

E7541 SES-STA-20120427-00403 IB2012001126
Lockheed Martin Corporation

Approved by OMB
3060-0678

APPLICATION FOR EARTH STATION SPECIAL TEMPORARY AUTHORITY

APPLICANT INFORMATION Enter a description of this application to identify it on the main menu:
Request for STA re

1. Applicant

Name:	Lockheed Martin Corporation	Phone Number:	703-413-5970
DBA Name:		Fax Number:	703-413-5908
Street:	2121 Crystal Drive Suite 100	E-Mail:	jennifer.warren@lmco.com
City:	Arlington	State:	VA
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Attention:	Ms Jennifer Warren		



With conditions
File # SES-STA-20120427-00403
Call Sign E7541 Grant Date 5/11/2012
(or other identifier)
Term Dates
From 5/13/2012 To: 6/12/2012
Approved: Paul E. Hays

Conditions:

Applicant: Lockheed Martin Corporation
File Number: SES-STA-20120427-00403
Call Sign: E7541

Lockheed Martin Corporation, is granted, under the following conditions, Special Temporary Authority for 30 days, from 05/13/2012 to 06/12/2012, to operate as described in SES-STA-20120427-00403, to allow for calibration testing and to support post-launch/early-operations TT&C for the JCSAT-13 and Vinasat-2 satellites, which will be launched together on May 15, 2012. The JCSAT-13 satellite orbital location will be 124 ° E.L. The Vinasat-2 satellite orbital location will be 131.8° E.L.

Conditions:

1. Operations under this authority are on a non-interference basis only.
2. Operations under this authority are on a non-protected basis only.
3. In the event that there is a report of interference, Lockheed must immediately terminate transmissions and notify the FCC in writing.
4. The LEOP operations will be coordinated with all operators of satellites that use the same frequency bands and are in the LEOP path. All operators of satellites in that path will be provided with an emergency phone number where the licensee can be reached in the event that harmful interference occurs.
5. Lockheed Martin designee, Michael Usarzewicz, will be available whenever transmission to, or reception from, JCSAT-13 or Vinasat-2 is to occur through the subject earth station. Mr. Usarzewicz will be be reachable at the following cell phone number: (609) 865-2658 and/or station number: (908) 859-4050.
6. Any action taken or expense incurred as a result of operations pursuant to this special temporary authority is solely at Lockheed Martin Corporation risk.
7. This action is issued pursuant to Section 0.261 of the Commission's rules on delegated authority, 47 C.F.R. § 0.261, and is effective immediately.



File # SES-STA-20120427-00403

Call Sign E7541 Grant Date 5/11/2012
(or other identifier)

Term Dates

From 5/13/2012 To: 6/12/2012

Approved: Paul E. Haley

Exhibit A
Lockheed Martin Corporation
Carpentersville, NJ Earth Station
Call Sign E7541
STA Request for
LEOp TT&C Operations
April 2012

Description

Lockheed Martin Corporation (“Lockheed Martin”) requests special temporary authority (“STA”) to operate its Carpentersville, New Jersey C-band and Ku-band fixed earth station antennas (see File No. SES-LIC-20081103-01443, as amended)¹ to provide telemetry, tracking and control (“TT&C”) functions during the post-launch and early operations (“LEOp”) phases of operation for the JCSAT-13 satellite that will be operated by SKY Perfect JSAT Corporation of Japan, and for the Vinasat-2 satellite that will be operated by the Vietnam Posts and Telecommunications Group. Both JCSAT-13 and Vinasat-2 are scheduled to be launched by the same Arianespace launch vehicle on May 15, 2012.² To the extent required to meet this timetable, Lockheed Martin requests expedited treatment of the instant STA request and action by May 13, 2014.

Lockheed Martin specifically seeks authority to transmit command/ranging signals to JCSAT-13 on the 13992.0 MHz and 14499 MHz frequencies. The Ku-band earth station antenna on Call Sign E7541 would receive telemetry signals from the JCSAT-13 satellite on the 12748.0 MHz and 12749.0 MHz telemetry frequencies. Lockheed Martin also specifically seeks authority to transmit command/ranging signals to Vinasat-2 on the 3694.5 MHz and 3695.5 MHz frequencies. The C-band earth station antenna on Call Sign E7541 would receive telemetry signals from the Vinasat-2 satellite on the 6430.5 MHz and 6427.5 MHz telemetry frequencies.³

The mission duration for the TT&C operations requested here – including the one day of calibration testing – is 10 to 12 days. To allow for some possible slippage in the launch schedule, Lockheed Martin requests a 30-day STA term that runs from May 13, 2012 to June 12, 2012, inclusive.

