



UNITED STATES OF AMERICA
FEDERAL COMMUNICATIONS COMMISSION
RADIO STATION AUTHORIZATION

Name: Sirius XM Radio Inc.

Call Sign: E110172

Authorization Type: License

File Number: SES-LIC-20111121-01384

Non Common Carrier

Grant date: 02/15/2012

Expiration Date: 02/15/2027

Nature of Service: Satellite Digital Audio Radio Service

Class of Station: Other

A) Site Location(s)

#	Site ID	Address	Latitude	Longitude	Elevation (Meters)	Special Provisions NAD (Refer to Section H)
1)	Blanket	United State and Territories VARIOUS,				NA
2)	Fresno	4880 W. Jacquelyn St. Fresno, CA 93722	36°49'0.0"N	119°52'56.0"W	92	83
3)	Rensselaer	400 Ridge Rd., Rensselaer, NY 12144	42°36'12.0"N	73°44'0.0"W	121	83
4)	Tacoma	5913 6th St. Tacoma, WA 98422	47°15'48.0"N	122°20'53.0"W	129	83
5)	Washington	4623 41st St., N.W. Washington, DC 20016	38°57'1.0"N	77°4'47.0"W	123	83

Subject to the provisions of the Communications Act of 1934, The Communications Satellite Act of 1962, subsequent acts and treaties, and all present and future regulations made by this Commission, and further subject to the conditions and requirements set forth in this license, the grantee is authorized to construct, use and operate the radio facilities described below for radio communications for the term beginning February 15, 2012 (3 AM Eastern Standard Time) and ending February 15, 2027 (3 AM Eastern Standard Time) . The required date of completion of construction and commencement of operation is February 15, 2013 (3 AM Eastern Standard Time) . Grantee must file with the Commission a certification upon completion of construction and commencement of operation.



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B) Particulars of Operations

The General Provision 1010 applies to all receiving frequency bands.
The General Provision 1900 applies to all transmitting frequency bands.
For the text of these provisions, refer to Section H.

#	Frequency (MHz)	Polarization Code	Emission	Tx/Rx Mode	Max EIRP /Carrier (dBW)	Max EIRP Density /Carrier (dBW/4kHz)	Associated Antenna	Special Provisions (Refer to Section H)	Modulation/ Services
1)	2343.1250-2344.9650	OTHER	1M84G1W	Rx	0.00		Blanket-1		
2)	2341.2850-2343.1250	OTHER	1M84G1W	Rx	0.00		Blanket-1		
3)	2336.2250-2341.2850	OTHER	5M06D7W	Tx	3.00		Blanket-1		
4)	2334.3850-2336.2250	OTHER	1M84G1W	Rx	0.00		Blanket-1		
5)	2332.5450-2334.3850	OTHER	1M84G1W	Rx	0.00		Blanket-1		
6)	2324.2440-2328.2560	OTHER	4M01D7W	Tx	3.00		Blanket-1		
7)	2343.1250-2344.9650	OTHER	1M84G1W	Rx	0.00		Blanket-2		
8)	2341.2850-2343.1250	OTHER	1M84G1W	Rx	0.00		Blanket-2		
9)	2336.2250-2341.2850	OTHER	5M06D7W	Tx	40.80		Blanket-2		
10)	2334.3850-2336.2250	OTHER	1M84G1W	Rx	0.00		Blanket-2		
11)	2332.5450-2334.3850	OTHER	1M84G1W	Rx	0.00		Blanket-2		
12)	2324.2440-2328.2560	OTHER	4M01D7W	Tx	40.80		Blanket-2		
13)	2343.1250-2344.9650	OTHER	1M84G1W	Rx	0.00		XMALB013B		
14)	2341.2850-2343.1250	OTHER	1M84G1W	Rx	0.00		XMALB013B		
15)	2336.2250-2341.2850	OTHER	5M06D7W	Tx	45.31		XMALB013B		
16)	2334.3850-2336.2250	OTHER	1M84G1W	Rx	0.00		XMALB013B		
17)	2332.5450-2334.3850	OTHER	1M84G1W	Rx	0.00		XMALB013B		
18)	2324.2440-2328.2560	OTHER	4M01D7W	Tx	45.31		XMALB013B		
19)	2343.1250-2344.9650	OTHER	1M84G1W	Rx	0.00		XMFRE002A		
20)	2341.2850-2343.1250	OTHER	1M84G1W	Rx	0.00		XMFRE002A		
21)	2336.2250-2341.2850	OTHER	5M06D7W	Tx	45.80		XMFRE002A		
22)	2334.3850-2336.2250	OTHER	1M84G1W	Rx	0.00		XMFRE002A		
23)	2332.5450-2334.3850	OTHER	1M84G1W	Rx	0.00		XMFRE002A		
24)	2324.2440-2328.2560	OTHER	4M01D7W	Tx	45.80		XMFRE002A		



