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SAT-STA-20031219-00373 P  
Special Temporary Authority



December 19, 2003

RECEIPT COPY

File # SAT-STA-20031219-00373

Call Sign \_\_\_\_\_ Grant Date 09/15/10  
(or other identifier)

From 09/15/10 Term Dates see conditions  
To: \_\_\_\_\_

Approved: Stephen J. Duall  
Stephen J. Duall  
Chief, Satellite Policy Branch

DELIVER VIA COURIER TO MELLON BANK

Ms. Marlene H. Dortch  
Secretary  
Federal Communications Commission  
445 12<sup>th</sup> Street, S.W.  
Washington, D.C. 20554

FCC/MELLON DEC 19 2003

Re: **XM Radio Inc.**  
**Request to Extend Special Temporary Authority to Operate In-Store Signal Boosters in the Satellite Digital Audio Radio Service**  
File No. SAT-STA-20030409-00076

Dear Ms. Dortch:

Pursuant to Section 25.120 of the Commission's Rules,<sup>1</sup> XM Radio Inc. ("XM Radio") hereby requests an extension of its Special Temporary Authority ("STA") to operate up to 5000 in-store signal boosters with an Effective Isotropically Radiated Power ("EIRP") of 0.0001 watts in its licensed frequency band (2332.5-2345 MHz) at retail outlets and satellite radio installers. XM Radio requests that the Commission renew its STA for a period of 180 days or until the Commission issues a blanket license for these boosters. As XM Radio's extension request is timely, XM Radio understands that, pursuant to Section 1.62 of the Commission's Rules, its STA will continue in effect without further action by the Commission until such time as the Commission shall make a final determination with respect to its request.<sup>2</sup>

XM Radio currently operates in-store signal boosters in its licensed frequency band (2332.5-2345 MHz) pursuant to the STA granted by the International Bureau on June 26, 2003. XM Radio uses these signal boosters, which are essentially S-band radio frequency amplifiers, to receive and amplify satellite and terrestrial signals inside of retail stores and satellite radio installers, where such transmissions are attenuated, to demonstrate the capability of satellite Digital Audio Radio Service ("satellite DARS") to consumers. XM Radio has not changed technical parameters for the signal boosters since the original grant of the STA, and is not requesting modification of any of those parameters.

XM Radio jointly owns each in-store signal booster with Sirius Satellite Radio Inc. ("Sirius"), which operates these signal boosters in its adjacent licensed frequency band (2320-2332.5 MHz). XM Radio notes that Sirius is filing concurrently an application for an extension

<sup>1</sup> 47 C.F. R. § 25.120.

<sup>2</sup> See 47 C.F.R. § 1.62.

Attachment to Grant

Application of XM Radio Inc. for Special Temporary Authority

IBFS File Nos. SAT-STA-20020311-00049, SAT-STA-20030325-00056, SAT-STA-20031219-00373, SAT-STA-20050307-00056, SAT-STA-20070706-00095, SAT-STA-20070706-00096, SAT-STA-20080303-00056, SAT-STA-20080701-00139, SAT-STA-20081002-00196, SAT-STA-20081218-00234

Special temporary authority (STA) is granted to XM Radio Inc. (XM), for a period of 180 days, to continue to operate previously authorized terrestrial repeaters for use in the 2320-2345 MHz frequency band, as set forth in the above-referenced applications. This authorization is granted according to the technical parameters specified in these applications and is subject to the conditions below.

1. Any actions taken as a result of these STAs are solely at the applicant's own risk. These STAs shall not prejudice the outcome of the final rules adopted by the Commission in IB Docket No. 95-91.

2. SDARS terrestrial repeaters are restricted to the simultaneous retransmission of the complete programming, and only that programming, transmitted by the SDARS licensee's satellite(s) directly to the SDARS licensee's subscribers' receivers, and may not be used to distribute any information not also transmitted to all subscribers' receivers.

3. Coordination of the operations of the terrestrial repeaters shall be completed with all affected Administrations prior to operation, in accordance with all applicable international agreements including those with Canada and Mexico.

4. The terrestrial repeaters shall comply with Part 17 of the Commission's rules – Construction, Marking, and Lighting of Antenna Structures.

