

space station license

10 FCCR 2268

DA 95-131

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

In re Application of	)	
	)	
Motorola Satellite	)	File Nos. 9-DSS-P-91(87)
Communications, Inc.	)	CSS-91-010
	)	43-DSS-AMEND-92
	)	15-SAT-LA-95
for Authority to Construct, Launch, and Operate a Low	)	16-SAT-AMEND-95
Earth Orbit Satellite System in the 1616-1626.5 MHz	)	
Band	)	

ORDER AND AUTHORIZATION

Adopted: January 31, 1995

Released: January 31, 1995

By the Chief, International Bureau:

**I. Introduction**

1. Motorola Satellite Communications, Inc. ("Motorola") has filed an application<sup>1</sup> to construct, launch, and operate a low-Earth orbit ("LEO") mobile satellite system in the 1.6 GHz frequency band ("Big LEO" service).<sup>2</sup> On November 15, 1994, Motorola amended its application in light of the rules and policies adopted by the Commission to govern the Big LEO service.<sup>3</sup> By Public Notice, Report No. DS-1481 (November 21, 1994), we sought comment on Motorola's amended application. In response, COMSAT Corporation ("COMSAT"), Constellation Communications, Inc. ("Constellation"), and Hughes Communication Galaxy, Inc. ("Hughes") filed comments. Mobile Communication Holdings, Inc. ("MCHI") filed a Consolidated Petition

<sup>1</sup>The original application was filed on December 5, 1990. American Mobile Satellite Corporation filed a Petition to Deny and Communications Satellite Corporation filed comments. Motorola filed a responsive pleading. Thereafter, American Mobile Satellite Corporation, Communications Satellite Corporation, Constellation Communications, Inc., Hughes Aircraft Company, Loral Cellular Systems, Corporation, Ellipsat Corporation and TRW, Inc. filed reply comments. The matters raised in all petitions and comments have, except as addressed in this Order, been separately addressed through the adoption of service rules for Big LEO systems, or have otherwise been rendered moot through amendments to Motorola's application.

<sup>2</sup>Motorola requests authority to construct a mobile satellite system capable of operating in the 1616-1626.5 MHz frequency bands and to operate the system in the United States in the 1621.35-1626.5 MHz frequency bands for both Earth-to-space and space-to-Earth transmissions.

<sup>3</sup>See In the Matter of 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 9 F.C.C Rcd 5936 (1994) ("Big LEO Order").

to Deny and Video/Phone Systems, Inc., ("Video/Phone") filed a Conditional Petition to Deny Motorola's application. Motorola filed a Consolidated Opposition and Reply Comments, to which Hughes, MCHI, Video/Phone, and American Mobile Satellite Corporation ("AMSC") filed replies. For the reasons discussed below, we grant Motorola's application, as amended, subject to certain conditions.

2. Motorola, a Delaware corporation, is a wholly owned subsidiary of Motorola, Inc., also a Delaware corporation. Motorola proposes to construct a LEO satellite system, Iridium, consisting of 66 satellites and up to twelve in-orbit spares. The system is projected to consist of eleven satellites in each of six orbital planes at an inclination of 86.4 degrees, providing continuous global coverage. Each operating satellite will circle the globe approximately 780 kilometers above the earth and will have inter-satellite links to and from adjacent satellites in the same orbital plane and adjacent orbital planes of its satellite constellation. Each satellite will also link to a network of "gateway" stations throughout the world, connecting the system with any subscriber unit and the Public Switched Telephone Network (PSTN). The satellites will contain an array of spot beams which will use digital cellular technology to communicate with subscriber units.

3. The system is intended to handle two-way voice and data communications between hand-held mobile terminals anywhere in the world and between such terminals and PSTN users. The Iridium satellite system will also be capable of providing radiodetermination satellite services.<sup>4</sup> The system will operate bi-directionally in a portion of the 1.6 GHz band and will employ a Time Division Duplex/Time Division Multiple Access/Frequency Division Multiple Access architecture ("TDD/TDMA/FDMA").<sup>5</sup> This architecture requires operation on discrete frequency band segments within the 1.6 GHz band. Motorola requests authority to construct its mobile service links capable of operating in the 1616-1626.5 MHz frequency band; its inter-satellite links in the 23.18-23.8 GHz band; its space-to-Earth feeder links in the 19.4-19.6 GHz band; and its Earth-to-space feeder links in the 29.1-29.3 GHz band.

