

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

FILED/ACCEPTED  
JUL 16 2008  
Federal Communications Commission  
Office of the Secretary

In the Matter of )  
 )  
GLOBALSTAR LICENSEE LLC ) IBFS File No. SAT-MOD-20080516-00106  
 )  
Application for Modification of )  
Authority to Operate an Ancillary )  
Terrestrial Component and Request )  
For Waiver of the Commission's Rules )

**REPLY OF SPRINT NEXTEL CORPORATION**

In its opposition, Globalstar Licensee LLC (Globalstar) concedes that it will not integrate its current and future mobile satellite service with the stand-alone terrestrial services that Open Range Communications, Inc says it will offer.<sup>1</sup> While its next generation satellites promise full-time MSS services, Globalstar acknowledges that its existing MSS constellation cannot offer continuous coverage and, as a result, concedes that it cannot satisfy the Commission's MSS coverage gating criteria. Finally, Globalstar does not provide good cause for the Commission to waive the rules designed to ensure that MSS ATC is an integrated, ancillary component of a satellite-service offering.

Rather than address the many substantive failings in its application, Globalstar tries to cast doubt on the motivations of those who have called into question Globalstar's technical showings. Globalstar's charges are as wrong as they are immaterial: Globalstar has failed to

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<sup>1</sup> See Opposition of Globalstar to Petitions to Deny (July 9, 2008) (Globalstar Opposition); Petition to Deny of Sprint Nextel Corporation (Sprint Nextel) (June 23, 2008) (Sprint Nextel Petition). Open Range Communications Inc., Globalstar's proposed provider of ATC service, also opposed the petitions to deny from Sprint Nextel and Iridium Satellite LLC. See Open Range Communications Inc. Opposition to Petitions to Deny (July 9, 2008) (Open Range Opposition). Open Range's positions on the relevant issues are the same as Globalstar's, and Sprint Nextel's arguments in response apply equally to Open Range. Brief comments opposing these petitions were also submitted by Main Street Broadband LLC. See *Ex Parte* Comments of Main Street Broadband LLC in Opposition to Petition to Deny (July 9, 2008). (The foregoing pleadings cited were filed in IBFS File No. SAT-MOD-20080516-00106.)

satisfy the burden of proof it bears as an applicant for MSS ATC authority.<sup>2</sup> Its application must be denied.<sup>3</sup>

## **I. GLOBALSTAR REMAINS UNABLE TO SATISFY THE COMMISSION'S ATC GATING REQUIREMENTS OR THE APPLICABLE WAIVER STANDARD**

Under the Commission's MSS ATC framework, an operating MSS licensee must comply with the geographic and temporal coverage, replacement satellite, and commercial service gating criteria. The applicant must also show that its ATC operations will meet the Commission's integrated service and other requirements.<sup>4</sup> Globalstar has not met its burden of proof.

### **A. Globalstar Does Not Offer an Integrated ATC Service and Waiver of the Rule is Unwarranted**

As a prerequisite to receiving ATC authority, Globalstar must integrate its terrestrial and satellite components. Globalstar's current proposal will not. Globalstar will offer a one-way messaging service in the L-Band, and another, entirely separate operator, Open Range, will offer a two-way data service in the S-Band.<sup>5</sup> Open Range's two-way data service is not related to

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<sup>2</sup> Globalstar's allegations of competitive animus are belied by the facts. Sprint Nextel, for instance, has not opposed the applications of other MSS operators, such as MSV, where the applicant meets the gating criteria or provides just cause for waiver and does not pose an interference risk to Sprint Nextel customers.

<sup>3</sup> Sprint Nextel has standing to challenge Globalstar's application for modified ATC authority. Globalstar's proposed MSS ATC operations may cause harmful interference to Sprint Nextel's adjacent-channel operations on Broadband Radio Service (BRS) Channel 1. *See* discussion, *infra*, section II; Sprint Nextel Petition at 12-15. Globalstar's proposed ATC may also require Globalstar to pay to install equipment at Globalstar's expense on Sprint Nextel's BRS base stations to avoid interference. The interference and operational burdens that grant of Globalstar's application would impose are substantial and provide Sprint Nextel with ample standing to challenge Globalstar's application. *See, e.g., Applications of Alaska Native Wireless, L.L.C.*, Order, 18 FCC Rcd. 11640, ¶ 10 (2003); *Americatel Corporation*, Memorandum Opinion, Order, Authorization and Certificate, 9 FCC Rcd. 3993, ¶ 9 (1994).

<sup>4</sup> *Flexibility for 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, ¶ 88 (2005) (*MSS ATC Recon Order*).

