

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
Country:	USA	Zipcode:	22202 -
Attention:	Ms Jennifer Warren		



SES-STA-20120910-00803
E7541
Call Sign E7541 Grant Date 9-27-12
(or other identifier)
From 9-28-12 Term Dates 10-27-12
To 10-27-12
Appr 1 string line
with conditions

Applicant: Lockheed Martin Corporation
Call Sign: E7541
File No.: SES-STA-20120910-00803
Special Temporary Authority (STA)

Lockheed Martin Corporation is granted STA to operate its earth station Call Sign E7541 in Carpentersville, New Jersey from September 28, 2012 through October 27, 2012 with the following conditions:

1. The ASTRA-2F TT&C operations will be performed on uplink frequencies 17311.00 MHz and 18088.50 MHz and on downlink frequencies 11711.50 MHz, 12491.00 MHz, 111452.00 MHz.
2. All operations of the 18088.50 MHz uplink with 832KFXD emission shall be on an unprotected, non-interference basis to Air Force operations.
3. ALL operations of the 18088.50 MHz uplink with 832KFXD emission shall be limited to telemetry, tracking, and control (TT&C) of Astra-2F satellite while in transfer orbit and only when in view of the earth station in Carpentersville, NJ c. Lockheed Martin Corporation will inform Air Force Mr. Jimmy Nguyen (Jimmy.Nguyen@pentagon.af.mil, 301-225-3729) at least 24 hours prior to the planned operations of the 18088.50 MHz uplink with 832KFXD emission and provide him with the STOP BUZZER POC while this frequency is in use.
4. Provide telemetry, tracking, and control ("TT&C") operation for the ASTRA-2F satellite at orbital location 28.2° E.L.
5. Operations, shall not cause harmful interference to, and shall not claim operation from, interference caused to it by any other lawfully operating station and it shall cease transmission(s) immediately upon notice of such interference.
6. Grant of this authorization is without prejudice to any determination that the Commission may make regarding pending or future Lockheed Martin Corporation's applications.
7. Any action taken or expense incurred as a result of operations pursuant to this STA is solely at Lockheed Martin Corporation's risk.

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.

SES-STA-20120910-00803

E7541

Call Sign (or other identifier)

Grant Date 9-27-12

Term Expires 10-27-12


From 9-28-12

By 10-27-12

Author *Jimmy Nguyen*

Director

GRANTED



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 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 09/14/2012	
7. City Carpentersville	8. Latitude (dd mm ss.s h) 40 38 39.1 N

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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.

12. Description

Lockheed Martin Corp. requests a 30-day STA to use the Ku-band antenna on its Carpentersville, NJ earth station to support post-launch/early-operations TT&C for the Astra-2F satellite, which is scheduled to be launched on September 21, 2012. Lockheed Martin requests that the STA period commence on September 14, 2012 to allow for calibration testing. See Exhibit A.

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

Description

Lockheed Martin Corporation (“Lockheed Martin”) requests special temporary authority (“STA”) to operate its Carpentersville, New Jersey Ku-band fixed earth station (see File No. SES-LIC-20081103-01443, as amended)¹ to provide telemetry, tracking and control (“TT&C”) functions during the post-launch and transfer orbit phases of operation for the Astra-2F satellite that will be operated by SES, S.A. Astra-2F is currently scheduled for launch on September 21, 2012, and Lockheed Martin intends to perform test transmissions in preparation for the launch on or about September 19, 2012.² To the extent required to meet this timetable, Lockheed Martin requests expedited treatment of the instant STA request and action by September 14, 2012.

Lockheed Martin specifically seeks authority to transmit telecommand/ranging signals on the 17311.00 MHz and 18088.50 MHz uplink channels. The earth station would receive telemetry signals from the Astra-2F satellite on the 11711.50 MHz, 12491.00 MHz, and 11452.00 MHz channels.

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 September 19, 2012 to October 18, 2012, inclusive.

The transmit frequencies Lockheed Martin seeks to use for the Astra-2F TT&C support operations are not included in Lockheed Martin’s former license for Call Sign E920702 and current application for the Ku-band antenna in File No. SES-LIC-20081103-01443 (under Call Sign E7541). Lockheed Martin notes, however, that the Commission previously granted Lockheed Martin STA requests for launch and early-operations TT&C support using frequencies in the ranges sought in the instant STA request. Lockheed Martin emphasizes, however, that its proposed transmissions on both the 17311MHz and 18088.5 MHz frequencies will use the

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 license for a 14.2 meter Ku-band antenna at the Carpentersville, NJ site under Call Sign E920702. Lockheed Martin’s petition to reinstate the license for Call Sign E920702, as well as the “replacement” application it filed in the alternative under File No. SES-LIC-20081103-01443 and Call Sign E7541, are pending.

² The test transmissions that would begin on or about September 14, 2012 would occur over a period of approximately four or five 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.

emission designators for telecommand that are proposed in the pending license application.³ 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.

Lockheed Martin has secured a temporary frequency coordination that covers the entire proposed STA window for operations on the Astra-2F TT&C frequencies from its Carpentersville earth station facility. The report is attached to this Attachment 1.

Lockheed Martin notes that it is possible that during an unexpected emergency with the Astra-2F 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 understands that all of its proposed LEOP TT&C support for the Astra-2F launch will be on a strictly non-harmful interference, non-protected basis.

The 11711.5 MHz receive frequency is in the 11.7-12.2 GHz range that was authorized to Lockheed Martin under Call Sign E920702 and that is proposed in the license "replacement" application under Call Sign E7541. The parameters of operation are within the parameters in the pending application referenced in Note 1 above. With respect to the proposed telemetry receive operations at 12491.00 MHz, and 11452.00 MHz, 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 of Frequency Allocations during the limited period of use – are required in the public interest, for reasons given below.

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 the launch of Intelsat-23 (now scheduled for August 2012). *See e.g.*, Request of Lockheed Martin Corp. for STA to support LEOP TT&C Functions of Intelsat-23, File No. SES-STA-20120614-00514. *See also* 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; 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.

³ 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.

Lockheed Martin's pending license application in File No. SES-LIC-20081103-01443 included radiation hazard studies for the Ku-band antenna 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 Astra-2F – 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 for LEOP services 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 Astra-2F 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, Astra-2F 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. This is the same antenna that was previously authorized under Call Sign E920270, and that is now the subject of the pending application and reinstatement request described in Note 1 above. As noted, the antenna has been authorized for use on an STA-basis to support other satellite launches.

In sum, Lockheed Martin requests authority to operate its Carpentersville, NJ Ku-band earth station antenna to provide critical LEOP operations in support of Astra-2F, for a term of 30 days – from September 14, 2012 through October 13, 2012.

ATTACHMENT 1