4. Motorola does not anticipate providing any domestic satellite services over Iridium directly to the public. Instead, Motorola will be a wholesale supplier of Iridium's transmission capacity to network operators or service providers through U.S. gateways. These entities may provide services to end users or sell capacity in bulk to other service providers, or both. Therefore, Motorola requests authority to offer its space segment capacity on a non-common carrier basis.

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<sup>4</sup> For more complete details of the services to be offered, see Application of Motorola Satellite Communications, Inc., For A Low Earth Orbit Mobile Satellite System (Dec. 5, 1990), at 22-33.

<sup>5</sup> TDD/TDMA is a transmission technique in which the same frequency band is used by both uplink and downlink transmissions in alternating time slots. FDMA provides multiple discrete channels with different frequencies. See Big LEO Order at 6 n.19.

## II. Discussion

5. Financial Qualifications. Applicants for space station authorization in the Big LEO service must demonstrate the financial qualifications set forth in Section 25.143(b)(3) of the Commission's rules, 47 C.F.R. § 25.143(b)(3). Specifically, an applicant must demonstrate that it has the financial resources to meet the estimated costs of constructing and launching the system as well as operating it for one year after launch of the first satellite. This can be demonstrated through evidence of the company's current assets, operating revenues, or irrevocably committed debt or equity financing.<sup>6</sup> Any applicant relying on internal funding must also submit evidence of a firm management commitment to spend the necessary funds. Motorola states it will be relying on its parent corporation, Motorola, Inc., for the necessary funds, and has submitted a balance sheet and commitment letter from Motorola, Inc.<sup>7</sup> Motorola, Inc.'s total current assets at the end of the third quarter of 1994 were \$8.471 billion.<sup>8</sup> Motorola estimates total costs of constructing and launching the Iridium system and operating it for one year after the launch of its first satellite to be \$3.759 billion.<sup>9</sup>

6. MCHI alleges that Motorola has failed to provide the Commission with information sufficient to ensure its compliance with our financial requirements. First, MCHI claims Motorola cannot rely on the current assets and operating revenues of its parent because it intends primarily to fund its system from external sources and not internal assets or income.<sup>10</sup> MCHI submits that, based on Motorola's stated intent to seek external financing, it cannot reasonably claim at the same time to rely on internal funding.<sup>11</sup> MCHI also argues that Motorola's reliance on internal assets, despite its intent to seek outside sources of funding, calls its candor into question.

7. As Motorola notes in its opposition and reply comments, the Big LEO Order states that "[t]he availability of internal funds sufficient to cover a system's costs provides adequate assurance at the time the Commission acts on the application, that the system can be built and launched. Current assets provide a general measure of a company's ability to finance the project

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<sup>6</sup>Section 25.143(b)(3) incorporates, as part of its financial qualification requirements, Sections 25.140(c) and (d) of the Commission Rules, 47 C.F.R. §§ 25.140 (c) and (d), which specify the necessary financial information that must be submitted to meet the financial qualification requirements.

<sup>7</sup>See Motorola Minor Amendment (Nov. 15, 1994), at Exhibit 1.

<sup>8</sup>Id. at 5.

<sup>9</sup>Id. at 4.

<sup>10</sup>MCHI Consolidated Petition to Deny (Dec. 22, 1994), at 15.

