

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

In the matter of)	
)	
Loral SpaceCom Corporation and)	File Nos. 123/124-SAT-MP-96;
Loral Space & Communications Corporation)	IBFS Nos. SAT-MOD-19960610-00082/83
)	SAT-MOD-19991102-00106;
Applications for Modification of Fixed-Satellite)	SAT-MOD-19991101-00108/109
Service Space Station Authorizations)	Call Signs: S2159, S2160, S2205, T-402
)	
Applications for Extension of Milestone Dates)	File Nos. SAT-MOD-19991101-00107
)	SAT-MOD-20020408-00060
)	Call Sign: S2160
)	
Request for Extension of Time to Construct,)	File Nos. SAT-MOD-20000104-00042/43/44/45
Launch, and Operate a Ka-band Satellite System)	
in the Fixed-Satellite Service)	

MEMORANDUM OPINION, ORDER AND AUTHORIZATION

Adopted: March 31, 2003

Released: April 1, 2003

By the Chief, International Bureau:

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I. INTRODUCTION

1. With this *Order*, we modify Loral SpaceCom Corporation's (Loral SpaceCom's) and Loral Space & Communications Corporation's (Loral Corp.'s) (collectively, "Loral's")¹ licenses to launch and operate a satellite system in the geostationary-satellite orbit (GSO) to provide fixed-satellite service (FSS) in portions of the C-, Ku-, and Ka-bands.² Specifically, we grant Loral's requests to relocate its C/Ku-band spacecraft, Telstar 4, from the 89° W.L. orbit location to 77° W.L.; launch Telstar 8 with C/Ku/Ka-band capacity into the 89° W.L. orbit location; and extend the milestone dates for Telstar 8 to accommodate Loral's three-band hybrid satellite technology. We also partially grant Loral's requests to redefine Telstar 8's coverage area and modify Telstar 8's C- and Ku-band transponder configurations and channelizations. Finally, with the exception of Loral's proposal for a Ka-band payload on Telstar 8 at 89° W.L., we affirm our decision not to extend Loral's milestones applicable to its licenses to launch and operate GSO FSS Ka-band payloads at the 89° W.L., 81° W.L., 47° W.L., and 78° E.L. orbit locations.³ Consequently, Loral's Ka-band authorizations at the 81° W.L., 47° W.L., and 78° E.L. orbit locations, as well as its authorization to use the 18.3-18.8 GHz (downlink) and 28.35-28.6 and 29.25-29.5 GHz (uplink) bands at the 89° W.L. orbit location, are null and void. These actions will allow Loral to provide new domestic and international satellite services to more customers using state-of-the-art technology, while preventing warehousing of scarce spectrum and orbital resources.

II. BACKGROUND

2. Loral SpaceCom is authorized to launch and operate a hybrid C/Ku-band satellite, Telstar 8 (formerly designated LoralSat/Loral 2), at the 77° W.L. orbit location.⁴ The *Telstar 8 License* included system implementation milestones as a condition of licensing as follows: satellite construction to begin by March 1997, construction to be completed by September 1999, and the satellites to be launched by March 2000.⁵ Loral SpaceCom also holds the authorization for a hybrid C/Ku-band satellite Telstar 4 (formerly designated Telstar 402/402R), currently in orbit at 89° W.L.⁶

¹ Both Loral SpaceCom and Loral Corp. are subsidiaries of Loral Space & Communications Ltd.

² The C-band refers to Earth-to-space (uplink) frequencies at 5.925-6.425 GHz and the corresponding space-to-Earth (downlink) frequencies at 3.7-4.2 GHz. The Ku-band refers to Earth-to-space (uplink) frequencies at 11.7-12.2 GHz and the corresponding space-to-Earth (downlink) frequencies at 14.0-14.5 GHz. 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.

³ *Loral Space & Communications Corporation*, Order, DA 01-1287, 16 FCC Rcd 11044 (Int'l Bur. 2001) (*Loral Milestone Order*).

⁴ See *Loral Space & Communications Ltd.*, Memorandum Opinion and Order, DA 96-1941, 11 FCC Rcd 20441 (Int'l Bur. 1996) (*Telstar 8 License*); Letter from Jennifer D. McCarthy, Counsel for Loral SpaceCom Corporation to Magalie Roman Salas, Secretary, FCC (January 12, 2001) (*Loral Pro Forma Consummation Letter*) (confirming *pro forma* assignment of the Telstar 8 authorization to Loral SpaceCom).

⁵ *Telstar 8 License*, 11 FCC Rcd at 20444 ¶ 12.

⁶ See *American Telephone and Telegraph Company*, Order and Authorization, FCC 88-375, 3 FCC Rcd 6980 (1988) (underlying authorization for Telstar 402) (*Telstar 4 License*); *American Telephone and Telegraph Company*, Order and Authorization, DA 95-1972, 10 FCC Rcd 12132 (Int'l Bur. 1995) (authorizing launch and operation of Telstar 402R, an emergency replacement satellite for Telstar 402, which was lost shortly after its launch); *AT&T Corp. (Assignor) and Loral SpaceCom Corporation (Assignee)*, Order and Authorization, DA 97-125, 12 FCC Rcd 925 (Int'l Bur. 1997) (granting the assignment of AT&T Corp.'s satellite licenses, including the Telstar 402R authorization, to Loral SpaceCom).

3. In May 1997, as part of the first Ka-band processing round, Loral Corp.'s predecessors in interest, Orion Network Systems, Inc. and Orion Atlantic, L.P. (collectively, "Orion"), received authorizations to construct, launch, and operate a GSO satellite system to provide FSS in the Ka-band at the 89° W.L., 81° W.L., 47° W.L., and 78° E.L. orbit locations.⁷ The *Orion Licenses* included system implementation milestones as conditions of licensing, as follows: satellite construction to begin by May 1998, construction to be completed by April 2002, and the satellites to be launched by May 2002.⁸ In January 2001, we modified the *Orion Licenses* by authorizing inter-satellite links (ISLs) in the 65.0-70.88 GHz band,⁹ and specifying the 18.3-18.8 GHz (downlink) band, along with the originally-authorized 19.7-20.2 GHz (downlink), 28.35-28.6 and 29.25-30.0 GHz (uplink) bands, for Ka-band service links.¹⁰

4. In a series of applications, Loral seeks to modify the above-referenced licenses. In the Telstar 8 Modification Application,¹¹ Loral requests authority to incorporate a Ka-band payload on Telstar 8, making it a hybrid C/Ku/Ka-band satellite, and to operate Telstar 8 at 89° W.L. instead of its assigned 77° W.L., in order to implement part of Loral's Ka-band authorization at 89° W.L. in the *Orion Network License*. The Telstar 8 Modification Application also seeks authority to redefine Telstar 8's coverage area to provide service throughout North and South America,¹² modify Telstar 8's C-band transponder configuration and channelization and provide for the use of Traveling Wave Tube Amplifiers (TWTAs), and modify Telstar 8's Ku-band transponder configuration and channelization and increase the power of the TWTAs. To accomplish all of the proposed technical modifications, including the need to redesign, retest and requalify certain elements of the spacecraft due to unanticipated technical problems that arose during construction, Loral seeks to extend the construction completion and launch milestones for

⁷ *Orion Network Systems, Inc.*, Order and Authorization, DA 97-977, 12 FCC Rcd 23027 (Int'l Bur. 1997) (*Orion Network License*) (authorizing Orion to operate one satellite at each of the following orbit locations: 89° W.L., 81° W.L., and 78° E.L.); *Orion Atlantic, L.P.*, Order and Authorization, DA 97-979, 13 FCC Rcd 1416 (Int'l Bur. 1997) (*Orion Atlantic License*) (authorizing Orion to add Ka-band capacity onto its authorized GSO Ku-band Orion F2 satellite assigned to the 47° W.L. orbit location) (collectively, "*Orion Licenses*"). Orion merged with Loral Corp.'s corporate parent, Loral Space & Communications Ltd., in 1998. See *Loral Space & Communications Ltd. and Orion Network Systems, Inc., et al.*, Order and Authorization, DA 98-409, 13 FCC Rcd 4592 (Int'l Bur. 1998); Letter from Laurence D. Atlas, Vice President, Government Relations – Telecommunications, Loral Space & Communications Ltd. to Magalie R. Salas, Secretary, FCC (April 1, 1998) (notifying the Commission that the Loral-Orion merger consummated on March 20, 1998) (Loral-Orion Merger Consummation Letter). Through a series of subsequent *pro forma* transactions, the *Orion Network License* and *Orion Atlantic License* are currently held by Loral Corp. See *Loral Pro Forma Consummation Letter*, *supra* note 4 (confirming *pro forma* assignment of the *Orion Licenses* to Loral Space & Communications Corporation).

