



File # SAT-STA-20050321-00067
with attached conditions
Call Sign S2670 Grant Date 3/31/2005
(or other identifier)

Term Dates From 4/1/2005 To 6/1/2005 Approved by OMB 3060-0678

Approved: Allen *Chief Satellite*
Robert G. Nelson Engineering Branch

Date & Time Filed: Mar 21 2005 3:52:56:250PM
File Number: SAT-STA-20050321-00067
Callsign:

FEDERAL COMMUNICATIONS COMMISSION
APPLICATION FOR SPACE STATION SPECIAL TEMPORARY AUTHORITY
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APPLICANT INFORMATION

Enter a description of this application to identify it on the main menu:
STA for moving Telstar 11 to 37.55 degrees

I. Applicant

Name:	Loral Orion, Inc.	Phone Number:	908-470-2342
DBA Name:		Fax Number:	908-470-2453
Street:	500 Hills Drive P.O. Box 7018	E-Mail:	sc@loralskynet.com
City:	Bedminster	State:	NJ
Country:	USA	Zipcode:	07921 -7018
Attention:	Mr STANLEY EDINGER		

Attachment
Conditions of Authorization – SAT-STA-20050321-00067
Call Sign S2670
March 31, 2005

1. Loral Orion, Inc.'s (Loral's) application, File No. SAT-STA-20050321-00067, for Special Temporary Authority IS GRANTED and Loral is authorized to operate the Telstar 11 satellite, Call Sign S2670, at the 37.55° W.L. orbital position in the 11.45-11.7 GHz, 11.7-12.2 GHz, and 12.5-12.75 GHz (space-to-Earth), and 14.0-14.5 GHz (Earth-to-space), frequency bands for a period of 60 days commencing on April 1, 2005, in accordance with the terms, conditions, and technical specifications set forth in its application, this Attachment, and the Federal Communications Commission's Rules.
2. This grant of special temporary authority is necessitated by the following circumstances: (1) the AMC-12 satellite is currently drifting to the 37.5° W.L. orbital position pursuant to previously granted authority and is scheduled to arrive at the 37.5° W.L. orbital position by April 3, 2005; and (2) temporary operations at 37.55° W.L. will facilitate the transition and continuity of service from satellites at the nominal 37.5° W.L. orbital position.
3. No harmful interference shall be caused by Telstar 11 to any other lawfully operating in-orbit satellite and operations of the Telstar 11 satellite shall cease immediately upon notification of such interference.
4. Loral is required to accept interference from other lawfully operating in-orbit satellites.
5. This Special Temporary Authority is granted without prejudice to our final determination of Loral's modification request SAT-MOD-20050322-00069 for regular operational authority at 37.55° W.L.
6. This special temporary authority is issued pursuant to Section 0.261 of the Commission's rules on delegated authority, 47 C.F.R. § 0.261, and is effective upon release.

2. Contact

Name:	Mr STANLEY EDINGER	Phone Number:	908-470-2342
Company:	Loral Skynet Inc.	Fax Number:	908-470-2453
Street:	500 Hills Drive P.O. Box 7018	E-Mail:	se@loralskynet.com
City:	Bedminster	State:	NJ
Country:	USA	Zipcode:	07921 -7018
Contact Title:	Manager Government Relations	Relationship:	Same

(If your application is related to an application filed with the Commission, enter the file number below.)

3. Reference File Number

4a. Is a fee submitted with this application?

- If Yes, complete and attach FCC Form 159. If No, indicate reason for fee exemption (see 47 C.F.R. Section 1.1114).
- Governmental Entity Noncommercial educational licensee
- Other (please explain):

4b. Fee Classification CRY - Space Station (Geostationary)

5. Type Request

- Change Station Location Extend Expiration Date Other

6. Temporary Orbit Location
37.55

7. Requested Extended Expiration Date

8. Description (If the complete description does not appear in this box, please go to the end of the form to view it in its entirety.)

