

SAT-STA-20061107-00134
Sirius Satellite Radio Inc.

IB200600300!

Approved by OMB
3060-0678

Date & Time Filed: Nov 7 2006 8:45:58:323PM

File Number: SAT-STA-20061107-00134

Callsign:

FEDERAL COMMUNICATIONS COMMISSION
APPLICATION FOR SPACE STATION SPECIAL TEMPORARY AUTHORITY

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APPLICANT INFORMATION

Enter a description of this application to identify it on the main menu:

Sirius Satellite Radio Request for 30 day STA to operate repeaters and signal boosters at trade shows

1. Applicant

Name:	Sirius Satellite Radio Inc.	Phone Number:	212-584-5100
DBA Name:		Fax Number:	212-584-5353
Street:	1221 Avenue of the Americas 36th Floor	E-Mail:	
City:	New York	State:	NY
Country:	USA	Zipcode:	10020 -
Attention:	Mr. Patrick L. Donnelly		



File # SAT-STA-20061107-00134

Call Sign _____ Grant Date 11/15/06
(or other identifier)

Term Dates
From 12/01/06 To: 12/31/06

Approved: Fern J. Jarmulnek

Fern Jarmulnek, Deputy Chief
Satellite Division

* subject to attached
conditions

**Application of Sirius Satellite Radio Inc. for Special Temporary Authority
IBFS File No. SAT-STA-20061107-00134**

Special temporary authority (STA) IS GRANTED to Sirius Satellite Radio Inc. (Sirius) to operate terrestrial repeaters with an Effective Isotropically Radiated Power (EIRP) of 200 watts and 0.0001 watts at the events, and with the technical parameters, specified in its application for a period of 30 days, commencing on December 1, 2007, subject to the following conditions:

1. Any actions taken as a result of this STA are solely at the applicant's own risk. This STA shall not prejudice the outcome of the final rules adopted by the Commission in IB Docket No. 95-91.
2. Operation of all SDARS repeaters authorized pursuant to this STA is on a non-interference basis with respect to all permanently authorized radiocommunication facilities. Sirius shall provide the information and follow the process set forth in paragraphs 14 and 17 in 16 FCC Rcd 16773 (Int'l Bur. 2001) and 16 FCC Rcd 16781 (Int'l Bur. 2001), as modified by 16 FCC Rcd 18481 (Int'l Bur. 2001) and 16 FCC Rcd 18484 (Int'l Bur. 2001).
3. SDARS repeaters are restricted to the simultaneous retransmission of the complete programming, and only that programming, transmitted by the satellite directly to SDARS subscriber's receivers.
4. Coordination of SDARS repeater operations shall be completed with all affected Administrations prior to operation, in accordance with all applicable international agreements including those with Canada and Mexico.
5. SDARS repeaters shall comply with Part 17 of the Commission's rules – Construction, Marking, and Lighting of Antenna Structures.
6. SDARS repeaters shall comply with Part 1 of the Commission's rules, Subpart I – Procedures Implementing the National Environmental Policy Act of 1969, including the guidelines for human exposure to radio frequency electromagnetic fields as defined in Sections 1.1307(b) and 1.1310 of the Commission's rules.
7. SDARS repeater out-of-band emissions shall be limited to $75 + \log(\text{EIRP})$ dB less than the transmitter EIRP.
8. Sirius will maintain full ownership and operational control of each repeater.
9. Sirius will immediately shut down any repeater upon a complaint of interference, upon direction from the Commission, or upon finding that a repeater has not been properly installed.
10. This STA commences on December 1, 2006, and will expire 30 days thereafter, or on the date on which permanent rules governing repeater operations become effective, whichever occurs first.

11. Sirius is granted 30 days from the date of the release of this authorization to decline the authorization as conditioned. Failure to respond within that period will constitute formal acceptance of the authorization as conditioned.
12. This action is issued pursuant to Section 0.261 of the Commission's rules on delegated authority, 47 C.F.R. § 0.261, and is effective immediately. Petitions for reconsideration under Section 1.106 or applications for review under Section 1.115 of the Commission's rules, 47 C.F.R. §§ 1.106, 1.115, may be filed within 30 days of the date of the public notice indicating that this action was taken.