<sup>5</sup> In its application, Globalstar indicated that the terrestrial operator's TDD facilities would operate exclusively in the S-band. *See* Application for Modification of Authority to Operate an Ancillary Terrestrial Component and Request for Waiver of the Commission's Rules, Attachment 1 to Form 312, IBFS File No. SAT-MOD-20080516-00106, at 2, 6-7, & 11 n.18 (May 16, 2008) (Globalstar Application). Globalstar has since claimed that the terrestrial operator will use the L-band as well.

Globalstar's one-way messaging service. Nor is Globalstar's one-way messaging service related to Open Range's two-way data service. Neither service extends the other.<sup>6</sup> Instead, Globalstar presents the Commission with two separate offerings of two different services. If accepted, Globalstar's proposed ATC application would render the "integration" criteria meaningless and encourage exactly what the Commission's *ATC Order* sought to prevent – namely, the MSS licensees' systematic under-investment in satellite infrastructure in the hope of obtaining terrestrial wireless spectrum without competitive bidding or financial obligation.<sup>7</sup>

Notwithstanding common-sense definitions of integration or the consequences that its newly minted "integration" standard might have for investment in MSS infrastructure in the United States, Globalstar asserts that the stand-alone terrestrial operators' device will satisfy the more specific integration requirement that the end-user handset "contain[] all the hardware and software necessary to acquire and communicate via both the operator's MSS system's signal and its ATC system's signal, either within the casing or permanently affixed to the casing."<sup>8</sup> Unfortunately, Globalstar's proposed device – the "SPOT" – does not satisfy this requirement either.

The SPOT can deliver one-way narrowband messaging transmissions to Globalstar's MSS satellites, but cannot access the two-way voice and data services that Globalstar's MSS network can provide, albeit not currently on a full-time basis. Thus, the SPOT itself is not a dual-mode handset capable of operating on both the satellite and terrestrial networks.

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Opposition at 11 n.31. Globalstar must clarify where and how its affiliated terrestrial operators will conduct their ATC operations. The company's shifting plans offer little confidence in the operators' service vision.

<sup>6</sup> See *Flexibility for 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, ¶ 23 (2003) (*MSS ATC R&O*).

<sup>7</sup> See *MSS ATC R&O*, 18 FCC Rcd. 1962, ¶¶ 66-88, 219-226.

<sup>8</sup> *MSS ATC Recon Order*, 20 FCC Rcd. 4616, ¶ 29.

Just as important, the SPOT is not even a fully functional satellite unit: the SPOT is *incapable* of two-way satellite communications.<sup>9</sup> Globalstar says it hopes to restore full-time, two-way communications with its failing satellite constellation by launching new MSS satellites in the near term future, and Globalstar currently offers a variety of satellite phones and two-way data modems that take advantage of the current MSS networks capabilities and can continue to be used when the second-generation network becomes operational.<sup>10</sup> Globalstar, however, does not propose to offer ATC terminals with the same two-way MSS capabilities as its satellite phones and modems. Instead, Globalstar asks for authority to offer ATC using a “dumbed-down” – and presumably less expensive – ATC terminal that can only transmit to, and cannot receive communications from, the MSS satellites. If Globalstar were proposing a device capable of two-way MSS communications, then concerns about Globalstar’s potential for systemic under-investment in its satellite system would be lessened. Globalstar’s insistence on deploying MSS ATC devices that are incapable of operating with the full capabilities of the current MSS system severely undermines the purported integration of the stand-alone MSS and MSS ATC systems.

Perhaps sensing the multiple infirmities of its substantive request, Globalstar’s MSS ATC application asks the Commission waive the integration gating requirement altogether in the event the Commission finds that Globalstar’s approach fails to offer the requisite system and device integration for MSS ATC. No waiver is warranted.<sup>11</sup>

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<sup>9</sup> Globalstar Application at 17.

<sup>10</sup> Globalstar continues to offer many different varieties of satellite phones, data modems, and fax interfaces that operate capable of fully functional, two-way MSS operations. See Globalstar, Products, *available at*: <[www.globalstarusa.com/en/content.php?cid=100](http://www.globalstarusa.com/en/content.php?cid=100)>.

