Date & Time Filed: Jan 27 2015 9:41:03:383AM File Number: SES-MOD-INTR2015-00140

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: E080168 Modification Jan 2015

Name:	Sirius XM Radio Inc.	Phone Number:	202-380-1383
DBA Name:		Fax Number:	202–380–4981
Street:	1221 Avenue of the Americas	E-Mail:	james.blitz@siriusxm.com
	36th Floor		
City:	New York	State:	NY
Country:	USA	Zipcode:	10020 –
Attention:	Mr James S. Blitz		

9–16. Name of Contact Representative

Name: Karis A. Hastings **Phone Number:** 202–599–0975

Company: SatCom Law LLC **Fax Number:**

Street: 1317 F Street, N.W. E–Mail: karis@satcomlaw.com

Suite 400

City: Washington State: DC

Country: USA Zipcode: 20004–

Attention: Relationship: 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.

a1. Earth Station

a2. Space Station

(N/A) b1. Application for License of New Station

(N/A) b2. Application for Registration of New Domestic Receive-Only Station

b 3. Amendment to a Pending Application

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

•	159. If No, indicate reason for fee exemption (s	see 47 C.F.R.Section 1.1114).
Ofther(please explain):	ercial educational licensee	
17d.		
Fee Classification CGX – Fixed Satellite Station	Transmit/Receive Earth	
18. If this filing is in reference to an existing station, enter:	19. If this filing is an amendment to a pending a modification please enter only the file number:	application enter both fields, if this filing is a
(a) Call sign of station: E080168	(a) Date pending application was filed:	(b) File number:
E000100		SESMOD2013031500265

TYPE OF SERVICE

20. NATURE OF SERVICE: This filing is for an authorization to provide or use the following type(s) of service(s): Select all that apply:
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) TT&C
21. STATUS: Choose the button next to the applicable status. Choose 22. If earth station applicant, check all that apply.
only one. Using U.S. licensed satellites
Common Carrier
23. If applicant is providing INTERNATIONAL COMMON CARRIER service, see instructions regarding Sec. 214 filings. Choose one. Are these facilities:
Connected to a Public Switched Network Not connected to a Public Switched Network 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	
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

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 & Double
j — authorization to change Points of Communication (satellites & tountries)
k — authorization for facilities for which environmental assessment and
radiation hazard reporting is required
l — authorization to change orbit location
m — authorization to perform fleet management
n — authorization to extend milestones
o — Other (Please specify)

ENVIRONMENTAL POLICY

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.			~			
ALIEN OWNERSHIP Earth station applicants not proposing to provide broadcast, common carrier, aeron aeronautical fixed radio station services are not required to respond to Items 30–34.	autic	al en	ı rou	ite or		
29. Is the applicant a foreign government or the representative of any foreign government?	0	Yes	•	No		
30. Is the applicant an alien or the representative of an alien?	0	Yes	0	No	•	N/A
31. Is the applicant a corporation organized under the laws of any foreign government?	0	Yes	0	No	•	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	0	No	•	N/A

 $lackbox{ Yes } lackbox{ No}$

28. Would a Commission grant of any proposal in this application or amendment have a significant environmental

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?	O Yes O	No 👩 N/A
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 foreign entities, their nationality, their relationship to the applicant, and the percentage of stock they own or vote.		
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 license 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.	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 Exhibit C	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.	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	⊘ No
42b. What administration has licensed or is in the process of licensing the space station? If no license will be issued, we coordinated or is in the process of coordinating the space station?	hat administr	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.)

Sirius XM Radio seeks modification of the E080168 license to (1)simplify and update the license by reducing the number of separate carriers authorized; (2) specify a broader range of the geostationary arc for communications, consistent with prior coordination for the earth station; and (3) seek flexibility to allow communications with SDARS satellites

Exhibit A

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.	O 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.	● 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 ap	plicable response.)	
O Individual		
O Unincorporated Association		
O Partnership		
Corporation		
Governmental Entity		
Other (please specify)		
-		
45. Name of Person Signing	46. Title of Person Signing	
James S. Blitz	V.P., Regulatory Counsel	
>	<u> </u>	

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).

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:	N/A	E5. Call Sign:	E080168			
E2: Contact Name	Jeff LaMastus	E6. Phone Number:	404–381–2637			
E3. Street:	2875 Fork Creek Church Road	E7. City:	Ellenwood			
		E8. County:	Clayton			
E4. State	GA	E9. Zip Code	30294			
E10. Area of Opera	tion:	N/A				
E11. Latitude:	33 °39 '51.0 "N					
E12. Longitude:	84 °16 '24.0 "W					
E13. Lat/Lon Coord	dinates are:	O NAD-27	● NAD-83	O N/A		
E14. Site Elevation	(AMSL):	243.3 meters				
1						