STA to relocate and operate the Telstar 11 Ku-band satellite assigned to the 37.50 W.L. orbital location to the 37.55 W.L. orbital location.

9. By checking Yes, the undersigned certifies that neither applicant nor any other party to the application is subject to a denial of Federal benefits that includes FCC benefits pursuant to Section 5301 of the Anti-Drug Act of 1988, 21 U.S.C. Section 862, because of a conviction for possession or distribution of a controlled substance. See 47 CFR 1.2002(b) for the meaning of "party to the application"; for these purposes. Yes No

10. Name of Person Signing
Stanley Edinger

11. Title of Person Signing
Manager Government Relations

12. Please supply any need attachments.

Attachment 1: A

Attachment 2: B

Attachment 3: C

WILLFUL FALSE STATEMENTS MADE ON THIS FORM ARE PUNISHABLE BY FINE AND / OR IMPRISONMENT
(U.S. Code, Title 18, Section 1001), AND/OR REVOCATION OF ANY STATION AUTHORIZATION
(U.S. Code, Title 47, Section 312(a)(1)), AND/OR FORFEITURE (U.S. Code, Title 47, Section 503).

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THE FOREGOING NOTICE IS REQUIRED BY THE PAPERWORK REDUCTION ACT OF 1995, PUBLIC LAW 104-13, OCTOBER 1, 1995, 44 U.S.C. SECTION 3507.

BEFORE THE
Federal Communications Commission
WASHINGTON, D.C.

In the Matter of)
)
Loral Orion, Inc.)
(Debtor-in-Possession))
) File No. SAT-STA-_____
Request for Special Temporary)
Authority to Operate Telstar 11)
at 37.55° W.L.)

REQUEST FOR SPECIAL TEMPORARY AUTHORITY

Loral Orion, Inc., Debtor-in-Possession ("Loral Orion") requests that the Commission grant it special temporary authority ("STA") to relocate the Telstar 11 Ku-band satellite assigned to the 37.5° W.L. orbital location, to 37.55° W.L.¹ This relocation is part of a collocation adjustment to be undertaken in conjunction with the movement of Columbia Communication Corporation's ("Columbia") new AMC-12 C-band satellite into the 37.45° orbital position where it will replace Satcom C-1 which is also assigned and currently operating at the 37.5° W.L. orbital location. Columbia has filed a similar request for reassignment to 37.45° W.L. Grant of the instant application will serve the public interest by facilitating stationkeeping of Telstar 11 and AMC-12, as agreed to by Loral Orion and Columbia.

Telstar 11 and Satcom C-1 (previously Columbia 515)

¹ Concurrent with this request for STA, Loral Orion is submitting an application for modification of its authorization to reflect the new orbital slot assignment requested herein. Loral Orion incorporates by reference the technical information it has provided in its modification application. Loral Orion is not submitting new contour maps with its application because the proposed shift in orbital location will not change the coverage area of the satellite.

have been collocated in the same box at the 37.5° W.L. orbital location since November 2002. Although an adjacent "box" collocation strategy similar to the one proposed in this application would have been useful previously, Telstar 11 has been operating at full capacity until recently and any movement of the satellite would have involved re-pointing thousands of customers antennae - - a very costly endeavor. However, Telstar 11 is now in inclined orbit and there is nominal customer use of the satellite. Loral Orion has already received Commission authority to replace Telstar 11 with Telstar 11R. As noted above, Loral Orion is filing an application to modify its orbital position for the remainder of Telstar 11's useful life. Columbia anticipates that its replacement, AMC-12, will arrive at the 37.45° W.L. orbital location the first week of April. Columbia and its parent company SES Americom, have requested that Loral move Telstar 11 0.05° to 37.55° prior to the arrival of AMC-12 in order to operate using an adjacent "box" collocation strategy and facilitate technical coordination. Loral Orion has agreed to do so upon the FCC's grant of the instant STA.

