Approved by OMB 3060–0678

Date & Time Filed: Sep 11 2015 4:15:45:966PM File Number: SES-AMD-INTR2015-01634

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: E960622 amendment to AMS(R)S application

1–8. Legal Name of Applicant Iridium Carrier Services LLC **Phone Number:** 703-287-7411 Name: DBA **Fax Number:** Name: Street: 1750 Tysons Boulevard E-Mail: thomas.hickey@iridium.com Suite 1400 City: McLean State: VA USA Zipcode: **Country:** 22102 \_ Attention: Mr Thomas Hickey

Name:	Joseph A. Godles	Phone Number:	202-429-4900
Company:	Goldberg Godles Wiener & Wright LLP	Fax Number:	202-429-4912
Street:	1229 19th Street, NW	E–Mail:	jgodles@g2w2.com
City:	Washington	State:	DC
<b>Country:</b>	USA	Zipcode:	20036-2413
Attention:		<b>Relationship:</b>	Legal Counsel

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.	<ul> <li>(N/A) b1. Application for License of New Station</li> <li>(N/A) b2. Application for Registration of New Domestic Receive–Only Station</li> <li>b3. Amendment to a Pending Application</li> </ul>
<ul> <li>a1. Earth Station</li> <li>a2. Space Station</li> </ul>	<ul> <li>b4. Modification of License or Registration</li> <li>b5. Assignment of License or Registration</li> <li>b6. Transfer of Control of License or Registration</li> <li>b7. Notification of Minor Modification</li> <li>(N/A) b8. Application for License of New Receive–Only Station Using Non–U.S. Licensed Satellite</li> <li>(N/A) b9. Letter of Intent to Use Non–U.S. Licensed Satellite to Provide Service in the United States</li> <li>(N/A) b10. Other (Please specify)</li> <li>(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</li> <li>(N/A) b12. Application for Database Entry</li> <li>b13. Amendment to a Pending Database Entry Application</li> <li>b14. Modification of Database Entry</li> </ul>
<ul> <li>17c. Is a fee submitted with this application</li> <li>If Yes, complete and attach FCC Form</li> <li>Governmental Entity</li> <li>Other(please explain):</li> <li>17d.</li> <li>Fee Classification CGB – Mobile Satellite</li> </ul>	159. If No, indicate reason for fee exemption (see 47 C.F.R.Section 1.1114).

18. If this filing is in reference to an existing station, enter:	19. If this filing is an amendment to a pending ap modification please enter only the file number:	oplication enter both fields, if this filing is a
(a) Call sign of station: E960622	(a) Date pending application was filed:	(b) File number:
	04/05/2013	SESMOD2013041600323

# TYPE OF SERVICE

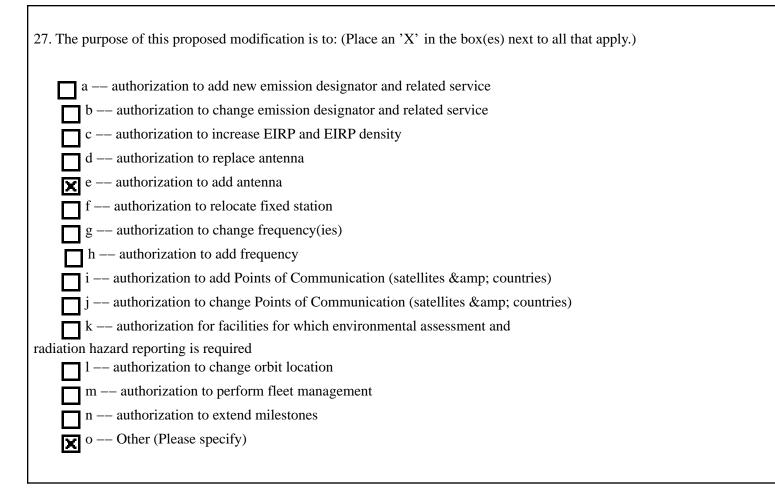
20. NATURE OF SERVICE: This filing is for an authorization to provide	e or use the following type(s) of service(s): Select all that apply:
<ul> <li>a. Fixed Satellite</li> <li>b. Mobile Satellite</li> <li>c. Radiodetermination Satellite</li> <li>d. Earth Exploration Satellite</li> <li>e. Direct to Home Fixed Satellite</li> <li>f. Digital Audio Radio Service</li> <li>g. Other (please specify)</li> </ul>	
<ul> <li>21. STATUS: Choose the button next to the applicable status. Choose only one.</li> <li>Common Carrier</li> <li>Non-Common Carrier</li> <li>23. If applicant is providing INTERNATIONAL COMMON CARRIER s facilities:</li> <li>Connected to a Public Switched Network</li> <li>Not connected to a Public Switched Network</li> </ul>	<ul> <li>22. If earth station applicant, check all that apply.</li> <li>Using U.S. licensed satellites</li> <li>Using Non–U.S. licensed satellites</li> <li>ervice, see instructions regarding Sec. 214 filings. Choose one. Are these</li> <li>Public Switched Network N/A</li> </ul>

