

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

In the Matter of)	
)	
Loral Space & Communications Corporation)	
)	
Application for Authority to Construct, Launch, and Operate a Ka-band Satellite System in the Fixed-Satellite Service)	File Nos. 195/196/197-SAT-P/LA-95 204-SAT-ML-95
)	
Applications for Modification of Licenses 00042/43/44/45)	SAT-MOD-20000104-
to Construct, Launch, and Operate a Ka-band Satellite System in the Fixed-Satellite Service)	
)	

ORDER AND AUTHORIZATION

Adopted: January 30, 2001

Released: January 31, 2001

By the Chief, International Bureau:

I. INTRODUCTION

1. With this *Order and Authorization*, we modify Loral Space & Communications Corporation's ("Loral Corp.'s") licenses to launch and operate a satellite system in the geostationary-satellite orbit ("GSO") to provide fixed-satellite service ("FSS") in a portion of the Ka-band.¹ In particular, we modify Loral Corp.'s GSO FSS Ka-band system licenses to specify additional downlink operating frequencies, and to allow Loral Corp. to operate inter-satellite links ("ISLs") between certain satellites in its constellation.² These actions provide Loral Corp. with the opportunity to implement a variety of communications services to consumers in the United States and around the world.

¹ The Ka-band refers to the Earth-to-space (uplink) frequencies at 27.5-30.0 GHz and the corresponding space-to-Earth (downlink) frequencies at 17.7-20.2 GHz.

² ISLs are communication links between in-orbit satellites. ISLs operate in spectrum allocated to the inter-satellite service. International Telecommunication Union ("ITU") Radio Regulation S1.22.

II. BACKGROUND

Loral Corp.'s Authorizations at the 89° W.L., 81° W.L., 47° W.L., and 78° E.L. Orbit Locations

2. In May 1997, as part of the first Ka-band processing round, the International Bureau (“Bureau”) issued two licenses to Loral Corp.’s predecessors in interest, Orion Network Systems, Inc. (“Orion Network”) and Orion Atlantic, L.P. (“Orion Atlantic”) (collectively, “Orion”), to launch and operate a GSO satellite system to provide FSS in the Ka-band.³ The *Orion Network License* authorized Orion Network to operate one satellite at each of the following orbit locations: 89° W.L., 81° W.L., and 78° E.L.⁴ The *Orion Atlantic License* authorized Orion Atlantic to add Ka-band capacity onto its authorized GSO Ku-band Orion F2 satellite assigned to the 47° W.L. orbit location.⁵ Subsequently, the Bureau authorized Orion to transfer control of the *Orion Network License* and the *Orion Atlantic License* (collectively, the “*Orion Licenses*”) to another first round Ka-band licensee, Loral Space & Communications Ltd. (“Loral Ltd.”).⁶ Through a series of subsequent *pro forma* transactions, the *Orion Licenses* are currently held by Loral Corp.,⁷ and Loral Ltd.’s license is currently held by CyberStar Licensee LLC (“CyberStar”).⁸

³ *Orion Network Systems, Inc.*, Order and Authorization, 12 FCC Rcd 23027 (Int’l Bur. 1997) (“*Orion Network License*”); *Orion Atlantic, L.P.*, Order and Authorization, 13 FCC Rcd 1416 (Int’l Bur. 1997) (“*Orion Atlantic License*”).

⁴ In the *Orion Network License*, the 78° E.L. orbit location was inadvertently referred to as 78° W.L. Compare *Orion Network License*, 12 FCC Rcd at 23077 ¶ 2 (78° W.L.), 23036 ¶ 28 (same) with *id.* at 23030 ¶ 9 (78° E.L.). Other Bureau decisions make clear that Orion Network was licensed to operate Ka-band service at the 78° E.L. orbit location. See, e.g., *Loral Space & Communication Ltd. and Orion Network Systems, Inc., et al.*, Order and Authorization, 13 FCC Rcd 4592, 4593 n.1 (Int’l Bur. 1998) (“*Loral/Orion Merger Order*”); *Assignment of Orbital Locations to Space Stations in the Ka-Band*, Order, 12 FCC Rcd 22004, 22077 (Int’l Bur. 1997); *Assignment of Orbital Locations to Space Stations in the Ka-Band*, Order, 13 FCC Rcd 1030, 1033 (Int’l Bur. 1997).