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Fern Jarmulnek, Deputy Chief
Satellite Division

* subject to attached conditions

2. Contact			
Name:	Mr. Patrick L. Donnelly	Phone Number:	212-584-5100
Company:	Sirius Satellite Radio Inc.	Fax Number:	212-584-5353
Street:	1221 Avenue of the Americas	E-Mail:	
City:	New York	State:	NY
Country:	USA	Zipcode:	10020 -
Attention:		Relationship:	Same
(If your application is related to an application filed with the Commission, enter either the file number or the IB Submission ID of the related application. Please enter only one.)			
3. Reference File Number or Submission ID			
4a. Is a fee submitted with this application?			
<input checked="" type="radio"/> If Yes, complete and attach FCC Form 159. If No, indicate reason for fee exemption (see 47 C.F.R. Section 1.1114).			
<input type="radio"/> Governmental Entity <input type="radio"/> Noncommercial educational licensee			
<input type="radio"/> Other (please explain):			
4b. Fee Classification CXW - Space Station (Non-Geostationary)			
5. Type Request			
<input type="radio"/> Change Station Location <input type="radio"/> Extend Expiration Date <input checked="" type="radio"/> Other			
6. Temporary Orbit Location		7. Requested Extended Expiration Date	

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

Sirius Satellite Radio requests Special Temporary Authority for 30 days to operate terrestrial repeaters and signal boosters at trade shows between December 1, 2006 and December 30, 2006.

9. 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 No

10. Name of Person Signing
Patrick L. Donnelly

11. Title of Person Signing
Executive VP and Gen. Counsel

12. Please supply any need attachments.

Attachment 1: STA Request

Attachment 2:

Attachment 3:

**WILLFUL FALSE STATEMENTS MADE ON THIS FORM ARE PUNISHABLE BY FINE AND / OR IMPRISONMENT
(U.S. Code, Title 18, Section 1001), AND/OR REVOCATION OF ANY STATION AUTHORIZATION
(U.S. Code, Title 47, Section 312(a)(1)), AND/OR FORFEITURE (U.S. Code, Title 47, Section 503).**

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THE FOREGOING NOTICE IS REQUIRED BY THE PAPERWORK REDUCTION ACT OF 1995, PUBLIC LAW 104-13, OCTOBER 1, 1995, 44 U.S.C. SECTION 3507.

Attachment

Sirius Satellite Radio Inc. (“Sirius”), pursuant to 47 C.F.R. § 25.120,¹ hereby requests Special Temporary Authority (“STA”) for 30 days to operate in its licensed frequency band (2320-2332.5 MHz) (1) low-power satellite DARS repeaters with an Effective Isotropically Radiated Power (“EIRP”) of 200 watts; and (2) signal boosters with an EIRP of 0.0001 watts that have previously been approved for use in retail stores. These low-power repeaters and signal boosters will be utilized at various trade shows on various dates between and including December 1, 2006 and December 30, 2006.² Sirius intends to operate the repeaters and signal boosters independently – *i.e.*, Sirius will *not* operate them in conjunction with XM Radio, Inc., the other satellite DARS licensee.

The repeaters and boosters will be used by Sirius to carry out equipment and service demonstrations at trade shows across the United States for periods not to exceed eleven days (including one day prior to the official start of each trade show for set-up and testing activities). Due to blockage from walls and ceilings, it is often difficult to provide quality reception of SDARS satellite and even terrestrial signals inside of trade show venues, which often do not have line-of-sight views to receive Sirius’ signal. These difficulties with providing coverage inside the venues require radios to be displayed with hard wire connections, which limits the locations within a trade show venue that Sirius can set up its displays, creating difficulties for trade show organizers and Sirius. Because trade show venues typically consist of a large, often multi-level space, Sirius anticipates that the use of both a repeater and one or more (but fewer than five) strategically placed boosters will be necessary to ensure full coverage of each trade show. Accordingly, grant of the requested STA to use these repeaters for these limited periods will serve the public interest.