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?	oposed antenna(s) comply with the antenna	⊚ Yes	O No	O N/A
E17. Is the facility operated by remote control? If YES, provide the loc point.	ation and telephone number of the control	Yes	٥	No
E18. Is frequency coordination required? If YES, attach a frequency co	ordination report as Exh B Freq Coord Rpt	● Yes	0	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	•	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? 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: 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)
N/A	Feeder 3	1	General Dynamics	8.0M	8.0	0.0 dBi at
N/A	Feeder 2	1	General Dynamics	8.0M	8.0	0.0 dBi at
N/A	Feeder 1	1	General Dynamics	7.2M	7.2	0.0 dBi at

E28. Antenna Id		E35. Above Ground Level (meters)	E36. Above Sea Level(meters)	Height Above	Input Power at	E39. Maximum Antenna Height Above Rooftop (meters)	EIRP for al
Feeder 3	0.0/0.0	9.5	251.8	0.0	0.0	0.0	0.0
Feeder 2	0.0/0.0	9.5	251.8	0.0	0.0	0.0	0.0
Feeder 1	0.0/0.0	7.3	249.6	0.0	0.0	0.0	0.0

FREQUENCY

E28. Antenna Id	E43/44.	E45.	E46. Antenna	E47. Emission	E48. Maximum	E49. Maximum
	Frequency Bands	T/R Mode	Polarization(H,V,	Designator	EIRP per Carrier	ERIP Density per
	(MHz)		L,R)		(dBW)	Carrier
						(dBW/4kHz)

Feeder 3	2320 2332.5	R	Right Hand Circular	300KG1D	0.0	0.0
E50. Modulation entirety.)	and Services (If the	ne complete descrip	otion does not appear	r in this box, please	go to the end of t	the form to view it in its
BIPHASE PC	M TELEMETRY					
Feeder 3	2332.5 2345	R	Right Hand Circular	100KG2D	0.0	0.0
BIPHASE PC	M TELEMETRY					
Feeder 3	4196.3 4197.2	R	Right Hand Circular	300KG1D	0.0	0.0
E50. Modulation entirety.)	and Services (If the	ne complete descrip	otion does not appear	r in this box, please	go to the end of t	the form to view it in its
BIPHASE PC	M TELEMETRY					

Feeder 3	6422	6425	Т	Left Hand Circular	1M00F1D	75.0	51.0
E50. Modulation entirety.)	and Services	(If t	ne complete d	lescription does not appear in	this box, please	go to the end of the	he form to view it in its
PCM/PSK/FM	i COMMAND						
Feeder 3	7042.6 7074.4		Т	Left Hand Circular	800KF2D	75.0	52.0
PCM/PSK/FM	(COMMAND						
Feeder 3	7051.5 7056.5		Т	Left Hand Circular	1M00F1D	75.0	51.0
E50. Modulation entirety.)	and Services	(If the	ne complete d	escription does not appear in	this box, please	go to the end of the	he form to view it in its
PCM/PSK/FM	(COMMAND						

Feeder 3	2320 2332.5	R	Left Hand Circular	4M50G7E	0.0	0.0
E50. Modulation entirety.)	and Services (If the	ne complete description	on does not appear in	this box, please go t	to the end of the form	to view it in its
TDM QPSK 8	PSK 16QUAM DAR	RS PROGRAM DOWN	LINK			
Feeder 3	2332.5 2345	R	Left Hand Circular	1M84G1W	0.0	0.0
TDM QPSK 8	PSK 16QUAM DAR	RS PROGRAM DOWN	LINK			
Feeder 3	7060 7072.5	Т	Right Hand Circular	4M50G7E	75.0	44.5
E50. Modulation entirety.) TDM QPSK 8	`	he complete description		this box, please go t	to the end of the form	to view it in its

Feeder 3	7056.845 7074.869	Т	Left and Right Circular	1M84G1W	75.0	48.4
E50. Modulation entirety.)	and Services (If the	le complete descripti	on does not appear	in this box, please g	to the end of the	he form to view it in its
TDM QPSK 8	PSK 16QUAM DAR	S PROGRAM UPLI	CNK			
Feeder 2	2320 2332.5	R	Right Hand Circular	300KG1D	0.0	0.0
BIPHASE PC	M TELEMETRY					
Feeder 2	2332.5 2345	R	Right Hand Circular	100KG2D	0.0	0.0
E50. Modulation entirety.)	and Services (If the	ne complete descripti	on does not appear	in this box, please g	o to the end of the	he form to view it in its
BIPHASE PC	M TELEMETRY					

Feeder 2	4196.3 4197.2	R	Right Hand Circular	300KG1D	0.0	0.0
E50. Modulation entirety.)	and Services (If the	ne complete descript	tion does not appear in	this box, please go	to the end of the fo	orm to view it in its
BIPHASE PO	CM TELEMETRY					
Feeder 2	6422 6425	Т	Left Hand Circular	1M00F1D	75.0	51.0
PCM/PSK/FN	I COMMAND					
Feeder 2	7042.6 7074.4	Т	Left Hand Circular	800KF2D	75.0	52.0
E50. Modulation entirety.)	and Services (If the	ne complete descript	tion does not appear in	this box, please go	to the end of the fo	orm to view it in its
PCM/PSK/FN	I COMMAND					

