Date & Time Filed: Aug 9 2014 12:21:21:823AM

File Number: SES-MFS-20140809-00645

FCC APPLICATION FOR SPACE AND EARTH STATION:MOD OR AMD – MAIN FORM	FCC Use Only
FCC 312 MAIN FORM FOR OFFICIAL USE ONLY	

APPLICANT INFORMATION

Enter a description of this application to identify it on the main menu: E990032 Add C-band & L-band Hub Antenna

1-8. Legal	Name of A	pplicant
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Name: Astrium Services Government, Inc. Phone Number: 301–838–7807

DBA Fax Number: 301–838–7752

Name:

Street: 2600 Tower Oaks Boulevard **E-Mail:** rob.swanson@astrium.eads-na.

com

City: Rockville State: MD

Country: USA Zipcode: 20852 -

Attention: Mr Robert W Swanson

9–16. Name of Contact Representative

Name: Astrium Services Government, Inc. Phone Number: 301–838–7807

Company: Fax Number: 301–838–7739

Street: 2600 Tower Oaks Boulevard **E-Mail:** james.lovelace@astrium.eads-na.

com

City: Rockville State: MD

Country: USA Zipcode: 20852-

Attention: James G. Lovelace **Relationship:** Other

CLASSIFICATION OF FILING

17. Choose the button next to the classification that applies to this filing for both questions a. and b. Choose only one for 17a and only one for 17b.	(N/A) b1. Application for License of New Station (N/A) b2. Application for Registration of New Domestic Receive—Only Station b3. Amendment to a Pending Application
a1. Earth Station a2. Space Station	 b4. Modification of License or Registration b5. Assignment of License or Registration b6. Transfer of Control of License or Registration b7. Notification of Minor Modification (N/A) b8. Application for License of New Receive—Only Station Using Non—U.S. Licensed Satellite (N/A) b9. Letter of Intent to Use Non—U.S. Licensed Satellite to Provide Service in the United States (N/A) b10. Other (Please specify) (N/A) b11. Application for Earth Station to Access a Non—U.S.satellite Not Currently Authorized to Provide the Proposed Service in the Proposed Frequencies in the United States (N/A) b12. Application for Database Entry b13. Amendment to a Pending Database Entry Application b14. Modification of Database Entry
17c. Is a fee submitted with this application of the submitted with th	159. If No, indicate reason for fee exemption (see 47 C.F.R.Section 1.1114).
17d. Fee Classification CGX – Fixed Satellite T Station	Transmit/Receive Earth

18. If this filing is in reference to an existing station, enter:(a) Call sign of station: E990032	19. If this filing is an amend modification please enter or (a) Date pending application	nly the file number	application enter both fields, if this filing (b) File number:	g is a
			SESRWL2010111701442	
TYPE OF SERVICE				
20. NATURE OF SERVICE: This filing is f	or an authorization to provide	or use the followi	ng type(s) of service(s): Select all that ap	ply:
a. Fixed Satellite				
b. Mobile Satellite				
c. Radiodetermination Satellite				
d. Earth Exploration Satellite				
e. Direct to Home Fixed Satellite f. Digital Audio Radio Service				
g. Other (please specify)				
Green (presse speedy)				
21. STATUS: Choose the button next to the only one.	applicable status. Choose		a applicant, check all that apply.	
Common Carrier Non–Common	Carrier		J.S. licensed satellites	
23. If applicant is providing INTERNATION facilities:	IAL COMMON CARRIER S	ervice, see instruct	ions regarding Sec. 214 filings. Choose o	ne. Are these
Connected to a Public Switched Netwo	rk Not connected to a l	Public Switched N	etwork O N/A	

24. FREQUENCY BAND(S): Place an 'X' in the box(es) next to all applicable frequency band(s).
a. C–Band (4/6 GHz) b. Ku–Band (12/14 GHz)
c.Other (Please specify upper and lower frequencies in MHz.)
Frequency Lower: Frequency Upper: (Please specify additional frequencies in an attachment)
TYPE OF STATION
25. CLASS OF STATION: Choose the button next to the class of station that applies. Choose only one.
a. Fixed Earth Station
b. Temporary–Fixed Earth Station
o c. 12/14 GHz VSAT Network
o d. Mobile Earth Station
• e. Geostationary Space Station
f. Non–Geostationary Space Station
g. Other (please specify)
26. TYPE OF EARTH STATION FACILITY:
Transmit/Receive Transmit-Only Receive-Only N/A
"For Space Station applications, select N/A."

PURPOSE OF MODIFICATION

27. The purpose of this proposed modification is to: (Place an 'X' in the box(es) next to all that apply.)
a — authorization to add new emission designator and related service
b — authorization to change emission designator and related service
c — authorization to increase EIRP and EIRP density
d — authorization to replace antenna
e — authorization to add antenna
f — authorization to relocate fixed station
g — authorization to change frequency(ies)
h — authorization to add frequency
i — authorization to add Points of Communication (satellites & countries)
j — authorization to change Points of Communication (satellites & tountries)
k — authorization for facilities for which environmental assessment and
radiation hazard reporting is required
1 — authorization to change orbit location
m — authorization to perform fleet management
n — authorization to extend milestones
o — Other (Please specify)

ENVIRONMENTAL POLICY

28. Would a Commission grant of any proposal in this application or amendment have a significant environmental mpact as defined by 47 CFR 1.1307? If YES, submit the statement as required by Sections 1.1308 and 1.1311 of the Commission's rules, 47 C.F.R. 1.1308 and 1.1311, as an exhibit to this application. A Radiation Hazard Study must accompany all applications for new transmitting facilities, major modifications, or major amendments.	Yes No RadHaz Statement	

ALIEN OWNERSHIP Earth station applicants not proposing to provide broadcast, common carrier, aeronautical en route or aeronautical fixed radio station services are not required to respond to Items 30–34.

