

E7541 SES-STA-20170112-00046 IE2017000106  
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:  
Carpentersville TT&C STA for Hispasat AG1 - Jan 2017 (90-Day STA ext)

**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-20170112-00046  
E7541 Grant Date 2-27-17  
Call Sign (or other identifier)  
Term Dates From: 2-27-17 To: 4-28-17  
Approved: 



**GRANTED**  
International Bureau



File # SES-STA-20170112-00046  
E7541  
Call Sign E7541 Grant Date 2-27-17  
(or other identifier)  
Term Dates  
From: 2-27-17 To: 4-28-17  
Approved: Paul E. Blaw

Applicant: Lockheed Martin Corporation  
File No.: SES-STA-20170112-00046  
Call Sign: E7541  
Special Temporary Authority ("STA")

Lockheed Martin Corporation is granted a special temporary authority extension from SES-STA-20161230-00978, for 90 days, beginning February 27, 2017, to operate its earth station in Carpentersville, New Jersey (call- sign: E7541), to provide telemetry, tracking and control ("TT&C") functions during the post-launch and transfer orbit phases (LEOP) for the Spanish administration licensed Hispasat Advanced Generation - 1 ("HAG1") satellite, also known as Hispasat 36W-1 at 36° W.L. on frequencies 12749 MHz (Earth-to-space) and 11452 MHz (space-to-Earth). Operations are authorized under the following conditions:

1. Operations will not exceed the operational power levels and parameters requested and coordinated.
2. All operations under this grant of STA shall be on an unprotected and non-harmful interference basis. Lockheed Martin Corporation shall not cause harmful interference to, and shall not claim protection from interference caused to it by, any other lawfully operating radio communication system.
3. In the event of any harmful interference Lockheed Martin Corporation shall cease operations immediately upon notification of such interference, and shall immediately inform the Commission, in writing, of such an event.
4. The LEOP operations must 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. Currently the 24x7 contact information for the EchoStar 23 satellite LEOP mission is as follows: Cell Phone: (609) 865-2658 and/or station number (908) 859-4050. Request to speak with Mr. Usarzewicz.
5. Grant of this STA is without prejudice to any determination that the Commission may make regarding pending or future Lockheed Martin Corporation LLC applications.
6. Operations during the period February 24, 2017 to the date of this grant were authorized pursuant to Section 1.62 of the Commission's rules 47 C.F. R. § 1.62.
7. Any action taken or expense incurred as a result of operations pursuant to this STA is solely at Lockheed Martin Corporation LLC's risk.
8. This grant 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.

<b>2. Contact</b>			
<b>Name:</b>	Ryan N. Terry	<b>Phone Number:</b>	703-413-5747
<b>Company:</b>	Lockheed Martin Corporation	<b>Fax Number:</b>	703-413-5908
<b>Street:</b>	2121 Crystal Drive Suite 100	<b>E-Mail:</b>	ryan.n.terry@lmco.com
<b>City:</b>	Washington	<b>State:</b>	DC
<b>Country:</b>	USA	<b>Zipcode:</b>	22202 -
<b>Attention:</b>		<b>Relationship:</b>	Same
(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 SESSTA2016123000978 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			
02/25/2017			
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: STA extension 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.) Lockheed Martin Corporation hereby requests extension of its Special Temporary Authority beginning February 25, 2017, to operate its Carpentersville, New Jersey fixed earth station (Call Sign E7541) to provide telemetry, tracking and control (TT&C) functions during the post-launch and early orbit phases (LEOP) of operation for the Hispasat	
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. Yes <input checked="" type="radio"/> No <input type="radio"/>	
14. Name of Person Signing Jennifer A. 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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**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 Corporation hereby requests extension of its Special Temporary Authority beginning February 25, 2017, to operate its Carpentersville, New Jersey fixed earth station (Call Sign E7541) to provide telemetry, tracking and control (TT&C) functions during the post-launch and early orbit phases (LEOP) of operation for the Hispasat Advanced Generation 1 (HAG1) satellite. Specifically, Lockheed Martin seeks authority to communicate with HAG1 as a point of communication and to receive telemetry data on frequencies 11452.0 and 12749.0 MHz.

