

Before The  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, DC 20554

In the Matter of )  
 )  
Amendment of Parts 2, 25 and 97 of the ) IB Dkt. No. 98-142  
Commission's Rules with Regard to the )  
Mobile-Satellite Service Above 1 GHz )

**PETITION FOR RECONSIDERATION**

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GLOBALSTAR USA, LLC

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## SUMMARY

Globalstar, L.P. (“GLP”), and Globalstar USA, LLC (“GUSA”) petition for reconsideration of the Commission’s decision not to allocate the 7025-7075 MHz band for non-geostationary (“NGSO”) Mobile-Satellite Service (“MSS”) feederlinks in the space-to-earth direction.

The Commission offered three rationales for reserving the 7025-7075 MHz band for Broadcast Auxiliary Service (“BAS”) usage, including fixed and mobile television pickup (“TVPU”) stations. None of the Commission’s rationales is supported by the record.

First, the Commission stated that sharing the 6700-7075 MHz band between NGSO MSS feederlinks and BAS stations created “novel” coordination issues. However, all parties to this proceeding acknowledged that the allocation of the 6700-7075 MHz band for shared use between the Fixed and Mobile Services and NGSO MSS feederlinks would require coordination of the terrestrial and satellite services. No party objected to the allocation for NGSO MSS on the basis of “novel” coordination issues. The record, in fact, demonstrates, and the Commission agreed that coordination is possible.

Second, the Commission stated that it was reserving four “clear” BAS channels at 7025-7125 MHz (at 25 MHz each) as the minimum number needed for TVPU use. However, there is no evidence in the record suggesting that four, or any particular number, of “clear” channels are needed for BAS use nationwide. The record demonstrates that 7 GHz is not the preferred band for TVPU use. Given the

small number of NGSO MSS earth stations using 7 GHz feederlinks and the primary use of mobile TVPU in urban areas, plus the ability of NGSO MSS and BAS to coordinate, there is no demonstrated need to reserve four clear BAS channels.

Third, the Commission stated that the 325 MHz of NGSO MSS feederlink spectrum at 6700-7025 MHz would be sufficient for the MSS systems authorized to use 7 GHz feederlinks. However, with only 325 MHz of spectrum, it is likely that the frequencies used by more than four systems will overlap, unless each system narrows its bandwidth requirements, a somewhat difficult technical challenge. Moreover, the Commission has not taken into consideration the stated feederlink requirements of each system, nor sought any information on whether the authorized systems could coordinate 325 MHz.

Finally, GLP and GUSA request that even if the Commission does not extend the allocation for NGSO MSS feeder downlinks to 6700-7075 MHz, as requested herein, it should at least grandfather the existing NGSO MSS systems with built earth stations for their currently authorized feederlink frequencies. Allowing the grandfathered satellite systems to use their assigned feeder downlink frequencies at additional gateway earth stations will serve the public interest by not requiring them to redesign the systems at substantial cost just to improve service and add capacity.

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**PETITION FOR RECONSIDERATION**

Pursuant to Section 1.429 of the Commission's Rules, Globalstar, L.P. ("GLP") and Globalstar USA, LLC ("GUSA") petition for reconsideration of the decision in the Report and Order in the above-referenced docket not to allocate the 7025-7075 MHz band for non-geostationary ("NGSO") Mobile-Satellite Service ("MSS") feeder links.<sup>1</sup> GLP owns and operates the international MSS business offered through the Globalstar™ satellite constellation, which is licensed to L/Q Licensee, Inc. ("LQL").<sup>2</sup> GUSA is currently the North American service provider for

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<sup>1</sup> Report and Order, FCC 02-23 (released Feb. 7, 2002). The Report and Order was published in the Federal Register on April 10, 2002, 67 Fed. Reg. 17288. Hence this petition is timely filed.

<sup>2</sup> See Loral/Qualcomm Partnership, L.P., 10 FCC Rcd 2333 (Int'l Bur. 1995). GLP and GUSA participated in this proceeding by filing joint comments, reply comments and other ex parte presentations with GLP, LQL and AirTouch Communications, Inc. (later Globalstar USA, Inc. and now Globalstar USA, LLC) (collectively "the Globalstar Parties").

Globalstar. GLP also holds a 2 GHz MSS license.<sup>3</sup> The 2 GHz MSS spectrum will be used to expand the service offerings available over the Globalstar system.

