

### **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.

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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.