The relocation of Telstar 11 and the operation of both satellites at the slight offset from their assigned orbital location of 37.5° W.L. will greatly simplify satellite operations for both Loral Orion and Columbia. The need for constant coordination and the possibility of collision of the spacecraft will be substantially reduced.

Moreover, this STA request is consistent with the Commission's rules and precedent. In a 1993 Order, the FCC reserved its authority "to assign orbital longitudes offset by 0.05 degrees or some multiple thereof from the nominal orbital location specified in the station authorizations."² The FCC specifically noted that this authority is

² See In re Amendment of Part 25 of the Commission's Rules and Regulations to Reduce Alien Carrier Interference Between Fixed-Satellites at Reduced Orbital Spacings and to Revise

"particularly useful with co-located satellites of different frequency bands" and that it was codifying industry practice and the Commission's previous policies.³ The FCC recently simplified the rule wherein this policy was codified; however, it did not eliminate its discretion or authority to allow satellite licensees to operate from a nominal orbital location different from what was originally assigned.⁴ The new Section 25.210(j) of the Commission's rules states that:

Space stations operated in the geostationary satellite orbit must be maintained within 0.05° of their assigned orbital longitude in the east/west direction, unless specifically authorized by the Commission to operate with a different longitudinal tolerance, and except as provided in Section 25.283(b) (End-of-Life Disposal).

Thus, it remains to be the case that the FCC may grant an application for a satellite to be operated from a location that is 0.05° or greater from its originally assigned orbital location. The FCC recently approved a modification application for PanAmSat Licensee Corp. proposing a similar orbital location variation. In that case, PanAmSat sought and the FCC permitted PanAmSat to move its Galaxy 5 satellite from 125° W.L. to 125.05° W.L.⁵

Here, Loral Orion's STA request should be granted so that Loral Orion is able to move Telstar 11 slowly in order to conserve as much fuel as possible and be out of SES Americom's "half" of the box by the time AMC-12 arrives in the first week of April 2005. Moreover, grant of the STA is necessary to allow the agreement between Loral Orion

Application Processing Procedures for Satellite Communications Services, Second Report and Order and Further Notice of Proposed Rulemaking, 8 FCC Rcd 1316 (1993) at para. 19.

³ Id.

⁴ Mitigation of Orbital Debris, Second Report and Order, 19 FCC Rcd 11567 (2004) at para. 43.

⁵ See Public Notice, Report No. SAT-00222, DA No. 04-1746, File No. SAT-MOD-20040405-00075 (rel. June 18, 2004).

and Columbia to be fulfilled. The parties have agreed that an adjacent box collocation strategy, as contemplated by the FCC's 1993 Order cited above, is preferred because it offers the lowest probability of interference or collision for collocated satellites.

Finally, as shown in Loral's license modification application that has been will be filed concurrently with the instant request, this slight shift in orbital location will not cause harmful interference to neighboring Ku-band satellite operators, including Intelsat 903 located at 34.5° W.L. and NSS-806, located at 40.5° W.L.

For the reasons discussed above, grant of this request for STA is in the public interest. Loral Orion requests that the Commission expeditiously grant this request for STA to move Telstar 11 to 37.55° W.L.

Respectfully submitted,

for LORAL ORION, INC. (Debtor-in-Possession)

Jeffrey C. Stein

March 21, 2005

CERTIFICATIONS

Pursuant to Section 1.2002 of the Commission's Rules, 47 C.F.R. § 1.2002, Loral Orion, Inc. (Debtor-in-Possession) certifies that neither the applicant nor any party to this application is subject to a denial of Federal benefits that includes FCC benefits pursuant to Section 5301 of the Anti-Drug Abuse Act of 1988.

Loral Orion, Inc. (Debtor-in-Possession) waives any claim to the use of any particular frequency or of the electromagnetic spectrum as against the regulatory power of the United States because of the previous use of the same, whetherby the license or otherwise, and requests an authorization in accordance with this application.