<sup>11</sup> See Sprint Nextel Petition at 2-12. Federal courts have repeatedly held that parties seeking a waiver carry a heavy burden. See, e.g., *WAIT Radio v. FCC*, 418 F.2d 1153, 1157-59 (D.C. Cir. 1969) (“An applicant for waiver faces a high hurdle even at the starting gate.”); *Tucson Radio, Inc. v. FCC*, 452 F.2d 1380, 1382 (D.C. Cir. 1971) (“The burden is on the applicant seeking waiver of [the Commission’s] rules

Contrary to Globalstar's latest claims, the company's waiver request is not time limited. Vendors will sell the SPOT devices to end users, and end-user device owners will keep these simplex-only devices in circulation for years – well after the date by which Globalstar claims it will have begun to restore duplex satellite communications to use. As a result, the waiver that Globalstar seeks will not expire when or if it restores full functionality to its MSS system three years from now, but rather when the last purchaser of a SPOT device finally retires the unit. Any grant of waiver, in other words, would extend for the life of the SPOT devices. Permitting Globalstar to sell consumers MSS ATC devices that are incapable of the two-way satellite communications that Globalstar offers would not only frustrate consumer expectations for a fully functional MSS unit, but also disserve the MSS industry. If expanding the availability of satellite services is the goal, then MSS licensees should at least offer MSS ATC terminals that are capable of supporting fully functional two-way MSS communications.<sup>12</sup>

Globalstar should not be permitted to artificially constrain the satellite services that MSS ATC handset purchasers may use when a fully functional MSS operation is supposedly on the way very soon. Globalstar's next-generation satellite network will be backward-compatible with its current-generation satellite terminals, and Globalstar should not be permitted to offer MSS ATC terminals that are not forward-compatible with the fully functional MSS system that Globalstar says it wants to operate. To ensure that Globalstar actually deploys the satellites that will restore its constellation to full functionality, Globalstar's MSS ATC terminals should be

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to plead specific facts and circumstances which would make the general rule inapplicable.”) The Commission will grant waivers if “allowing deviation from a rule requirement would not disserve the rule’s underlying purpose and would better serve the public interest than requiring strict compliance.” *Mobile Satellite Ventures Subsidiary LLC*, Order and Authorization, 19 FCC Rcd 22144, ¶ 14 (2004) (*MSV ATC Order*); see also *Northeast Cellular Telephone Co. v. FCC*, 897 F.2d 1164, 1166 (D.C. Cir. 1990).

<sup>12</sup> Moreover, Globalstar's simplex data service is already available to rural customers and will remain available with or without a grant of MSS ATC authority. See Globalstar Application at 17; see also Open Range Opposition at 3-5.

forward-compatible with the fully functional MSS constellation that the Commission authorized and that Globalstar claims it wants to restore to service.

**B. Globalstar Fails to Show That It Meets the Commission’s Geographic Coverage and In-Orbit Spare Requirements or Warrants a Waiver of These Requirements**

Globalstar’s Opposition does not shed any additional light on how it might satisfy the Commission’s geographic coverage or in-orbit spare ATC gating requirement. Globalstar confirms that it offers only intermittent, scattershot MSS coverage. Intermittent, scattershot MSS is not the continuous, nationwide MSS that Globalstar must demonstrate as a prerequisite to receiving ATC authority. Similarly, the potential for an end-user to send – but not receive – messaging information to a satellite does not help Globalstar’s case. At the most basic level, Globalstar’s one-way messaging service uplink does not involve “signal coverage” of the Earth. One-way messaging relies on Globalstar’s satellite reception of L-band uplink signals, and nothing more. In any case, Globalstar’s enabling one-way messaging services does not satisfy the geographic coverage requirement for MSS licensees.<sup>13</sup>

The Commission should also reject Globalstar’s claim that “any one of [its] satellites with a fully functioning L-band subsystem” should be treated by the Commission as an in-orbit spare for purposes of its ATC gating requirements.<sup>14</sup> At bottom, Globalstar wants to claim every functioning satellite as both a primary satellite and a spare. Yet the entire point of retaining a spare is that the satellite is available to replace a failed satellite in the event of loss. Treating operational satellites as spares leaves no real satellites available for use in an emergency.

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<sup>13</sup> See Globalstar Opposition at 8-9; see also 47 C.F.R. § 25.149(b)(1)(iii) (requiring that Big LEO licensees must “provide space-segment service to all locations as far north as 70° North latitude and as far south as 55° South latitude for at least seventy-five percent of every 24-hour period . . . and on a continuous basis throughout the fifty states, Puerto Rico and the U.S. Virgin Islands”); 47 C.F.R. § 25.149(b)(2)(i) (requiring that NGSO MSS ATC systems maintain an in-orbit spare to ensure continuous coverage.).

<sup>14</sup> Globalstar Opposition at 10.