29. Is the applicant a foreign government or the representative of any foreign government?	٥	Yes	•	No		
30. Is the applicant an alien or the representative of an alien?	0	Yes	•	No	0	N/A
31. Is the applicant a corporation organized under the laws of any foreign government?	0	Yes	•	No	0	N/A
32. Is the applicant a corporation of which more than one—fifth of the capital stock is owned of record or voted by aliens or their representatives or by a foreign government or representative thereof or by any corporation organized under the laws of a foreign country?	0	Yes	•	No	0	N/A

• Yes • No • N/A
Ownership Statement
O Yes O No
25.130(g) Compliance
O Yes No

37. Has the applicant, or any party to this application or amendment, or any party directly or indirectly controlling the applicant ever been convicted of a felony by any state or federal court? If Yes, attach as an exhibit, an explination of circumstances.	• Yes	⊚ No
38. Has any court finally adjudged the applicant, or any person directly or indirectly controlling the applicant, guilty of unlawfully monopolizing or attempting unlawfully to monopolize radio communication, directly or indirectly, through control of manufacture or sale of radio apparatus, exclusive traffic arrangement or any other means or unfair methods of competition? If Yes, attach as an exhibit, an explanation of circumstances	• Yes	No
39. Is the applicant, or any person directly or indirectly controlling the applicant, currently a party in any pending matter referred to in the preceding two items? If yes, attach as an exhinit, an explanation of the circumstances.	• Yes	⊘ No
40. If the applicant is a corporation and is applying for a space station license, attach as an exhibit the names, address, and citizenship of those stockholders owning a record and/or voting 10 percent or more of the Filer's voting stock and the percentages so held. In the case of fiduciary control, indicate the beneficiary(ies) or class of beneficiaries. Also list the names and addresses of the officers and directors of the Filer.		

41. 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	O No
42a. Does the applicant intend to use a non–U.S. licensed satellite to provide service in the United States? If Yes, answer 42b and attach an exhibit providing the information specified in 47 C.F.R. 25.137, as appropriate. If No, proceed to question 43.	⊘ Yes	O No
42b. What administration has licensed or is in the process of licensing the space station? If no license will be issued, w coordinated or is in the process of coordinating the space station? Satellites to be use on either ISAT or ALSAT Permitt		ation has

43. Description. (Summarize the nature of the application and the services to be provided). (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. (ASGI) respectfully requests that the authorizations for the Scientific-Atlanta 11 Meter Transmit/Receive C-Band and attached Comsat Labs 1.52 Meter Transmit/Receive L-Band Hub Antennas currently authorized per ASGI's Southbury, CT Call Sign KA312 Teleport license be added to its E990032 license. The reason for this

Narrative Exhibit

43a. Geographic Service Rule Certification By selecting A, the undersigned certifies that the applicant is not subject to the geographic service or geographic coverage requirements specified in 47 C.F.R. Part 25.	● A
By selecting B, the undersigned certifies that the applicant is subject to the geographic service or geographic coverage requirements specified in 47 C.F.R. Part 25 and will comply with such requirements.	O B
By selecting C, the undersigned certifies that the applicant is subject to the geographic service or geographic coverage requirements specified in 47 C.F.R. Part 25 and will not comply with such requirements because it is not feasible as a technical matter to do so, or that, while technically feasible, such services would require so many compromises in satellite design and operation as to make it economically unreasonable. A narrative description and technical analysis demonstrating this claim are attached.	o c

CERTIFICATION

The Applicant waives any claim to the use of any particular frequency or of the electromagnetic spectrum as against the regulatory power of the United States because of the previous use of the same, whether by license or otherwise, and requests an authorization in accordance with this application. The applicant certifies that grant of this application would not cause the applicant to be in violation of the spectrum aggregation limit in 47 CFR Part 20. All statements made in exhibits are a material part hereof and are incorporated herein as if set out in full in this application. The undersigned, individually and for the applicant, hereby certifies that all statements made in this application and in all attached exhibits are true, complete and correct to the best of his or her knowledge and belief, and are made in good faith.

44. Applicant is a (an): (Choose the button next to applicable response.)	
o Individual	
Unincorporated Association	
O Partnership	
Corporation	
Governmental Entity	
Other (please specify)	
45. Name of Person Signing	46. Title of Person Signing
James G. Lovelace	Contractor
>	
	I ARE PUNISHABLE BY FINE AND / OR IMPRISONMENT EVOCATION OF ANY STATION AUTHORIZATION FORFEITURE (U.S. Code, Title 47, Section 503).

SATELLITE EARTH STATION AUTHORIZATIONS FCC Form 312 – Schedule B:(Technical and Operational Description) FOR OFFICIAL USE ONLY

Location of Earth S	tation Site				
E1: Site Identifier:	SBY(1.52M)L	E5. Call Sign:	E990032		
E2: Contact Name	Guy White	E6. Phone Number:	203-262-5010		
E3. Street:	2120 River Road	E7. City:	Southbury		
		E8. County:	New Haven		
E4. State	CT	E9. Zip Code	06488		
E10. Area of Opera	tion:	Continental U.S.			
E11. Latitude:	41 °27 '5.57 "N				
E12. Longitude:	73 °17 '20.6 "W				
E13. Lat/Lon Coord	dinates are:	○ NAD-27	⊚ NAD-83	O N/A	
E14. Site Elevation	(AMSL):	36.6 meters			

E15. If the proposed antenna(s) operate in the Fixed Satellite Service (FSS) with geostationary satellites, do(es) the proposed antenna(s) comply with the antenna gain patterns specified in Section 25.209(a) and (b) as demonstrated by the manufacturer's qualification measurement? If NO, provide as a technical analysis showing compliance with two–degree spacing policy.