¹ The pending application in File No. SES-LIC-20081103-01443, as amended, under Call Sign E7541, was filed on a provisional basis to replace Lockheed Martin’s inadvertently non-renewed licenses for 14.2 meter C-band and Ku-band antennas at the Carpentersville, NJ site under Call Signs E7541 and E920702. Lockheed Martin’s petitions to reinstate the licenses for Call Signs E7541 and E920702, as well as the “replacement” application it filed in the alternative under File No. SES-LIC-20081103-01443, are pending.

² The test transmissions that would begin on May 13, 2012 would occur only May 13 and May 14. During these tests, the earth stations would not be communicating with any satellite; instead, the transmissions will be made with the antennas at zenith to verify RF functionality.

³ The coordinates in the main section of the FCC Form 312 to which this exhibit is attached are for Lockheed Martin’s South antenna at the Carpentersville facility. This is the antenna that will be used for Ku-band operations with JCSAT-13. The North antenna will be used for C-band operations with Vinasat-2, and is at the following coordinates: 40° 38’ 41.0” North, 75° 11’ 28.0” West.

Of the transmit frequencies Lockheed Martin seeks to use for the JCSAT-13 TT&C support operations, only the 14499 MHz frequency is included in Lockheed Martin's former license for Call Sign E920702 and current application for the Ku-band antenna in File No. SES-LIC-20081130-01443 (under Call Sign E7541). Lockheed Martin emphasizes, however, that its proposed transmissions on both the 14499 MHz and 13992 MHz frequencies will use the emission designators for telecommand that are proposed in the pending license application.⁴ The information in the Schedule B portion of Lockheed Martin's pending application in File No. SES-LIC-20081130-01443, as amended, is hereby incorporated by reference for the proposed Ku-band operation.

The transmit frequencies Lockheed Martin seeks to use for the Vinasat-2 TT&C support operations are also not included in Lockheed Martin's former license for Call Sign E7541 and current application for the C-band antenna in File No. SES-LIC-20081103-01443 (also under Call Sign E7541). Lockheed Martin emphasizes here as well that its proposed transmissions on the 6430.5 MHz and 6427.5 MHz transmit frequencies will use the emission designators for telecommand functions that are proposed in the pending license application, or will use carriers that do not exceed the highest e.i.r.p., e.i.r.p. density, and bandwidth prescribed in the application for the telecommand carriers. When no commands are being sent, a CW carrier that is within the emission envelope proposed in Lockheed Martin's application, as amended, would be present. See File No. SES-AMD-20081219-01664, at Schedule B. The information in the Schedule B portion of Lockheed Martin's pending application in File No. SES-LIC-20081130-01443, as amended, is hereby incorporated by reference for the proposed C-band operation.

Lockheed Martin has secured a temporary frequency coordination that covers the entire proposed STA window for operations on the JCSAT-13 and Vinasat-2 TT&C frequencies from its Carpentersville earth station facility. The report is attached to this Exhibit A.

Lockheed Martin notes that it is possible that during an unexpected emergency with either satellite, the power levels proposed for the earth station in the license application for Call Sign E7541, as amended, may need to be exceeded to help recover the satellite. Under these extremely unlikely circumstances, Lockheed Martin will make every effort to coordinate such operations with affected users, and will take all reasonable steps to swiftly eliminate any harmful interference caused. Lockheed Martin fully understands that all of its proposed LEOp TT&C support for the JCSAT-13 and Vinasat-2 launches will be on a strictly non-harmful interference, non-protected basis.

With respect to the proposed telemetry receive operations at 12.748 GHz and 12.749 GHz, Lockheed Martin notes that the 12.7-12.75 GHz band is allocated for FSS (space-to-Earth) operations in ITU Region 3 (where the JCSAT-13 is intended for permanent operation). Although the reception of telemetry signals at 12.74 GHz is inconsistent with the allocation table in both ITU Region 2 and the United States, Lockheed Martin believes that such limited duration operations – which it and the satellite operator will coordinate in advance with any and all potentially affected entities that operate communications systems in compliance with the Table

⁴ Specifically, transmissions would use the 3M00F3D and 3M00G7D emission designators. When no commands are being sent, the CW carrier (3M00N0N) would be present. See File No. SES-AMD-20081219-01664, at Schedule B.

of Frequency Allocations during the limited period of use – are required in the public interest, for reasons given below. The C-band telemetry receive frequencies are already proposed for inclusion in the license for Call Sign E7541 in the pending license application.