Technical Information. In Exhibit A, Sirius provides a list of technical parameters, locations, and dates for the trade show repeaters it seeks to operate pursuant to this STA. Sirius has included the following information: (1) event; (2) event date; (3) event location (specifying the center longitude and latitude of each trade show venue); (4) market; (5) antenna type; (6) antenna beamwidth; (7) total EIRP; and (8) approximate maximum height Above Ground Level (AGL). Sirius will operate its signal booster(s) at the same events, dates, locations, and markets specified in Exhibit A. Exhibit B lists the technical parameters for the signal boosters, which are identical to those previously approved by the Commission for use in retail stores.³ Specifically, Sirius has

¹ Concurrent with this STA request, Sirius is filing an application for a 180-day STA to operate repeaters and signal boosters at trade shows from December 31, 2006 to June 29, 2007.

² Because Sirius is requesting STA for only 30 days, the Commission can grant this application without placing it on Public Notice. 47 C.F.R. § 25.120(b)(4).

³ See *Sirius Satellite Radio Inc. Request for Special Temporary Authority to Operate In-Store Signal Boosters in the Satellite Digital Audio Radio Service*, File No. SAT-STA-20030411-00075 (grant stamp with conditions issued June 26, 2003) (“2003 In-Store Booster Application”). In the 2003 application, Sirius also provided an interference analysis for the signal boosters that are the subject of this application. See *id.*, Exhibit C. That interference analysis is incorporated by reference herein, as permitted by 47 C.F.R. § 1.10009(c)(2). On June

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included the following information: (1) antenna type; (2) antenna beamwidth; (3) total EIRP; and (4) approximate maximum height Above Ground Level ("AGL").

Interference Considerations. Sirius does not anticipate that the repeaters and boosters at these trade shows will cause harmful interference to other radio services. Because Sirius has exclusive use of its licensed frequency band,⁴ there is no potential for in-band interference. Moreover, the repeaters will operate at 200 watts, well below the threshold EIRP of 2000 watts that Wireless Communications Service ("WCS") licensees have identified as acceptable to avoid any interference with their services. Sirius has also previously demonstrated that the proposed boosters will not cause adjacent band interference to WCS operations.⁵ In addition, the repeaters and boosters will only be used for a limited time, further eliminating any opportunity for interference. Therefore, Sirius does not anticipate that these repeaters and boosters will cause blanketing interference to any WCS receivers.

Ownership and Control of Repeaters. Sirius will own each repeater and booster installed at a given venue and will retain full operational control of these repeaters and boosters. Sirius will also be responsible for installation of each repeater and/or booster.

Public Interest Considerations. Prompt grant of this STA will promote the continued success of satellite radio and thereby serve the public interest. The demand for SDARS radios by the public has continued to increase over time. Accordingly, Sirius has begun attending trade shows and conventions where it provides demonstrations of its equipment to consumers. Without repeaters and boosters to overcome signal blockage within the venues, however, Sirius cannot undertake real-time demonstrations of its equipment, especially demonstrations of the full mobility of SDARS service. These repeaters and boosters will provide clear signal reception within these venues for these demonstrations, and will eliminate any need for a hard wire connection.

Sirius understands that its operation of these repeaters and boosters under STA is on a secondary, non-interference basis. While Sirius does not anticipate any interference, should interference occur, it will cease operation of the interfering repeater and/or booster until such interference can be eliminated.

(Continued . . .)

5, 2003, Sirius further supplemented the application with a sample link budget for the signal boosters. See Letter from Robert D. Briskman to Marlene H. Dortch, Secretary, FCC, Re: Sirius Satellite Radio Inc. Request for STA to Operate In-Store SDARS Signal Boosters, File No. SAT-STA-20030411-00075 (filed June 5, 2003). The link budget is also incorporated by reference herein.

⁴ 47 C.F.R. § 25.202(a)(6) (stating the 2320-2345 MHz band is allocated exclusively for SDARS).

⁵ 2003 In-Store Booster Application at 4 and Exhibit C.