⁵ See *Orion Satellite Corporation*, Memorandum Opinion, Order and Authorization, 5 FCC Rcd 4937 (1990) and Order, 6 FCC Rcd 4201 (1991). As used here, the term “Ku-band” refers to the Earth-to-space (uplink) frequencies at 14.0-14.5 GHz and the corresponding space-to-Earth (downlink) frequencies at 11.7-12.2 GHz.

⁶ See *Loral/Orion Merger Order*, 13 FCC Rcd 4592. We authorized Loral Ltd. to launch and operate a three satellite system in the first Ka-band processing round. See *Loral Space & Communications Ltd.*, Order and Authorization, 13 FCC Rcd 1379 (Int’l Bur. 1997) (“*CyberStar License*”), modified, *CyberStar Licensee LLC*, Order and Authorization, DA 01-223 (Int’l Bur., rel. January 31, 2001) (“*CyberStar Milestone Order*”).

⁷ See Letters from Jennifer D. McCarthy, Counsel for Loral CyberStar, Inc. to Magalie Roman Salas, Secretary FCC (January 4, 2000) (confirming consolidation of companies into Loral Orion Services, Inc. and notifying the Commission that Loral Orion Services, Inc. has assumed the name Loral CyberStar, Inc.); Letter from Jennifer D. McCarthy, Counsel for Loral Space & Communications Corporation to Magalie Roman Salas, Secretary FCC (January 12, 2001) (“*Loral Pro Forma Consummation Letter*”) (confirming *pro forma* assignment of the *Orion Licenses* to Loral Space & Communications Corporation).

⁸ See, e.g., Letter from Thomas S. Tycz, Chief, Satellite and Radiocommunication Division, FCC to Philip L. Verveer, Counsel for Loral Space & Communications Ltd. (March 31, 1998) (granting *pro forma* assignment of the *CyberStar License* to CyberStar Licensee, LLC).

3. Loral Corp. intends to use the satellites authorized by the *Orion Licenses* to offer “broadband on demand” for a variety of high quality audio, video and data services for business and consumer applications. Both licenses permit Loral Corp. to operate its service links – satellite transmission links to and from user units – in the 28.35-28.6 GHz and the 29.25-30.0 GHz bands for uplink transmissions and the 19.7-20.2 GHz band for downlink transmissions.⁹ Neither license includes additional downlink spectrum that Orion (now Loral Corp.) had requested.

Service Downlink Bands

4. In its original applications, Orion (now Loral Corp.) requested 1000 megahertz of spectrum in the 18.55-18.8 GHz, 19.45-19.7 GHz and 19.7-20.2 GHz bands for downlink transmissions from each of its orbit locations.¹⁰ The Ka-band arrangement in effect at that time, however, designated only the 17.7-18.8 GHz and 19.7-20.2 GHz bands for GSO FSS downlink operations.¹¹ Consistent with the band arrangement, we authorized Orion to operate on 500 megahertz at 19.7-20.2 GHz for its service downlinks. We stated that Orion could make up the remaining 500 megahertz by operating in a portion of the 17.7-18.8 GHz frequency band. Nevertheless, because Orion had not applied for 500 megahertz of spectrum in this band, and because the Ka-band arrangement in effect at that time required GSO FSS operations in the 17.7-18.8 GHz band to be conducted on a co-primary basis with the terrestrial fixed-service (“FS”), we found that it was premature to grant Orion operating authority in any portion of this band.¹² Rather, we directed Orion to file license modification applications when it determined which 500 megahertz it wished to use in the 17.7-18.8 GHz band.¹³ Since that time, the Commission has released the *18 GHz Report and Order*, which designated the 18.3-18.8 GHz portion of the 17.7-18.8 GHz band for GSO FSS downlink operations.¹⁴ Consequently, we are now in a position to assign additional downlink spectrum to Loral Corp.