E16. If the proposed antenna(s) do not operate in the Fixed Satellite Set Satellite Service (FSS) with non–geostationary satellites, do(es) the progain patterns specified in Section 25.209(a2) and (b) as demonstrated by measurements?	posed antenna(s) comply with the antenna	O Yes	O No	⊚ N/A
E17. Is the facility operated by remote control? If YES, provide the loca point.	ation and telephone number of the control	O Yes	•	No
E18. Is frequency coordination required? If YES, attach a frequency coordination	ordination report as	o Yes	•	No
E19. Is coordination with another country required? If YES, attach the recoordination contours as	name of the country(ies) and plot of	O Yes	•	No
E20. FAA Notification – (See 47 CFR Part 17 and 47 CFR part 25.1 have you attached a copy of a completed FCC Form 854 and/or the FAA the structure to aviation? FAILURE TO COMPLY WITH 47 CFR PARTS 17 AND 25 WILL APPLICATION.	A's study regarding the potential hazard of	O Yes	•	No
POINTS OF COMMUNICATION				
Satellite Name: ISAT List ISAT List If you selected OTHER, please	se enter the following:			
E21. Common Name:	E22. ITU Name:			
E23. Orbit Location:	E24. Country:			
POINTS OF COMMUNICATION (Destination Points)				
E25. Site Identifier:				

E26. Common Name:	E27. Country:

ANTENNA

Site ID	E28. Antenna Id	E29. Quantity	E30. Manufacturer	E31. Model	E32. Antenna Size <meters></meters>	E41/42. Antenna Gain Transmint and/or Recieve (dBi atGHz)	
SBY(1.52M)L	SBY(1.52)L	1	COMSAT LABS	1.52M	1.52	25.7 dBi at 1.64	
SBY(1.52M)L	SBY(1.52)L	1	COMSAT LABS	1.52M	1.52	25.5 dBi at 1.000	

Id	Diameter		, ,	Height Above	Input Power at antenna flange	E39. Maximum Antenna Height Above Rooftop (meters)	EIRP for al
SBY(1.52)L	1.52/1.52	2.13	38.73	0.0	0.0	0.0	0.0

FREQUENCY

	E43/44. Frequency Bands (MHz)	E45. T/R Mode			E48. Maximum EIRP per Carrier (dBW)	E49. Maximum ERIP Density per Carrier (dBW/4kHz)
SBY(1.52)L	1530.0 1545	R	Left and Right Circular	NON	0.0	0.0

E50. Modulation entirety.)	on and Services	(If th	ne complete descripti	ion does not appear ir	n this box, please go t	o the end of the form	to view it in its
PILOT							
SBY(1.52)L	1530.0	1545	R	Left and Right Circular	1K20G1D	0.0	0.0
E50. Modulation entirety.)	on and Services	(If th	ne complete descripti	ion does not appear ir	n this box, please go t	o the end of the form	to view it in its
SBY(1.52)L	1530.0	1545	R	Left and Right Circular	600HG1D	0.0	0.0
entirety.) STD-C	on and Services	(If th				o the end of the form	
SBY(1.52)L	1530.0 1548.0		R	Left and Right Circular	10K5G1E	0.0	0.0

E50. Modular entirety.)	tion and Services (I	f the complete de	escription does not appear	in this box, please	go to the end of t	the form to view it in	its
AERO							
SBY(1.52)L	1530.0 1548.0	R	Left and Right Circular	1K20G1D	0.0	0.0	
E50. Modular entirety.)	tion and Services (I	f the complete do	escription does not appear	in this box, please	go to the end of t	the form to view it in	its
SBY(1.52)L	1530.0 1548.0	R	Left and Right Circular	2K40G1D	0.0	0.0	
entirety.) AERO			escription does not appear				its
SBY(1.52)L	1530.0 1548.0	R	Left and Right Circular	600HG1D	0.0	0.0	

E50. Modulation entirety.)	and Services	(If th	ne complete description	on does not appear in	this box, please go to	o the end of the form	to view it in its
AERO							
SBY(1.52)L	1530.0	1545	R	Left and Right Circular	30K0F3E	0.0	0.0
E50. Modulation entirety.)	and Services	(If th	ne complete description	on does not appear in	this box, please go to	o the end of the form	to view it in its
STD A VOIC	CE						
SBY(1.52)L	1530.0	1545	R	Left and Right Circular	1K20G1D	0.0	0.0
E50. Modulation entirety.)	and Services	(If th	ne complete description	on does not appear in	this box, please go to	o the end of the form	to view it in its
STRD A TEI	EX						
SBY(1.52)L	1525	1559	R	Left and Right Circular	2K40G1D	0.0	0.0

E50. Modulatio entirety.)	n and Service	es (If t	he complete descr	iption does not appear	in this box, please	go to the end of t	he form to view it in its
DIGITAL C	ARRIER						
SBY(1.52)L	1525	1559	R	Left and Right Circular	600HG1D	0.0	0.0
E50. Modulation entirety.) DIGITAL C		es (If t	he complete descr	iption does not appear	in this box, please	go to the end of t	the form to view it in its
SBY(1.52)L	1525	1559	R	Left and Right Circular	600HG2D	0.0	0.0
E50. Modulation entirety.) DIGITAL CONTROL SBY(1.52)L		es (If t	he complete descr	iption does not appear Left and Right	in this box, please	go to the end of t	the form to view it in its
SBY(1.52)L	1525	1599	K	Left and Right Circular	10K5G2F	0.0	0.0

E50. Modulation entirety.)	n and Services (If	the complete descripti	on does not appear in	this box, please go to	o the end of the form	to view it in its		
DIGITAL CA	ARRIER							
SBY(1.52)L	1525 1599	R	Left and Right Circular	1K20G1D	0.0	0.0		
entirety.)	E50. Modulation and Services (If the complete description does not appear in this box, please go to the end of the form to view it in its entirety.) DIGITAL CARRIER							
SBY(1.52)L	1525 1599	R	Left and Right Circular	1K20G2D	0.0	0.0		
E50. Modulation and Services (If the complete description does not appear in this box, please go to the end of the form to view it in its entirety.) DIGITAL CARRIER								
SBY(1.52)L	1574.4 1576.6	R	Left and Right Circular	10K5G2F	0.0	0.0		

