

APPLICATION FOR EARTH STATION SPECIAL TEMPORARY AUTHORITY

APPLICANT INFORMATION Enter a description of this application to identify it on the main menu:  
E980137 STA for Testing 16.4 Meter C-band Hub Antenna

1. Applicant

<b>Name:</b>	Astrium Services Government, Inc.	<b>Phone Number:</b>	301-838-7807
<b>DBA Name:</b>		<b>Fax Number:</b>	301-838-7752
<b>Street:</b>	2600 Tower Oaks Boulevard	<b>E-Mail:</b>	rob.swanson@astrium.eads-na.com
<b>City:</b>	Rockville	<b>State:</b>	MD
<b>Country:</b>	USA	<b>Zipcode:</b>	20852
<b>Attention:</b>	Mr Robert W Swanson		

File # SES-STA-20140718-00606  
 Call Sign E980137 Grant Date 8-1-14  
 (or other identifier)  
 Term Dates From 8-1-14 To 9-30-14  
 Approved: [Signature]

Applicant: Astrium Services Government, Inc.  
Call Sign: E980137  
File No. SES-STA-20140718-00606  
Special Temporary Authority (STA)

Operations under this STA shall not cause harmful interference to, and shall not claim protection from, interference caused to it by any other lawfully operating station and it shall cease transmission(s) immediately upon notice of such interference.

Grant of this STA is without prejudice to any determination that the Commission may make regarding other pending applications, e.g., IBFS File Nos. SES-MFS-20140630-00548 or future STA requests.

Any action taken or expense incurred as a result of operations pursuant to this STA is solely at Astrium'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.

The image shows a red ink stamp from the FCC International Bureau. On the left is a circular seal with the text 'FEDERAL COMMUNICATIONS COMMISSION' and 'INTERNATIONAL BUREAU'. Below the seal, the word 'GRANTED' is printed in large letters, and 'International Bureau' is printed in smaller letters below that. To the right of the seal is a rectangular area containing handwritten information in black ink. At the top, the file number 'SES-STA-20140718-00606' is written. Below that, the call sign 'E980137' is written. To the right of the call sign, the grant date '8-1-14' is written. Below the call sign, the text '(or other identifier)' is printed. To the right of this text, the term dates '8-4-14' and '9-3-14' are written. At the bottom, the word 'Approver:' is printed, followed by a signature that appears to be 'Daniel E. Hines'.

File #	SES-STA-20140718-00606
Call Sign	E980137
(or other identifier)	
Grant Date	8-1-14
Term Dates	
From	8-4-14
To	9-3-14
Approver	Daniel E. Hines

**2. Contact**

**Name:** Astrium Services Government, Inc.      **Phone Number:** 301-838-7839  
**Company:**      **Fax Number:** 301-838-7752  
**Street:** 2600 Tower Oaks Boulevard      **E-Mail:** james.lovell@astrium.eads-na.com  
**City:** Rockville      **State:** MD  
**Country:** USA      **Zipcode:** 20852  
**Attention:** James G. Lovell      **Relationship:** Other

(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 SESMFS2014063000548 or Submission ID

4a. Is a fee submitted with this application?

If Yes, complete and attach FCC Form 159. If No, indicate reason for fee exemption (see 47 C.F.R. Section 1.1114).

Governmental Entity     Noncommercial educational licensee

Other (please explain):

4b. Fee Classification    CGX - Fixed Satellite Transmit/Receive Earth Station

5. Type Request

Use Prior to Grant       Change Station Location       Other

6. Requested Use Prior Date

08/04/2014

7. City Santa Paula	8. Latitude (dd mm ss.s h) 34 24 6.0 N
9. State CA	10. Longitude (dd mm ss.s h) 119 4 21.8 W
11. Please supply any need attachments. Attachment 1: Need State & Tech      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.) Astrium Services Government, Inc. 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. Justification for STA and Technical Characteristics and Parameters for testing	
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.  <input checked="" type="radio"/> Yes <input type="radio"/> No	
14. Name of Person Signing James G. Lovelace	15. Title of Person Signing Contractor
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**

Astrium Services Government, Inc. 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. Justification for STA and Technical Characteristics and Parameters for testing attached herewith.

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

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



Astrium Services Government, Inc.

Request for Special Temporary Authority for  
Testing of Santa Paula, CA Teleport 16.4 Meter C-Band Hub Antenna  
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<b>Total Input Power at antenna flange (Watts)</b>	<b>0.0229</b>
<b>Total EIRP for all carriers (dBW)</b>	<b>42.6</b>
<b>Transmit Parameters</b>	
<b>Frequency range</b>	<b>5925 – 6425 MHz</b>
<b>Antenna Polarization</b>	<b>Right Hand Circular</b>
<b>Emission Designators</b>	<b>N0N (pure carrier)</b>
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<b>Frequency range</b>	<b>3700-4200 MHz</b>
<b>Antenna Polarization</b>	<b>Right Hand Circular</b>
<b>Emission Designators</b>	<b>N0N (pure carrier)</b>
<b>Maximum EIRP per Carrier</b>	<b>00.0</b>
<b>Maximum EIRP Density per Carrier (dBW/4kHz)</b>	<b>0.0</b>
<b>FREQUENCY COORDINATION Information</b>	
<b>Satellite Orbit Type</b>	<b>Geostationary</b>
<b>Frequency Limits</b>	<b>5925 – 6425 &amp; 3700-4200 MHz</b>
<b>Range of Satellite Arc</b>	<b>46W-192W</b>
<b>Earth Station Azimuth Angle Eastern Limit</b>	<b>260.2</b>
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<b>Antenna Elevation Angle Eastern Limit</b>	<b>5.2</b>
<b>Antenna Elevation Angle Western Limit</b>	<b>5.4</b>
<b>Maximum EIRP Density toward the Horizon</b>	<b>42.6</b>