24	. FREQUENCY BAND(S): Place an	'X' in the box(es) next to all app	licable frequency band(s).
a	a. C–Band (4/6 GHz) $\square$ b. Ku–Ba	and (12/14 GHz)	
	c.Other (Please specify upper and low	ver frequencies in MHz.)	
	Frequency Lower: 1618.725	Frequency Upper: 1626.5	(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
• c. 12/14 GHz VSAT Network
• 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



## ENVIRONMENTAL POLICY

28. Would a Commission grant of any proposal in this application or amendment have a significant environmental impact 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 Rad Haz				
ALIEN OWNERSHIP Earth station applicants not proposing to provide broadcast, common carrier, aerona aeronautical fixed radio station services are not required to respond to Items 30–34.	autic	al en	rou	te or		
29. Is the applicant a foreign government or the representative of any foreign government?	0	Yes	۲	No		
30. Is the applicant an alien or the representative of an alien?	0	Yes	۲	No	0	N/A
31. Is the applicant a corporation organized under the laws of any foreign government?	0	Yes	۲	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	۲	No	0	N/A

33. Is the applicant a corporation directly or indirectly controlled by any other corporation of which more than
one-fourth of the capital stock is owned of record or voted by aliens, their representatives, or by a foreign
government or representative thereof or by any corporation organized under the laws of a foreign country?

34. If any answer to questions 29, 30, 31, 32 and/or 33 is Yes, attach as an exhibit an identification of the aliens or Response to Q34 foreign entities, their nationality, their relationship to the applicant, and the percentage of stock they own or vote.

O Yes O No O N/A

#### BASIC QUALIFICATIONS

35. Does the Applicant request any waivers or exemptions from any of the Commission's Rules? If Yes, attach as an exhibit, copies of the requests for waivers or exceptions with supporting documents.	O Yes	● No
36. Has the applicant or any party to this application or amendment had any FCC station authorization or licens revoked or had any application for an initial, modification or renewal of FCC station authorization, license, or construction permit denied by the Commission? If Yes, attach as an exhibit, an explination of circumstances.	e O <sup>Yes</sup>	No     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.	O 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	O 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	O 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.

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.



O No

Yes

42b. What administration has licensed or is in the process of licensing the space station? If no license will be issued, what administration has coordinated or is in the process of coordinating the space station?

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.)

Applicant herein amends its pending application to add AMS(R)S in order to provide a full Schedule B and related documentation.

Narrative

	<b>O</b> <sup>B</sup>
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.	
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.	<b>o</b> c
	Confidentiality

#### 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.)	
• Individual	
Unincorporated Association	
• Partnership	
• Corporation	
O Governmental Entity	
Other (please specify)	
45. Name of Person Signing	46. Title of Person Signing
Thomas D. Hickey	Chief Legal Officer
>	
	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:	AMS(R)S Units	E5. Call Sign:	E960132	
E2: Contact Name	Thomas Hickey	E6. Phone Number:	703–287–7411	
E3. Street:	1750 Tysons Boulevard	E7. City:	McLean	
	Suite 1400	E8. County:	Fairfax	
E4. State	VA	E9. Zip Code	22102	
E10. Area of Opera	tion:	United States and U	U.S. commercial air	craft
E11. Latitude:	0 °0 '0.0 "			
E12. Longitude:	0 °0 '0.0 "			
E13. Lat/Lon Coord	dinates are:	O NAD-27	<b>O</b> NAD-83	● N/A
E14. Site Elevation	(AMSL):	0.0 meters		

by the manufacturer's qualification measurement? If NO, provide as a technical analysis showing compliance with two-degree spacing policy.	by the manufacturer's quantication measurement? If NO, provide as a technical analysis showing compliance with	O <sup>Yes</sup> O <sup>No</sup>	● N/A
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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?	O Yes	O <sup>№</sup>	N/A
E17. Is the facility operated by remote control? If YES, provide the location and telephone number of the control point.	• Yes	0	No