Jeffrey C. Stein

March 21, 2005

PUBLIC INTEREST STATEMENT

Loral Orion, Inc., Debtor-in-Possession ("Loral Orion") requests that the Commission grant this STA to relocate and operate the Telstar 11 Ku-band satellite assigned to the 37.5° W.L. orbital location, to 37.55° W.L. immediately upon receipt of this filing and the required filing fee. Loral Orion Inc. asks that the Commission grant the instant STA before March 24, 2005 because the next maneuver, to maintain Telstar 11 in the current $\pm 0.05^\circ$ box centered on 37.50°, is scheduled to be performed on that day. This relocation is part of a collocation adjustment to be undertaken in conjunction with the movement of Columbia Communications Corporation's ("Columbia's") new AMC-12 C-band satellite into the 37.45° orbital position where it will replace Satcom C-1 which is also assigned and currently operating at the 37.5° W.L. orbital location. Columbia has filed a similar request for reassignment to 37.45° W.L.¹ Grant of the instant application will serve the public interest by facilitating stationkeeping of Telstar 11 and AMC-12, as agreed to by Loral Orion and Columbia.

Telstar 11 and Satcom C-1 (and its predecessor Columbia 515) have been collocated in the same box at the 37.5° W.L. orbital location since November 2002. Although an adjacent "box" collocation strategy similar to the one proposed in this application would have been useful previously, Telstar 11 has been operating at full capacity until recently and any movement of the satellite would have involved re-pointing thousands of customer antennae - - a very costly endeavor. However, Telstar 11 is now in inclined orbit and there is nominal customer use of the satellite. Loral Orion

¹ Columbia filed a request for STA to relocate AMC-12 to 37.45° W.L. on March 16, 2005 (SAT-STA-20050316-00065).

has already received Commission authority to replace Telstar 11 with Telstar 11R. Columbia anticipates that the AMC-12 satellite will arrive at the 37.45° W.L. orbital location in the first week of April. Columbia, and its parent company SES Americom, have requested that Loral move Telstar 11 0.05° to 37.55° prior to the arrival of AMC-12 in order to operate using an adjacent "box" collocation strategy and facilitate technical coordination. Loral Orion has agreed to do so upon the FCC's grant of the STA filed concurrently with this application.

The relocation of Telstar 11 and the operation of both satellites at the slight offset from their assigned orbital location of 37.5° W.L. will greatly simplify satellite operations for both Loral Orion and Columbia. The need for constant coordination and the possibility of collision of the spacecraft will be substantially reduced.

Moreover, this application is consistent with the Commission's rules and precedent. In a 1993 Order, the FCC reserved its authority "to assign orbital longitudes offset by 0.05 degrees or some multiple thereof from the nominal orbital location specified in the station authorizations."² The FCC specifically noted that this authority is "particularly useful with co-located satellites of different frequency bands" and that it was codifying industry practice and the Commission's previous policies.³ The FCC recently simplified the rule wherein this policy was codified; however, it did not eliminate its discretion or authority to allow satellite licensees to operate from a nominal orbital

² See In re Amendment of Part 25 of the Commission's Rules and Regulations to Reduce Alien Carrier Interference Between Fixed-Satellites at Reduced Orbital Spacings and to Revise Application Processing Procedures for Satellite Communications Services, *Second Report and Order and Further Notice of Proposed Rulemaking*, 8 FCC Rcd 1316 (1993) at para. 19.

³ Id.

location different from what was originally assigned.⁴ The new Section 25.210(j) of the Commission's rules states that:

Space stations operated in the geostationary satellite orbit must be maintained within 0.05° of their assigned orbital longitude in the east/west direction, unless specifically authorized by the Commission to operate with a different longitudinal tolerance, and except as provided in Section 25.283(b) (End-of-Life Disposal).