Globalstar also fails to justify a waiver of the Commission's coverage and in-orbit spare gating criteria. In its Opposition, Globalstar claims that the Commission's waiver analysis should ignore its S-band coverage failures, no matter how extensive.<sup>15</sup> Globalstar's first-generation satellite failures, however, are directly relevant to whether or not the company should receive ATC authority. Publicly available documents indicate that Globalstar's MSS coverage gaps are extensive, disruptive, and increasing in number and duration.<sup>16</sup> The greater the magnitude and frequency of Globalstar's MSS downlink coverage disruptions, the more likely that Globalstar will treat its lessees' terrestrial offerings as the principal service and allow its satellite offering to become an afterthought to terrestrial leasing revenue. Facing frequent outages and high replacement costs, Globalstar has a strong incentive to improperly exploit its satellite assignment for purposes of terrestrial services revenue without sustaining its MSS constellation as the MSS ATC rules require it to do; therefore, the Commission should not waive its coverage and in-orbit spare requirements.

## **II. GLOBALSTAR'S PROPOSED ATC OPERATIONS MAY CAUSE HARMFUL INTERFERENCE TO SPRINT NEXTEL AND OTHER BROADBAND RADIO SERVICES LICENSEES OR ARE TOO UNSETTLED TO ASSESS INTERFERENCE POTENTIAL.**

In its Opposition, Globalstar claims that the Commission has concluded that Globalstar can offer ATC without causing harmful interference to BRS channel 1 licensees.<sup>17</sup> Globalstar misstates the Commission's ruling. The Commission, in fact, held that Globalstar's ATC operations *cannot offer* ATC if doing so causes harmful interference to BRS. Indeed, the Commission went one step further and raised serious questions as to whether offering ATC

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<sup>15</sup> Globalstar Opposition at 8 n.23 ("the coverage limitations caused by Globalstar's aging first-generation constellation . . . have no bearing on whether or not Globalstar has met the standards for . . . waiver of the coverage requirements").

<sup>16</sup> Globalstar, Inc., Quarterly Report (Form 10-Q) at 16-17 (May 12, 2008), *available at*: <[http://www.sec.gov/Archives/edgar/data/1366868/000110465908032046/a08-11623\\_110q.htm](http://www.sec.gov/Archives/edgar/data/1366868/000110465908032046/a08-11623_110q.htm)>.

<sup>17</sup> Opposition at 4-5 n.11.

without causing harmful interference to terrestrial wireless broadband services operating in the BRS band was even possible in some geographic areas.<sup>18</sup> Furthermore, the Commission placed the entire burden on Globalstar for resolving any interference that might occur, including interference that occurs within a BRS licensee's equipment due to receiver overload.<sup>19</sup> Even Globalstar, in its ATC application, concedes that interference is possible and that filtering may need to be added to BRS base stations to avoid interference.<sup>20</sup>

Globalstar faces a serious challenge in overcoming interference that its use of known air-interface standards presents. Globalstar's attempt to seek authorizations for technologies still under development with parameters and characteristics that are not yet finalized by domestic or international standards bodies compounds the interference problem and exacerbates the risk faced by broadband operators that are ostensibly supposed to receive interference protection from Globalstar's MSS ATC operation. Parties that may suffer harmful interference – even harmful interference that Globalstar has an absolute obligation to cure – have a reasonable expectation to know what type of technology the party that must protect them intends to deploy. The purpose is not to discriminate against a particular technology, but to offer some assurance to licensees and the public at large that the risk of interference is manageable and, in fact, can be cured by the party responsible for causing it. Potential victims of harmful interference can assess the risk of harm that they face, and potential generators of harmful interference can assess the cost of remediation in the event that harmful interference occurs and determine the deployment that imposes the least cost overall.

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<sup>18</sup> *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, ¶¶ 30-36 (2008).

<sup>19</sup> *Id.* ¶¶ 32-36 & n.118.

<sup>20</sup> See Technical Exhibit, Attachment 2 to Globalstar's Form 312, IBFS File No. SAT-MOD-20080516-00106, at sections 6.2 and 6.2.1 (Technical Exhibit).



To assess the risk and gauge the proper response, both Globalstar and the potential victim licensees should have a firm understanding of the interference risk that LTE might pose to adjacent channel licensees; however, many of the aspects of LTE are still undergoing active development within the 3GPP standards body.<sup>21</sup> In particular, the sections 36.104 and 36.101 of the Release 8 draft of the LTE standard, which Globalstar references, still have not been finalized even at the 3GPP working group level.<sup>22</sup> While the Commission's rules make clear that Globalstar must avoid interference to BRS operation, there is no way to demonstrate at this time that LTE deployment is capable of avoiding harmful interference to adjacent-channel broadband operations. Moreover, Globalstar should have no interest in assuming that LTE-generated interference can be avoided cost effectively because guessing wrong could impose financially ruinous interference-mitigation expenses on Globalstar if, in fact, Globalstar must undertake significant modifications to Sprint Nextel's BRS base stations to eliminate harmful interference.