⁹ *Orion Network License*, 12 FCC Rcd at 23037 ¶ 29; *Orion Atlantic License*, 13 FCC Rcd at 1426 ¶ 30.

¹⁰ *Orion Network License*, 12 FCC Rcd at 23034 ¶ 19; *Orion Atlantic License*, 13 FCC Rcd at 1422 ¶ 19.

¹¹ *See Rulemaking to Amend Parts 1, 2, 21, and 25 of the Commission’s Rules to Redesignate the 27.5-29.5 GHz Frequency Band, to Reallocate the 29.5-30.0 GHz Frequency Band, to Establish Rules and Policies for Local Multipoint Distribution Service and for Fixed Satellite Services*, CC Docket No. 92-297, First Report and Order and Fourth Notice of Proposed Rulemaking, 11 FCC Rcd 19005 (1996).

¹² *Orion Network License*, 12 FCC Rcd at 23034 ¶ 20; *Orion Atlantic License*, 13 FCC Rcd at 1422-23 ¶ 20.

¹³ *Id.*

¹⁴ *See Redesignation of the 17.7-19.7 GHz Frequency Band, Blanket Licensing of Satellite Earth Stations in the 17.7-20.2 GHz and 27.5-30.0 GHz Frequency Bands, and the Allocation of Additional Spectrum in the 17.3-17.8 GHz and 24.75-25.25 GHz Frequency Bands for Broadcast Satellite-Service Use*, IB Docket No. 98-172, Report and Order, 15 FCC Rcd 13430 (2000) (“*18 GHz Report and Order*”), petition for review pending, *Teledesic LLC v. FCC*, D.C. Cir. No. 00-1466 (filed November 6, 2000).

Request for Inter-Satellite Links

5. On January 4, 2000, Loral Corp. filed applications to modify the *Orion Licenses* to permit the use of ISLs.¹⁵ According to Loral Corp., employing ISLs would permit the four satellites authorized by the *Orion Licenses* to communicate directly with each other, and with CyberStar's three Ka-band satellites.¹⁶

III. DISCUSSION**A. Service Downlink Bands**

6. Recently, the Commission adopted rules for the deployment of services in the 17.7-20.2 GHz band ("18 GHz band").¹⁷ These rules are designed to reduce potential interference among the terrestrial and satellite services allocated in the band. The new band arrangement redesignates much of the spectrum that had been designated for co-primary satellite and terrestrial use as exclusive spectrum for either service. This should reduce the need to coordinate with other services. Under the band arrangement adopted in the *18 GHz Report and Order*, the Commission retained the 19.7-20.2 GHz band for GSO FSS primary use, and split the 17.7-18.8 GHz band, originally shared on a co-primary basis by GSO FSS and FS, into three designations. Specifically, the Commission designated 500 megahertz to FS for primary use in the 17.7-18.3 GHz band, 280 megahertz for co-primary use by GSO FSS and FS in the 18.3-18.58 GHz band, and 220 megahertz to GSO FSS for primary use in the 18.58-18.8 GHz band.¹⁸ In adopting this band arrangement, the Commission stated that a total 720 megahertz of unshared GSO FSS downlink spectrum (the 18.58-18.8 GHz band along with the 19.7-20.2 GHz band), plus the flexible rules that permit sharing of 280 megahertz at 18.3-18.58 GHz, will enable each system to have ample spectrum and allow multiple systems to operate.¹⁹

7. In its applications, Orion (now Loral Corp.) requested 1000 megahertz of downlink spectrum.²⁰ We authorized Orion for 500 megahertz at 19.7-20.2 GHz.²¹ At that time, we stated that we

¹⁵ See Loral CyberStar, Inc. Applications for Modification at 3-4, File Nos. SAT-MOD-20000104-00042/43/44/45 (January 4, 2000) ("ISL Modification Applications"). See also Public Notice, Report No. SAT-00036 (rel. February 8, 2000).