⁸ *Orion Network License*, 12 FCC Rcd at 23037 ¶ 31; *Orion Atlantic License*, 13 FCC Rcd at 1426 ¶ 32. Specifically, satellite construction for Orion F7 (assigned to 89° W.L.) and Orion F2 (assigned to 47° W.L.) was to begin by May 1998, and satellite construction for Orion F8 (assigned to 78° E.L.) and Orion F9 (assigned to 81° W.L.) was to begin by May 1999. All four satellites were given the same construction completion and launch milestones (April and May 2002, respectively).

⁹ ISLs, communication links between in-orbit satellites, operate in spectrum allocated to the inter-satellite service.

¹⁰ See *Loral Space & Communications Corporation*, Order and Authorization, DA 01-227, 16 FCC Rcd 2481 (Int'l Bur. 2001) (*Loral ISL & Downlink Order*).

¹¹ See Application for Modification of Authorization of Loral Space & Communications Ltd., File No. SAT-MOD-19991102-00106 (Telstar 8 Modification Application).

¹² Loral notes that the Telstar 8 Modification Application supercedes an earlier-filed application to modify its authorization to provide coverage to South America. Telstar 8 Modification Application at 1 n.3. See Technical Modification to Application of Loral Space & Communications Ltd., File No. 123/124-SAT-MP-96 & IBFS File No. SAT-MOD-19960610-00082/83; see also *Public Notice*, Report No. SPB-53 (rel. July 17, 1996). We therefore dismiss the earlier-filed modification application as moot.

Telstar 8 until March 2003 and May 2003, respectively.¹³ In the Telstar 4 Modification Application,¹⁴ Loral requests authority to move Telstar 4 from 89° W.L. (where it currently operates) to 77° W.L. (Telstar 8's authorized orbit location) after Telstar 8 has been tested and is ready to be placed into service at the 89° W.L. orbit location. Finally, in the Orion F7 Modification Application,¹⁵ Loral seeks to modify the Orion F7 Ka-band authorization at 89° W.L. in the *Orion Network License*, proposing to implement service in the 19.7-20.2 GHz (downlink) and 29.5-30.0 GHz (uplink) bands by adding the above-reference Ka-band payload to Telstar 8, while preserving its ability for future deployment at 89° W.L. in the 18.3-18.8 GHz (downlink) and 28.35-28.6 and 29.25-29.5 GHz (uplink) bands.

5. In response to public notice of the Telstar 8 Modification Application, the Telstar 8 First Milestone Extension Request, the Telstar 4 Modification Application, and the Orion F7 Modification Application,¹⁶ Pacific Century Group, Inc. (PCG) filed a Petition to Deny the applications as they relate to Loral's authorization to deploy Ka-band satellite communications capacity at 89° W.L.,¹⁷ which Loral opposed.¹⁸ The South Carolina Educational Television Commission and the Public Broadcasting Service also filed Petitions to Deny, and Pegasus Development Corporation (Pegasus) filed comments,¹⁹ which they each later withdrew.²⁰ No additional comments were filed in response to the public notice of the Telstar 8 Second Milestone Extension Request.²¹

6. Loral subsequently filed a request to extend the Ka-band construction and launch milestones at the 89° W.L., 81° W.L., 47° W.L., and 78° E.L. orbit locations in conjunction with its then-newly-filed request for ISLs.²² In the *Loral Milestone Order*, we denied Loral's milestone extension request, concluding that Loral's request to delay construction and launch of its satellites so that it could add ISLs was not due to circumstances beyond its control, nor any other factor that would justify deferring its milestones as set forth in the *Orion Licenses*.²³ Loral filed a petition for reconsideration of the *Loral*

¹³ See Application for Extension of Milestones of Loral Space & Communications Ltd., File No. SAT-MOD-19991101-00107 (Telstar 8 First Milestone Extension Request) and Application for Extension of Milestones of Loral SpaceCom Corporation, File No. SAT-MOD-20020408-00060 (Telstar 8 Second Milestone Extension Request).

¹⁴ See Application for Modification of Authorization of Loral SpaceCom Corporation, File No. SAT-MOD-19991101-00109 (Telstar 4 Modification Application).

¹⁵ See Application for Modification of Authorization of Loral Orion, Inc., File No. SAT-MOD-19991101-00108 (Orion F7 Modification Application).

¹⁶ *Public Notice*, Report No. SAT-00030 (rel. December 23, 1999).

¹⁷ Petition to Deny of Pacific Century Group, Inc., File Nos. SAT-MOD-19991102-00106 & SAT-MOD-19991101-00107/108/109 (January 24, 2000) (PCG Petition).

¹⁸ Consolidated Opposition and Reply of Loral Space & Communications Ltd., File Nos. SAT-MOD-19991102-00106 & SAT-MOD-19991101-00107/108/109 (February 8, 2000) (Loral Opposition).

¹⁹ Petition to Deny of South Carolina Educational Television Commission, File No. SAT-MOD-19991101-00109 (January 24, 2000); Petition to Deny of The Public Broadcasting Service, File Nos. SAT-MOD-19991102-00106 & SAT-MOD-19991101-00109 (January 24, 2000); Comments of Pegasus Development Corporation, File No. SAT-MOD-19991101-00108 (January 24, 2000).

²⁰ Withdrawal of Petition to Deny of South Carolina Educational Television Commission, File No. SAT-MOD-19991101-00109 (June 20, 2000); Motion to Withdraw Petition to Deny of the Public Broadcasting Service, File Nos. SAT-MOD-19991102-00106 & SAT-MOD-19991101-00109 (March 23, 2001); Notice of Withdrawal of Comments of Pegasus Development Corporation, File No. SAT-MOD-19991101-00108 (March 10, 2003).

²¹ *Public Notice*, Report No. SAT-00109 (rel. April 24, 2002).

²² See *Loral Milestone Order*, 16 FCC Rcd at 11045-46 ¶¶ 4-5.

²³ See *id.*, 16 FCC Rcd at 11047 ¶ 7.

Milestone Order, stating that our decision to deny its milestone extension request was inconsistent with our treatment of what Loral claims to be similarly-situated Ka-band first round licensees.²⁴ PCG and Orbital Resources, LLC (Orbital Resources) opposed Loral's petition,²⁵ and Loral replied.²⁶ PCG requests that we affirm our decision with regard to all four orbit locations. Orbital Resources' argument focuses on Loral's ultimate use of the 47° W.L. orbital location, maintaining that we should reject Loral's reconsideration request to extend the milestones associated with the Loral's Ka-band license at 47° W.L., *i.e.*, the *Orion Atlantic License*, and thereby also nullify Loral's underlying Ku-band license at 47° W.L., *i.e.*, the *Orion 47° W.L. Ku-band License*.²⁷ Orbital Resources and Loral continued to argue their positions on this issue in *ex parte* letters.²⁸

²⁴ Petition for Reconsideration of Loral Space & Communications Corporation, File Nos. SAT-MOD-20000104-00042/43/44/45 (June 25, 2001) (Loral Petition). Pegasus filed a petition for partial reconsideration of the *Loral Milestone Order*, which it later withdrew. See Petition for Partial Reconsideration of Pegasus Development Corporation, File Nos. SAT-MOD-20000104-00042/43/44/45 (June 25, 2001); Notice of Withdrawal of Petition for Partial Reconsideration of Pegasus Development Corporation, File Nos. SAT-MOD-20000104-00042/43/44/45 (December 21, 2001).