LQL is licensed to use the 5051-5250 MHz and 6875-7055 MHz bands for feeder uplinks and downlinks, respectively.<sup>4</sup> GUSA and its affiliate Globalstar Caribbean Ltd. hold licenses for gateway earth stations in Clifton, Texas, and Cabo Rojo, Puerto Rico, that are authorized to use these feederlink frequencies.<sup>5</sup> In the Report and Order, the Clifton and Cabo Rojo earth stations are grandfathered to use the spectrum in the 7025-7075 MHz band.<sup>6</sup>

For the reasons outlined below, GLP and GUSA request that the Commission include the 7025-7075 MHz band segment in the allocation for NGSO MSS feederlinks at 6700-7075 MHz, consistent with the international allocation that was

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<sup>3</sup> Globalstar, L.P., DA 01-1634 (Int'l Bur. released July 17, 2001).

<sup>4</sup> L/Q Licensee, Inc., 11 FCC Rcd 16410 (Int'l Bur. 1996). Because the feederlink allocations had not yet been adopted in the United States, the Commission granted LQL a waiver to use the feederlinks in accordance with the international allocations.

<sup>5</sup> Call Signs E970199, E000342-345 (Clifton); E990335-337 (Cabo Rojo). Currently pending at the Commission are applications (File Nos. SES-T/C-20020117-00043; SES-T/C-20020117-00042) to transfer control of GUSA and Globalstar Caribbean Ltd. to Globalstar Corporation, a wholly-owned subsidiary of GLP. As part of its plan for reorganization of the Globalstar business, GLP is assuming the retail service provider role in North America. When these applications are granted, Globalstar Corporation will become the parent of the licensees of the Clifton and Cabo Rojo earth stations.

<sup>6</sup> See Report and Order, ¶ 39; Footnote NG172.

adopted at the International Telecommunication Union's World Radiocommunication Conference ("WRC") in 1995.

**I. THE RECORD DEMONSTRATES THAT MSS SYSTEMS CAN COORDINATE EARTH STATIONS WITH TERRESTRIAL USERS OF THE 7025-7075 MHZ BAND.**

Currently, the 6875-7125 MHz band is used in the United States for the broadcast auxiliary service ("BAS"), including both fixed and mobile television pickup ("TVPU") stations. TVPU stations are licensed across the band in ten 25 MHz channels.<sup>7</sup> The mobile use of these BAS stations can be for portable and/or airborne (e.g., helicopter, blimp) on-site broadcast news feeds.

At the 1995 WRC, the ITU allocated the 6875-7075 MHz band for space-to-earth NGSO MSS feederlinks. The Commission has licensed six NGSO MSS systems to use segments of this band for gateway earth stations.<sup>8</sup> The use of these bands for feederlinks involves fixed earth stations equipped with tracking antennas for the NGSO satellite constellations.<sup>9</sup>

As part of its rationale for not allocating the 7025-7075 MHz band for NGSO MSS feederlinks in the United States, the Commission stated:

Because the introduction of NGSO MSS feeder downlinks complicates coordination requirements across the band 6700-7075 MHz, and indeed introduces novel mobile

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<sup>7</sup> See 47 C.F.R. § 74.602.

<sup>8</sup> See Report and Order, ¶¶ 8, 10.

<sup>9</sup> See "Analysis of Globalstar Feederlink Earth Stations Sharing Spectrum with Airborne TV Pickups," Comsearch Report, at 7, enclosed with Letter from Globalstar USA, Inc. and Globalstar, L.P. (Feb. 25, 2000).

coordination requirements, we are limiting gateway use of the band 7025-7075 MHz to three particular “built” facilities.<sup>10</sup>

The Commission’s finding that the coordination procedures involved in sharing the 7025-7075 MHz band are “novel,” and the implication that coordination in this segment is somehow different from coordination in the 6875-7025 MHz segment are not supported by the record. On the contrary, the record in this proceeding fully supports the capability of the broadcast industry and the MSS industry to coordinate BAS and NGSO MSS feederlink use across the entire 6875-7075 MHz band. The same coordination procedures that BAS and MSS must use for the 6875-7025 MHz band segment will also work for the 7025-7075 MHz band segment.

The parties filing comments in this proceeding recognized that the shared use of the 6875-7075 MHz band by airborne TVPU stations and MSS gateway earth stations created a situation that would require coordination between the two services.<sup>11</sup> However, no party objected to the allocation based on a perceived impossibility, or even substantial difficulty, in coordinating.<sup>12</sup> Despite the “novelty”

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<sup>10</sup> Report and Order, ¶ 39.