E50. Modulati entirety.)	ion and Services (I	f the complete d	escription does not appear	in this box, please	go to the end of t	the form to view it in its
DIGITAL	CARRIER					
SBY(1.52)L	1574.4 1576.6	R	Left and Right Circular	1K20G1D	0.0	0.0
E50. Modulati entirety.)	ion and Services (I	f the complete d	escription does not appear	in this box, please	go to the end of t	the form to view it in its
DIGITAL	CARRIER					
SBY(1.52)L	1574.4 1576.6	R	Left and Right Circular	1K20G2D	0.0	0.0
E50. Modulati entirety.)	ion and Services (I	f the complete d	escription does not appear	in this box, please	go to the end of t	the form to view it in its
DIGITAL	CARRIER					
SBY(1.52)L	1574.4 1576.6	R	Left and Right Circular	2K40G1D	0.0	0.0

E50. Modulati entirety.)	ion and Services (If the complete d	lescription does not appear	in this box, please	go to the end of	the form to view it in its
DIGITAL	CARRIER					
SBY(1.52)L	1574.4 1576.6	R	Left and Right Circular	600HG1D	0.0	0.0
entirety.) DIGITAL	CARRIER					
SBY(1.52)L	1574.4 1576.6	R	Left and Right Circular	600HG2D	0.0	0.0
E50. Modulati entirety.)		If the complete d	lescription does not appear	in this box, please	go to the end of	the form to view it in its

FREQUENCY COORDINATION

E28. Antenna Id	E51. Satellite Orbit Type	E52/53. Frequency Limits(MHz)	E54/55. Range of Satellite Arc Eastern/West ern Limit	0	E57. Antenna Elevation Angle Eastern Limit	E58. Earth Station Azimuth Angle Western Limit	E59. Antenna Elevation Angle Western Limit	E60. Maximum EIRP Density toward the Horizon (dBW/4kHz)
SBY(1.52)L	Geostationary	1525 1559	2.0/144.0	102.6	5.2	256.9	5.7	0.0
	Geostationary	1574.4 1576.6	2.0/144.0	102.6	5.2	256.9	5.7	0.0
	Geostationary	1626.5 1660.5	2.0/144.0	102.6	5.2	256.9	5.7	0.0

REMOTE CONTROL POINT LOCATION

E61. Call Sign	E66. Phone Number			
NOTE: Please enter the callsign of the contro callsign for which this application is being filed.				
E62. Street Address				
E63. City	E68. County		E67/68. State/Country	E64. Zip Code

SATELLITE EARTH STATION AUTHORIZATIONS FCC Form 312 – Schedule B:(Technical and Operational Description) FOR OFFICIAL USE ONLY

Location of Earth St	ation Site				
E1: Site Identifier:	SBY(11M)C	E5. Call Sign:	E990032		
E2: Contact Name	Guy White	E6. Phone Number:	203-262-5010		
E3. Street:	2120 River Road	E7. City:	Southbury		
		E8. County:	New Haven		
E4. State	CT	E9. Zip Code	06488		
E10. Area of Operat	tion:	Continental U.S.			
E11. Latitude:	41 °27 '5.83 "N				
E12. Longitude:	73 °17 '20.55 "W				
E13. Lat/Lon Coord	linates are:	O NAD-27	● NAD-83	O N/A	
E14. Site Elevation (AMSL):		36.6 meters			

E15. If the proposed antenna(s) operate in the Fixed Satellite Service (FSS) with geostationary satellites, do(es) the proposed antenna(s) comply with the antenna gain patterns specified in Section 25.209(a) and (b) as demonstrated by the manufacturer's qualification measurement? If NO, provide as a technical analysis showing compliance with two–degree spacing policy.	Yes	O No	O N/A
E16. If the proposed antenna(s) do not operate in the Fixed Satellite Service (FSS), or if they operate in the Fixed Satellite Service (FSS) with non–geostationary satellites, do(es) the proposed antenna(s) comply with the antenna gain patterns specified in Section 25.209(a2) and (b) as demonstrated by the manufacturer's qualification measurements?	○ Yes	O No	⊚ N/A

E17. Is the facility operated by remote control? If YES, provide the loc point.	ation and telephone number of the control	O Yes O No		
E18. Is frequency coordination required? If YES, attach a frequency co	oordination report as Frequency Coordinat	⊗ Yes ○ No		
E19. Is coordination with another country required? If YES, attach the coordination contours as	name of the country(ies) and plot of	O Yes O No		
E20. FAA Notification – (See 47 CFR Part 17 and 47 CFR part 25.1 have you attached a copy of a completed FCC Form 854 and/or the FA the structure to aviation? FAA Exhibit FAILURE TO COMPLY WITH 47 CFR PARTS 17 AND 25 WILL APPLICATION.	A's study regarding the potential hazard of	O Yes O No		
POINTS OF COMMUNICATION				
Satellite Name: ALSAT ALL AUTHORIZED U.S. ALSAT If you	selected OTHER, please enter the following:			
E21. Common Name:	E22. ITU Name:			
E23. Orbit Location:	E24. Country:			
Satellite Name: INMARSAT 3F4 INMARSAT 3F4 54 W.L. If you	selected OTHER, please enter the following:			
E21. Common Name:	E22. ITU Name:			
E23. Orbit Location:	E24. Country:			
	•			
Satellite Name: INMARSAT 3F2 INMARSAT 3F2 15.5 W.L. If yo	ou selected OTHER, please enter the followin	g:		

E21. Common Name:	E22. ITU Name:
E23. Orbit Location:	E24. Country:

Satellite Name: INMARSAT 4F3 INMARSAT 4F3 97.65 W.L. If	you selected OTHER, please enter the following:
E21. Common Name:	E22. ITU Name:
E23. Orbit Location:	E24. Country:

POINTS OF COMMUNICATION (Destination Points)

E25. Site Identifier:	
E26. Common Name:	E27. Country:

ANTENNA

Site ID	E28. Antenna Id	E29. Quantity	E30. Manufacturer	E31. Model	E32. Antenna Size <meters></meters>	E41/42. Antenna Gain Transmint and/or Recieve (dBi atGHz)	
SBY(11M)C	SBY(11M)C	1	SCIENTIFIC ATLANTA	8007	11.0	51.5 dBi at 4.000	
SBY(11M)C	SBY(11M)C	1	SCIENTIFIC ATLANTA	8007	11.0	54.0 dBi at 6.000	

Id	Diameter		, ,	Height Above	Input Power at antenna flange	E39. Maximum Antenna Height Above Rooftop (meters)	EIRP for al
SBY(11M)C	11.0/11.0	12.8	49.4	0.0	2000.0	0.0	87.0

FREQUENCY

E28. Antenna Id	E43/44. Frequency Bands (MHz)	E45. T/R Mode	E46. Antenna Polarization(H,V, L,R)	E47. Emission Designator	E48. Maximum EIRP per Carrier (dBW)	E49. Maximum ERIP Density per Carrier (dBW/4kHz)
SBY(11M)C	3600 3620	R	Left and Right Circular	NON	0.0	0.0
E50. Modulation entirety.)	and Services (II ti	ie complete descript	non does not appear n	Tuns box, piease ge	to the end of the form	to view it in its
SBY(11M)C	4192.5 4200	R	Left and Right Circular	NON	0.0	0.0
E50. Modulation entirety.)	a and Services (If the	ne complete descript	ion does not appear ir	this box, please go	to the end of the form	to view it in its
SBY(11M)C	6417.5 6440	Т	Left and Right Circular	NON	77.0	77.0

E50. Modulation entirety.)	on and Service	es (If t	he complete descripti	on does not appear in	this box, please go to	o the end of the form	to view it in its	
PILOT								
SBY(11M)C	3600	3620	R	Left and Right Circular	1K20G1D	0.0	0.0	
E50. Modulation entirety.)								
SBY(11M)C	3600	3620	R	Left and Right Circular	600HG1D	0.0	0.0	
E50. Modulation and Services (If the complete description does not appear in this box, please go to the end of the form to view it in its entirety.) STD-C								
SBY(11M)C	3600	3620	R	Left and Right Circular	30K0F3E	0.0	0.0	

E50. Modulation entirety.)	and Services	(If tl	ne complete description	on does not appear in	this box, please go t	o the end of the form	to view it in its
STD A VOIC	ĽΕ						
SBY(11M)C	3600	3620	R	Left and Right Circular	4K80G1D	0.0	0.0
entirety.) STD A TELE	3X						
SBY(11M)C	4192.5	4200	R	Left and Right Circular	12K0G1D	0.0	0.0
E50. Modulation and Services (If the complete description does not appear in this box, please go to the end of the form to view it in its entirety.) INM B,C,M							
SBY(11M)C	4192.5	4200	R	Left and Right Circular	12K0G3E	0.0	0.0

E50. Modulation	and Services	(If th	ne complete description	on does not appear in	this box, please go to	o the end of the form	to view it in its
entirety.)		(5, F 8		
INM B,C,M							
SBY(11M)C	4192.5	4200	R	Left and Right Circular	3K00G1E	0.0	0.0
E50. Modulation and Services (If the complete description does not appear in this box, please go to the end of the form to view it in its entirety.) INM B,C,M							
SBY(11M)C	4192.5	4200	R	Left and Right Circular	4K00G1D	0.0	0.0
E50. Modulation entirety.)							
SBY(11M)C	4192.5	4200	R	Left and Right Circular	4K00G3E	0.0	0.0

E50. Modulation entirety.)	and Services	(If th	ne complete description	on does not appear in	this box, please go to	o the end of the form	to view it in its
INM B,C,M							
SBY(11M)C	4192.5	4200	R	Left and Right Circular	7K50G3E	0.0	0.0
E50. Modulation entirety.)	and Services	(If th	ne complete description	on does not appear in	this box, please go to	o the end of the form	to view it in its
INM B,C,M							
SBY(11M)C	3700	4200	R	Linear and Circular	18M0F8F	0.0	0.0
E50. Modulation entirety.)	and Services	(If th	ne complete description	on does not appear in	this box, please go to	o the end of the form	to view it in its
ANALOG VID	EO						
SBY(11M)C	3700	4200	R	Linear and Circular	21K9G7D	0.0	0.0

E50. Modulation entirety.)	and Services	(If th	ne complete description	on does not appear in	this box, please go to	o the end of the form	to view it in its		
DIGITAL DA	TA								
SBY(11M)C	3700	4200	R	Linear and Circular	36M0F8F	0.0	0.0		
entirety.)	E50. Modulation and Services (If the complete description does not appear in this box, please go to the end of the form to view it in its entirety.) ANALOG VIDEO								
SBY(11M)C	3700	4200	R	Linear and Circular	72M0G7D	0.0	0.0		
E50. Modulation entirety.)	and Services	(If th	ne complete description	on does not appear in	this box, please go to	o the end of the form	to view it in its		
DIGITAL DATA									
SBY(11M)C	5925	6425	Т	Linear and Circular	18M0F8F	80.5	53.5		

E50. Modulation entirety.)	and Services	(If th	e complete description	on does not appear in	this box, please go to	o the end of the form	to view it in its
ANALOG VID	EO						
SBY(11M)C	5925	5425	Т	Linear and Circular	21K9G7D	85.8	43.2
E50. Modulation and Services (If the complete description does not appear in this box, please go to the end of the form to view it in its entirety.) DIGITAL DATA							
SBY(11M)C	5925	5425	Т	Linear and Circular	36M0F8F	80.5	53.5
E50. Modulation and Services (If the complete description does not appear in this box, please go to the end of the form to view it in its entirety.) ANALOG VIDEO							
SBY(11M)C	5925	5425	Т	Linear and Circular	72M0G7D	58.7	51.3