<sup>11</sup>Id. at 6; see id. at Exhibit 5 (excerpts of Motorola, Inc. SEC Form 10-Q at Liquidity and Capital Resources Section).

itself or to raise funds from lenders and equity investors on the basis of its on-going operations."<sup>12</sup> Motorola, Inc. has submitted evidence to show that it has current assets and operating income sufficient to construct the system, and has provided an unequivocal statement that it intends to expend the funds necessary to construct the proposed system.<sup>12</sup> The Commission's rules and policies do not require more.<sup>13</sup>

8. MCHI also contends the management commitment letter does not commit Motorola, Inc., to cover the full costs of the Iridium system, but only the costs of its subsidiary Motorola, in connection with the project.<sup>14</sup> Motorola represents that Motorola, Inc., is contractually bound to design, construct, launch, operate, and maintain the Iridium system, and Motorola's cost in connection with the system amounts to the total construction, launch, and operating expenses.<sup>15</sup> MCHI also asserts that Motorola's management commitment letter omits any reference to launch costs, indicating that Motorola, Inc. has not committed itself to meeting the cost of launching all of the satellites.<sup>16</sup> This argument is based on the omission of the word "launch" from a sentence in Motorola's management commitment letter,<sup>17</sup> which states: "[T]he parent corporation is fully committed to meeting the construction costs and operating expenses of the subsidiary in connection with its proposed IRIDIUM system." However, the letter goes on to state that "[T]he corporation's assets are sufficient to meet the costs of construction and launch of the entire constellation as well as the operating expenses for one year after launch of the first satellite."<sup>18</sup> Moreover, in its opposition, Motorola submitted an explanatory Declaration of Mr. Koenemann, the Executive Vice President and Chief Financial Officer of Motorola, Inc. Mr. Koenemann confirms that his earlier letter fully commits Motorola, Inc.'s management to funding the entire system, including launch costs.<sup>19</sup> We find this management commitment letter more than sufficient to demonstrate Motorola, Inc.'s commitment to funding the entire project.

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<sup>12</sup>See Big LEO Order at ¶ 31 (emphasis added); Motorola's Consolidated Opposition and Reply Comments (Jan. 3, 1995), at 2 ("Motorola Opposition").

<sup>12</sup>Motorola asserts that approximately \$1.6 billion has been raised from strategic partners around the world. See Motorola Amendment at 5.

<sup>13</sup>We have also reviewed the alleged inconsistencies between Motorola's statements to the Commission and its statements in SEC filings concerning its financing plans. We conclude that the statements are consistent with Motorola, Inc.'s management commitment and raise no substantial, material question of fact as to Motorola's candor.

<sup>14</sup>See MCHI Consolidated Petition to Deny at 14-15.

<sup>15</sup>Motorola Opposition at 6.

<sup>16</sup>See MCHI Consolidated Petition to Deny at 15.

<sup>17</sup>See Motorola Amendment at Exhibit 1.

<sup>18</sup>Id. (emphasis added).

<sup>19</sup>See Motorola Opposition at Exhibit 1 at 2.

9. MCHI also alleges that control over the Iridium system has passed from Motorola to Iridium, Inc. and consequently disqualifies Motorola from consideration in the current processing group.<sup>20</sup> This argument is based upon a contract between Iridium, Inc., and Motorola, Inc. and statements in Motorola, Inc.'s SEC disclosures regarding Iridium, Inc. The contract addresses the schedule which Motorola is to follow in constructing its system and obligates Iridium, Inc. to make payments as the schedule is met. It also contains limitations on Motorola, Inc.'s liability to Iridium, Inc. MCHI argues the contract shifted all control and ownership of the Iridium system from Motorola to Iridium, Inc.<sup>21</sup> Motorola responds that under this contractual arrangement, Iridium, Inc. is the investment vehicle by which Motorola is pursuing external financing for the system.<sup>22</sup> Motorola represents that it retains exclusive control over, and sole responsibility for, obtaining a license for the system as well as constructing, launching, operating, and maintaining the entire system.<sup>23</sup>

10. To the extent that MCHI argues that the Motorola, Inc.-Iridium, Inc. contract undercuts Motorola, Inc.'s management commitment to the Iridium system, we reject that argument. With or without the contract, Motorola will be the licensee for this system, with ultimate responsibility for construction, launch, and operation. Motorola represents that Motorola, Inc. is contractually bound to perform these responsibilities, and Motorola, Inc. has firmly committed to do so. Nothing in the Motorola, Inc.-Iridium, Inc. contract shifts Motorola's ultimate responsibility or vitiates the firm financial commitment on which it relies.