E18. Is frequency coordination required? If YES, attach a frequency coordination report as	0	Yes	۲	No
E19. Is coordination with another country required? If YES, attach the name of the country(ies) and plot of coordination contours as	۲	Yes	0	No
E20. FAA Notification – (See 47 CFR Part 17 and 47 CFR part 25.113(c)) Where FAA notification is required, have you attached a copy of a completed FCC Form 854 and/or the FAA's study regarding the potential hazard of the structure to aviation? FAILURE TO COMPLY WITH 47 CFR PARTS 17 AND 25 WILL RESULT IN THE RETURN OF THIS APPLICATION.	0	Yes	۲	No

POINTS OF COMMUNICATION

 Satellite Name: IRIDIUM CONSTELLATIO | IRIDIUM CONSTELLATIO | NGSO
 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 at GHz)
AMS(R)S Units	1	20000	Aero Antenna	AT1621–23 Dual Patch	0.0	2.0 dBi at 1.621
AMS(R)S Units	2	0	Aero Antenna	AT2775–110 Single Pa	0.089	1.0 dBi at 1.621
AMS(R)S Units	3	0	Sensor Systems	S67-1575-409 Single	0.089	2.0 dBi at 1.621
AMS(R)S Units	4	0	Sensor Systems	S67–1575–365 Dual Pa	0.0	2.0 dBi at 1.621
AMS(R)S Units	5	0	Sensor Systems	S67–1575–168 Single	0.0	-1.0 dBi at 1.621
AMS(R)S Units	6	0	Sensor Systems	S67-1575-160 Single	0.0	2.0 dBi at 1.621
AMS(R)S Units	7	0	Cobham	Comant CI 490– 1 Sing	0.089	2.0 dBi at 1.621
AMS(R)S Units	8	0	Antcom	S4IR16RR–P– XX–X Sing	0.0	1.5 dBi at 1.621
AMS(R)S Units	9	0	Antcom	S5GIR121RR– AP–XTN Si	0.0	1.5 dBi at 1.621

E28. Antenna Id	E33/34. Diameter Minor/Major (meters)	E35. Above Ground Level (meters)	E36. Above Sea Level(meters)	E37. Building Height Above Ground Level (meters)	E38. Total Input Power at antenna flange (Watts)	E39. Maximum Antenna Height Above Rooftop (meters)	E40. Total EIRP for al carriers(dBW)
1	0.2/0.076	0.0	0.0	0.0	5.16	0.0	9.0
2	0.0/0.0	0.0	0.0	0.0	5.16	0.0	8.0
3	0.0/0.0	0.0	0.0	0.0	5.16	0.0	9.0
4	0.2/0.076	0.0	0.0	0.0	5.16	0.0	9.0
5	0.2/0.076	0.0	0.0	0.0	5.16	0.0	6.0
6	0.2/0.076	0.0	0.0	0.0	5.16	0.0	9.0
7	0.0/0.0	0.0	0.0	0.0	5.16	0.0	9.0
8	0.086/0.056	0.0	0.0	0.0	5.16	0.0	8.5
9	0.128/0.056	0.0	0.0	0.0	5.16	0.0	8.5

FREQUENCY

E28. Antenna Io	d E43/44. Frequency Bands (MHz)	E45. T/R Mode			EIRP per Carrier (dBW)	E49. Maximum ERIP Density per Carrier (dBW/4kHz)
1	1618.725 1626.5	R	Right Hand Circular	41K7Q7W	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.)

Voice and Data; DQPSK

1	1618.725 1626.5	Т	Right Hand Circular	41K7Q7W	9.0	-10.8
E50. Modulation entirety.)	and Services (I	f the complete de	escription does not appea	r in this box, please	go to the end of t	the form to view it in its
Voice and	Data; DQPSK					
2	1618.725 1626.5	R	Right Hand Circular	41K7Q7W	0.0	0.0
Voice and	Data; DQPSK					
2	1618.725 1626.5	Т	Right Hand Circular	41K7Q7W	8.0	-11.8
E50. Modulation entirety.)	and Services (I	f the complete de	escription does not appea	r in this box, please	go to the end of t	the form to view it in its
Voice and	Data; DQPSK;	50 kbps da	ta rate			

3	1618.725 1626.5	R	Right Hand Circular	41K7Q7W	0.0	0.0
E50. Modulation entirety.)	and Services (If	the complete de	scription does not appea	r in this box, please	go to the end of t	he form to view it in its
Voice and	Data; DQPSK					
3	1618.725 1626.5	Т	Right Hand Circular	41K7Q7W	9.0	-10.8
Voice and	Data; DQPSK					
4	1618.725 1626.5	R	Right Hand Circular	41K7Q7W	0.0	0.0
E50. Modulation entirety.)	and Services (If	the complete de	scription does not appea	r in this box, please	go to the end of t	he form to view it in its
Voice and	Data; DQPSK					