²⁵ Opposition to Petition for Reconsideration of Pacific Century Group, Inc., File Nos. SAT-MOD-20000104-00042/43/44/45 (July 5, 2001) (PCG Opposition); Opposition to Petition for Reconsideration of Orbital Resources, LLC, File Nos. SAT-MOD-20000104-00042/43/44/45 (July 10, 2001) (Orbital Resources Opposition). Pegasus also filed an opposition to Loral's Petition for Reconsideration, which it later withdrew. See Opposition of Pegasus Development Corporation, File Nos. SAT-MOD-20000104-00042/43/44/45 (July 5, 2001); Notice of Withdrawal of Opposition of Pegasus Development Corporation, File Nos. SAT-MOD-20000104-00042/43/44/45 (December 21, 2001).

²⁶ Consolidated Reply to Oppositions of Loral Space & Communications Corporation (July 17, 2001) (Loral Reply).

²⁷ See *Orion Satellite Corporation*, Memorandum Opinion, Order and Authorization, FCC 90-241, 5 FCC Rcd 4937 (1990) and Order, FCC 91-196, 6 FCC Rcd 4201 (1991) (*Orion 47° W.L. Ku-band License*), modified, *Loral Cyberstar, Inc.*, Order and Authorization, DA 02-872, 17 FCC Rcd 7019 (Sat. Div., Int'l Bur. 2002) (*Cyberstar 47° W.L. Ku-band Modification Order*). As a result of corporate restructuring, the *Orion 47° W.L. Ku-band License* is currently held by Loral CyberStar, Inc. 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.). As noted *supra*, note 7, the *Orion Atlantic License* authorized Orion to add Ka-band capacity onto the satellite authorized by the *Orion 47° W.L. Ku-band License*.

²⁸ See Letter from Raul R. Rodriguez and David S. Keir, Counsel to Orbital Resources, LLC to Magalie R. Salas, Secretary, FCC, File Nos. SAT-MOD-20000104-00042/43/44/45 (July 25, 2001) (Orbital Resources July 2001 *ex parte* letter); Letter from Raul R. Rodriguez and David S. Keir, Counsel to Orbital Resources, LLC to Don Abelson, Chief, International Bureau, FCC, File Nos. CSS-83-002-P-(M); SAT-MOD-20000104-00045; SAT-LOA-19870331-00061; SAT-AMD-19990511-00052; SAT-MOD-19990511-00051 (July 8, 2002) (Orbital Resources July 2002 *ex parte* letter); Letter from John Stern, Deputy General Counsel, Loral Space & Communications Ltd. to Don Abelson, Chief, International Bureau, FCC, File Nos. CSS-83-002-P-(M); SAT-MOD-20000104-00045; SAT-LOA-19870331-00061; SAT-AMD-19990511-00052; SAT-MOD-19990511-00051 (July 22, 2002); Letter from Raul R. Rodriguez and David S. Keir, Counsel to Orbital Resources, LLC to Don Abelson, Chief, International Bureau, FCC, File Nos. CSS-83-002-P-(M); SAT-MOD-20000104-00045; SAT-LOA-19870331-00061; SAT-AMD-19990511-00052; SAT-MOD-19990511-00051 (August 5, 2002); Letter from Raul R. Rodriguez and David S. Keir, Counsel to Orbital Resources, LLC to Don Abelson, Chief, International Bureau, FCC, File Nos. CSS-83-002-P-(M); SAT-MOD-20000104-00045 (January 23, 2003).

III. DISCUSSION

A. Reassignment of Telstar 4 to 77° W.L. and Telstar 8 to 89° W.L.

7. As a threshold matter, we address Loral's requests to relocate the Telstar 4 satellite from the 89° W.L. orbit location to 77° W.L., with a corresponding change to the Telstar 8 satellite authorization from 77° W.L. to 89° W.L.²⁹ Loral is seeking to change its deployment of satellites between authorized orbital locations. No new orbit locations are requested. The Commission has recognized that licensees are in a better position to determine how to tailor their systems to meet the particular needs of customers.³⁰ Thus, we have previously allowed satellite operators to rearrange satellites in their fleet to reflect business and customer considerations where no other public interest factors are adversely affected.³¹ In light of the fact that Loral is licensed to provide C- and Ku-band FSS at both of these orbital locations, we conclude that a grant of Loral's requests to modify orbit locations would serve the public interest. The reassignment will permit Loral to use Telstar 4, a C/Ku-band satellite, at an orbit location that Loral is licensed for only C- and Ku-band service, and to deploy Telstar 8, a C/Ku/Ka-band satellite, at an orbit location that Loral is licensed for C-, Ku-, and Ka-band service. We therefore grant these proposed modifications, subject to appropriate International Telecommunication Union (ITU) coordination requirements.

B. Launch and Operation of Telstar 8 as a C/Ku/Ka-band Hybrid Satellite

8. We next address Loral's interrelated requests to add a Ka-band payload to Telstar 8 (making it a C/Ku/Ka-band hybrid satellite), and to extend the milestone dates associated with Telstar 8 so that it can be launched into the 89° W.L. orbit location by May 2003. Once launched and operational, Telstar 8 will be one of the first C/Ku/Ka-band hybrid satellites, as well as one of the first to provide Ka-band service.³² In past decisions, the Commission has recognized the cost efficiencies inherent in hybrid satellites and has attempted to accommodate hybrid satellites where possible.³³ We believe that granting

²⁹ PCG does not object to the relocation of Telstar 4 and Telstar 8 as related to deployment of C- and Ku-band capacity at 77° W.L. and 89° W.L. See PCG Petition at 2.

³⁰ See, e.g., *Intelsat LLC*, Order and Authorization, DA 01-2069, 16 FCC Rcd 16208, 16210 ¶ 6 (Sat. & Radiocomm. Div., Int'l Bur. 2001) (citing, e.g., *AMSC Subsidiary Corporation*, Order and Authorization, DA 98-493, 13 FCC Rcd 12316, 12318 ¶ 8 (Int'l Bur. 1998)).

³¹ See, e.g., *GE American Communications, Inc.*, Memorandum Opinion, Order and Authorization, DA 00-2096, 15 FCC Rcd 23583, 23588 ¶ 11 (Sat. & Radiocomm. Div., Int'l Bur. 2000) (citing, e.g., *Hughes Communications Galaxy, Inc.*, Memorandum Opinion and Order, DA 90-915, 5 FCC Rcd 4497 (Com. Car. Bur. 1990)).

³² Telstar 8 Second Milestone Extension Request at 4.

³³ See, e.g., *Amendment of the Commission's Space Station Licensing Rules and Policies*, IB Docket No. 02-34, Notice of Proposed Rulemaking and First Report and Order, FCC 02-45, 17 FCC Rcd 3847, 3868 ¶ 59 (2002); *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, and to Establish Rules and Policies for Local Multipoint Distribution Service and for Fixed Satellite Services*, CC Docket No. 92-297, Third Report and Order, FCC 97-378, 12 FCC Rcd 22310, 22322 ¶ 31 (1997) (*Ka-band Third Report and Order*); *Hughes Communications Galaxy, Inc.*, Order and Authorization, FCC 90-429, 6 FCC Rcd 72, 73 ¶ 8 (1991). See also *Hughes Communications Galaxy, Inc.*, Memorandum Opinion and Order, DA 96-1940, 11 FCC Rcd 16425, 16429 ¶ 14 (Int'l Bur. 1996); *AT&T Corp.*, Memorandum Opinion and Order, DA 96-1942, 11 FCC Rcd 15038, 15042 ¶ 10 (Int'l Bur. 1996); *GE American Communications, Inc.*, Memorandum Opinion and Order, DA 96-1939, 11 FCC Rcd 15030, 15034-35 ¶ 13 (Int'l Bur. 1996); *GTE Spacenet Corporation*, Order and Authorization, DA 94-187, 9 FCC Rcd 1271, 1273 ¶ 14 (Com. Car. Bur. 1994); *Hughes Communications Galaxy, Inc.*, Order and Authorization, DA 92-1481, 7 FCC Rcd 7119, 7120 ¶¶ 8-9 (Com. Car. Bur. 1992).

