Astrium Services Government, Inc.

Request for Special Temporary Authority for
Testing of Santa Paula, CA Teleport 16.4 Meter C-Band Hub Antenna
Utilizing Low Power CW Carrier to
Communicate With NSS-9 Satellite at 177 W.L.

Call Sign E980137

FILE NO. SES-MFS-20140630-00548

Astrium Services Government, Inc. (Astrium) requests a grant of Special Temporary Authority ("STA") for testing of a 16.4 Meter C-Band Hub Antenna located at its Santa Paula, CA Teleport utilizing a low power CW Carrier to communicate with the NSS-9 Satellite located at 177 W.L. Grant of this STA is in the public interest because the purpose of the testing is to help prepare the antenna for operations which will support the Federal Aviation Authority Wide Area Augmentation System.

A Frequency Coordination and Interference Analysis Report for a Hub Antenna which communicates with NSS-9 utilizing significantly higher power than will be used for the testing and which is located only 40 feet from the antenna to be tested is attached to the STA application to satisfy the Coordination requirements for this application. As detailed in the referenced underlying Modification Application the antenna fully complies with all Commission Regulations and no waivers are needed or requested for operation of the antenna. All technical characteristics and parameters for the testing follow on the next page.

Accordingly, Astrium respectfully requests that the Bureau grant the STA for a period of thirty days beginning August 4, 2014. Any questions with respect to this matter may be directed to James G. Lovelace at (301)838-7839.

Technical Characteristics and Parameters

Antenna Size	**16.4m**
Antenna Latitude/Longitude	**34° 24 ' 6.0 " N / 119° 4 ' 21.8" W**
Antenna height above Ground Level (meters)	**17.1**
Antenna height above Sea Level (meters)	**246.3**
Antenna Gain	**55.2 dBi @ 3.800/59.0 dBi @ 6.287**
Total Input Power at antenna flange (Watts)	**0.0229**
Total EIRP for al carriers (dBW)	**42.6**
Transmit Parameters	
Frequency range	**5925 – 6425 MHz**
Antenna Polarization	**Right Hand Circular**
Emission Designators	**N0N (pure carrier)**
Maximum EIRP per Carrier	**42.6**
Maximum ERIP Density per Carrier(dBW/4kHz)	**42.6**
Receive Parameters	
Frequency range	**3700-4200 MHz**
Antenna Polarization	**Right Hand Circular**
Emission Designators	**N0N (pure carrier)**
Maximum EIRP per Carrier	**00.0**
Maximum ERIP Density per Carrier (dBW/4kHz)	**0.0**
FREQUENCY COORDINATION Information	
Satellite Orbit Type	**Geostationary**
Frequency Limits	**5925 – 6425 & 3700-4200 MHz**
Range of Satellite Arc	**46W-192W**
Earth Station Azimuth Angle Eastern Limit	**260.2**
Earth Station Azimuth Angle Western Limit	**99.8**
Antenna Elevation Angle Eastern Limit	**5.2**
Antenna Elevation Angle Western Limit	**5.4**
Maximum EIRP Density toward the Horizon	**42.6**