The Commission's ATC decision requires Globalstar to justify the use of technologies other than CDMA by demonstrating that they will cause no more interference; however, no such showing is possible until the LTE standard is complete.<sup>23</sup> Contrary to the statements in Globalstar's Opposition, moreover, no technical analysis of the interference potential of LTE is presented in Globalstar's ATC application.<sup>24</sup>

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<sup>21</sup> In the Technical Exhibit to its Application, Globalstar acknowledges the incomplete nature of the LTE standard. See Technical Exhibit at 10 ("3GPP Release 89 has yet to be finalized").

<sup>22</sup> See Draft Minutes v.02 of the 40<sup>th</sup> 3GPP TSG RAN Meeting (Prague, Czech Republic, 27-30 May 2008), available at: <[http://www.3gpp.org/ftp/tsg\\_ran/TSG\\_RAN/TSGR\\_40/report](http://www.3gpp.org/ftp/tsg_ran/TSG_RAN/TSGR_40/report)>.

<sup>23</sup> See 47 C.F.R. § 25.254 at Note (placing the burden on the MSS ATC applicant to demonstrate that a technology other than cdma2000 or IS-95 will produce no greater interference potential).

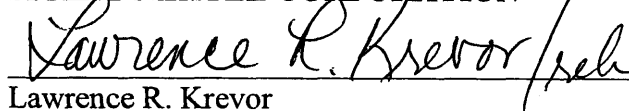
<sup>24</sup> Globalstar states that it "provided a technical analysis demonstrating that MSS/ATC equipment using LTE will meet those requirements," and cites to its Technical Exhibit at Section 1.2.3. Globalstar Opposition at 23. That section, however, is only a high-level description of LTE as conceived in the evolving standards that were available at that time, and there is no technical analysis or discussion showing how this technology has no more interference potential than CDMA.

### III. CONCLUSION

Globalstar's one-way messaging service is not integrated with the proposed two-way data service. Globalstar could mitigate the risk to consumers and lessen the potential for systemic underinvestment in MSS infrastructure by making its ATC terminals compatible with the two-way voice and data capabilities of its current and future MSS constellations, but it has chosen not to do so. The company's refusal to make its ATC terminals compatible with the two-way MSS capabilities that are mandated by the FCC's satellite coverage requirements suggests that no real integration is planned or will ever occur. In addition, Globalstar's ailing MSS constellation fails to satisfy the Commission's geographic and in-orbit spare requirements and creates incentive for systemic underinvestment in satellite infrastructure that the MSS ATC rules were designed to prevent. Finally, no good cause exists to waive the rules governing MSS ATC that the Commission established. For these reasons, the Commission should deny Globalstar's request for modified ATC authority.

Respectfully submitted,

**SPRINT NEXTEL CORPORATION**



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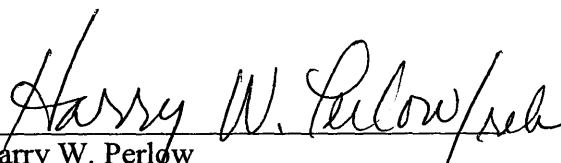
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July 16, 2008

Declaration

I am a Distinguished Member of the technical staff of Sprint Nextel Corporation and have more than thirty-five years of experience working on communications interference and other technical regulatory issues. I have analyzed the technical information contained in this Petition to Deny, including the likelihood of harmful interference to Sprint Nextel's fourth-generation wireless broadband network if Globalstar's request for modified ATC authority is granted. I declare under penalty of perjury that the technical and engineering information contained in the foregoing Petition to Deny of Sprint Nextel Corporation is true and correct to the best of my personal knowledge and belief.

Executed on July 16, 2008

  
\_\_\_\_\_  
Harry W. Perlow  
Sprint Nextel Corporation

## Certificate of Service

I, Ruth E. Holder, hereby certify that on this 16th day of July, 2008, I caused true and correct copies of the foregoing Reply of Sprint Nextel Corporation to be mailed by first-class U.S. mail (except where otherwise indicated) to:

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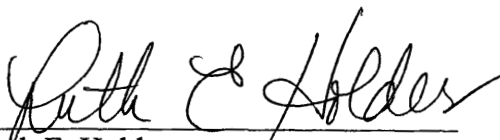
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