Loral's request to add a Ka-band payload to Telstar 8 will permit the most effective use of the limited orbit spectrum resource, and is therefore, in the public interest.

9. Milestone extensions are granted only when the delay in implementation is due to circumstances beyond the licensee's control.³⁴ For example, we have found in the past that unanticipated technical problems can justify a milestone extension.³⁵ In this case, Loral has discovered and solved numerous unanticipated design problems during Telstar 8's construction.³⁶ For example, Loral engineers redesigned the antenna deployment mechanisms to generate lower shock levels than those generated by the traditional high shock pyrotechnical devices.³⁷ In addition, Loral engineers performed several design iterations to minimize transmission losses in the signal paths and surmount challenges presented by a "radically new propulsion system."³⁸ Consequently, Loral's milestone extension request is based on tangible, physical, construction-related concerns, and thus, grantable under our precedent. We also find that grant of Loral's milestone extension request for Telstar 8 is not excessive in this case, given the complex nature of the new satellite and the fact that Loral has continued work on the satellite during the pendency of this proceeding. Therefore, Loral has until May 2003, as requested, to launch Telstar 8 into the 89° W.L. orbit location.

C. C- and Ku-band Technical Modifications to Telstar 8

10. In the Telstar 8 Modification Application, Loral proposes to provide its C- and Ku-band service to a larger geographic service area than originally proposed. Specifically, Loral requests that we modify the Telstar 8 authorization to employ twenty 36-megahertz, two 72-megahertz (covering the 50 states, Canada, Mexico, Puerto Rico, and the Virgin Islands) and six 72-megahertz C-band transponders (for extended coverage to South America) in lieu of the twenty-four 36-megahertz C-band transponders (covering the contiguous 48 states) originally authorized.³⁹ Additionally, for C-band, Loral proposes to substitute 37- and 100-watt TWTAs for the previously-authorized 20-watt solid-state power amplifiers originally authorized, and increase the C-band equivalent isotropically radiated power (e.i.r.p.) by .2 dB with respect to the original application.⁴⁰ With regard to its Ku-band capacity, Loral requests that we modify the Telstar 8 authorization to employ thirty-six 36-megahertz Ku-band transponders (24 transponders covering the 50 states, Canada, Mexico, Puerto Rico, and the Virgin Islands; 12 transponders to provide extended coverage to South America) in lieu of the thirty-two 27-megahertz Ku-band transponders (covering the contiguous 48 states) originally authorized.⁴¹ For the Ku-band, Loral further proposes to use 130-watt TWTAs for the 110-watt TWTAs originally authorized, and increase the

³⁴ *Loral Milestone Order*, 16 FCC Rcd at 11047 ¶ 6.

³⁵ See, e.g., *EarthWatch Incorporated*, Order and Authorization, DA 00-1305, 15 FCC Rcd 18725, 18728 ¶ 9 (Sat. & Radiocomm. Div., Int'l Bur. 2000) (*EarthWatch Milestone Order*) (milestone extension granted due to technical problems that, if left unaddressed, could drastically impair service to customers); *AMSC Subsidiary Corporation*, Order and Authorization, DA 95-652, 10 FCC Rcd 3791 (Sat. & Radiocomm. Div., Int'l Bur. 1995) (milestone extension granted to permit licensee to resolve unanticipated technical problems); *American Telephone and Telegraph Company*, Order and Authorization, DA 94-589, 9 FCC Rcd 2607 (Domestic Facilities Div., Com. Car. Bur. 1994) (same).

³⁶ Telstar 8 Second Milestone Extension Request at 1-3.

³⁷ *Id.* at 2-3.

³⁸ *Id.* at 3.

³⁹ Telstar 8 Modification Application at 3 & A-8.

⁴⁰ *Id.* at 3.

⁴¹ *Id.* at 4 & A-8.

Ku-band e.i.r.p. by 2 dBW.⁴² Loral states that these C- and Ka-band modifications will not cause any unacceptable interference into adjacent satellites that cannot be successfully addressed through normal inter-system coordination, or compliance with Section 25.211 of the Commission's rules in the case of analog transmissions.⁴³

11. Loral indicates that these changes will provide increased configuration flexibility to meet customer requirements and permit more efficient use of satellite power.⁴⁴ After analyzing the data submitted in the Telstar 8 Modification Application, we grant Loral's requested modifications to the extent that they comport with our Part 25 rules. In that regard, we note that Section 25.210(e) of the Commission's rules requires that U.S.-licensed satellites be configured for full frequency re-use,⁴⁵ and Section 25.210(g) defines full frequency re-use for those satellites' beams providing international service, such as Loral's proposed extended coverage to South America.⁴⁶ Based on our review of the Telstar 8 Modification Application, Loral's proposed C- and Ku-band South American coverage does not meet this requirement. Loral has not asked for a waiver of the full frequency re-use requirements set forth in Section 25.210.⁴⁷ Therefore, we defer action on those parts of the Telstar 8 Modification Application related to the proposed South American coverage.

D. Ka-band Technical Modifications to Telstar 8

12. In the Telstar 8 Modification Application and the Orion F7 Modification Application, Loral proposes to add a Ka-band payload to Telstar 8 comprised of 24 uplink spot beams providing complete coverage of the contiguous 48 states operating with 120-watt TWTAs. The satellite would have four downlink Ka-band spot beams, which will cover the Los Angeles-San Francisco, Denver, Chicago, and New York-Washington, D.C. areas. Four times frequency re-use will be achieved by a combination of spatial and polarization isolation of like-channel beams.⁴⁸ These modifications differ from the specifications of Loral's authorized satellite at 89° W.L., Orion F7. Most significantly, Orion F7 is authorized to operate in the 18.3-18.8 and 19.7-20.2 GHz bands (downlink) and 28.35-28.6 and 29.25-30.0 GHz bands (uplink),⁴⁹ while the Telstar 8 Ka-band payload would utilize only the 19.7-20.2 GHz (downlink) and 29.5-30.0 GHz (uplink) portions of the bands.⁵⁰

13. In arguing that we should deny Loral's request to add Ka-band capacity to Telstar 8, PCG claims that Loral's proposed modification does not meet the full frequency re-use standards for Ka-band

⁴² *Id.* at 4.

⁴³ *Id.* at 3-4 (citing 47 C.F.R. § 25.211).

⁴⁴ *Id.* at 3-4.

⁴⁵ 47 C.F.R. § 25.210(e) ("All space stations in the Fixed-Satellite Service shall be designed to derive the maximum capacity feasible from the assigned orbital location. In particular, space stations in the Fixed-Satellite Service are required to employ state-of-the-art full frequency re-use using both horizontal and vertical polarization.").

⁴⁶ 47 C.F.R. § 25.210(g) ("For fixed-satellite space stations providing international service, full frequency re-use is defined as follows: (1) Satellites must employ polarization discrimination so that, through the use of dual polarization, they shall be able to reuse both the uplink and downlink frequency band assignments. (2) Satellites must be configured so that all assigned frequencies (in both polarizations) could be reused in beams serving widely separate areas.").

⁴⁷ See, e.g., *PanAmSat Licensee Corp.*, Order and Authorization, DA 02-1287, 17 FCC Rcd 10483, 10491-92 ¶¶ 19-22 (Sat. Div., Int'l Bur. 2002) (granting requested waiver of Section 25.210(g)).

⁴⁸ Telstar 8 Modification Application at 4-5; Orion F7 Modification Application at 2-3.

⁴⁹ *Orion Network License*, 12 FCC Rcd at 23037 ¶ 29; *Loral ISL & Downlink Order*, 16 FCC Rcd at 2489 ¶¶ 18-19.