¹⁶ See *supra* footnotes 6-8 and accompanying text. In the ISL Modification Applications, Loral Corp. also asks us to extend the remaining milestones associated with the construction completion and launch of the Ka-band satellites authorized by the *Orion Licenses*. ISL Modification Applications at 5-6. The *Orion Licenses* require satellite construction be completed by April 2002, and the satellites to be launched by May 2002. *Orion Network License*, 12 FCC Rcd at 23037 ¶ 31; *Orion Atlantic License*, 13 FCC Rcd at 1426 ¶ 32. Loral Corp. contends that its request to add ISLs, so that it can integrate its system with the CyberStar system, warrants that its remaining milestones be synchronized with those imposed on CyberStar. ISL Modification Applications at 5-6. CyberStar is required to complete construction, launch and operate its satellites by June and July 2005. *CyberStar Milestone Order*, DA 01-223, at ¶ 29. We will consider this request in a future Order.

¹⁷ See *18 GHz Report and Order*, 15 FCC Rcd 13430.

¹⁸ *Id.* at 13443 ¶ 28.

¹⁹ *Id.* at 13444 ¶ 30.

²⁰ *Orion Network License*, 12 FCC Rcd at 23034 ¶ 19; *Orion Atlantic License*, 13 FCC Rcd at 1422 ¶ 19.

were not in a position to grant the additional 500 megahertz that Orion requested in the 18.55-18.8 GHz and 19.45-19.7 GHz bands. First, the requested 250 megahertz of spectrum at 19.45-19.7 GHz was inconsistent with the 18 GHz band arrangement then in effect. Second, because the 18 GHz band arrangement then in effect designated the 17.7-18.8 GHz band for shared FSS and FS use, we requested FSS operators to file an application for the specific 500 megahertz band segment they wanted to use. We are now in a position, on our own motion, to grant Loral Corp.'s request for an additional 500 megahertz of downlink spectrum. The *18 GHz Report and Order* designated 500 megahertz of spectrum at 18.3-18.8 GHz for GSO FSS downlink operations. We assign this band to Loral Corp. for its satellite downlinks associated with the *Orion Licenses*.

8. Operations in the shared 280 megahertz at 18.3-18.58 GHz are, of course, subject to the sharing rules adopted in the *18 GHz Report and Order*.²² In addition, Loral Corp. must coordinate with the U.S. Government systems operating in the 17.7-18.8 GHz band in accordance with footnote US 334 to the Table of Frequency Allocations.²³ We note that Government GSO and NGSO FSS networks are presently operating in the 18.3-18.6 GHz and 19.7-20.2 GHz bands, and plan to operate in accordance with the power flux-density limits contained in the current ITU Radio Regulations.²⁴ Additionally, we note that Loral Corp. must also comply with footnote US 255 to the Table of Frequency Allocations, which contains power flux-density limits to protect the Earth exploration-satellite service (passive) for the 18.6-18.8 GHz band.²⁵

B. *Inter-Satellite Links*

9. Loral Corp. has applied to modify the *Orion Licenses* by adding ISLs in the 65.0-71.0 GHz frequency band.²⁶ In its operationally integrated constellation of Ka-band satellites, Loral Corp. plans to implement ISLs among satellites separated by 4 to 159 longitudinal degrees, with between four to seven duplex ISLs at each orbit location. Each ISL will support 1 Gbps of duplex transmission capacity using

²¹ *Orion Network License*, 12 FCC Rcd at 23034 ¶ 20; *Orion Atlantic License*, 13 FCC Rcd at 1422-23 ¶ 20.

²² *18 GHz Report and Order*, 15 FCC Rcd at 13446-54 ¶¶ 34-49.

²³ 47 C.F.R. § 2.106 US 334 (as revised in the *18 GHz Report and Order*, 15 FCC Rcd at 13489). This footnote requires coordination of non-Government systems with U.S. Government GSO and NGSO FSS systems in the 17.8-20.2 GHz band.