5. The terrestrial 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.

6. Any SDARS terrestrial repeater operating at a power level greater than 2-watt average EIRP is required to attenuate its out-of-band emissions below the transmitter power P by a factor of not less than  $90 + 10 \log (P)$  dB in a 1-megahertz bandwidth outside the 2320-2345 MHz band, where P is average transmitter output power in watts. Any SDARS terrestrial repeater operating at a power level equal to or less than 2-watt average EIRP is required to attenuate its out-of-band emissions below the transmitter power P by a factor of not less than  $75 + 10 \log (P)$  dB in a 1-megahertz bandwidth outside the 2320-2345 MHz band, where P is average transmitter output power in watts.

7. These STAs expire after 180 days, or on the date that permanent authority to operate the covered repeater operations becomes effective, whichever occurs first.

8. XM 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.

9. This action is taken on delegated authority pursuant to 47 C.F.R. § 0.261 and is effective upon release. Petitions for reconsideration under 47 C.F.R. § 1.106 or applications for review under 47 C.F.R. § 1.115 may be filed within 30 days of the date of the Public Notice announcing this action.



\*with conditions

File # see above  
Call Sign \_\_\_\_\_ Grant Date 09/15/10  
(or other identifier) \_\_\_\_\_  
From 09/15/10 Term Dates see conditions  
To: \_\_\_\_\_

Approved: Stephen J. Duall  
Stephen J. Duall  
Chief, Satellite Policy Branch

of its STA to operate these signal boosters. Thus, these signal boosters will be authorized to continue to amplify the signals of both satellite DARS licensees.

This STA will serve the public interest by allowing XM Radio to continue to provide a clear signal for reception by satellite DARS receivers located within retail outlets, which is necessary to market effectively satellite DARS to consumers. As XM Radio noted in its original request, it is often difficult to provide quality reception of satellite DARS signals inside of retail outlets due to blockage from walls and ceilings. Without the in-store boosters, satellite DARS radios would need to be displayed with hard wire connections, conveying the impression to consumers that satellite DARS is not a completely mobile service. Eliminating the need for a hard wire connection has also provided retail outlets with more flexibility in displaying satellite DARS radios, allowing display in any area of the stores, including high traffic areas. The in-store boosters also enable reception in adjacent installation bays where satellite DARS radios are installed in vehicles, thus obviating the need for vehicles to be moved outside of the installation bay in order to test for proper reception. This has resulted in time-saving efficiencies for installers and ensured that vehicles are returned to consumers with fully functioning satellite DARS radios.

A few thousand boosters are currently operating and have not caused any interference to other radio services. XM Radio emphasizes that these boosters are not terrestrial repeaters,<sup>3</sup> operate at EIRPs which cannot cause interference, and have previously been furnished to the FCC Laboratory for testing. We see no reason why the Commission cannot immediately grant a blanket license for these devices.

XM Radio will continue to comply with the conditions the Commission imposed on XM Radio in granting it STA to operate in-store signal boosters. These conditions and the technical parameters of the boosters have provided sufficient protection to other radio services. Therefore, prompt grant of XM Radio's renewal request will serve the public interest and allow for the continued marketing of satellite DARS to consumers.

XM Radio hereby certifies that no party to this application is subject to a denial of Federal benefits pursuant to Section 5301 of the Anti-Drug Abuse Act of 1988, 21 U.S.C. § 853(a).

XM Radio has attached hereto a check made payable to the Federal Communications Commission for the sum of Seven Hundred Five Dollars (\$705.00). This filing fee amount is applicable to requests for STAs for geostationary ("GSO") satellites. See International and Satellite Services Fee Filing Guide (September 2002).

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<sup>3</sup> As used in satellite DARS systems, repeaters perform a change in modulation and operate at EIRPs over ten million times higher than the subject boosters.

Ms. Marlene H. Dortch  
December 19, 2003

Please direct any questions regarding this matter to the undersigned.

Very truly yours,

A handwritten signature in black ink, appearing to read "Lon C. Levin". The signature is fluid and cursive, with a long horizontal stroke at the end.