⁵⁰ Telstar 8 Modification Application at 2.

FSS GSO satellites and the Commission's hybrid satellite policies.⁵¹ Loral replies that its proposed hybrid satellite is a state-of-the-art satellite that comports with Commission rules and is similar to other designs that are planned for launch by other administrations.⁵² Our review of the technical specifications for Telstar 8 does not support PCG's contention, and we therefore deny its petition. The *Ka-band Third Report and Order* modified Section 25.210 of the Commission's rules⁵³ to require Ka-band space stations to employ state-of-the-art frequency re-use either through the use of orthogonal polarizations within the same beam and/or through the use of spatially independent beams.⁵⁴ The Commission did not, however, specify the number of times the frequencies should be re-used for space stations that employ spot beam coverage.⁵⁵ The Commission did this to provide operators maximum flexibility in their system designs.⁵⁶ Although it appears that Loral has taken full advantage of the flexible nature of the Commission's frequency re-use rules that pertain to the use of spot beams in its hybrid satellite, we find that Loral's hybrid satellite as described in its modification applications meets our requirements for frequency re-use and comports with Section 25.210 of the Commission's rules. We also agree with Loral that its proposal to implement part of Orion F7's authorization on Telstar 8 accommodates distinctive hybrid satellite technology, and we therefore grant its proposal to the extent that we authorize Loral to use only the 500 megahertz of spectrum specified in the Telstar 8 Modification Application, *viz.*, the 19.7-20.2 GHz (downlink) and 29.5-30.0 GHz (uplink) bands. Loral discusses plans to launch Orion F7 into the 89° W.L. orbit location to provide for future use of the remaining 500 megahertz, *viz.*, the 18.3-18.8 GHz (downlink) and 28.35-28.6 and 29.25-29.5 GHz (uplink) bands, that will not be implemented on Telstar 8.⁵⁷ However, as discussed in Section III.E. below, Loral's authorization for future use of the remaining 500 megahertz of Ka-band spectrum at 89° W.L., along with its use of the Ka-band frequencies at the 81° W.L., 47° W.L., and 78° E.L. orbit locations, is null and void.

E. Reconsideration of the *Loral Milestone Order*

14. We affirm our decision not to extend Loral's construction completion and launch milestones with regard to its Ka-band payloads at the 89° W.L., 81° W.L., 47° W.L., and 78° E.L. orbit locations,⁵⁸ except for 500 megahertz of Ka-band spectrum at the 89° W.L. orbit location, the milestones of which we waive for the limited purpose of being used in connection with Loral's C/Ku/Ka-band satellite, Telstar 8. When we released the *Loral Milestone Order* in May 2001, Loral still had time to progress toward milestone compliance in April and May 2002. Loral has provided no evidence that it has done so. Consequently, as the date for completion of satellite construction for these payloads has now passed, Loral's Ka-band authorizations at the 81° W.L., 47° W.L., and 78° E.L. orbit locations, as well as its authorization to use the 18.3-18.8 GHz (downlink) and 28.35-28.6 and 29.25-29.5 GHz (uplink) bands at the 89° W.L. orbit location, are null and void. Finally, in response to Orbital Resources' Opposition and subsequent *ex parte* filings, we clarify that Loral's underlying Ku-band-only authority at 47° W.L. remains valid until such time as the Commission addresses in a future rulemaking the broader issue of how we will recapture as-yet unbuilt Ku-band licenses issued without milestones.

⁵¹ PCG Petition at 4-7.

⁵² Loral Opposition at 3-4.

⁵³ 47 C.F.R. § 25.210.

⁵⁴ *Ka-band Third Report and Order*, 12 FCC Rcd at 22321-22 ¶¶ 28-29.

⁵⁵ *Id.* at 22322 ¶ 29.

⁵⁶ *Id.*

⁵⁷ Orion F7 Modification Application at 3; Loral Opposition at 3, 6.

⁵⁸ *Loral Milestone Order*, 16 FCC Rcd 11044.

1. Loral's Arguments

15. In its Petition for Reconsideration, Loral argues that (1) the timing of the filing of its request to modify its licenses to incorporate ISLs cannot rationally justify the Bureau's conclusion to deny Loral's milestone extension request;⁵⁹ and (2) the Bureau's decision is inconsistent with the Bureau's granting GE American Communications, Inc. (GE Americom) a waiver of the Ka-band milestones.⁶⁰ Loral's arguments fail for the reasons discussed below.

16. As described in the *Loral Milestone Order*,⁶¹ Orion received its Ka-band authorization for the 89° W.L., 81° W.L., 47° W.L., and 78° E.L. orbit locations in May of 1997, as part of the first Ka-band processing round. Some of the Ka-band first round applicants initially proposed to operate ISLs among multiple satellites in a constellation. At that time, there was no suitable spectrum allocated for ISL operations, and we therefore deferred assigning ISL frequencies. Consequently, we issued licenses to those Ka-band first round applicants requesting ISLs without implementation milestones, stating that we would impose a strict milestone schedule once ISL frequencies were allocated. Since Orion had not requested, and thus, did not receive ISLs for its authorizations at the time of grant, we issued the *Orion Licenses* with the requisite implementation milestones as a condition of licensing. Loral merged with Orion in March 1998 and took possession of the *Orion Licenses*,⁶² aware that the milestones associated with the *Orion Licenses* had begun to run in 1997. Nevertheless, Loral waited until January 2000 to formally request ISLs for the 89° W.L., 81° W.L., 47° W.L., and 78° E.L. orbit locations. The timing of this formal request came soon after the Bureau asked Loral to confirm that it had met its first milestone, and contemporaneously asked those Ka-band first round licensees that formally requested ISLs to identify the exact frequencies they planned to use in what became the allocated ISL bands. In conjunction with its ISL request, Loral requested that the Commission extend the construction completion and launch milestones (April and May 2002, respectively) associated with the 89° W.L., 81° W.L., 47° W.L., and 78° E.L. orbit locations to match those eventually given to Ka-band first round licensees that had formally requested ISLs earlier in the proceeding.

17. Loral correctly states that the Bureau must articulate a rational basis for its denial of Loral's milestone request.⁶³ In the *Loral Milestone Order*, the Bureau clearly articulated that milestone extensions are granted when delay in implementation is due to circumstances beyond the licensee's control, and that a license modification, such as Loral's ISL request, is a business decision that is wholly within the discretion and control of the licensee, and is thus not beyond the licensee's control.⁶⁴ As we said in the *Loral Milestone Order*, Loral's decision to merge with Orion, and its failure to apply for ISLs until January 2000 (with less than two years remaining to satisfy the construction completion milestone), are both business decisions within Loral's complete control and do not constitute good cause for extending milestone schedules.⁶⁵

18. Loral argues that the timing of its requests for ISLs and the corresponding milestone extension should be irrelevant to the Bureau's decision on whether to extend its milestones, since it is

⁵⁹ Loral Petition at 6-13.

⁶⁰ *Id.* at 13-18 (citing *GE American Communications, Inc.*, Order and Authorization, DA 01-1286, 16 FCC Rcd 11038 (Int'l Bur. 2001) (*GE Americom Milestone Order*)).

⁶¹ See generally *Loral Milestone Order*, 16 FCC Rcd at 11044-46 ¶¶ 2-5.

⁶² See Loral-Orion Merger Consummation Letter, *supra* note 7.

⁶³ Loral Petition at 6.

⁶⁴ *Loral Milestone Order*, 16 FCC Rcd at 11046-47 ¶¶ 6-7.