4	1618.725 1626.5	Т	Right Hand Circular	41K7Q7W	9.0	-10.8
E50. Modulation entirety.)	and Services (If	the complete descri	ption does not appea	r in this box, please	go to the end of t	the form to view it in its
Voice and	Data; DQPSK					
5	1618.725 1626.5	R	Right Hand Circular	41K7Q7W	0.0	0.0
Voice and	Data; DQPSK					
5	1618.725 1626.5	Т	Right Hand Circular	41K7Q7W	6.0	-13.8
E50. Modulation entirety.)	and Services (If	the complete descri	ption does not appea	r in this box, please	go to the end of t	the form to view it in its
Voice and	Data; DQPSK					

6	1618.725 1626.5	R	Right Hand Circular	41K7Q7W	0.0	0.0
E50. Modulation entirety.)	and Services (If	the complete de	escription does not appea	r in this box, please	go to the end of t	the form to view it in its
Voice and	Data; DQPSK					
6	1618.725 1626.5	Т	Right Hand Circular	41K7Q7W	9.0	-10.8
entirety.) Voice and	Data; DQPSK					
7	1618.725 1626.5	R	Right Hand Circular	41K7Q7W	0.0	0.0
E50. Modulation entirety.)	1 and Services (If	the complete de	escription does not appea	r in this box, please	go to the end of t	the form to view it in its
Voice and	Data; DQPSK					

7	1618.725 1626.5	Т	Right Hand Circular	41K7Q7W	9.0	-10.8
E50. Modulation entirety.)	and Services (If	the complete des	scription does not appea	r in this box, please	go to the end of t	the form to view it in its
Voice and	Data; DQPSK					
8	1618.725 1626.5	R	Right Hand Circular	41K7Q7W	0.0	0.0
entirety.) Voice and	Data; DQPSK					
8	1618.725 1626.5	Т	Right Hand Circular	41K7Q7W	8.5	-11.3
E50. Modulation entirety.)	and Services (If	the complete des	scription does not appea	r in this box, please	go to the end of t	the form to view it in its
Voice and	Data; DQPSK					

9	1618.725 1626.5	R	Right Hand Circular	41K7Q7W	0.0	0.0
E50. Modulation entirety.)	and Services (If th	ne complete description	on does not appear in	this box, please go to	the end of the form	to view it in its
Voice and	Data; DQPSK					
9	1618.725 1626.5	Т	Right Hand Circular	41K7Q7W	8.5	-11.3
E50. Modulation entirety.)	and Services (If th	ne complete description	on does not appear in	this box, please go to	the end of the form	to view it in its
Voice and	Data; DQPSK					
FREQUENCY CC	ORDINATION					

E28. Antenna Id	E51. Satellite Orbit Type	E52/53. Frequency Limits(MHz)	E54/55. Range of Satellite Arc Eastern/West ern Limit		E57. Antenna Elevation Angle Eastern Limit	E58. Earth Station Azimuth Angle Western Limit	Antenna	E60. Maximum EIRP Density toward the Horizon (dBW/4kHz)
1	Non– Geostationary	1618.725 1626.5	0.0/0.0	360.0	8.2	360.0	8.2	-10.8

2	Non– Geostationary	1618.725 1626.5	0.0/0.0	360.0	8.2	360.0	8.2	-11.8
3	Non– Geostationary	1618.725 1626.5	0.0/0.0	360.0	8.2	360.0	8.2	-10.8
4	Non– Geostationary	1618.725 1626.5	0.0/0.0	360.0	8.2	360.0	8.2	-10.8
5	Non– Geostationary	1618.725 1626.5	0.0/0.0	360.0	8.2	360.0	8.2	-13.8
6	Non– Geostationary	1618.725 1626.5	0.0/0.0	360.0	8.2	360.0	8.2	-10.8
7	Non– Geostationary	1618.725 1626.5	0.0/0.0	360.0	8.2	360.0	8.2	-10.8
8	Non– Geostationary	1618.725 1626.5	0.0/0.0	360.0	8.2	360.0	8.2	-11.3
9	Non– Geostationary	1618.725 1626.5	0.0/0.0	360.0	8.2	360.0	8.2	-11.3
REMOT	E CONTROL POIN	L T LOCATIO	N					
E61. C	Call Sign				E66. Phone Nu 1–480–752–5			

NOTE: Please enter the callsign of the controlling station, not the callsign for which this application is being filed.

1-480-752-5111

E62. Street Address 8440 South River Parkway			
E63. City Tempe	E68. County Maricopa	E67/68. State/Country AZ/ USA	E64. Zip Code 85284

#### FCC NOTICE REQUIRED BY THE PAPERWORK REDUCTION ACT

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