### **Description of Operations and Public Interest Statement**

Pursuant to 47 CFR 25.120 of the Commission's Rules, Lockheed Martin Corporation ("Lockheed Martin") hereby requests extension of its Special Temporary Authority ("STA") for a period of ninety (90) days to continue operation of its Carpentersville, New Jersey fixed earth station (Call Sign E7541) to provide telemetry, tracking, and control ("TT&C") functions during the post-launch and early orbit phases ("LEOP") of operation, ranging, and electronic propulsion monitoring for the Hispasat Advanced Generation 1 ("HAG1") satellite, also known as Hispasat 36W-1.

HAG1 is destined for in-service operation at 36.0° W.L., and is currently scheduled for launch on January 27, 2017, aboard an Arianespace Soyuz rocket, designated VS16, from the Guiana Space Center. The Bureau granted Lockheed Martin an initial STA to commence LEOP for the period of January 25, 2017 to February 24, 2017.<sup>1</sup> For the reasons outlined below, Lockheed Martin respectfully requests extension of its STA for the 90-day period of February 25, 2017 to May 25, 2017, and further requests that the Bureau place this application on Public Notice as soon as practicable.

#### **1. Requested STA Operations**

As noted in its initial request, the TT&C and ranging signals will be transmitted in the standard Ku-band for which Lockheed Martin already has authority under Call Sign E7541. Specific to the instant request, Lockheed Martin thus only seeks authority to communicate with HAG1 as a point of communication not on the Commission's Permitted Space Station List and also to receive telemetry data on frequencies 11452.0 and 12749.0 MHz, which fall outside of the currently authorized Ku-band receive frequencies for the earth station. In all other respects, operation of the earth station will be consistent with the parameters set forth under the existing permanent authority.

The requested 90-day duration is longer than has been typical in the past for most satellite LEOP missions. HAG1 employs an electronic propulsion system. Such a propulsion system requires a longer period of time for a satellite to reach its final, on-orbit operating position. Given this lengthy period for LEOP maneuvers, Lockheed Martin is accordingly submitting the instant request for extension of its STA to cover the entire period required to complete LEOP and the in-orbit testing being conducted by the launch provider.

Lockheed Martin designates Michael Usarzewicz to be the contact person that will be available whenever transmission to, or reception from, HAG1 is to occur through the subject earth station.

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<sup>1</sup> FCC File No. SES-STA-20161230-00978 (granted Jan. 6, 2017).

Mr. Usarzewicz can be reached at the following phone numbers:

(609) 865-2658 (cellular)  
(908) 859-4050 (earth station desk)

**2. Grant of the Requested Authority Will Serve the Public Interest**

Lockheed Martin believes that the limited operations it proposes in support of the launch of the HAG1 satellite serve the public interest. Lockheed Martin understands that the HAG1 satellite has been licensed by the Spanish administration as a mission of the Small GEO platform, developed by OHB Systems (Germany) with the European Space Agency and HISPASAT. Lockheed Martin's Carpentersville earth station will be part of a global network of control and ranging facilities that will be used solely to position the satellite as it progresses from transfer orbit to its final location and to calibrate electronic propulsion. No end user service will be provided within the United States at any time. The safe and orderly use of the entire geostationary orbital resource and protection of the hundreds of satellites licensed by the U.S. and other countries that operate there depends in no small part on ensuring that the HAG1 satellite is controlled while over North America en route to its final geostationary orbital position. In this regard, Lockheed Martin's earth station thus will serve a vital function.

\* \* \* \* \*

Lockheed Martin requests authority to operate its Carpentersville, NJ earth station antenna to provide critical TT&C services during the launch and early operations phase of the HAG1 satellite, for a term of 90 days, commencing February 25, 2017.