Thus, it remains to be the case that the FCC may grant an application for a satellite to be operated from a location that is 0.05° or greater from its originally assigned orbital location. The FCC recently approved a modification application for PanAmSat Licensee Corp. proposing a similar orbital location variation. In that case, PanAmSat sought and the FCC permitted PanAmSat to move its Galaxy 5 satellite from 125° W.L. to 125.05° W.L.⁵

Here, Loral Orion's STA request should be granted so that Loral Orion is able to move Telstar 11 slowly in order to conserve as much fuel as possible and be out of Columbia's "half" of the box by the time AMC-12 arrives in the first week of April 2005. Moreover, grant of this STA is necessary to allow the agreement between Loral Orion and Columbia to be fulfilled. The parties have agreed that an adjacent box collocation strategy, as contemplated by the FCC's 1993 Order cited above, is preferred because it offers the lowest probability of interference or collision for collocated satellites.

Finally, this slight shift in orbital location will not cause harmful interference to neighboring Ku-band satellite operators, including Intelsat 903 located at 34.5° W.L. and

⁴ Mitigation of Orbital Debris, *Second Report and Order*, 19 FCC Rcd 11567 (2004) at para. 43.

⁵ See Public Notice, Report No. SAT-00222, DA No. 04-1746, File No. SAT-MOD-20040405-00075 (rel. June 18, 2004).

NSS-806, located at 40.5° W.L.⁶ Although the proposed offset would result in Telstar 11 being slightly closer to NSS-806, the satellites will still be 2.95° apart and there will be no material change to the existing interference environment. The Telstar 11 satellite is fully compliant with the Commission's requirements with respect to two-degree spacing.

For the reasons discussed above, grant of this STA is in the public interest. Loral Orion requests that the Commission expeditiously grant this request to reassign Telstar 11 to 37.55° W.L.

⁶ Loral Orion is not submitting new contour maps with this application because the minor shift in orbital location will not materially affect coverage of the satellite as shown on the maps already on file.

ENGINEERING STATEMENT

Loral Orion Inc (Loral) is currently licensed to operate Telstar 11 at 37.50° WL utilizing the 14.0-14.5 GHz uplink and 11.45-11.7 GHz, 11.7-12.2 GHz, and 12.5-12.75 GHz downlink FSS bands to provide U.S. and Europe coverage (See FCC File No: SAT-T/C-19981218-00102). In this filing, Loral proposes to modify its license to specify operation of Telstar 11 from 37.55° WL instead of 37.50° WL. To account for this change in orbital location, this engineering statement updates the following technical information that Loral previously had submitted: (1) gain contours, (2) PFD levels and (3) link budget analysis.

Gain Contours

The coverage patterns of Telstar 11 operating from the proposed 37.55° WL orbital location will be the same as those specified in the current license. Changing the proposed orbital location from 37.50° WL to 37.55° WL will produce no visible change in the gain contours. Accordingly, no new beam gain contours are being submitted.

Power Flux Density Levels

The power flux density ("PFD") level at the Earth's surface produced by Telstar 11 operating from the proposed 37.55° WL orbital location will be the same as those corresponding to operation from 37.50° WL and have already been provided to the FCC.

Link Budgets and Interference Analysis

The Commission has adopted a policy in which the nominal spacing between adjacent co-coverage co-frequency satellites is 2°. Moving a satellite by 0.05°, so that there is 1.95° and 2.05° of separation, respectively, between the re-located satellite and its nearest and next nearest neighbor will cause negligible change in the interference levels introduced into each satellite system. The following analysis substantiates this claim. Receiving earth stations, which have off-axis gain characteristics compliant with Section 25.209(a)(1) of the FCC rules, would have an off-axis gain of 21.5 dB toward an interfering satellite, which is 2° away from the desired satellite. If the interfering satellite is moved 0.05° toward the desired satellite, so that the separation between the desired and interfering satellites is 1.95°, the off-axis gain of the receive earth station antenna toward the interfering satellite would become 21.7 dB. Hence, there would be an increase of 0.2 dB in the interference levels from the nearest neighbor satellite. Such a small change in the interference levels would not affect in any meaningful way the existing interference environment.