²⁴ See *18 GHz Report and Order*, 15 FCC Rcd at 13473 ¶ 90. These power flux-density limits in the 18.3-18.6 GHz band are -115/-105 dB (W/m²) in any 1 megahertz, depending upon the angle of arrival. There are currently no power flux-density limits in the 19.7-20.2 GHz band. See Letter from William T. Hatch, National Telecommunications and Information Administration ("NTIA") to Dale Hatfield, Chief, Office of Engineering and Technology, FCC (March 29, 2000).

²⁵ 47 C.F.R. § 2.106 US 255 (as revised in the *18 GHz Report and Order*, 15 FCC Rcd at 13489) states:

In addition to any other applicable limits, the power flux-density across the 200 MHz band 18.6-18.8 GHz produced at the surface of the Earth by emissions from a space station under assumed free-space propagation conditions shall not exceed -95 dB(W/m²) for all angles of arrival. This limit may be exceeded by up to 3 dB for no more than 5% of the time.

²⁶ ISL Modification Applications at 3-4.

Quadrature Phase Shift Keying (QPSK) modulation, which requires a minimum of 840 megahertz of bandwidth.²⁷ Thus, the total spectrum bandwidth required for the Loral Corp. ISL network is 5880 megahertz (*i.e.*, 840 megahertz \times a maximum of seven duplex ISLs), which can be accommodated within the requested 65.0-71.0 GHz band. Loral Corp. states that it will fully reuse the ISL spectrum at each authorized location in order to minimize the total spectrum it requires for ISLs.

10. Based on Loral Corp.'s representations, we find that its request for 5880 megahertz of ISL spectrum is reasonable. The 64.0-71.0 GHz band is allocated internationally for ISLs for both non-geostationary orbit ("NGSO") and GSO systems operating in the FSS.²⁸ To implement this allocation, the Commission recently designated the 65.0-71.0 GHz band for non-Government ISL use.²⁹ In addition, studies conducted by first round Ka-band licensees, including Loral Ltd., concluded that the first round licensees could share ISL spectrum with minimal constraints.³⁰ Consequently, we will authorize Loral Corp. to conduct ISL operations in 5880 megahertz of spectrum at 65.0-70.88 GHz, subject to coordination among the licensees pursuant to those studies,³¹ and with U.S. Government (non-ISL) operations through NTIA's Interdepartment Radio Advisory Committee's Frequency Assignment Subcommittee.

C. *Miscellaneous Matters*

11. *Application to Modify the Orion Network License.* In November 1999, Loral Corp. filed an application to modify the *Orion Network License* with regard to its Ka-band authorization at the 89° W.L. orbit location.³² Specifically, Loral Corp. seeks to incorporate a Ka-band payload on a

²⁷ *Id.* at Exhibit I.

²⁸ See Final Acts of the 1997 World Radiocommunication Conference, Geneva (1997); ITU Radio Regulations Article S5 (frequency allocations).

²⁹ See *Amendment of Part 2 of the Commission's Rules to Allocate Additional Spectrum to the Inter-Satellite, Fixed, and Mobile Services and to Permit Unlicensed Devices to Use Certain Segments in the 50.2-50.4 GHz and 51.4-71.0 GHz Bands*, ET Docket No. 99-261, Report and Order, FCC 00-442, at ¶ 45 (rel. December 22, 2000).

³⁰ See "Sharing of Various Frequency Bands Allocated to the Inter-Satellite Service" (October 9, 1998); "Interference between Teledesic and GSO Inter-Satellite Links" (October 9, 1998) (hereinafter the "*Teledesic Sharing Report*").

