commission adopted specific out-of-band emission limits and coordination principles that it concluded will "ensure that ATC operations in the S-band do not cause harmful interference to BRS Channel 1 operations in the 2496-2502 MHz band."^{71/} Sprint's alleged concerns in the instant proceeding^{72/} about the scope of Globalstar's obligations under the ATC rules, including in particular its obligation to avoid causing harmful interference to other services, were fully addressed, and the time for challenging the Commission's decision on this issue has expired.

^{69/} See *Globalstar Application*, Technical Exhibit at Section 1.2.3.

^{70/} See *ATC Modification Order*.

^{71/} *Id.* at ¶ 32.

^{72/} See *Sprint Petition* at 13.

VI. GLOBALSTAR WILL COMPLY WITH THE INTERFERENCE PROTECTION REQUIREMENTS SPECIFIED IN ITS EXISTING ATC AUTHORIZATION.

The USGPSIC submitted comments in response to Globalstar's Application requesting that Globalstar confirm that its modified ATC operations will protect Radio Navigation Satellite Service ("RNSS") operations in the 1559-1610 MHz band from out-of-band emissions to the same extent as Globalstar is required to do under to its existing ATC Authorization.^{73/} In addition, USGPSIC requests that Globalstar be required to apply to its ATC base stations filters to reduce emissions in the 1559-1610 MHz band.^{74/} Globalstar hereby confirms that, if granted the modified ATC authority sought in the instant Application, it will comply with the stricter out-of-band emission limits requested by the NTIA – and agreed to by Globalstar – in Globalstar's original ATC application proceeding.^{75/} While filtering is a common method of meeting out-of-band emission limits, Globalstar and its manufacturers must remain free to meet those emissions limits in the most cost-effective way under the circumstances prevailing at the time that a particular base station is designed and deployed.

VII. GLOBALSTAR HAS JUSTIFIED ITS CONTINGENT, SHORT-TERM REQUESTS FOR WAIVER OF THE COMMISSION'S RULES.

As discussed in it Application and reinforced herein, Globalstar believes that it satisfies each of the Commission's gating criteria applicable to MSS carriers seeking to deploy ATC services. However, in the event the Commission concludes otherwise, Globalstar has justified the contingent, short-term requests for waiver of the

^{73/} See USGPSIC Comments.

^{74/} Id

^{75/} See Globalstar ATC Authorization at ¶¶ 19-24.

Commission's rules it has requested. As Globalstar has shown in its Application and in its pleadings requesting expansion of the spectrum on which it is authorized to provide ATC services,^{76/} the Globalstar/Open Range MSS/ATC service offering will produce substantial public interest benefits by providing broadband access to millions of rural Americans who now have limited or no access to such service. Currently, broadband service to rural parts of the country lags far behind that which is available in more populated areas, and where such services do exist, they are typically highly localized and expensive. Existing wireless service providers have failed to address this service disparity. As Globalstar and others have shown,^{77/} MSS/ATC networks can provide a workable, cost-effective solution to the lack of broadband service in rural areas.

In asserting that Globalstar's Application fails to satisfy the Commission's waiver standards, Iridium's and Sprint's pleadings selectively focus on the short-term limitations associated with Globalstar's first-generation satellite system, entirely ignoring the substantial, tangible commitments that Globalstar has made to the deployment of its second-generation constellation and ground network. The Commission should resist these anticompetitive attempts to delay action on Globalstar's Application solely because of technical problems with Globalstar's existing constellation that are beyond its control

^{76/} See *Globalstar Application* at 21-23; Comments of Globalstar, Inc. in IB Docket No. 07-253 (filed Dec. 19, 2007) ("*Globalstar ATC Comments*") at 5-8; Reply Comments of Globalstar, Inc. in IB Docket No. 07-253 (filed Jan. 3, 2008) ("*Globalstar ATC Reply Comments*") at 9-12.

^{77/} See, e.g. *Globalstar Application* at 4-6; *Globalstar ATC Comments* at 5-8; *Globalstar ATC Reply Comments* at 9-12; Comments of Open Range Communications, Inc. in IB Docket No. 07-253 (filed Dec. 129, 2007) at 4-6; Comments of Main Street Broadband LLC in IB Docket No. 07-253 (filed Jan. 3, 2008) at 1-2; Reply Comments of Main Street Broadband LLC in IB Docket No. 07-253 (filed Jan. 3, 2008) at 1-2.


and are being aggressively addressed through the launch of eight ground spare satellites at a cost of \$120 million and construction and deployment of the second-generation constellation. At the same time, Open Range has demonstrated that it has the expertise and funding available to it to ensure that its terrestrial network will be deployed in parallel with Globalstar's second-generation constellation and ground system. That funding is not available to Open Range indefinitely, however, and is contingent on the Commission's expeditious approval of Globalstar's Application.

In light of these facts, Globalstar submits that, to the extent the Commission determines that any are required, then the public interest would be served by a grant of the limited, contingent, and short-term waivers that Globalstar has requested and the prompt approval of Globalstar's Application. By granting the temporary rule waivers that Globalstar has requested, the Commission can help to ensure that Globalstar's and Open Range's plans will move beyond the conceptual stage and become a reality, to the great benefit of consumers.

Conclusion

For all these reasons and those stated in Globalstar's Application, the Commission should promptly grant the Application and the limited rule waivers requested therein and authorize Globalstar to offer ATC services using WiMAX TDD, WCDMA, TD-CDMA, and LTE packet-switched data protocols.

Respectfully submitted,



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July 9, 2008

CERTIFICATE OF SERVICE

I, Josh L. Roland, do hereby certify that a copy of the foregoing Opposition of Globalstar To Petitions To Deny was served by hand this 9th day of July, 2008, on the following parties, unless otherwise noted:

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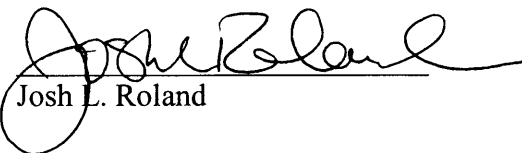
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