11. There is no indication in the Motorola, Inc.-Iridium, Inc. contract that Motorola has relinquished ultimate responsibility for the satellite system to Iridium, Inc. or that title has passed to Iridium, Inc. Consequently, we cannot find that an impermissible transfer of control or a major change of ownership has taken place or that trafficking has occurred. Even if a "major" change in Motorola's ownership had occurred, we would find these ownership changes to be in the public interest pursuant to Section 25.116(c)(2) of the Commission's Rules.<sup>24</sup> We also reject MCHI's argument that the Motorola, Inc.-Iridium, Inc. contract impermissibly transfers control of the Iridium system to Iridium, Inc. Furthermore, in the significant amount of time that has passed since the Big LEO applications were filed, several of the applicants have entered into new business arrangements to take advantage of new financing possibilities. We recognize that some of these changes might be considered "major amendments" under Section 25.116 of the Commission's Rules.<sup>25</sup> Such a finding would normally require that the application be considered

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<sup>20</sup>MCHI Consolidated Petition to Deny at 16 and 19.

<sup>21</sup>Id. at 18, Exhibit 4, and Exhibit 5.

<sup>22</sup>Motorola, Inc. has reduced its ownership in Iridium, Inc. from 100% to approximately 29%.

<sup>23</sup>Motorola Opposition at iii.

<sup>24</sup>47 C.F.R. § 25.116.

<sup>25</sup>47 C.F.R. § 25.116.

newly filed, and therefore ineligible for consideration in the processing group currently before us. However, our overriding concern in determining whether a "major amendment" has occurred is whether the applicant has attempted to profit from the sale of an application.<sup>26</sup> Unless there is evidence of this, we see no reason to prevent applicants from procuring partners to help to finance the enormous cost of these systems. We therefore find, on the entire record before us, that Motorola is financially qualified to be a Commission licensee in the Big LEO service.

12. Technical Qualifications. Applicants seeking authority to construct and launch Big LEO systems also must meet certain technical requirements. These requirements include: (1) using a non-geostationary satellite system design; (2) providing mobile satellite service to all locations as far north as 70° latitude and as far south as 55° latitude for at least 75 percent of every 24-hour period; (3) providing continuous service throughout the fifty states, Puerto Rico, and the U.S. Virgin Islands; and (4) preventing unacceptable interference to other authorized users of the spectrum.<sup>27</sup>

13. Motorola demonstrates that its proposed LEO system will comply fully with our system design and coverage requirements. The Iridium system satellites use non-geostationary satellite orbits and will provide continuous global coverage with approximately 2,150 transmission beams.<sup>28</sup> Iridium will also cover the contiguous United States as well as Alaska, Hawaii, Puerto Rico, and the U.S. Virgin Islands.<sup>29</sup> However, several parties have raised the possibility that Iridium's operations will cause unacceptable interference to other authorized services.

14. Section 25.213(a)(2) of the Commission's rules,<sup>30</sup> requires that space stations transmitting in the space-to-Earth direction in the 1613.8-1626.5 MHz band take whatever steps are necessary to prevent harmful interference to the United States' radio astronomy facilities during periods of observation.<sup>31</sup> Motorola indicates that it will fully coordinate Iridium's operations with the radio astronomy community.<sup>32</sup> It provides a copy of a Memorandum of Understanding (MOU) between itself and the National Radio Astronomy Observatory, which outlines the conditions under which

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<sup>26</sup>In this regard, the Big LEO service differs from services in which multiple or cross-ownership rules may require closer review of ownership changes. Furthermore, the Big LEO applicants have each proposed to operate as private carriers. Thus, concerns about ownership changes that may violate Section 310(b) of the Communications Act are considerably diminished.

<sup>27</sup>47 C.F.R. § 25.143(b)(2); 47 C.F.R. § 25.213.

<sup>28</sup>Motorola Amendment at Exhibit 3 p.1.

<sup>29</sup>Id.

<sup>30</sup>47 C.F.R. § 25.213(a)(2).

<sup>31</sup>These facilities are listed in Section 25.213(a)(1)(i)-(ii).

<sup>32</sup>Motorola Amendment 1994 Exhibit 4 at 1.

To every Tom, Dick, or Harry who says "radio astronomy is important" to protect.