<sup>11</sup> See, e.g., Comments of Telecommunications Industry Ass’n, at 6; Comments of Society of Broadcast Engineers, at 1-3; Comments of Constellation Communications, at 3-4.

<sup>12</sup> See Comments of Society of Broadcast Engineers, at 4 (“SBE does not object to NGSO MSS sharing 7 GHz TV BAS frequencies for space-to-Earth downlinking”); Reply Comments of National Ass’n of Broadcasters, at 2-3 (requesting clarification of coordination and exemptions for TVPUs).

of the coordination issues, the interested parties to this proceeding believed that the two services can co-exist in the band.<sup>13</sup> The Commission itself stated that the PFD limits adopted for the 6700-7075 MHz band would protect fixed and mobile stations in the band.<sup>14</sup>

Various methodologies were proposed to coordinate the two services. For example, the Society of Broadcast Engineers (“SBE”) suggested the use of geographic exclusion zones for placement of MSS earth stations to ensure that airborne TVPU stations would not interfere with, or be restricted in operation by, MSS gateway operations.<sup>15</sup> The Globalstar Parties and others objected to such an approach, arguing that SBE’s proposal would compel MSS operators to locate the few gateways that are needed far from the urban areas where airborne TVPUs are prevalent (assuming there was any geographic area left outside SBE’s exclusion zones) without regard to TVPU usage or ability to coordinate.<sup>16</sup> With coordination as an alternative and sufficient spectrum available to make coordination feasible,

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<sup>13</sup> See Comments of Society of Broadcast Engineers, at 1-3; Consolidated Reply Comments of ICO Services Ltd., at 9-10; Reply Comments of MCHI, at 3-6; Reply Comments of Ass’n of Am. Railroads, at 6-7; Joint Reply Comments of Globalstar Parties, at 2-4; Reply Comments of National Ass’n of Broadcasters, at 2-4; Reply Comments of Am. Petroleum Inst., at 7-8; Reply Comments of Constellation Communications, at 4-5.

<sup>14</sup> Report and Order, ¶¶ 43-44.

<sup>15</sup> Comments of Society of Broadcast Engineers, at 1-2.

<sup>16</sup> See Joint Reply Comments of Globalstar Parties, at 2-4; Consolidated Reply Comments of ICO Services Ltd., at 9-10; Reply Comments of MCHI, at 5-6.

exclusion zones are clearly unnecessary. Furthermore, MSS operators have every incentive to consider locations remote from urban areas simply to reduce the incidents of coordination and unpredicted interference, thereby avoiding unnecessary administrative expense and time. On the other hand, the establishment of exclusion zones would make it impractical to site gateways with due regard for efficient operations and minimal cost.

The Commission agreed with the MSS industry and, in accordance with the evidence in the record, declined to adopt exclusion zones.<sup>17</sup> Having established the principle that MSS operators can and will select geographic coordination to avoid TVPU operations, the Commission then articulated no rational basis for offering yet more protection for TVPUs through frequency separation.

Furthermore, the Commission finds in the Report and Order that MSS and broadcasters will be able to coordinate successfully in the 6875-7025 MHz band.<sup>18</sup> There is then no rational basis for reaching an opposite conclusion with respect to the 7025-7075 MHz band. Therefore, the Commission's reliance on the "novelty" of the coordination process for the 7 GHz band does not justify reserving the 7025-7075 MHz band for BAS use only.

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<sup>17</sup> See Report and Order, ¶¶ 52-53.

<sup>18</sup> See id., ¶¶ 56-58 (opining that use of airborne TVPUs is "limited and generally confined to major markets").

It is an axiom of administrative rulemaking than an agency must have a factual basis for rules grounded in the rulemaking record.<sup>19</sup> The Commission cannot ignore factual data that supports a conclusion contrary to the one it has reached.<sup>20</sup>

In this proceeding, no party objected to adoption of the allocation for NGSO MSS feeder links based on the “novel” coordination procedure. Indeed, in a joint ex parte filing, the Globalstar Parties provided a study by Comsearch that explained how the NGSO MSS earth stations and airborne TVPUs could coordinate the use of the spectrum.<sup>21</sup> Since that submission was the only technical presentation in the docket on this issue, there is no contrary data in the record to support a finding that the “novelty” of the coordination procedure would hinder adoption of the entire international allocation for NGSO MSS feederlinks as proposed. Therefore, the Commission must reconsider its decision concerning the 7025-7075 MHz band and also allocate these 50 MHz for NGSO MSS feederlinks with the coordination procedures outlined for the 6875-7025 MHz band segment.