User - fcc [logout](#)

**File is free of errors**

Entries to process: 354  
 These lines will be added:

5015 0000 2400 11	YFR 100 160	0 902 1234567 261014 290315 D 16500 Eng	USA RMI FCC
5850 2100 1200 3,4,9	YFR 100 355	0 805 1234567 261014 290315 D 11925 Eng	USA RMI FCC
5985 0300 0500 10,11	YFR 100 222	0 805 1234567 261014 290315 D 11925 Spa	USA RMI FCC
7455 2100 1200 10	YFR 100 285	0 805 1234567 261014 290315 D 11925 Eng	USA RMI FCC
7570 0000 2400 2,3	YFR 100 315	0 805 1234567 261014 290315 D 11925 Eng	USA RMI FCC
7730 0000 2400 10,11	YFR 100 222	0 805 1234567 261014 290315 D 11925 EngSpa	USA RMI FCC
9495 2200 0100 11-13	YFR 100 151	0 805 1234567 261014 290315 D 11925 EngSpa	USA RMI FCC
9955 0000 2400 10-16	YFR 100 160	0 902 1234567 261014 290315 D 10750 EngSpa	USA RMI FCC
11825 0000 2400 3,4,9	YFR 100 355	0 805 1234567 261014 290315 D 11925 Eng	USA RMI FCC
15190 2000 0300 36-38,46-47,52	YFR 100 87	0 902 1234567 261014 290315 D 16500 Eng	USA RMI FCC
15770 0000 2400 18,27-29,37	YFR 100 44	0 902 1234567 261014 290315 D 16775 Eng	USA RMI FCC
21525 1400 2000 36-38,46-47,52	YFR 100 87	0 902 1234567 261014 290315 D 16500 Eng	USA RMI FCC

These lines will be removed:

5850 2200 1100 3,4,9	YFR 100 355	0 805 1234567 261014 290315 D 11925 Eng	USA RMI FCC 459
5985 0400 0430 10,11	YFR 100 222	0 805 1234567 261014 290315 D 11925 Spa	USA RMI FCC 482
7455 2200 1100 10	YFR 100 285	0 805 1234567 261014 290315 D 11925 Eng	USA RMI FCC 528
7570 2200 1100 2,3	YFR 100 315	0 805 1234567 261014 290315 D 11925 Eng	USA RMI FCC 545
7730 0200 0600 10,11	YFR 100 222	0 805 1234567 261014 290315 D 11925 Spa	USA RMI FCC 546
7730 2100 0200 9,18,27-29,37	YFR 100 44	0 902 1234567 261014 290315 D 10750 EngSpa	USA RMI FCC 547
9955 1400 2200 9,18,27	YFR 100 44	0 902 1234567 261014 290315 D 10750 Eng	USA RMI FCC 616
9955 2200 1400 10-16	YFR 100 160	0 902 1234567 261014 290315 D 10750 EngSpa	USA RMI FCC 618
11825 1000 2200 10	YFR 100 285	0 805 1234567 261014 290315 D 11925 Eng	USA RMI FCC 649
15190 2000 2300 36-38,46-47,52	YFR 100 87	0 902 1234567 261014 290315 D 16500 Eng	USA RMI FCC 685
15770 1300 2100 18,27-29,37	YFR 100 44	0 902 1234567 261014 290315 D 16775 Eng	USA RMI FCC 739

**Warnings:**

Missing ANTENNA DESIGN FREQUENCY on line 128, 129, 185, 186, 190, 201, 202, 203, 215, 216, 217, 232, 234, 244, 245, : 272, 273, 274, 275, 276, 277, 291, 292, 293.

Antenna Design Frequency is important for a correct propagation calculation.

Wrong START DATE on line 23, 25, 35, 41, 57, 59, 98, 99, 123, 124, 182, 192, 209, 226, 233, 325, 344, 345.

Wrong END DATE on line 9, 12, 14, 16, 19, 29, 32, 37, 38, 42, 43, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 60, 63, 79, 80, 82, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 100, 101, 102, 103, 104, 105, 106, 107, 108, 111, 118, 11, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 171, 172, 1, 189, 190, 191, 193, 194, 195, 196, 197, 198, 199, 201, 202, 203, 204, 205, 207, 210, 211, 212, 213, 214, 215, 216, 2, 242, 244, 245, 246, 247, 254, 257, 258, 263, 264, 265, 266, 267, 268, 271, 272, 273, 274, 275, 276, 277, 291, 292, 2, 322, 326, 329, 335, 336, 337, 341, 342, 343, 349, 351, 352, 357, 358, 359, 360.

Read [Examples of season start and end dates](#) explanatory document.

Add this text to confirmation message:

- 
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Do you want to enter the file into database?

Note: Requirements with changes in "technical" specifications, e.g. frequency, start/stop time, power, etc. only are listed above. Requirements with changes of language, notes, etc. will be updated too, but they are not listed here and their number will not change. After you click "Yes", please wait for the response from the server. The transfer may take up to several minutes.