Iridium may operate in the United States.<sup>33</sup> The MOU, however, only applies to two of the fifteen radio astronomy sites identified in Section 25.213(a). Motorola represents that similar agreements will be negotiated with respect to the other radio astronomy sites. We require Motorola to complete all radio astronomy site coordination before it initiates operation of the Iridium system. We also remind Motorola that it will have to terminate operations if unacceptable interference should occur to Radio Astronomy observation.

15. Motorola complies with all other interservice sharing requirements, including power flux density requirements for its in-band and inter-satellite links. COMSAT, however, alleges that Motorola's proposed downlink operation in the 1.6 GHz band might cause harmful interference to existing Inmarsat geostationary satellite receivers in the adjacent spectrum above 1626.5 MHz.<sup>34</sup> No technical analysis has been performed demonstrating that interference is likely, nor can we find on the basis of the technical proposals before us that Iridium's operations will interfere with those of Inmarsat. Nevertheless, Motorola must take into account the International Telecommunication Union (ITU) Radio Regulations 301, 305, and 306 and our domestic requirement for emissions in Section 25.202 of our rules.<sup>35</sup> We also recognize AMSC's concern over Motorola's omission of out-of-band emission specifications in Motorola's Amendment. AMSC can be assured however, that Motorola must comply with domestic and international emissions requirements as stated above.

16. Constellation requests that we explicitly condition Motorola's license on its ceasing operation in the event that it causes unacceptable interference to any Big LEO system operating in the Earth-to-space transmission direction in the 1610-1626.5 MHz band.<sup>36</sup> Constellation is apparently concerned that Motorola's downlink transmissions, which have secondary status under both the international and domestic Table of Frequency Allocations, will interfere with other Big LEO systems' uplink transmissions in that band, which have primary status.<sup>37</sup> We will not include such a condition in Motorola's license. Every space station license is conditioned on compliance with all of the Commission's rules, including the requirement that systems operating under a secondary services allocation not cause harmful interference to primary services.

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<sup>33</sup>Id at attachment E4-2.

<sup>34</sup>COMSAT Corporation Comments on Minor Amendment (Dec. 22, 1994), at 2. American Mobile Satellite Corporation, ("AMSC") also expressed its support for the concerns raised by COMSAT, in AMSC's Reply on January 13, 1995 to Motorola Opposition.

<sup>35</sup>See 47 C.F.R. § 25.202(f).

<sup>36</sup>See Constellation Consolidated Comments, filed December 22, 1994, at 3.

<sup>37</sup>"Primary" services have equal rights to operate in particular frequencies. Stations operating in primary services are protected against interference from stations of "secondary" services. Moreover, stations operating in a secondary service cannot claim protection from harmful interference from stations of a primary service. See Big LEO Order at 7 n.21; 47 C.F.R. §§ 2.104(d) and 2.105 (c).

17. **Feeder Links.** Motorola has requested gateway feeder links in the 19.4-19.6 GHz (space-to-Earth) and 29.1-29.3 GHz (Earth-to-space) frequency bands. As stated in our Big LEO Order, we are not in a position to assign specific feeder link spectrum unconditionally to any Big LEO licensee.<sup>38</sup> Therefore, we will grant qualified licensees the authority to construct, at their own risk mobile satellite systems capable of operating with the feeder links they have requested.<sup>39</sup> We will defer acting on requests to launch and operate using specific feeder links until that spectrum is available for allocation to Big LEO feeder links, and sufficient spectrum is available to satisfy the feeder link requirements of all licensed Big LEO systems, regardless of frequency band.<sup>40</sup> We believe this is the sort of "conditional licensing" envisioned by the Big LEO Order.<sup>41</sup>

18. Hughes and Video/Phone assert that it is premature to license 28 GHz band (Ka-band) feeder links, whether conditionally or not. Hughes and Video/Phone have applied to build a fixed satellite system and local multi-point distribution service (LMDS) system, respectively, that would operate in Motorola's proposed feeder link frequencies. Hughes argues that granting feeder link frequencies to Motorola could preordain the outcome of the pending 28 GHz Rulemaking and deprive Hughes of the right to have its 28 GHz proposal considered simultaneously with Motorola's feeder link proposal.<sup>42</sup> Video/Phone asserts that these proposed feeder link bands will encumber LMDS system operations and asks the Commission to require Motorola to increase Earth-to-space feeder link equivalent isotropically radiated power ("e.i.r.p.") by at least 10 dBW.<sup>43</sup>