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<sup>19</sup> See, e.g., Motor Vehicle Mfrs. Ass’n v. State Farm Mut. Auto. Ins. Co., 463 U.S. 29, 43 (1983); Citizens to Preserve Overton Park v. Volpe, 401 U.S. 402, 416 (1970).

<sup>20</sup> See, e.g., Illinois Public Telecommunications Ass’n v. FCC 117 F.3d 555, 564 (D.C. Cir. 1997).

<sup>21</sup> See Comsearch Report, supra, note 9.

**II. THERE IS NO BASIS IN THE RECORD FOR THE COMMISSION TO PRESERVE 7025-7075 MHZ AS “CLEAR CHANNELS” FOR BROADCAST AUXILIARY STATIONS.**

The Commission also decided not to allocate the 7025-7075 MHz band for NGSO MSS feederlinks based on its conclusion that “four ‘clear’ BAS channels are the minimum number necessary for broadcast cable and TVPU use in this frequency range.”<sup>22</sup>

There is no evidence in the record of this proceeding that suggests the BAS needs four clear channels from the 10 channels at 6875-7125 MHz. The only evidence in the record on BAS usage of the 7 GHz channels indicates that the 7 GHz band is not the preferred band for TVPU stations.<sup>23</sup> Since there are 10 BAS channels at 7 GHz, and the 7 GHz equipment is generally frequency agile, there is no need to reserve four (or any particular number, for that matter) clear channels.<sup>24</sup> If an airborne BAS station needs to operate within the area that could cause interference to an MSS gateway, and the parties cannot coordinate co-frequency usage, the BAS operator can easily and at no additional cost select a channel outside the MSS band. There is nothing in the record to indicate that having more than two channels outside the shared band is necessary for this purpose.

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<sup>22</sup> Report and Order, ¶ 39.

<sup>23</sup> See Comsearch Report, at 3-4.

<sup>24</sup> See id., at 5.

The Commission's unsupported assertion that four clear BAS channels at 7 GHz must be reserved is exactly the type of "succinct statement [that] fails to provide a reasoned justification" for not including the 7025-7075 MHz band segment in the allocation for NGSO MSS feederlinks.<sup>25</sup> The decision must be reconsidered and the allocation extended to 7075 MHz.

### **III. NOT ALLOCATING THE 7025-7075 MHZ BAND FOR MSS FEEDERLINKS IMPOSES AN UNNECESSARY AND UNJUSTIFIED BURDEN ON EXISTING MSS SYSTEMS.**

According to the Commission, it was necessary for each of the services in the 6700-7075 MHz band to compromise "in order to minimize the impact on any one service."<sup>26</sup> The Commission opined that "325 megahertz of primary spectrum, along with 50 megahertz of primary spectrum limited to grandfathered systems, will accommodate the existing need for feeder downlink spectrum."<sup>27</sup>

The record does not support the Commission's decision to eliminate 50 MHz from the proposed allocation for 7 GHz NGSO MSS feeder downlinks. Originally, the Commission assumed that four NGSO MSS systems could share the 375 MHz available for 7 GHz MSS downlinks.<sup>28</sup> Currently, there are six NGSO MSS systems

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<sup>25</sup> AT&T Wireless Servs., Inc. v. FCC, 270 F.3d 959, 968 (D.C. Cir. 2001).

<sup>26</sup> Report and Order, ¶ 40.

<sup>27</sup> Id.

<sup>28</sup> Notice of Proposed Rulemaking, 13 FCC Rcd 17107, 17118 (1998).

authorized to use 7 GHz feeder downlinks.<sup>29</sup> While the Globalstar Parties supported the view that it would be technically feasible for four or more NGSO MSS systems to coordinate use of the 6700-7075 MHz band, taking away 50 MHz makes such coordination more difficult. Each NGSO MSS system authorized to use the 7 GHz feeder downlinks requires 100 to 200 MHz of spectrum. With only 325 MHz of spectrum, it is likely that the frequencies used by more than four systems will overlap, unless each system narrows its bandwidth requirements, a somewhat difficult technical challenge.

As the Globalstar Parties have previously demonstrated, the amount of feeder downlink required is directly proportionate to the amount of user uplink used by the system.<sup>30</sup> Yet, the Commission has not taken into consideration the stated feederlink requirements of each system, nor sought any information on whether the authorized systems could coordinate 325 MHz. Nevertheless, the Commission asserted that 50 MHz less spectrum would make no difference.