³¹ The *Teledesic Sharing Report*, submitted by Teledesic LLC ("Teledesic"), the only NGSO licensee employing ISLs in the same frequency bands, concluded that its ISLs could operate on the same frequencies as the GSO system ISLs, except for possible mutual interference in the limited case of GSO networks using ISL links among satellites that are separated by 157 to 162 longitudinal degrees. Loral Corp.'s satellites at 81° W.L. and 78° E.L. are separated by 159 longitudinal degrees. Thus, the use of ISLs between these two satellites implicates the potential for possible mutual interference with Teledesic's proposed system, as described in the *Teledesic Sharing Report*. Given Teledesic's recently-announced revisions to its business plan, including redesigning its satellite system, see, e.g., *Teledesic Redesigns Satellite System And Drops Motorola*, COMM. DAILY, October 11, 2000, at 5, this ISL, if implemented, may need further detailed analysis for coordination.

³² See Loral Orion, Inc. Application for Modification, File No. SAT-MOD-19991101-00108 (November 2, 1999) ("Loral 89° W.L. Modification"); see also Public Notice, Report No. SAT-00030 (rel. December 23, 1999).

Loral-affiliated hybrid C/Ku-band satellite, Telstar 8 (formerly designated Loral 2),³³ currently under construction.³⁴ It then proposes to move Telstar 8 from its assigned 77° W.L. orbit location to 89° W.L.,³⁵ and operate it as one hybrid C/Ku/Ka-band satellite at 89° W.L.³⁶ Loral Corp. states that, although the Ka-band payload on the modified Telstar 8 will not include ISLs, it seeks Commission approval to incorporate ISLs on any follow-on Ka-band capacity planned for 89° W.L.³⁷ As Loral Corp.'s request to modify its Ka-band authorization at 89° W.L. raises numerous issues that will require further Commission consideration, we defer action on this request to a future proceeding in order not to delay implementation of Loral Corp.'s system as currently authorized. We remind Loral Corp., however, that it must bring its ISL frequencies into use in order to protect the date priority of the U.S. ITU filings for these frequencies.³⁸

12. *Petition for Reconsideration of the Orion Network License.* In 1996, the Bureau declared Norris Satellite Communications, Inc.'s ("Norris") license to operate a GSO FSS Ka-band satellite at the 90° W.L. orbit location null and void for non-compliance with satellite construction milestones.³⁹ While Norris's Application for Review of this decision was pending, Norris filed a Petition for Reconsideration of the *Orion Network License* with regard to the 89° W.L. orbit location.⁴⁰ Specifically, Norris claims that authorizing Loral Corp. at the 89° W.L. orbit location is mutually exclusive with Norris's 90° W.L. authorization subject to the Application for Review. The Commission subsequently upheld the Bureau's

³³ See *Assignment of Orbital Locations to Space Stations in the Domestic Fixed-Satellite Service*, Order and Authorizations, 11 FCC Rcd 13788, 13797 (Int'l Bur. 1996). Currently, Loral SpaceCom Corporation is the licensee of Telstar 8. See Loral *Pro Forma* Consummation Letter, *supra* footnote 7 (confirming *pro forma* assignment of the Telstar 8 authorization to Loral SpaceCom Corporation). As used here, the term "C-band" refers to the Earth-to-space (uplink) frequencies at 5925-6425 MHz and the corresponding space-to-Earth (downlink) frequencies at 3700-4200 MHz.

³⁴ Loral Corp. notes that Telstar 8 is planned for a July 2002 launch, see ISL Modification Applications at 5 n.11, which is two months after expiration of Loral Corp.'s May 2002 launch milestone for its Ka-band authorization at the 89° W.L. orbit location. See *Orion Network License*, 12 FCC Rcd at 23037 ¶ 31.

³⁵ See Loral Space & Communications Ltd. Application for Modification, File No. SAT-MOD-19991102-00106 (November 2, 1999) (proposing that the Commission reassign Telstar 8 from 77° W.L. to 89° W.L.) and Loral SpaceCom Corporation Application for Modification of Authorization, File No. SAT-MOD-19991101-00109 (November 2, 1999) (proposing to relocate Telstar 4 from 89° W.L. to 77° W.L.). See also Public Notice, Report No. SAT-00030.

³⁶ Loral 89° W.L. Modification at 2.