Regarding the satellite that would be 2.05° away, the interference environment would also be negligibly changed. Receiving earth stations, which have off-axis gain characteristics compliant with Section 25.209(a)(1) of the FCC rules, would have an off-axis gain of 21.5 dB toward an interfering satellite, which is 2° away from the desired satellite. If the interfering satellite is moved 0.05° away from the desired satellite, so that

the separation between the desired and interfering satellites is 2.05° , the off-axis gain of the receive earth station antenna toward the interfering satellite would become 21.2 dB. Hence, there would be a decrease of 0.3 dB in the interference levels from the next nearest neighbor satellite. Such a small change in the interference levels would not affect in any meaningful way the existing interference environment. Therefore, moving Telstar 11 by 0.05° to 37.55° WL would result in an insignificant change in the interference environment for both the nearest and neighbor satellites and the Telstar 11 satellite and their associated earth stations.

In fact, the operational co-frequency satellites nearest to the 37.55° WL orbital location are New Skies Satellites NSS-806, located at 40.50° WL, and Intelsat 903, located at 34.50° WL. These satellites are 3° away from Telstar 11, making the interference environment more benign than in the case of 2° separation. In the case of NSS-806 and Telstar 11, since the satellites do not cover the same regions - NSS-806 covers the Atlantic coast of Brazil and Telstar 11 provides coverage of the US - the systems inherently introduce low interference levels into each other. With the Telstar 11 spacecraft moving 0.05° closer to NSS-806, the interference levels would increase by about 0.2 dB for earth stations adhering to the off-axis gain characteristics set forth in Section 25.209(a)(1) of the FCC Rules, since the off-axis gain toward the interfering satellite would increase from 17.1 dB (in the case of 3.00° of separation between the satellites) to 17.3 dB (in the case of 3.05° of separation between the satellites). This very small change in the interference levels, on top of the already low interference levels in the nominal case, would not impact the interference environment for NSS-806 and Telstar 11 in any meaningful way.

Regarding Intelsat 903, with earth stations adhering to the off-axis gain characteristics set forth in Section 25.209(a)(1) of the FCC Rules, the already low interference levels would be reduced by less than 0.2 dB. Such a small decrease in the off-axis gain of Intelsat 903 receive earth station will not change in any meaningful way the existing interference environment of Intelsat 903 receiving earth stations from the proposed operation of Telstar 11 at 37.55° WL. Similarly, interference from Intelsat 903 transmissions into Telstar 11 receiving earth stations would be substantially unchanged (0.2 dB variation). Given that the proposed operation of Telstar 11 would not result in any significant change to the existing interference environment as it pertains to Telstar 11, Intelsat 903, and NSS-806 no link budget analysis is provided herein¹.

Schedule S Submission

For reasons that are discussed above, the proposed operation of Telstar 11 from 37.55° WL would not result in any material changes to the operating characteristics of the satellite or the existing interference environment. The information requested in Schedule S, therefore, is duplicative of the information that Loral already has provided. Based on this fact and on discussions with the staff of the Satellite Division, Loral is not including

¹ The International Bureau recently clarified that GSO space station applicants generally are expected to provide this information. See Public Notice, DA 03-3683 (Dec. 3, 2003)

a Schedule S with its modification application. However, Loral will prepare and file a Schedule S in the event that the Satellite Division determines it to be necessary.

Certification Statement

I hereby certify that I am a technically qualified person and am familiar with Part 25 of the Commission's Rules and Regulations. The contents of this engineering statement were prepared by me or under my direct supervision and to the best of my knowledge are complete and accurate.

Peter E. Goettle

March 21, 2005