E50. Modulation entirety.)	and Services	(If th	e complete description	on does not appear in	this box, please go to	o the end of the form	to view it in its
DIGITAL DA	TA						
SBY(11M)C	3700 4	1200	R	Linear and Circular	36M0G7F	0.0	0.0
E50. Modulation entirety.)					71 6	o the end of the form	
SBY(11M)C	3700 4	1200	R	Linear and Circular	4M00G7F	0.0	0.0
E50. Modulation and Services (If the complete description does not appear in this box, please go to the end of the form to view it in its entirety.) DIGITAL VIDEO							
SBY(11M)C	5925 6	5425	Т	Linear and Circular	36M0G7F	81.3	51.3

E50. Modulatio entirety.)	n and Servic	ees (If the	he complete descrip	tion does not appear in	this box, please go	to the end of the	he form to view it in its
DIGITAL V	IDEO						
SBY(11M)C	5925	6425	Т	Linear and Circular	4M00G7F	85.8	46.3
entirety.) DIGITAL V	IDEO						
SBY(11M)C	3600	3629	R	Left and Right Circular	2M20G1D	0.0	0.0
E50. Modulation entirety.) DIGITAL CONTROL SBY(11M)C		ees (If the feet) 6454	he complete descrip		this box, please go	to the end of the	he form to view it in its
SBY(11M)C	6425	6454	T	Left and Right Circular	10K5G2F	42.5	[38.3

E50. Modulation	and Services (If the	ne complete description	on does not appear in	this box, please go to	o the end of the form	to view it in its	
DIGITAL CA	RRIER						
SBY(11M)C	6425 6454	Т	Left and Right Circular	1K20G1D	42.5	42.5	
entirety.) DIGITAL CA	RRIER						
SBY(11M)C	6425 6454	Т	Left and Right Circular	1K20G2D	42.5	42.5	
E50. Modulation and Services (If the complete description does not appear in this box, please go to the end of the form to view it in its entirety.) DIGITAL CARRIER							
SBY(11M)C	6425 6454	Т	Left and Right Circular	2K40G2D	42.5	42.5	

E50. Modulation entirety.)	and Services	(If th	e complete description	on does not appear in	this box, please go to	the end of the form	to view it in its	
DIGITAL CA	RRIER							
SBY(11M)C	6425	6454	Т	Left and Right Circular	2M20G1D	78.0	50.6	
E50. Modulation entirety.) DIGITAL CA		(If th	e complete description	on does not appear in	this box, please go to	o the end of the form	to view it in its	
SBY(11M)C	6425	6454	Т	Left and Right Circular	2M20G1D	82.3	54.9	
E50. Modulation and Services (If the complete description does not appear in this box, please go to the end of the form to view it in its entirety.) DIGITAL CARRIER								
SBY(11M)C	6425	6454	Т	Left and Right Circular	600HG1D	42.5	42.5	

E50. Modulation entirety.)	and Services	(If th	ne complete descripti	on does not appear in	this box, please go to	o the end of the form	to view it in its
DIGITAL CA	ARRIER						
SBY(11M)C	6425	6454	Т	Left and Right Circular	600HG2D	42.5	42.5
E50. Modulation entirety.)	and Services	(If th	ne complete descripti	on does not appear in	this box, please go to	o the end of the form	to view it in its
DIGITAL CA	ARRIER						
SBY(11M)C	6417.5	6443	Т	Left and Right Circular	1K20G1D	65.0	65.0
E50. Modulation entirety.)	and Services	(If th	ne complete descripti	on does not appear in	this box, please go to	o the end of the form	to view it in its
AERO, FEEI	DERLINK						
SBY(11M)C	6417.5	6443	Т	Left and Right Circular	600HG1D	65.0	65.0

E50. Modulation	and Compiees (If the	na aammlata dagarinti	on does not enneer in	this how places as t	o the end of the form	to view it in its
entirety.)	i and services (if the	ie complete descripti	on does not appear in	i uns box, piease go u	o the end of the form	to view it iii its
AERO, FEEI	DERLINK					
SBY(11M)C	3600 3623	R	Left and Right	10K5G1E	0.0	0.0
551(1111)0	3023		Circular	Tone		0.0
E50. Modulation	and Services (If the	ne complete description	on does not appear in	this box, please go to	o the end of the form	to view it in its
entirety.)						
DIGITAL VO						
DIGITAL VC	DICE, AERO					
	1	1	,	i	1	i
SBY(11M)C	6454.4	T	Left and Right	10K5G2F	42.5	38.3
	6456.6		Circular			
E50. Modulation	and Campiage (If the	l na aammlata dagaminti	on does not opposit	this how places as t	o the end of the form	to view it in its
	and services (if the	ie complete descripti	on does not appear in	i uns box, piease go u	o the end of the form	to view it in its
entirety.)						
DIGITAL CA	ARRIER					
SBY(11M)C	6454.4	Т	Left and Right	1K20G1D	42.5	42.5
	6456.6	=	Circular			
	10.00.0					

E50. Modulation	on and Services	(If the complete d	escription does not appear i	n this box, please	go to the end of the	ne form to view it in	its
DIGITAL	CARRIER						
SBY(11M)C	6454.4 6456.6	Т	Left and Right Circular	1K20G2D	42.5	42.5	
DIGITAL (CARRIER						
SBY(11M)C	6454.4 6456.6	Т	Left and Right Circular	2K40G2D	42.5	42.5	
E50. Modulation entirety.)		(If the complete d	escription does not appear i	n this box, please	go to the end of the	ne form to view it in	its
SBY(11M)C	6454.4 6456.6	Т	Left and Right Circular	2M20G1D	78.0	50.6	