The Commission has previously granted Lockheed Martin STA requests for launch and early-operations TT&C support using its Carpentersville, New Jersey earth station facilities in both C-band and Ku-band. Most recently, the Commission authorized Lockheed Martin to perform launch support operations for SES-4 in February 2012. *See e.g.*, Request of Lockheed Martin Corp. for STA to support LEOp TT&C Functions of SES-4, File Nos. SES-STA-20111209-01447 and File No. SES-STA-20120216-00176. *See also* Request of Lockheed Martin Corp. for STA to support LEOp TT&C Functions of AsiaSat-7, File No. SES-STA-20111108-01341; Request of Lockheed Martin Corp. for STA to support LEOp TT&C Functions of QuetzSat-1, File No. SES-STA-20110919-01105; Request of Lockheed Martin Corp. for STA to support LEOp TT&C Functions of BSAT-3c, File No. SES-STA-20110504-00547; and Request of Lockheed Martin Corp. for STA to Support LEOp TT&C Functions for EchoStar-7, File No. SES-STA-20020208-00160.

Lockheed Martin’s pending license application in File No. SES-LIC-20081103-01443 included radiation hazard studies for both the C-band and Ku-band antennas that Lockheed Martin hereby incorporates by reference. *See* Exhibit 28 to Application of Lockheed Martin Corporation, File No. SES-LIC-20081103-01443.

Lockheed Martin believes that the limited operations it proposes in support of the launch of JCSAT-13 and Vinasat-2 – operations Lockheed Martin and the satellite operators will coordinate in advance with any and all potentially affected entities that operate communications systems in compliance with the Table of Frequency Allocations during the limited period of use – are required in the public interest. Lockheed Martin’s earth station will be part of a global network of control facilities for LEOp services that will be used to position the satellites as they progress from transfer orbit to their final locations. The safe and orderly use of the entire geostationary orbital resource and protection of the hundreds of satellites from the U.S. and other countries that operate there depends in no small part on ensuring that the JCSAT-13 and Vinasat-2 satellites are controlled while over North America, and Lockheed Martin’s earth station thus will serve a limited-duration, but nonetheless vital function.

Lockheed Martin designates Michael Usarzewicz to be the contact person that will be available whenever transmission to, or reception from, JCSAT-13 or Vinasat-2 is to occur through the subject earth station. Mr. Usarzewicz can be reached at the following cell phone number: (609) 865-2658 and/or station number: (908) 859-4050.

The antennas to be used for operations under the proposed STA are already built. These are the same antennas that were previously authorized under Call Signs E920270 and E7541, and that are now the subject of the pending application and reinstatement request described in Note 1 above. As noted, both the C-band and Ku-band antennas have been authorized for use on an STA-basis to support other satellite launches.

In sum, Lockheed Martin requests authority to operate its Carpentersville, NJ C-band and Ku-band earth station antennas to provide critical LEOP operations in support of JCSAT-13 and Vinasat-2, for a term of 30 days – from May 13, 2012 through June 12, 2012.

2. Contact

Name:	Stephen D. Baruch	Phone Number:	202-416-6782
Company:	Lerman Senter PLLC	Fax Number:	202-429-4626
Street:	2000 K Street, NW Suite 600	E-Mail:	sbaruch@lermansenter.com
City:	Washington	State:	DC
Country:	USA	Zipcode:	20006 -1809
Attention:		Relationship:	Legal Counsel

(If your application is related to an application filed with the Commission, enter either the file number or the IB Submission ID of the related application. Please enter only one.)

3. Reference File Number SESSTA2011120901447 or Submission ID

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 CGX – Fixed Satellite Transmit/Receive Earth Station

5. Type Request

- Use Prior to Grant Change Station Location Other

6. Requested Use Prior Date
05/13/2012

7. City Carpentersville

8. Latitude
(dd mm ss.s h) 40 38 39.1 N

9. State NJ	10. Longitude (dd mm ss.s h) 75 11 27.8 W
11. Please supply any need attachments. Attachment 1: Exhibit A Attachment 2: Attachment 3:	
12. 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.) <div style="border: 1px solid black; padding: 5px;">Lockheed Martin Corp. requests a 30-day STA to use the C-band and Ku-band antennas on its Carpentersville, NJ earth station to support post-launch/early-operations TT&C for the JCSAT-13 and Vinasat-2 satellites, which will be launched together on May 15, 2012. STA period to commence May 13, 2012 to allow for calibration testing. See Exhibit A.</div>	
13. 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. <input checked="" type="radio"/> Yes <input type="radio"/> No	
14. Name of Person Signing Jennifer Warren	15. Title of Person Signing Vice President, Technology Policy & Regulation
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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