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The General Provision 1900 applies to all transmitting frequency bands.
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#	Frequency (MHz)	Polarization Code	Emission	Tx/Rx Mode	Max EIRP /Carrier (dBW)	Max EIRP Density /Carrier (dBW/4kHz)	Associated Antenna	Special Provisions (Refer to Section H)	Modulation/ Services
25)	2343.1250-2344.9650	OTHER	1M84G1W	Rx	0.00		XMSEA52D		
26)	2341.2850-2343.1250	OTHER	1M84G1W	Rx	0.00		XMSEA52D		
27)	2336.2250-2341.2850	OTHER	5M06D7W	Tx	42.55		XMSEA52D		
28)	2334.3850-2336.2250	OTHER	1M84G1W	Rx	0.00		XMSEA52D		
29)	2332.5450-2334.3850	OTHER	1M84G1W	Rx	0.00		XMSEA52D		
30)	2324.2440-2328.2560	OTHER	4M01D7W	Tx	42.55		XMSEA52D		
31)	2343.1250-2344.9650	OTHER	1M84G1W	Rx	0.00		XMWDC105		
32)	2341.2850-2343.1250	OTHER	1M84G1W	Rx	0.00		XMWDC105		
33)	2336.2250-2341.2850	OTHER	5M06D7W	Tx	43.80		XMWDC105		
34)	2334.3850-2336.2250	OTHER	1M84G1W	Rx	0.00		XMWDC105		
35)	2332.5450-2334.3850	OTHER	1M84G1W	Rx	0.00		XMWDC105		
36)	2324.2440-2328.2560	OTHER	4M01D7W	Tx	43.80		XMWDC105		

D) Points of Communications

The following stations located in the Satellite orbits consistent with Sections B and C of this Entry:

- 1) Blanket to XM 3 satellite (S2617) @ 85.15 degrees W.L. (U.S.-licensed) (DARS)
- 2) Blanket to XM 4 satellite (S2616) @ 115.25 degrees W.L. (U.S.-licensed) (DARS)
- 3) Blanket to XM-5 satellite (S2786) @ 85.15 degrees W.L. (U.S.-licensed) (DARS)
- 4) Rensselaer to XM 3 satellite (S2617) @ 85.15 degrees W.L. (U.S.-licensed) (DARS)
- 5) Rensselaer to XM 4 satellite (S2616) @ 115.25 degrees W.L. (U.S.-licensed) (DARS)
- 6) Rensselaer to XM-5 satellite (S2786) @ 85.15 degrees W.L. (U.S.-licensed) (DARS)
- 7) Fresno to XM 3 satellite (S2617) @ 85.15 degrees W.L. (U.S.-licensed) (DARS)
- 8) Fresno to XM 4 satellite (S2616) @ 115.25 degrees W.L. (U.S.-licensed) (DARS)
- 9) Fresno to XM-5 satellite (S2786) @ 85.15 degrees W.L. (U.S.-licensed) (DARS)
- 10) Tacoma to XM 3 satellite (S2617) @ 85.15 degrees W.L. (U.S.-licensed) (DARS)
- 11) Tacoma to XM 4 satellite (S2616) @ 115.25 degrees W.L. (U.S.-licensed) (DARS)
- 12) Tacoma to XM-5 satellite (S2786) @ 85.15 degrees W.L. (U.S.-licensed) (DARS)



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D) Points of Communications

The following stations located in the Satellite orbits consistent with Sections B and C of this Entry:

- 13) Washington to XM 3 satellite (S2617) @ 85.15 degrees W.L. (U.S.-licensed) (DARS)
- 14) Washington to XM 4 satellite (S2616) @ 115.25 degrees W.L. (U.S.-licensed) (DARS)
- 15) Washington to XM-5 satellite (S2786) @ 85.15 degrees W.L. (U.S.-licensed) (DARS)

E) Antenna Facilities

Site ID	Antenna ID	Units	Diameter (meters)	Manufacturer	Model number	Site Elevation (Meters)	Max Antenna Height (Meters)	Special Provisions (Refer to Section H)
Blanket	Blanket-1	10000						
Max Gains(s): Maximum total input power at antenna flange (Watts) = Maximum aggregate output EIRP for all carriers (dBW) = 3.00								
Blanket	Blanket-2	2000						
Max Gains(s): Maximum total input power at antenna flange (Watts) = Maximum aggregate output EIRP for all carriers (dBW) = 40.80								
Rensselaer	XMALB013B	1				121	32.9 AGL	
Max Gains(s): Maximum total input power at antenna flange (Watts) = Maximum aggregate output EIRP for all carriers (dBW) = 45.31								
Fresno	XMFRE002A	1				92	54.9 AGL	
Max Gains(s): Maximum total input power at antenna flange (Watts) = Maximum aggregate output EIRP for all carriers (dBW) = 45.80								
Tacoma	XMSEA52D	2				129	67.1 AGL	
Max Gains(s): Maximum total input power at antenna flange (Watts) = Maximum aggregate output EIRP for all carriers (dBW) = 42.55								