19. The Commission recently conducted a Negotiated Rulemaking in an attempt to devise a sharing solution that would accommodate all services proposed in this band. The negotiations ended without the parties reaching consensus on a sharing arrangement. We reject any assertion, however, that a license authorizing construction at the permittee's own risk would preordain the outcome of the 28 GHz Rulemaking Proceeding or would otherwise restrict the Commission's

<sup>38</sup>Big LEO Order ¶ 166. Accordingly, we will not impose any construction milestone until authority to launch and operate a mobile satellite system using specific feeder link spectrum is granted. Id. at ¶ 189.

<sup>39</sup>Motorola's request for a waiver of Section 319(d) of the Communications Act, 47 U.S.C. § 319(d), to allow it to continue construction, at its own risk, is rendered moot by this decision. See 22-SAT-MISC-95.

<sup>40</sup>Id. We will afford permittees and applicants an opportunity to revise their requested feeder link bands, if necessary. Consistent with our usual practice, we will place any revised requests on public notice and will provide the public an opportunity to comment.

<sup>41</sup>Big LEO Order at ¶ 166.

<sup>42</sup>Consolidated Comments of Hughes (Dec. 22, 1994), at 2.

<sup>43</sup>See Video/Phone Conditional Petition to Deny (Dec. 22, 1994), at 6-7. Video/Phone contends that this would allow for a more intensive and economical utilization of the spectrum by LMDS operators. Earth station power levels will not be dealt with in this proceeding. We therefore will not require Motorola to increase its Earth-to-space feeder link e.i.r.p.



options in assigning this frequency band.<sup>44</sup> Awarding a grant of construction authority to Motorola is in no way to be construed as a predisposition on any of the issues in the 28 GHz Proceeding, nor as foreclosing our options with respect to feeder link assignments to other Big LEO satellite system licensees. Furthermore, all Big LEO applicants, including Motorola, are on notice that any construction that they undertake in reliance on their individual feeder link requests in this proceeding is at their own risk.

20. Hughes argues that Motorola's amended proposal to construct its feeder links across 200 MHz in each direction, instead of the 100 MHz it proposed in its initial application, constitutes a major amendment within the meaning of Section 25.116(b)(1) and (c)(1) of our rules.<sup>45</sup> According to Hughes, Motorola's proposal must therefore be considered a newly filed application outside of this processing group. We disagree. The Commission expressly indicated in the Big LEO Order that changes in Big LEO applications that resolve frequency conflicts with other pending applications, but do not create new or increased frequency conflicts, would not be treated as major amendments.<sup>46</sup> Motorola has indicated that it will not operate on more than 100 MHz of occupied bandwidth.<sup>47</sup> Motorola's request to construct its feeder links across 200 MHz but to operate on only 100 MHz will provide it with global coordination flexibility and should alleviate interference with other users.<sup>48</sup> Therefore, we do not believe the changes in Motorola's feeder link proposal should be considered as major. Furthermore, even if the amendment were considered major within the meaning of Section 25.116 of the rules, we would waive its requirements in this case because (a) the modified system serves the public interest by increasing system capacity and spectrum-use-efficiency in the service links; (b) feeder link spectrum is for a use ancillary to the use of Big LEO spectrum; (c) the service is at a relatively early stage of development in which its spectrum requirements are still being addressed; and (d) any third parties who might be adversely affected by feeder link allocations will have a full opportunity to address potential interference concerns in other pending proceedings.<sup>49</sup> Accordingly, we

<sup>44</sup>See In the Matter of Rulemaking to Amend Part 1 and Part 2 of the Commission's Rules to Redesignate the 27.5-29.5 GHz Frequency Band and to Establish Rules and Policies for Local Multipoint Distribution Service, 9 F.C.C. Rcd. 1394 (1994) ("28 GHz Proceeding").

<sup>45</sup>See 47 C.F.R. §§ 25.116(b)(1)(c)(1); see also Reply Comments of Hughes (Jan.13, 1995), at Exhibit 1.