E50. Modulati entirety.)	on and Services (If t	he complete descr	ription does not appear	in this box, please	go to the end of the	he form to view it in its
DIGITAL	CARRIER					
SBY(11M)C	6454.4 6456.6	Т	Left and Right Circular	600HG1D	42.5	42.5
E50. Modulati entirety.)		he complete descr	ription does not appear	in this box, please	go to the end of the	he form to view it in its
SBY(11M)C	6454.4 6456.6	Т	Left and Right Circular	600HG2D	42.5	42.5
E50. Modulati entirety.)	on and Services (If t	the complete descri	ription does not appear	in this box, please	go to the end of the	he form to view it in its
DIGITAL	CARRIER					
SBY(11M)C	3600 3623	R	Left and Right Circular	12K0G1D	0.0	0.0

E50. Modulation	and Campians (If t	ha aammlata dagaminti	on does not ennear in	this how places as t	the and of the form	to view it in its			
entirety.)	and services (II t	he complete description	on does not appear in	tills box, please go to	o the end of the form	to view it in its			
	FEEDERLINK								
SBY(11M)C	3600 3623	R	Left and Right Circular	12K0G3E	0.0	0.0			
E50. Modulation and Services (If the complete description does not appear in this box, please go to the end of the form to view it in its entirety.) INM B,C,M, FEEDERLINK									
SBY(11M)C	3600 3623	R	Left and Right Circular	1K20G1D	0.0	0.0			
E50. Modulation and Services (If the complete description does not appear in this box, please go to the end of the form to view it in its entirety.) TDM, AERO, FEEDERLINK									
SBY(11M)C	3600 3623	R	Left and Right Circular	2K40G1D	0.0	0.0			

E50	. Modulation	and Camiasa	(T£ 41-			4h:a haw wlassa as 4		40		
entirety		and Services	(II th	ne complete description	on does not appear in	this box, please go to	o the end of the form	to view it in its		
	DM, AERO,	FEEDERLI	NK							
SBY(1	1M)C	3600	3623		Left and Right Circular	3K00G1D	0.0	0.0		
entirety	E50. Modulation and Services (If the complete description does not appear in this box, please go to the end of the form to view it in its entirety.) INM B,C,M, FEEDERLINK									
SBY(1	1M)C	3600	3623	R	Left and Right Circular	4K00G1D	0.0	0.0		
E50. Modulation and Services (If the complete description does not appear in this box, please go to the end of the form to view it in its entirety.) INM B,C,M, FEEDERLINK										
SBY(1	1M)C	3600	3623	R	Left and Right Circular	4K00G3E	0.0	0.0		

E50. Modulation entirety.)	and Services (If	the complete descripti	on does not appear in	this box, please go t	o the end of the form	to view it in its		
	FEEDERLINK							
SBY(11M)C	3600 3623	R	Left and Right Circular	4K80G1D	0.0	0.0		
TDM, AERO,	FEEDERLINK	the complete descripti						
SBY(11M)C	3600 3623	R	Left and Right Circular	600HG1D	0.0	0.0		
E50. Modulation and Services (If the complete description does not appear in this box, please go to the end of the form to view it in its entirety.) TDM, AERO, FEEDERLINK								
SBY(11M)C	3600 3623	R	Left and Right Circular	7K50G3E	0.0	0.0		

E50 M	Indulation	and Services	(If th	a complete description	on does not ennear in	this how places so to	the end of the form	to view it in its	
entirety.)	louulatioii	and Services	(II til	le complete description	on does not appear in	tills box, please go to	o the end of the form	to view it iii its	
	B,C,M,	FEEDERLI	NK						
SBY(11M	()C	4192.5	4200	R	Left and Right Circular	2K40G1D	0.0	0.0	
E50. Modulation and Services (If the complete description does not appear in this box, please go to the end of the form to view it in its entirety.) TDM, AERO, FEEDERLINK									
SBY(11M	()C	6417.5	6443	Т	Left and Right Circular	12K0G1D	0.0	0.0	
E50. Modulation and Services (If the complete description does not appear in this box, please go to the end of the form to view it in its entirety.) INM B,C,M, FEEDERLINK									
SBY(11M	()C	6417.5	6443	Т	Left and Right Circular	12K0G3E	0.0	0.0	

E50. Modulation	and Services	(If th	ne complete description	on does not appear ir	this box, please go t	o the end of the form	to view it in its		
entirety.)		`	1	11	71				
INM B,C,M,	FEEDERLI	NK							
SBY(11M)C	6417.5	6443	Т	Left and Right Circular	2K40G1D	65.0	65.0		
E50. Modulation and Services (If the complete description does not appear in this box, please go to the end of the form to view it in its entirety.) TDM, AERO, FEEDERLINK									
SBY(11M)C	6417.5	6443	Т	Left and Right Circular	4K00G1D	0.0	0.0		
E50. Modulation entirety.)	and Services	(If th	ne complete description	on does not appear ir	n this box, please go t	o the end of the form	to view it in its		
INM B,C,M, FEEDERLINK									
SBY(11M)C	6417.5	6443	Т	Left and Right Circular	4K00G3E	0.0	0.0		

E50. Modulation	and Services	(If th	ne complete description	on does not appear in	this hox please on to	o the end of the form	to view it in its		
entirety.)	and Bervices	(11 11	ie complete description	on does not appear in	tins box, pieuse go to	o the cha of the form	to view it in its		
INM B,C,M,	FEEDERLI	NK							
SBY(11M)C	6417.5	6443	Т	Left and Right Circular	6K00G1D	0.0	0.0		
E50. Modulation and Services (If the complete description does not appear in this box, please go to the end of the form to view it in its entirety.) INM B,C,M, FEEDERLINK									
SBY(11M)C	6417.5	6443	Т	Left and Right Circular	7K50G3E	0.0	0.0		
E50. Modulation entirety.)			ne complete description	on does not appear in	this box, please go to	o the end of the form	to view it in its		
SBY(11M)C	6417.5	6440	Т	Left and Right Circular	1K20G1D	77.0	77.0		