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E) Antenna Facilities

Site ID	Antenna ID	Units	Diameter (meters)	Manufacturer	Model number	Site Elevation (Meters)	Max Antenna Height (Meters)	Special Provisions (Refer to Section H)
Washington	XMWDC105	1				123	63.1 AGL	
Max Gains(s):								
Maximum total input power at antenna flange (Watts) =								
Maximum aggregate output EIRP for all carriers (dBW) =						43.80		

F) Remote Control Point:

Blanket	Sirius XM Radio, 1500 Eckington Place, NE Washington, DC 20002 202-380-4000	Call Sign:
Blanket	Intelsat (attn: Back up remote site for Sirius XM Radio), 2875 Fork Creek Church Road Ellenwood, GA 30294 404-381-2320	Call Sign:

G) Antenna Structure marking and lighting requirements:

None unless otherwise specified under Special and General Provisions



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H) Special and General Provisions

A) This RADIO STATION AUTHORIZATION is granted subject to the following special provisions and general conditions:

90028 --- Sirius XM is granted a limited waiver of Section 25.144(e)(7)(i) of the Commission's rules, 47 C.F.R. Section 25.144(e)(7)(i), which requires that each SDARS terrestrial repeater transmitter utilized for operation must be of a type authorized by the Commission under its certification procedure. The Commission has previously recognized that it will take time to complete the equipment certification procedure for all terrestrial repeater models that are to be deployed under the initial blanket license application. See Establishment of Rules and Policies for the Digital Audio Radio Satellite Service in the 2310-2360 MHz Frequency Band, Second Report and Order, 25 FCC Rcd 11710 at para. 308 (2010). Accordingly, we grant a limited waiver of our rules to allow Sirius XM to deploy and operate terrestrial repeaters prior to obtaining equipment certifications for the repeaters. As a condition to this waiver, Sirius XM must, within 24 months from the date of this grant, obtain an equipment certification for each model of terrestrial repeater deployed under this authorization. Sirius XM is not required, however, to obtain equipment certifications for terrestrial repeater models that were deployed prior to the date that Section 25.144(e)(7)(i) became effective (September 19, 2011) but which are no longer being manufactured and will not have additional deployments. All repeaters must still meet the requirements for power, peak-to-average power ratio, and out-of-band emissions set forth in Sections 25.202(h) and 25.214(d) of the Commission's rules, 47 C.F.R. Sections 25.202(h) and 25.214(d).

90029 --- All transmissions from repeater stations are limited to communications with satellite digital audio radio receivers only.

90030 --- Per Memorandum Opinion and Order, CC Docket No. 78-734 (adopted December 9, 1986) it is not necessary to license or register receive-only earth stations operating in the 11.7-12.2 GHz frequency band because there are no other primary users in this spectrum.

90031 --- Blanket authorization is limited to (1) up to 5000 terrestrial repeaters on each of the Sirius XM and XM networks (10,000 total) at power levels equal to or less than 2-watts average EIRP; and (2) up to 1000 terrestrial repeaters on each of the Sirius XM and XM networks (2000 total) at power levels between 2-watts and 12-kW average EIRP.



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B) This RADIO STATION AUTHORIZATION is granted subject to the additional conditions specified below:

This authorization is issued on the grantee's representation that the statements contained in the application are true and that the undertakings described will be carried out in good faith.

This authorization shall not be construed in any manner as a finding by the Commission on the question of marking or lighting of the antenna system should future conditions require. The grantee expressly agrees to install such marking or lighting as the Commission may require under the provisions of Section 303(q) of the Communications Act. 47 U.S.C. § 303(q).

Neither this authorization nor the right granted by this authorization shall be assigned or otherwise transferred to any person, firm, company or corporation without the written consent of the Commission. This authorization is subject to the right of use or control by the government of the United States conferred by Section 706 of the Communications Act. 47 U.S.C. § 706. Operation of this station is governed by Part 25 of the Commission's Rules. 47 C.F.R. Part 25.

This authorization shall not vest in the licensee any right to operate this station nor any right in the use of the designated frequencies beyond the term of this license, nor in any other manner than authorized herein.

This authorization is issued on the grantee's representation that the station is in compliance with environmental requirements set forth in Section 1.1307 of the Commission's Rules. 47 C.F.R. § 1.1307.

This authorization is issued on the grantee's representation that the station is in compliance with the Federal Aviation Administration (FAA) requirements as set forth in Section 17.4 of the Commission's Rules. 47 C.F.R. § 17.4.

The following condition applies when this authorization permits construction of or modifies the construction permit of a radio station.

This authorization shall be automatically forfeited if the station is not ready for operation by the required date of completion of construction unless an application for modification of authorization to request additional time to complete construction is filed by that date, together with a showing that failure to complete construction by the required date was due to factors not under control of the grantee.

Licensees are required to pay annual regulatory fees related to this authorization. The requirement to collect annual regulatory fees from regulatees is contained in Public Law 103-66, "The Omnibus Budget Reconciliation Act of 1993." These regulatory fees, which are likely to change each fiscal year, are used to offset costs associated with the Commission's enforcement, public service, international and policy and rulemaking activities. The Commission issues a Report and Order each year, setting the new regulatory fee rates. Receive only earth stations are exempt from payment of regulatory fees.