<sup>46</sup>Big LEO Order at ¶ 58; see also 47 C.F.R. § 25.116(c)(1).

<sup>47</sup>Although Hughes indicates that Motorola's occupied bandwidth will now be 105 MHz, its calculations assume the data rate of the gateway/tracking, telemetry, and control ("TT&C") links to be approximately twice the data rate indicated in Motorola's application. See Motorola Amendment at Table R-A-1 (Rev.1). Although that table indicates that the satellites Motorola is constructing have the capability to operate at the data rates assumed by Hughes, Motorola does not indicate that it in fact intends to operate the satellites at those rates.

<sup>48</sup>Id. at Exhibit 5.

<sup>49</sup>We note that the Commission has a number of issues related to the allocations of spectrum for Big LEO feeder links separately before it in several pending proceedings, including the 28 GHz Proceeding and Preparation for the World Radio Conference, (Notice of Inquiry in IC Docket No. 94-31), 9 F.C.C. Rcd. 2430 (1994).

decline to treat Motorola's application as newly filed.

21. We also note that this license does not authorize MSS earth terminals or gateway earth terminals. Gateway earth stations will be licensed in accordance with technical requirements for the frequency band to be used. Standards are also currently being developed to assure that MSS earth terminals, the Global Positioning System, and the Global Navigation Satellite System can coexist in adjacent bands.<sup>50</sup>

22. Regulatory Treatment. Pursuant to our discretion under Section 332(c)(5) of the Communications Act, we grant Motorola's request that it be regulated as a non-common carrier.<sup>51</sup> As we determined in our Big LEO Order, Big LEO space station licensees providing service directly to end users must be regulated as common carriers if the service offering meets the definition of commercial mobile radio service ("CMRS").<sup>52</sup> If a Big LEO licensee, however, offers space segment capacity to a reseller or other entity who then offers CMRS to end users, we have the discretion to determine whether to require the licensee to offer such service on a common carriage basis or to permit the offering to be made on a private carriage basis.<sup>53</sup> We concluded in the Big LEO Order that there does not appear to be a need to impose common carrier requirements on Big LEO licensees offering space segment capacity to resellers.<sup>54</sup> Because Motorola does not plan to provide space segment capacity on Iridium directly to end users, we will allow Motorola to operate as a non-common carrier.

23. Effect of Decisions on Other Applications. In orders released today, the Bureau defers action on the applications of MCHI and Constellation until January 1996. Based on the intraservice sharing plan adopted in the Big LEO Order, it may not be possible to grant all remaining applications for Big LEO licenses. Nonetheless, in granting Motorola's application we insulate Motorola from any mutual exclusivity that may arise among the remaining applicants. In other words, while Motorola's license is conditional in some respects, it will not be affected in any way if the Commission determines that all three of the remaining applicants are qualified for the two remaining licenses that can be awarded for the currently available spectrum.

### III. Ordering Clauses

24. Accordingly, IT IS ORDERED that Application File Nos. 9-DSS-P-91(87), CSS-91-010, 43-DSS-AMEND-92, 15-SAT-LA-95, 16-SAT-AMEND-95 IS GRANTED, and Motorola Satellite Communications, Inc. IS AUTHORIZED to construct a mobile satellite service capable

<sup>50</sup>See Memorandum of Understanding Between the F.C.C, NTIA and FAA, Public Notice 50736, Nov. 19, 1994.

<sup>51</sup> 47 U.S.C. § 332(c)(5).

<sup>52</sup>Big LEO Order at ¶ 174.

<sup>53</sup>Id. at ¶ 175.

<sup>54</sup>Id. at ¶ 179.

of operating in the 1616-1626.5 MHz frequency band in accordance with the technical specifications set forth in its application and consistent with our rules unless specifically waived herein.

25. IT IS FURTHER ORDERED that Motorola Satellite Communications, Inc. IS AUTHORIZED to launch and operate 66 low-Earth orbiting space stations and 12 in-orbit spares, and to launch technically identical replacement satellites during the license term for the purpose of providing a mobile satellite service in the United States, in the 1621.35-1626.5 MHz frequency bands in accordance with the technical specifications set forth in its applications and consistent with our rules unless specifically waived herein.