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Certifications. Sirius acknowledges that the conditions imposed in the 2001 Order granting Sirius' request for STA to operate terrestrial repeaters⁶ will continue to apply to any repeaters authorized as a result of this application. Sirius further certifies that its operation of signal boosters at trade shows will comply, as applicable, with the "Micro-Repeater STA Conditions" that the Commission imposed on Sirius in granting the June 26, 2003 STA to operate 5,000 in-store signal boosters. Specifically, Sirius certifies the following:

- (1) Sirius will operate the repeaters and trade show signal boosters at its own risk, and such operation shall not prejudice the outcome of the final rules adopted by the Commission in GEN Docket 95-91;
- (2) Sirius will operate the repeaters and trade show signal boosters on a non-interference basis with respect to all permanently authorized radiocommunication facilities;
- (3) The repeaters and trade show signal boosters will be restricted to the simultaneous retransmission of the complete programming, and only that programming, transmitted by the satellite directly to SDARS receivers;
- (4) Where applicable, coordination of the repeaters and trade show signal boosters will be completed with all affected Administrations prior to operation, in accordance with all applicable international agreements including those with Canada and Mexico;
- (5) The repeaters and trade show signal boosters will comply with Part 17 of the Commission's rules – Construction, Marking, and Lighting of Antenna Structures;
- (6) The repeaters and trade show signal boosters will comply with Part 1 of the Commission's rules, Subpart I - Procedures Implementing the National Environmental Policy Act of 1969, including the guidelines for human exposure to radio frequency electromagnetic fields as defined in Sections 1.1307(b) and 1.1310 of the Commission's rules;
- (7) The out-of-band emissions of the repeaters and trade show signal boosters will be limited to 75+log (EIRP) dB less than the transmitter EIRP;
- (8) Sirius will operate the repeaters and trade show signal boosters according to the technical parameters provided in this application;
- (9) Sirius will maintain full ownership and operational control of each repeater and trade show signal booster; and

⁶ *Sirius Satellite Radio Inc. Application for Special Temporary Authority to Operate Satellite Digital Audio Radio Service Complementary Terrestrial Repeaters, Order and Authorization, File No. SAT-STA-20010724-00064, DA 01-2171 (Sept. 17, 2001).*

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- (10) Sirius will immediately shut down any repeater and any, or all, trade show signal boosters upon a complaint of interference, upon direction from the Commission, or upon finding that a repeater or trade show signal booster has not been properly installed.

EXHIBIT A

Sirius Trade Shows / Events December 1, 2006 to December 30, 2006 and Proposed Repeaters

Event	Event Dates	Market	Location	No Of Sectors	Antenna Type	Sector 1				Sector 2				Sector 3				Coordinates		Antenna Height (feet)	
						Antenna Beamwidth	Orientation	Down tilt	ERP (Watts)	Antenna Beamwidth	Orientation	Down tilt	ERP (Watts)	Antenna Beamwidth	Orientation	Down tilt	ERP (Watts)	Longitude (W)	Latitude (N)		
Los Angeles Auto Show 2006	Dec 1-10, 2006	Los Angeles, CA	Los Angeles Convention Center West Hall	1	Mobile Mark OD12-2400	Omni	0	0	200	-	-	-	-	-	-	-	-	-	118-16-06.03	34-02-33.10	75
Los Angeles Auto Show 2006	Dec 1-10, 2006	Los Angeles, CA	Los Angeles Convention Center South Hall	1	Mobile Mark OD12-2400	Omni	0	0	200	-	-	-	-	-	-	-	-	-	118-16-12.88	34-02-25.45	75
New York Boat Show	Dec 29, 2006-Jan 7, 2007	New York, NY	Jacob Javits Convention Center	1	Mobile Mark OD12-2400	Omni	0	0	200	-	-	-	-	-	-	-	-	-	74-00-06.27	40-45-26.99	80

EXHIBIT B

Attached is the following information for each of the trade show signal boosters Sirius seeks to operate pursuant to this STA.

- (1) antenna type;
- (2) antenna beamwidth;
- (3) total EIRP; and
- (4) approximate height Above Ground Level (AGL)

City	Antenna Type	Antenna Beamwidth	EIRP Total in Watts	Height AGL
Various	Antenna Specialists XMSSR923WR	75 degrees	0.0001	< 50 feet

The transmitted carriers have a center frequency and frequency stability identical to the received SDARS satellite or terrestrial carriers. Frequency accuracy is controlled by the satellite or terrestrial repeater and not by the booster.