³⁷ ISL Modification Applications at 5 n.11. According to Loral Corp.'s annual status report, Orion F7 is the Ka-band satellite planned to operate at the 89° W.L. orbit location. See Loral Space & Communications Ltd. Annual Status Report for the year ending May 31, 2000, redacted version at 16 (June 30, 2000).

³⁸ See ITU Radio Regulation S11.44.

³⁹ *Norris Satellite Communications, Inc.*, Order, 11 FCC Rcd 5402 (Int'l Bur. 1996).

⁴⁰ See *Norris Satellite Communications, Inc. Petition for Reconsideration in the Matter of Comm, Inc. and Orion Network Systems, Inc.*, File Nos. 163/164/165/166-SAT-P/LA-95, 201 SAT-MISC-95; 195/196/197-SAT-P/LA-95, 205-SAT-AMEND-95 (filed June 9, 1997); see also *Opposition to Petition for Reconsideration of Orion Network Systems, Inc.* (filed June 24, 1997).

decision regarding nullification of Norris's license.⁴¹ Accordingly, we dismiss Norris's Petition for Reconsideration as moot.

13. *Petition to Deny Loral Corp.'s Application to Modify the Orion Atlantic License.* In the *Columbia Modification Order*, the Bureau denied Columbia Communications Corporation's ("Columbia's") petition to revoke Loral Corp.'s GSO Ku-band authorization at 47° W.L., and denied Columbia's request to add Ku-band capacity to its C-band FSS satellite at 47° W.L.⁴² While Columbia's petition for reconsideration of that decision was pending, Columbia filed a Petition to Deny Loral Corp.'s ISL Modification Application with regard to the *Orion Atlantic License*.⁴³ Essentially, Columbia requested that we consolidate this application proceeding with its pending reconsideration of the *Columbia Modification Order*.⁴⁴ We note that Columbia has not sought reconsideration or revocation of the *Orion Atlantic License*, and our decision in this *Order* simply authorizes Loral Corp. to modify the *Orion Atlantic License*. Thus, our decision in this *Order* to allow Loral to add ISLs to its authorized Ka-band payload has no bearing on our reconsideration of issues presented in the *Columbia Modification Order* (*i.e.*, determining the authorized provider of FSS service in the Ku-band at 47° W.L.).⁴⁵ We therefore deny Columbia's Petition to Deny Loral Corp.'s application to modify the *Orion Atlantic License*, and will address Columbia's request to reconsider our decision not to revoke the Loral Corp.'s GSO Ku-band authorization at the 47° W.L. orbit location in a separate proceeding.

IV. CONCLUSION

14. Accordingly, upon review, we modify Loral Corp.'s Ka-band system licenses to include additional downlink frequencies and ISL frequencies for its satellites assigned to the 89° W.L., 81° W.L., 47° W.L., and 78° E.L. orbit locations. These actions provide Loral Corp. with the opportunity to implement a variety of advanced broadband communication services to businesses and consumers around the world.

V. ORDERING CLAUSES

15. Accordingly, IT IS ORDERED that the Applications for Modification filed by Loral Space & Communications Corporation on January 4, 2000, File Nos. SAT-MOD-20000104-00042/43/44/45 ARE GRANTED to the extent indicated herein.

⁴¹ *Norris Satellite Communications, Inc.*, Memorandum Opinion and Order, 12 FCC Rcd 22299 (1997).

⁴² *Columbia Communications Corporation*, Memorandum Opinion and Order, 15 FCC Rcd 15566 (Int'l Bur. 2000) ("*Columbia Modification Order*").

⁴³ See Columbia Communications Corporation Petition to Deny the Application of Loral Orion Services, Inc., File No. SAT-MOD-200000104-00045 (filed March 9, 2000) ("*Columbia Petition to Deny*"); see also Loral Space & Communications Ltd. Opposition to Petition to Deny (filed March 22, 2000) ("*Loral Opposition*"). As noted *supra* paragraph 2, the *Orion Atlantic License*, 13 FCC Rcd 1416, authorizes Loral Corp. to add Ka-band capacity to its GSO Ku-band authorization at the 47° W.L. orbit location, 5 FCC Rcd 4937 and 6 FCC Rcd 4201.