As the D.C. Circuit has repeatedly noted, basic principles of administrative law require the Commission “to ‘examine the relevant data and articulate a satisfactory explanation for its action including a rational connection between the

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<sup>29</sup> See Report and Order, ¶¶ 8-10 (two Big LEO systems licensed to LQL and Constellation plus four 2 GHz MSS systems licensed to Constellation, Globalstar, ICO and MCHI).

<sup>30</sup> See Letters from Globalstar USA, Inc. and Globalstar, L.P. (May 14, 2001 and June 26, 2001).

facts found and the choice made.’”<sup>31</sup> The Commission cannot simply draw lines without a rational justification based on the rulemaking record.<sup>32</sup> Here, the Commission has failed to develop a rational basis to support the reduction in authorized feeder downlink spectrum from 375 MHz to 325 MHz. The decision is unjustified and must be reconsidered.

**IV. NGSO MSS SYSTEMS WITH GRANDFATHERED EARTH STATIONS SHOULD BE PERMITTED TO INSTALL ADDITIONAL GATEWAY STATIONS USING 7025-7075 MHZ.**

The Commission grandfathered the Globalstar and ICO NGSO MSS satellite systems and their “built” gateway earth stations for use of 7025-7075 MHz. In addition, pursuant to NG172, Globalstar and ICO will be able to use earth stations within 300 meters of their three existing built earth stations. The Commission grandfathered these satellite systems and earth stations in recognition of the fact that the 7025-7075 MHz segment is hardwired into the system architecture and there would be substantial costs to retrofit the earth station facilities.<sup>33</sup>

The Commission also recognized that an NGSO MSS system may desire to add additional gateways in order to increase capacity through frequency reuse of the feederlink spectrum.<sup>34</sup> Currently, the Globalstar system has four gateways that

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<sup>31</sup> U.S. Telecom Ass’n v. FCC, 227 F.3d 450, 461 (D.C. Cir. 2000) (quoting Motor Vehicles Mfrs. Ass’n, 463 U.S. at 43).

<sup>32</sup> See AT&T Wireless Servs, Inc. v. FCC, 270 F.3d at 968.

<sup>33</sup> Report and Order, ¶ 39.

<sup>34</sup> Id., ¶ 52.

serve the United States, two in Canada, one at Clifton, Texas, and one in Cabo Rojo, Puerto Rico. Should the system need additional capacity to serve the United States, the most efficient and effective course would be to add one or two gateways within the Continental United States, plus gateways in Alaska and Hawaii, but none within 300 meters of either the Clifton or Cabo Rojo gateway. As currently written, NG172 does not appear to permit the existing Globalstar system to improve service to the United States by adding additional gateways using its authorized feeder downlink frequencies.

Even if the Commission does not extend the allocation for NGSO MSS feeder downlinks to 6700-7075 MHz, as requested herein, it should at least grandfather the existing Globalstar system with its currently authorized feederlink frequencies. The extensive record in this proceeding on the siting of NGSO MSS gateways away from areas of prevalent TVPU usage and the ability of these services to coordinate demonstrates the addition of a few gateways in the United States will not impair BAS. Allowing the grandfathered satellite systems to use their assigned feeder downlink frequencies will serve the public interest by not requiring them to redesign the systems at substantial cost just to improve service and add capacity. Footnote NG172 should, therefore, be modified to reflect that the Globalstar and ICO systems are grandfathered for use of frequencies in the 7025-7075 MHz band for additional gateway earth stations in the United States.

V. CONCLUSION

For the reasons set forth above, GLP and GUSA request that the Commission grant this Petition for Reconsideration and add the 7025-7075 MHz band to the allocation for NGSO MSS feederlinks, and, at least, authorize the NGSO MSS systems with built gateway facilities using these frequencies to add additional gateway facilities as needed using their currently authorized feeder downlink frequencies.

Respectfully submitted,

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CERTIFICATE OF SERVICE

I, William D. Wallace, hereby certify that I have on this 10th day of May, 2002, caused to be served true and correct copies of the foregoing "Petition for Reconsideration" upon the following parties via hand-delivery:

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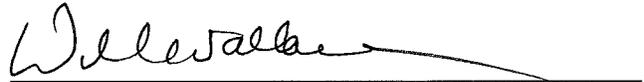
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