⁶⁵ *Id.* at 11047 ¶ 7.

asking for an extension to the same dates as those eventually given to the licensees who formally requested ISLs in their applications.⁶⁶ Loral contends that we should consider Loral as similarly-situated to the licensees who formally requested ISLs because of its “longstanding expressions of interest in ISLs that date from the filing of Ka-band applications.”⁶⁷ Specifically, Loral points to statements in Orion’s applications that Orion “anticipated the possible benefits of ISLs” and stated “that the proposed satellites ‘may utilize [ISLs]’ and that its applications ‘shall be amended, accordingly, if necessary.’”⁶⁸ Loral also notes that it participated in a report submitted by the Ka-band first round licensees that had requested ISLs, concluding that ISLs of the licensed GSO FSS systems could share the same frequencies with few constraints.⁶⁹ Loral argues, therefore, that our decision to defer milestone imposition on Ka-band first round licensees that requested ISLs in their original application is the same as extending milestones for a licensee requesting ISLs almost two years after it acquired the licenses subject to those milestones.⁷⁰ In the first instance, we deferred imposing milestones pending proceedings to allocate ISL frequencies, a circumstance that is clearly not within the control of the licensee. In the second instance we declined to extend milestones for a licensee that chose not to pursue adding ISLs to its satellites until two years from the date it acquired the licenses for those satellites – a decision clearly within the licensee’s control.

19. Loral further argues that if the Bureau ascribed significance to the timing of Loral’s filing, it was obligated to notify Loral of this significance and request supplementation of the record to rebut this significance.⁷¹ The case Loral cites to support this argument, *Radio Athens, Inc. v. FCC*,⁷² is inapposite. In *Radio Athens*, the D.C. Circuit Court of Appeals held that the Commission improperly dismissed an application by applying an expansive definition of disqualifying cross-interest without full and explicit notice of this interpretation of its rule.⁷³ In Loral’s case, we did not expand our milestone policy, but applied it in the same reasoned way we have to all other licensees. In sum, Loral and the licensees who originally proposed ISLs are not similarly situated. Loral offers no evidence that it had contemplated the use of ISLs for the *Orion Licenses* in its original business plan for those licenses; nor did Loral apply for the ISL frequencies at the earlier possible opportunity that they were allocated internationally, or even as soon after closing the Orion transaction as practicable. Passing references in applications to future plans, participation at meetings, and signatures on working group reports are not tantamount to having a formal application properly placed before us for those frequencies.⁷⁴ Absent such evidence, we correctly denied Loral’s request for extension of the milestones for its Ka-band payloads at 89° W.L., 81° W.L., 47° W.L., and 78° E.L.

⁶⁶ Loral Petition at 7-8; Loral Reply at 3-4.

⁶⁷ Loral Petition at 12.

⁶⁸ *Id.* at 2-3 (citing, e.g., Application of Orion Network Systems, Inc. for Authority to Construct, Launch and Operate a Domestic Communications Satellite System at 4 (filed September 29, 1995)).

⁶⁹ *Id.* at 3 (citing “Sharing of Various Frequency Bands Allocated to the Inter-Satellite Service,” First Round GSO Ka-Band Licensees’ Report to the FCC (October 9, 1998)).

⁷⁰ *Id.* at 7.

⁷¹ *Id.* at 8.

⁷² 401 F.2d 398 (D.C. Cir. 1968).

⁷³ *Id.* at 404.

⁷⁴ *Accord* PCG Opposition at 2 (“the Bureau should consider only formal license modification requests which are properly placed before it”); Orbital Resources Opposition at 7 (“[Loral’s two-year] silence is all the more significant in that Loral [] was aware that other satellite system licensees had obtained authority for ISLs with deferred milestone obligations or had sought milestone extensions much earlier.”).

20. Loral then argues that the factual differences between its situation and GE Americom's are insufficient to justify our denial of Loral's milestone extension request while granting GE Americom a waiver of construction milestones.⁷⁵ Though we found that GE Americom's application to modify its satellite system to include ISLs in and of itself did not justify an extension of its milestones,⁷⁶ we did grant GE Americom a waiver of Section 25.117(e)(1),⁷⁷ because GE Americom demonstrated, from a time shortly after licensing, its intent to proceed with its Ka-band system as modified by ISLs.⁷⁸ GE Americom requested the use of ISLs immediately upon knowledge of the technical information that resulted from WRC 97⁷⁹ that would allow it to plan for and implement ISLs – filing for its modification within six months of receiving its Ka-band license, and six months before it was required to sign a contract for production of its satellites. In contrast, Loral applied for its ISLs at least two years after the ISL frequencies had been allocated internationally. Loral's request for milestone extension is not unlike that of PanAmSat Licensee Corp. (PanAmSat).⁸⁰ Both parties filed requests to add ISLs to integrate two merged satellite systems at a time when the filing of such a request could forestall upcoming milestone compliance. Loral attempts to distinguish *PanAmSat* by arguing that PanAmSat sought an extension of its first milestone, while Loral had met its initial construction milestone, but sought to extend later milestones.⁸¹ However, in *PanAmSat*, the Commission affirmed our canceling PanAmSat's authorization, unequivocally stating, “[f]iling a modification application is a circumstance within the licensee's control that cannot justify a milestone extension, even if the licensee seeks authority to incorporate a new technology into its satellite design.”⁸² In doing so, the Commission cited precedent for this proposition as applied to the later milestones,⁸³ and therefore, we do not view the Commission's decision in *PanAmSat* as limited to the first construction milestone.

21. Finally, Loral argues that the Bureau should grant a waiver of Loral's milestone requirements to avoid discriminatory application of its waiver policy.⁸⁴ This argument again is based on the premise that there is no factual distinction underlying Loral's and GE Americom's requests. We have shown that

⁷⁵ Loral Petition at 14.

⁷⁶ *GE Americom Milestone Order*, 16 FCC Rcd at 11041 ¶ 8.

⁷⁷ 47 C.F.R. § 25.117(e)(1) (“Any application for modification of authorization to extend a required date of completion . . . must include a verified statement from the applicant [t]hat states the additional time is required due to unforeseeable circumstances beyond the applicant's control . . .”).

⁷⁸ *GE Americom Milestone Order*, 16 FCC Rcd at 11041-42 ¶¶ 9-10.

⁷⁹ See Final Acts of the 1997 World Radiocommunication Conference, Geneva (1997); ITU Radio Regulations Article S5 (frequency allocations).

⁸⁰ *PanAmSat Licensee Corp.*, Memorandum Opinion and Order, FCC 01-178, 16 FCC Rcd 11534 (2001) (*PanAmSat*), *aff'g* Memorandum Opinion and Order, DA 00-1266, 15 FCC Rcd 18720 (Int'l Bur. 2000). *Accord* PCG Opposition at 5.

⁸¹ Loral Reply at 4-5.

⁸² *PanAmSat*, 16 FCC Rcd at 11543 ¶ 25; *see also id.* at 11541 ¶ 21.

⁸³ *Id.* at nn.52-53 (citing, e.g., *American Telephone and Telegraph Company/Ford Aerospace Satellite Services Corporation*, Memorandum Opinion and Order, FCC 87-239, 2 FCC Rcd 4431 (1987) (*AT&T/Ford*) (AT&T's decision to reprocur satellites that had already met construction milestones does not support requested extension of later milestones); *Advanced Communications Corporation*, Memorandum Opinion and Order, DA 95-944, 10 FCC Rcd 13337 (Int'l Bur. 1995) (denying milestone extension request despite licensee's compliance with first milestone), *app. for review denied*, Memorandum Opinion and Order, FCC 95-428, 11 FCC Rcd 3399 (1995) (*Advanced Review Order*), *aff'd*, 84 F.3d 1452 (D.C. Cir. 1996) (unpublished judgment available in Westlaw at 1996 WL 250460)).

⁸⁴ Loral Petition at 18-20.

GE Americom's request for ISLs was predicated on circumstances unique to GE Americom, and that GE Americom's explicit and timely manifestation of its intentions warranted waiver of Section 25.117(e)(1), unlike Loral. Except for Loral and PanAmSat, each of the Ka-band first round applicants that chose to incorporate ISLs into their systems applied for them promptly, either in their initial applications, or as in the case of GE Americom, when the ISL frequencies were actually allocated internationally. Loral fails to recognize that the Bureau's focus on the timing of its request for ISLs is not arbitrary. Rather, the timing of Loral's ISL request demonstrates that Loral failed to affirmatively pursue the use of ISLs for the *Orion Licenses* at the earliest available opportunity, but requested ISLs and a milestone extension when it appeared that the milestones associated with these licenses would expire sooner than those imposed on the majority of Ka-band first round licensees, *i.e.*, those that had originally requested ISLs. Our denial of Loral's waiver request was warranted, and Loral has not demonstrated any reason to deviate from that decision.