Feeder 2	7051.5 7056.5	Т	Left Hand Circular	1M00F1D	75.0	51.0
E50. Modulation entirety.)	and Services (If the	ne complete description	on does not appear in	this box, please go	to the end of the form	to view it in its
PCM/PSK/FM	COMMAND					
Feeder 2	2320 2332.5	R	Left Hand Circular	4M50G7E	0.0	0.0
TDM QPSK 8	PSK 16QUAM DAR	S PROGRAM DOWN	LINK			
Feeder 2	2332.5 2345	R	Left Hand Circular	1M84G1W	0.0	0.0
E50. Modulation entirety.) TDM QPSK 8	and Services (If the PSK 16QUAM DAR			this box, please go	to the end of the form	to view it in its

Feeder 2	7060 7072.5	Т	Right Hand Circular	4M50G7E	75.0	44.5
E50. Modulation entirety.)	and Services (If t	he complete descripti	on does not appear i	n this box, please go t	to the end of the form	to view it in its
TDM QPSK 8	PSK 16QUAM DAH	RS PROGRAM UPLI	NK			
Feeder 2	7056.845 7074.869	Т	Left and Right Circular	1M84G1W	75.0	48.4
entirety.) TDM QPSK 8	PSK 16QUAM DAI	RS PROGRAM UPLI	NK			
Feeder 1	2320 2332.5	R	Right Hand Circular	300KG1D	0.0	0.0
E50. Modulation entirety.) BIPHASE PC	and Services (If t	he complete descripti	on does not appear i	n this box, please go t	to the end of the form	to view it in its

Feeder 1	7051.5 7056.5	Т	Left Hand Circul	ar 1M00F1D	75.0	51.0
E50. Module entirety.)	ation and Services	(If the complete of	lescription does not appear	in this box, please	go to the end of	the form to view it in its
PCM/PSK	C/FM COMMAND					
Feeder 1	2320 2332.5	R	Left Hand Circul	ar 4M50G7E	0.0	0.0
IDM QPS	SK 8PSK 16QUAM	DARS PROGRAM	4 DOWNLINK			
Feeder 1	7060 7072.5	Т	Right Hand Circular	4M50G7E	75.0	44.5
E50. Modulentirety.)	ation and Services	(If the complete of	lescription does not appear	in this box, please	go to the end of	the form to view it in its
TDM QPS	SK 8PSK 16QUAM	DARS PROGRAM	1 UPLINK			

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)
Feeder 3	Non– Geostationary	6422 6425	0.0/0.0	0.0	0.0	0.0	0.0	2.5
	Non– Geostationary	7040 7075	0.0/0.0	0.0	0.0	0.0	0.0	2.5
	Geostationary	7040 7075	25.0/140.0	108.2	16.8	249.3	19.8	2.5
Feeder 2	Non- Geostationary	6422 6425	0.0/0.0	0.0	0.0	0.0	0.0	2.5
	Non– Geostationary	7040 7075	0.0/0.0	0.0	0.0	0.0	0.0	2.5
	Geostationary	7040 7075	25.0/140.0	108.2	16.8	249.3	19.8	2.5
Feeder 1	Geostationary	7040 7075	80.0/120.0	172.3	50.6	232.4	35.4	-9.6

REMOTE CONTROL POINT LOCATION

E61. Call Sign	E66. Phone Number
NOTE: Please enter the callsign of the controlling station, not the 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

The public reporting for this collection of information is estimated to average 2 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the required data, and completing and reviewing the collection of information. If you have any comments on this burden estimate, or how we can improve the collection and reduce the burden it causes you, please write to the Federal Communications Commission, AMD–PERM, Paperwork Reduction Project (3060–0678), Washington, DC 20554. We will also accept your comments regarding the Paperwork Reduction Act aspects of this collection via the Internet if you send them to PRA@fcc.gov. PLEASE DO NOT SEND COMPLETED FORMS TO THIS ADDRESS.

Remember – You are not required to respond to a collection of information sponsored by the Federal government, and the government may not conduct or sponsor this collection, unless it displays a currently valid OMB control number or if we fail to provide you with this notice. This collection has been assigned an OMB control number of 3060–0678.

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.

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

Sirius XM Radio seeks modification of the E080168 license to (1)simplify and update the license by reducing the number of separate carriers authorized; (2) specify a broader range of the geostationary arc for communications, consistent with prior coordination for the earth station; and (3) seek flexibility to allow communications with SDARS satellites operated by Sirius XM affiliates during and after authorized relocations of the satellites without the need for additional authority. See Exhibit A.