⁴⁴ See Columbia Petition to Deny at 2-3, 6.

⁴⁵ See also Loral Opposition at 3-4 (arguing that Columbia's request to consolidate the ISL Modification Application with its Petition for Reconsideration is "inappropriate").

16. IT IS FURTHER ORDERED that the licenses granted by *Order and Authorization*, 12 FCC Rcd 23027 (Int'l Bur. 1997) and *Order and Authorization*, 13 FCC Rcd 1416 (Int'l Bur. 1997) ARE MODIFIED to assign the 65.0-70.88 GHz band for inter-satellite link operations, in accordance with *Amendment of Part 2 of the Commission's Rules to Allocate Additional Spectrum to the Inter-Satellite, Fixed, and Mobile Services and to Permit Unlicensed Devices to Use Certain Segments in the 50.2-50.4 GHz and 51.4-71.0 GHz Bands*, ET Docket No. 99-261, Report and Order, FCC 00-442 (rel. December 22, 2000).

17. IT IS FURTHER ORDERED that Loral Space & Communications Corporation must coordinate its inter-satellite link operations in accordance with the reports submitted to the Commission entitled, "Sharing of Various Frequency Bands Allocated to the Inter-Satellite Service" (October 9, 1998) and "Interference Between Teledesic and GSO Inter-Satellite Links" (October 9, 1998), with the other Ka-band licensees that are included in the referenced reports.

18. IT IS FURTHER ORDERED that Loral Space & Communications Corporation shall coordinate the inter-satellite link operations in the 65.0-70.88 GHz band through NTIA's Interdepartment Radio Advisory Committee's Frequency Assignment Subcommittee.

19. IT IS FURTHER ORDERED that Loral Space & Communications Corporation is authorized for an additional 500 megahertz for its downlink operations in the 18.3-18.8 GHz band, in accordance with *Redesignation of the 17.7-19.7 GHz Frequency Band, Blanket Licensing of Satellite Earth Stations in the 17.7-20.2 GHz and 27.5-30.0 GHz Frequency Bands, and the Allocation of Additional Spectrum in the 17.3-17.8 GHz and 24.75-25.25 GHz Frequency Bands for Broadcast Satellite-Service Use*, IB Docket No. 98-172, Report and Order, 15 FCC Rcd 13430 (2000).

20. IT IS FURTHER ORDERED that Loral Space & Communications Corporation must coordinate all of its Ka-band downlink operations with the U.S. government systems in accordance with footnote US334 to the Table of Frequency Allocations, 47 C.F.R. § 2.106.

21. IT IS FURTHER ORDERED that Loral Space & Communications Corporation is subject to all terms and conditions in its original Authorization Orders, 12 FCC Rcd 23027 (Int'l Bur. 1997) and 13 FCC Rcd 1416 (Int'l Bur. 1997), including the implementation milestones.

22. IT IS FURTHER ORDERED that Loral Space & Communications Corporation is afforded thirty days from the date of the release of this *Order and Authorization* to decline this authorization as conditioned. Failure to respond within that period will constitute formal acceptance of the authorization as conditioned.

23. IT IS FURTHER ORDERED that the Petition for Reconsideration filed June 7, 1997 by Norris Satellite Communications, Inc. IS DISMISSED as moot.

24. IT IS FURTHER ORDERED that the Petition to Deny filed March 9, 2000 by Columbia Communications Corporation IS DENIED to the extent indicated herein.

25. This *Order and Authorization* is issued pursuant to Section 0.261 of the Commission's rules on delegations of authority, 47 C.F.R. § 0.261, and is effective upon release. Petitions for reconsideration under Section 1.106 or applications for review under Section 1.115 of the Commission's rules, 47 C.F.R. §§ 1.106, 1.115, may be filed within 30 days of the date of public notice of this *Order and Authorization* (see 47 C.F.R. § 1.4(b)(2)).

FEDERAL COMMUNICATIONS COMMISSION

Donald Abelson
Chief, International Bureau