22. For the foregoing reasons, we deny Loral's request for reconsideration of the denial of its milestone extension request for the Ka-band payloads associated with the 89° W.L., 81° W.L., 47° W.L., and 78° E.L. orbit locations. The *Orion Licenses* expressly provided that, unless extended upon a showing of good cause, the licenses would become null and void in the event the licensee failed to satisfy any one of the milestones. Loral did not complete construction of its *Orion Licenses* satellites by the requisite milestone, April 2002. Except for a limited waiver of milestones for Telstar 8's Ka-band payload, discussed below, we find no reason to extend Loral's milestone schedule. Consequently, Loral's Ka-band authorizations at the 81° W.L., 47° W.L., and 78° E.L. orbit locations, as well as its authorization to use the 18.3-18.8 GHz (downlink) and 28.35-28.6 and 29.25-29.5 GHz (uplink) bands at the 89° W.L. orbit location, are null and void.

2. Limited Waiver of Milestones for Telstar 8 Ka-band payload

23. As discussed above in Section III.D., we grant Loral permission to add a Ka-band payload to the Telstar 8 satellite to form a hybrid C/Ku/Ka-band satellite to be launched in the near future. The delay in implementation of the Orion F7 Ka-band license to allow its implementation on the Telstar 8 satellite is a business decision and is not beyond the control of its licensee. Therefore, it would not be appropriate to grant an extension of the Orion F7 milestones under these circumstances. We do, however, on our own motion, grant a limited waiver of the construction and launch milestones to allow implementation of Ka-band service on the Telstar 8 satellite.⁸⁵ Granting a limited waiver will not contravene the purpose of the rule, namely to prevent warehousing of spectrum, as the approaching launch of Telstar 8 promises service to the public in the near term. Furthermore, we determine that implementation of this hybrid system will benefit the public interest by allowing consumers to gain timely access to a wide range of services that can be deployed using the Ka-band. We note, however, that this waiver of milestones applies only to the 500 megahertz that Loral describes in its modification application for its Ka-band authorization at 89° W.L., *viz.*, the 19.7-20.2 GHz (downlink) and 29.5-30.0 GHz (uplink) bands.

3. Loral's Ku-band License at 47° W.L.

24. Orbital Resources argues that by nullifying the *Orion Atlantic License*, we also nullify the *Orion 47° W.L. Ku-band License*.⁸⁶ Orbital Resources' interest in this matter stems from its principals' pecuniary interest in a then-pending application of Columbia Communications Corp. (CCC) for Ku-band use of the 49° W.L. orbit location and CCC's related request to modify that application for the 47° W.L.

⁸⁵ 47 C.F.R. § 1.3. See *WAIT Radio v. FCC*, 418 F.2d 1153 (D.C. Cir. 1969); *Northeast Cellular Telephone Co. v. FCC*, 897 F.2d 1166 (D.C. Cir. 1990).

⁸⁶ See Orbital Resources Opposition at 3-4, 8-9; Orbital Resources July 2001 *ex parte* letter at 2; Orbital Resources July 2002 *ex parte* letter at 6-7.

orbit location.⁸⁷ We have twice rejected CCC's requests to modify its application from 49° W.L. to 47° W.L., based on the continued validity of the *Orion 47° W.L. Ku-band License*,⁸⁸ and dismissed CCC's underlying application for the 49° W.L. orbit location.⁸⁹ Thus, irrespective of whether the *Orion 47° W.L. Ku-band License* is null and void along with the *Orion Atlantic License*, CCC, and thus, Orbital Resources' principals, do not have an application before us, and thus, have no claim to the 47° W.L. orbital location, as Orbital Resources implies in its pleadings.⁹⁰

25. Loral planned that Orion F2 would be a Ku/Ka-band hybrid satellite serving the 47° W.L. orbit location. Unlike Telstar 8, for which Loral has demonstrated substantial progress in construction, the record shows that there has been no progress on construction of Orion F2 as a hybrid satellite. By Loral's own admission, "[w]ork on the hybrid satellite for 47° W.L. remains suspended pending Commission consideration and resolution of the petition for reconsideration [of the *Loral Milestone Order*]. . . . Should the Commission grant Loral's reconsideration petition . . . Loral anticipates completing construction and launching and operating a hybrid Ku-/Ka-band satellite at 47° W.L. within 36 months of the Commission's decision."⁹¹ A milestone extension will be considered where it "is based on tangible, physical, construction-related concerns, rather than nebulous assertions such as regulatory uncertainty or technological advancements."⁹² In comparison, the Commission often will deny an extension request where construction of the satellite either has not begun or is not continuing, raising questions regarding the licensee's intention to proceed.⁹³ It is clear that, as compared to the substantial progress Loral has made in constructing Telstar 8, there has been little progress, if any, on the Orion F2. Consequently, in this *Order*, we nullify Loral's license to construct the Ka-band payload at 47° W.L.

26. We disagree with Orbital Resources that milestone enforcement of the Ka-band payload at 47° W.L. automatically nullifies the underlying Ku-band payload at that location. When the Commission granted the *Orion 47° W.L. Ku-band License* in 1991, it did not impose any specific system implementation milestones in that license. At that time, there were no milestone requirements in effect

⁸⁷ Orbital Resources Opposition at 1-2; Orbital Resources July 2002 *ex parte* letter at 2.

⁸⁸ *Columbia Communications Corporation*, Memorandum Opinion and Order, DA 00-113, 15 FCC Rcd 15566, 15571 ¶ 10 (Int'l Bur. 2000) (*CCC Order*), *aff'd*, Order and Order on Reconsideration, DA 01-1241, 16 FCC Rcd 10867, 10875-76 ¶ 26 (Int'l Bur. 2001) (*CCC Recon Order*).

⁸⁹ *CCC Recon Order*, 16 FCC Rcd at 10877 ¶¶ 30-32, *further recon pending*.

⁹⁰ *See, e.g.*, Orbital Resources July 2002 *ex parte* letter at 7-8.

⁹¹ *See* Letter of John Stern, Deputy General Counsel, Loral Space & Communications Ltd. to Jennifer Gilsonan, Chief, Satellite Policy Branch, Satellite Division, International Bureau, FCC (March 12, 2002).

⁹² *EarthWatch Milestone Order*, 15 FCC Rcd at 18728 ¶ 9 (quotations omitted); *see also Columbia Communications Corporation*, Memorandum Opinion and Order, DA 00-702, 15 FCC Rcd 16496, 16500 ¶ 10 (Int'l Bur. 2000) (citing *Norris Satellite Communications, Inc.*, Memorandum Opinion and Order, FCC 97-377, 12 FCC Rcd 22299, 22308 ¶ 21 (1997) (a claim of regulatory uncertainty does not constitute an independent basis for granting a milestone extension request and does not warrant an otherwise unjustified milestone extension)); *Advanced Review Order*, 11 FCC Rcd at 3412 ¶¶ 30-32 (promoting technological development cannot substitute for concrete progress towards construction and operation of system).