E50. Modulation entirety.)	and Services	(If th	ne complete description	on does not appear in	this box, please go to	o the end of the form	to view it in its		
TDM, STD-C	, FEEDERL	INK							
SBY(11M)C	6417.5	6440	Т	Left and Right Circular	600HG1D	77.0	77.0		
entirety.) TDM, STD-C	; FEEDERL	INK							
SBY(11M)C	4192.5	4200	R	Left and Right Circular	10K5G1E	0.0	0.0		
E50. Modulation and Services (If the complete description does not appear in this box, please go to the end of the form to view it in its entirety.) TDM, STD-C, AERO FEEDERLINK									
SBY(11M)C	4192.5	4200	R	Left and Right Circular	1K20G1D	0.0	0.0		

E50. Modulation entirety.)	and Services (If	the complete descripti	on does not appear in	n this box, please go t	o the end of the form	to view it in its		
	, AERO FEEDEI	LINK						
SBY(11M)C	4192.5 4200	R	Left and Right Circular	4K80G1D	0.0	0.0		
	E50. Modulation and Services (If the complete description does not appear in this box, please go to the end of the form to view it in its entirety.) TDM, STD-C, AERO FEEDERLINK							
SBY(11M)C	4192.5 4200	R	Left and Right Circular	600HG1D	0.0	0.0		
E50. Modulation and Services (If the complete description does not appear in this box, please go to the end of the form to view it in its entirety.) TDM, STD-C, AERO FEEDERLINK								
SBY(11M)C	6417.5 6440	T	Left and Right Circular	1K20G1D	77.0	77.0		

E50. Modulation entirety.)	and Services	(If the comp	lete description does not appear	r in this box, please	go to the end of t	the form to view it in its	
<u> </u>	A, TELEX, FE	EDERLINK					
SBY(11M)C	6417.5	440 T	Left and Right Circular	30K0F3E	77.0	77.0	
entirety.) ANALOG STI	O-A, VOICE,	FEEDERLI	NK				
SBY(11M)C	6417.5	443 T	Left and Right Circular	10K5G1E	69.2	65.0	
E50. Modulation and Services (If the complete description does not appear in this box, please go to the end of the form to view it in its entirety.) DIGITAL VOICE, AERO, FEEDERLINK							
SBY(11M)C	6454.4 6456.6	Т	Left and Right Circular	2M20G1D	82.3	54.9	

E50. Modulation and Services (If the complete description does not appear in this box, please go to the end of the form to view it in its entirety.)

BPSK SPREAD SPECTRUM DATA (NAVIGATION) TO SUPPORT FAA-WASS PROGRAM

SBY(11M)C	3629.4000	R	Left and Right	2M20G1D	0.0	0.0
	3631.6000		Circular			

E50. Modulation and Services (If the complete description does not appear in this box, please go to the end of the form to view it in its entirety.)

BPSK SPREAD SPECTRUM DATA (NAVIGATION) TO SUPPORT FAA-WASS PROGRAM

FREQUENCY COORDINATION

E28. Antenna Id	E51. Satellite Orbit Type	E52/53. Frequency Limits(MHz)	E54/55. Range of Satellite Arc Eastern/West ern Limit	E56. Earth Station Azimuth Angle Eastern Limit	E57. Antenna Elevation Angle Eastern Limit	E58. Earth Station Azimuth Angle Western Limit	E59. Antenna Elevation Angle Western Limit	E60. Maximum EIRP Density toward the Horizon (dBW/4kHz)
SBY(11M)C	Geostationary	3600 3623	2.0/144.0	102.6	5.2	256.9	5.7	0.0
	Geostationary	3600 3629	2.0/91.0	102.6	5.3	205.7	38.8	0.0

Geostationary	5925 6425	2.0/144.0	102.6	5.3	257.0	5.7	39.7
Geostationary	3700 4200.0	2.0/144.0	102.6	5.3	257.0	5.7	0.0
Geostationary	6417.5 6454	2.0/144.0	102.6	5.2	256.9	5.7	13.9
Geostationary	3629.4 3631.6	2.0/91.0	102.6	5.3	205.7	38.8	0.0
Geostationary	4192.5 4200.0	2.0/144.0	102.6	5.2	256.9	5.7	0.0
Geostationary	6454.4 6456.6	2.0/91.0	102.6	5.3	205.7	38.8	13.9

REMOTE CONTROL POINT LOCATION

E61. Call Sign	E66. Phone Number			
NOTE: Please enter the callsign of the contro callsign for which this application is being filed.				
E62. Street Address				
E63. City	E68. County		E67/68. State/Country	E64. Zip Code

FCC NOTICE REQUIRED BY THE PAPERWORK REDUCTION ACT

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43. Description. (Summarize the nature of the application and the services to be provided).

Astrium Services Government, Inc. (ASGI) respectfully requests that the authorizations for the Scientific-Atlanta 11 Meter Transmit/Receive C-Band and attached Comsat Labs 1.52 Meter Transmit/Receive L-Band Hub Antennas currently authorized per ASGI's Southbury, CT Call Sign KA312 Teleport license be added to its E990032 license. The reason for this request is explained in the attached Question 43 Exhibit Narrative. No change is being requested to the Authorizations set forth for the antennas in the KA312 license. Except for refinement of the response to E11 of Schedule B specifying the latitude and longitude of the antennas, the specifications and parameters set forth in the Schedule B of this Modification Application adding them to the E990032 license are a replication of that set forth for the Authorizations for the antennas in the KA312 license and ASGI respectfully hereby incorporates by reference the various exhibits previously submitted to the Commission in support of the prior KA312 applications which were the basis for the authorizations.