26. IT IS FURTHER ORDERED that Motorola Satellite Communications, Inc. IS AUTHORIZED to construct, launch and operate a mobile satellite system with inter-satellite links in the 23.18-23.8 GHz band in accordance with the technical specifications set forth in its application and consistent with our rules unless specifically waived herein.

*feeder  
w/  
links*  
27. IT IS FURTHER ORDERED that Motorola Satellite Communications, Inc. IS AUTHORIZED to construct, at its own risk, a mobile satellite system capable of operating with feeder links in the 19.4-19.6 GHz (space-to-Earth) frequency band and 29.1-29.3 GHz (Earth-to-space) frequency band in accordance with technical specifications set forth in its application and consistent with our rules unless specifically waived herein.

28. IT IS FURTHER ORDERED that Motorola Satellite Communications, Inc. IS AUTHORIZED to offer mobile satellite service on its satellite system on a non-common carriage basis. *A*

29. IT IS FURTHER ORDERED that the license term for the space station constellation is ten years and will commence on the date the licensee certifies to the Commission that the first satellite in the system has been successfully placed into orbit and that the first transmission to or from that satellite in the authorized frequency bands has occurred.

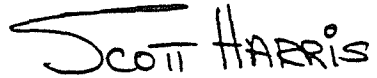
30. IT IS FURTHER ORDERED that this authorization is subject to the completion of consultations under Article XIV of the INTELSAT Agreement and Article 8 of the INMARSAT Convention. Upon completion of these consultations, and notification by the Department of State that the United States has fulfilled its international obligations with respect to INTELSAT and INMARSAT, no further action by this Commission will be required.

31. IT IS FURTHER ORDERED that Motorola Satellite Communications, Inc. will prepare any necessary submissions to the International Telecommunication Union (ITU) and to affected administrations for coordination of these space stations in accordance with the ITU Radio Regulations.

32. IT IS FURTHER ORDERED that the temporary assignment of any orbital planes, or of any particular frequencies, to Motorola Satellite Communications, Inc. is subject to change by

summary order of the Commission on 30 days' notice and does not confer any permanent right to use the orbit and spectrum. Neither this authorization nor any right granted by this authorization, shall be transferred, assigned or disposed of in any manner, voluntarily or involuntarily, or by transfer of control of any corporation holding this authorization, to any person except upon application to the Commission and upon a finding by the Commission that the public interest, convenience and necessity will be served thereby.

FEDERAL COMMUNICATIONS COMMISSION

A handwritten signature in black ink that reads "SCOTT HARRIS". The signature is written in a cursive style with a large, sweeping initial "S".

Scott Blake Harris  
Chief, International Bureau

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

DA 95-372

In re Application of	)	
	)	
Motorola Satellite	)	File Nos. 9-DSS-P-91(87)
Communications, Inc.	)	CSS-91-010
	)	43-DSS-AMEND-92
	)	15-SAT-LA-95
for Authority to Construct, Launch, and Operate a Low	)	16-SAT-AMEND-95
Earth Orbit Satellite System in the 1616-1626.5 MHz	)	
Band	)	

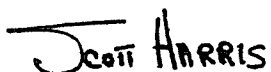
ERRATUM

Released: February 28, 1995

Order DA 95-131 (released January 31, 1995) is hereby corrected by substituting the following for paragraph 25:

25. IT IS FURTHER ORDERED that Motorola Satellite Communications, Inc. IS AUTHORIZED to launch and operate 66 low-Earth orbiting space stations and 12 in-orbit spares, and to launch technically identical replacement satellites during the license term for the purpose of providing a mobile satellite service in the United States, in the 1621.35-1626.5 MHz frequency bands in accordance with the technical specifications set forth in its applications and consistent with our rules unless specifically waived herein, subject to the interim sharing plan outlined In the Matter of 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, 9 F.C.C. Rcd. 5936, ¶¶ 49-53 (1994), and revisions, if any, adopted in response to pending petitions to reconsider that plan.

FEDERAL COMMUNICATIONS COMMISSION



Scott Blake Harris  
Chief, International Bureau