⁹³ *Compare AT&T/Ford*, 2 FCC Rcd at 4433-35 ¶¶ 18-28 (postponing implementation for several years raises questions regarding the licensee's intention to proceed in a timely fashion, if at all, and thus does not justify milestone extension) *with NetSat 28 Company, L.L.C.*, Memorandum Opinion and Order, DA 01-1284, 16 FCC Rcd 11025, 11031 ¶ 21 (Int'l Bur. 2001) (granted extension of construction milestone because, *inter alia*, licensee had commenced construction on satellite and already arranged for satellite launch). *Cf. Astrolink International LLC*, Memorandum Opinion and Order, DA 02-1431, 17 FCC Rcd 11267 (Sat. Div., Int'l Bur. 2002) (granted waiver of construction milestone because licensee demonstrated that it had completed construction of over 90 percent of its spacecraft).

for the so-called “separate systems.” Rather, the Bureau imposed milestone requirements on Loral for the first time in 1997, in granting Loral authority to add Ka-band capacity to the Orion F2 satellite. In other words, the Bureau required Loral to commence construction of a hybrid satellite, and imposed milestones on the Ka-band portion of that satellite. Contrary to Orbital Resources’ assertion, those milestone deadlines were not intended to apply to the Ku-band portion of that satellite, and we do not read the *Orion Atlantic License*, nor our discussions of Loral’s 47° W.L. authority in the *CCC Order* or *CCC Recon Order*, to hold that Loral cannot pursue its original Ku-band-only payload at 47° W.L., *i.e.*, the payload that had no milestone.⁹⁴ We will address milestone enforcement of the Ku-band payload on the Orion F2 satellite once the Commission has developed a mechanism to enforce build-out requirements for the “separate system” satellites that do not have milestones requirements. Although we agree with Orbital Resources that an exceptionally long time has passed since the Commission issued the *Orion 47° W.L. Ku-band License*, there remains no basis, at this time, to revoke Loral’s Ku-band authority.

IV. CONCLUSION AND ORDERING CLAUSES

27. In light of the foregoing, we grant Loral’s requested modifications to its Telstar 4 and Telstar 8 satellite authorizations to the extent indicated herein. We also grant Loral an extension of its completion of construction milestone for its Telstar 8 satellite to March 2003 and its launch milestone to May 2003. Finally, while we deny Loral’s petition for reconsideration of the *Loral Milestone Order*, we grant a limited waiver on our own motion of the launch milestone for its Ka-band payload at 89° W.L. to allow Loral to implement its three-band hybrid satellite technology on Telstar 8.

28. Accordingly, IT IS ORDERED that the Telstar 8 Modification Application filed by Loral SpaceCom Corporation (formerly, Loral Space & Communications Ltd.), File No. SAT-MOD-19991102-00106 IS GRANTED IN PART to the extent indicated herein, and *Loral Space & Communications Ltd.*, 11 FCC Rcd 20441 (Int’l Bur. 1996) IS MODIFIED to permit Loral SpaceCom Corporation to launch and operate Telstar 8, a C/Ku/Ka-band satellite, at the 89° W.L. orbit location in accordance with the terms, conditions and technical specifications set forth in its application and this *Order*, with the exception of that part of the Telstar 8 Modification Application related to the proposed C/Ku-band South American coverage that IS DEFERRED.

29. IT IS FURTHER ORDERED that the Telstar 4 Modification Application filed by Loral SpaceCom Corporation, File No. SAT-MOD-19991101-00109 IS GRANTED and that Loral SpaceCom Corporation’s Telstar 4 satellite is reassigned to the 77° W.L. orbit location following the successful launch and testing of Telstar 8.

30. IT IS FURTHER ORDERED that the Orion F7 Modification Application filed by Loral Space & Communications Corporation (formerly, Loral Orion, Inc.), File No. SAT-MOD-19991101-00108 IS GRANTED to the extent indicated herein to allow Loral Space & Communications Corporation to add the 19.7-20.2 GHz (downlink) and 29.5-30.0 GHz (uplink) portions of its authorization at 89° W.L. on Loral SpaceCom Corporation’s Telstar 8 satellite in accordance with the terms, conditions and technical specifications set forth in the Telstar 8 Modification Application and this *Order*, and IS DENIED in all other respects.

31. IT IS FURTHER ORDERED that the Petition to Deny of Pacific Century Group, Inc., File Nos. SAT-MOD-19991102-00106 & SAT-MOD-19991101-00107/108/109, filed January 24, 2000, is DENIED.

⁹⁴ For example, there is no discussion of milestones in the *Cyberstar 47° W.L. Ku-band Modification Order*, 17 FCC Rcd 7019, issued the same month that the construction completion milestone would have expired.

32. IT IS FURTHER ORDERED that the requests to extend the milestones associated with Telstar 8, a C/Ku/Ka-band hybrid satellite to be located at 89° W.L., File Nos. SAT-MOD-19991101-00107 & SAT-MOD-20020408-00060 ARE GRANTED, and the milestones are extended as follows:

<u>Completion</u>	<u>Launch</u>
March 2003	May 2003

33. IT IS FURTHER ORDERED that the Petition for Reconsideration of the International Bureau's decision in *Loral Space & Communications Corporation*, 16 FCC Rcd 11044 (Int'l Bur. 2001) filed by Loral Space & Communications Corporation on June 25, 2001, IS DENIED.

34. IT IS FURTHER ORDERED that, except as waived in paragraph 35 below, the Ka-band authorizations at the 81° W.L., 47° W.L., and 78° E.L. orbit locations, as well as the authorization to use the 18.3-18.8 GHz (downlink) and 28.35-28.6 and 29.25-29.5 GHz (uplink) bands at the 89° W.L. orbit location, held by Loral Space & Communications Corporation, 12 FCC Rcd 23027 (Int'l Bur. 1997) and 13 FCC Rcd 1416 (Int'l Bur. 1997), *each modified by* Order and Authorization, 16 FCC Rcd 2481 (Int'l Bur. 2001), ARE DECLARED NULL AND VOID.

35. IT IS FURTHER ORDERED that, pursuant to Section 1.3 of the Commission's Rules, 47 C.F.R. § 1.3, the launch milestone associated with Loral Space & Communications Corporation's Orion F7 satellite, as authorized at 12 FCC Rcd 23027 (Int'l Bur. 1997) is extended, for the portion of the Orion F7 authorization that is to become part of the Telstar 8 hybrid satellite, as follows:

19.7-20.2 GHz (downlink) and 29.5-30.0 GHz (uplink) at 89° W.L.	<u>Launch</u> May 2003
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36. IT IS FURTHER ORDERED that the Technical Modification to Application filed by Loral Space & Communications Ltd., File No. 123/124-SAT-MP-96 & IBFS No. SAT-MOD-19960610-00082/83, IS DISMISSED AS MOOT.

37. IT IS FURTHER ORDERED that Loral SpaceCom Corporation's operations over Telstar 4 at the 77° W.L. orbit location and Telstar 8 at the 89° W.L. orbit location SHALL BE coordinated with adjacent satellites concerning any operational parameters that are different from those previously coordinated for the respective orbit locations.

38. IT IS FURTHER ORDERED that Loral SpaceCom Corporation's operations over Telstar 4 at the 77° W.L. orbit location and Telstar 8 at the 89° W.L. orbit location SHALL BE in compliance with all international coordination agreements reached regarding the respective orbit locations.

39. IT IS FURTHER ORDERED that Loral SpaceCom Corporation is obliged to comply with the applicable laws, regulations, rules, and licensing procedures in those countries it proposes to serve.

40. IT IS FURTHER ORDERED that Loral SpaceCom Corporation shall prepare the necessary information, as may be required, for submission to the International Telecommunication Union (ITU) to initiate and complete the advance publication, international coordination, and notification process for Telstar 8 in accordance with the ITU Radio Regulations. We also note that no protection from interference caused by radio stations authorized by other administrations is guaranteed unless coordination procedures are timely completed or, with respect to individual administrations, by successfully completing coordination agreements. Any radio station authorization for which coordination has not been completed may be subject to additional terms and conditions as required to effect coordination of the frequency assignments of other administrations. *See* 47 C.F.R. § 25.111(b).

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

42. IT IS FURTHER ORDERED that the temporary assignment of any orbital location to Loral SpaceCom Corporation and Loral Space & Communications Corporation 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 the 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.

43. IT IS FURTHER ORDERED that Loral SpaceCom Corporation and Loral Space & Communications Corporation have 30 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.

44. This *Memorandum Opinion, 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.

FEDERAL COMMUNICATIONS COMMISSION

Donald Abelson
Chief, International Bureau