

E7541 SES-STA-20111108-01341 IB2011004826  
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

<b>Name:</b>	Lockheed Martin Corporation	<b>Phone Number:</b>	703-413-5970
<b>DBA Name:</b>		<b>Fax Number:</b>	703-413-5908
<b>Street:</b>	2121 Crystal Drive Suite 100	<b>E-Mail:</b>	jennifer.warren@lmco.com
<b>City:</b>	Arlington	<b>State:</b>	VA
<b>Country:</b>	USA	<b>Zipcode:</b>	22202 -
<b>Attention:</b>	Ms Jennifer Warren		



**File#** SES-STA-20111108-01341

**Call Sign** E7541 **Grant Date** 11/18/2011  
(or other identifier)

**Term Dates**  
**From** 11/23/2010 **To:** 12/23/2011

**Approved:** Paul E. Hayes

Conditions:


Applicant: Lockheed Martin Corporation  
File Number: SES-STA-20111108-01341  
Call Sign: E7541

Lockheed Martin Corporation, is granted, under the following conditions, Special Temporary Authority for 30 days, from 11/23/2011 to 12/23/2011, to operate as described in SES-STA-2011108-01341, to provide telemetry, tracking and control functions during the post-launch and transfer orbit phases of operation for the AsiaSat-7 satellite that will be operated by Asia Satellite Telecommunications Company Limited. Based on the following 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. Operations will be performed in the following frequencies: 6420 MHz (RHCP) and 6426 MHz RHCP and LHCP telecommand uplink channels to AsiaSat-7 and telemetry signals from the AsiaSat-7 satellite on frequencies the 4199.25 MHz and 4199.85 MHz RHCP and LHCP.
4. In the event that there is a report of interference, Lockheed must immediately terminate transmissions and notify the FCC in writing.
5. 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.
6. Lockheed must make all reasonable and customary measures to ensure that the earth station does not create a potential for harmful non-ionizing radiation to persons who may be in the vicinity of the earth station when it is in operation. At a minimum, permanent warning labels shall be fixed to the earth station and its housing warning of the radiation hazard and including a diagram showing the regions around the earth station where radiation levels could exceed 1.0mW/cm<sup>2</sup>. The earth station operator shall be responsible for assuring that individuals do not stray into the regions around the earth station where there is a potential for exceeding the maximum permissible exposure limits required by 47 C.F.R. §1.1310. This shall be accomplished by means of signs, caution tape, verbal warnings, placement of the earth station so as to minimize access to the hazardous region, and/or other appropriate means.

30 days "with conditions"

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From	11/23/2011
To	12/23/2011
Approved:	Paul S. Han



**GRANTED**  
International Bureau

**Exhibit A**  
**Lockheed Martin Corporation**  
**Carpentersville, NJ Earth Station**  
**Call Sign E7541**  
**STA Request for**  
**LEOp TT&C Operations**  
**November 2011**

**Description**

Lockheed Martin Corporation (“Lockheed Martin”) requests special temporary authority (“STA”) to operate its Carpentersville, New Jersey C-band fixed earth station (see File No. SES-LIC-20081103-01443, as amended)<sup>1</sup> to provide telemetry, tracking and control (“TT&C”) functions during the post-launch and transfer orbit phases of operation for the AsiaSat-7 satellite that will be operated by Asia Satellite Telecommunications Company Limited (“AsiaSat”). AsiaSat-7 is currently scheduled for launch on November 25, 2011, and Lockheed Martin intends to perform test transmissions in preparation for the launch on or about November 24, 2011.<sup>2</sup> To the extent required to meet this timetable, Lockheed Martin requests expedited treatment of the instant STA request and action by November 23, 2011.

Lockheed Martin specifically seeks authority to transmit using right-hand circular polarization on the 6426.0 MHz frequency, and using both right-hand and left-hand circular polarization on the 6428 MHz frequency. The earth station would receive telemetry signals from the AsiaSat-7satellite on the 4199.25 MHz and 4199.85 MHz channels (both left-hand circular polarization). The mission duration for the TT&C operations requested here is no more than 10 days after launch. Lockheed Martin hereby requests a 30-day STA term commencing November 23, 2011 to enable it to accommodate any slippage in the launch date without the need for additional authority from the Commission.

The transmit frequencies Lockheed Martin seeks to use for the AsiaSat-7 TT&C support operations are 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 notes, however, that the Commission has previously granted Lockheed Martin STA requests for launch and early-operations (“LEOp”) TT&C support using its Carpentersville, New Jersey earth station facilities. Most recently, the Commission authorized Lockheed Martin to perform launch support operations for the QuetzSat-1 in October 2011. *See e.g.*, Request of Lockheed Martin Corp. for STA to support LEOp TT&C Functions of QuetzSat-1, File No. SES-STA-20110919-01105. *See also* Request of Lockheed Martin Corp.

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<sup>1</sup> The pending application in File No. SES-LIC-20081103-01443, under Call Sign E7541, was filed on a provisional basis to replace Lockheed Martin’s inadvertently non-renewed license for a C-band antenna at the Carpentersville, NJ site under Call Sign E7541. Lockheed Martin’s petition to reinstate the license for Call Sign E7541, as well as the “replacement” application it filed in the alternative under File No. SES-LIC-20081103-01443 and Call Sign E7541, are pending.

<sup>2</sup> The test transmissions that would begin on or about November 23, 2011 would occur over a period of approximately two days. During these tests, the earth station would not be communicating with any satellite; instead, the transmissions will be made with the antenna at zenith to verify RF functionality.

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 (STA to support launch and early operations TT&C functions for EchoStar-7 satellite using 17.3-17.8 GHz band frequencies for Earth-to-space telecommand transmissions). Lockheed Martin's pending license application in File No. SES-LIC-20081103-01443 included a radiation hazard study for this frequency range that Lockheed Martin hereby incorporates by reference. See Exhibit 28 to Application of Lockheed Martin Corporation, File No. SES-LIC-20081103-01443.

Lockheed Martin's proposed transmissions on the 6426.0 MHz and 6428.0 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-20081103-01443, as amended, is hereby incorporated by reference. Lockheed Martin notes that it is possible that during an unexpected emergency with the satellite, the power levels proposed for the earth station in the 2008 application 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 launch and early-operations TT&C support for the AsiaSat-7 launch will be on a strictly non-harmful interference, non-protected basis.

Lockheed Martin has secured a temporary frequency coordination that includes the entire proposed STA window (November 23, 2011 through December 22, 2011) for operations on the AsiaSat-7 TT&C frequencies from its Carpentersville earth station facility. The report is attached to this Exhibit A.

Lockheed Martin believes that the limited operations it proposed in support of the launch of AsiaSat-7 – operations Lockheed Martin and the satellite operator 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 that will be used to position the satellite as it progresses from transfer orbit to its final location. 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 AsiaSat-7 satellite is 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, AsiaSat-7 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 antenna to be used for operations under the proposed STA is already built. It is the same antenna that was previously authorized under Call Sign E7541 and that is now the subject of the pending application and reinstatement request described in Note 1 above.

In sum, Lockheed Martin requests authority to operate its Carpentersville, NJ C-band earth station antenna to provide critical TT&C services during the launch and early operations phase of the AsiaSat-7 satellite, for a term of 30 days – including two days for calibration testing, and a 10 day window between November 23 and December 22, 2011 for TT&C support operations.

<b>2. Contact</b>	
<b>Name:</b> Stephen D. Baruch	<b>Phone Number:</b> 202-416-6782
<b>Company:</b> Lerman Senter PLLC	<b>Fax Number:</b> 202-429-4626
<b>Street:</b> 2000 K Street, NW Suite 600	<b>E-Mail:</b> sbaruch@lermansenter.com
<b>City:</b> Washington	<b>State:</b> DC
<b>Country:</b> USA	<b>Zipcode:</b> 20006 -1809
<b>Attention:</b>	<b>Relationship:</b> 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 SESLIC2008110301443 or Submission ID	
4a. Is a fee submitted with this application?	
<input checked="" type="radio"/> If Yes, complete and attach FCC Form 159. If No, indicate reason for fee exemption (see 47 C.F.R. Section 1.1114).	
<input type="radio"/> Governmental Entity <input type="radio"/> Noncommercial educational licensee	
<input type="radio"/> Other (please explain):	
4b. Fee Classification    CGX – Fixed Satellite Transmit/Receive Earth Station	
5. Type Request	
<input type="radio"/> Use Prior to Grant <input type="radio"/> Change Station Location <input checked="" type="radio"/> Other	
6. Requested Use Prior Date 11/23/2011	
7. City Carpentersville	8. Latitude (dd mm ss.s h) 40 38 39.0 N



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