Lon C. Levin  
Senior Vice President

cc: Jennifer Gilsonan, FCC  
Stephen Duall, FCC

READ INSTRUCTIONS CAREFULLY  
BEFORE PROCEEDING

FEDERAL COMMUNICATIONS COMMISSION  
REMITTANCE ADVICE

Approved by OMB  
3060-0589  
Page 1 of 1

(1) LOCKBOX # <b>358210</b>		SPECIAL USE ONLY	
		FCC USE ONLY	
SECTION A - PAYER INFORMATION			
(2) PAYER NAME (if paying by credit card enter name exactly as it appears on the card) <b>Shaw Pittman LLP</b>		(3) TOTAL AMOUNT PAID (U.S. Dollars and cents) <b>\$705.00</b>	
(4) STREET ADDRESS LINE NO. 1 <b>2300 N Street, NW</b>			
(5) STREET ADDRESS LINE NO. 2			
(6) CITY <b>Washington</b>		(7) STATE <b>DC</b>	(8) ZIP CODE <b>20037 1128</b>
(9) DAYTIME TELEPHONE NUMBER (include area code) <b>(202) 663-8000</b>		(10) COUNTRY CODE (if not in U.S.A.)	
FCC REGISTRATION NUMBER (FRN) REQUIRED			
(11) PAYER (FRN) <b>0004-9727-82</b>		(12) FCC USE ONLY	
IF MORE THAN ONE APPLICANT, USE CONTINUATION SHEETS (FORM 159-C) COMPLETE SECTION BELOW FOR EACH SERVICE, IF MORE BOXES ARE NEEDED, USE CONTINUATION SHEET			
(13) APPLICANT NAME <b>XM Radio Inc.</b>			
(14) STREET ADDRESS LINE NO. 1 <b>1500 Eckinaton Place, NE</b>			
(15) STREET ADDRESS LINE NO. 2			
(16) CITY <b>Washington</b>		(17) STATE <b>DC</b>	(18) ZIP CODE <b>20002</b>
(19) DAYTIME TELEPHONE NUMBER (include area code) <b>(202) 380-4000</b>		(20) COUNTRY CODE (if not in U.S.A.)	
FCC REGISTRATION NUMBER (FRN) REQUIRED			
(21) APPLICANT (FRN) <b>0007-7145-79</b>		(22) FCC USE ONLY	
COMPLETE SECTION C FOR EACH SERVICE, IF MORE BOXES ARE NEEDED, USE CONTINUATION SHEET			
(23A) CALL SIGN/OTHER ID	(24A) PAYMENT TYPE CODE <b>CRY</b>	(25A) QUANTITY <b>1</b>	
(26A) FEE DUE FOR (PTC) <b>\$705.00</b>	(27A) TOTAL FEE <b>\$705.00</b>	FCC USE ONLY	
(28A) FCC CODE 1	(29A) FCC CODE 2		
(23B) CALL SIGN/OTHER ID	(24B) PAYMENT TYPE CODE	(25B) QUANTITY	
(26B) FEE DUE FOR (PTC)	(27B) TOTAL FEE	FCC USE ONLY	
(28B) FCC CODE 1	(29B) FCC CODE 2		
SECTION D - CERTIFICATION			
CERTIFICATION STATEMENT I, _____, certify under penalty of perjury that the foregoing and supporting information is true and correct to the best of my knowledge, information and belief.			
SIGNATURE _____		DATE _____	
SECTION E - CREDIT CARD PAYMENT INFORMATION			
MASTERCARD _____ VISA _____ AMEX _____ DISCOVER _____			
ACCOUNT NUMBER _____		EXPIRATION DATE _____	
I hereby authorize the FCC to charge my credit card for the service(s)/authorization herein described.			
SIGNATURE _____		DATE _____	

Shaw Pittman, LLP

Vendor ID  
Check No.:

FED002  
198588

Voucher ID	Date	Invoice	Description	GL Account	Amount
837	12-19-03	121903FED002d	Filing Fee (Booster STA Extension)	0023012000000000000	\$705.00

ShawPittman LLP

2300 N Street, NW  
Washington, DC 20037  
Phone 202-663-8000

First Union  
of Washington, D.C. 20015  
15-122/540

Check Date 12/19/03  
Check No.: 198588

SEVEN HUNDRED FIVE AND 00/100 Dollar(s)

\$705.00

PAY  
TO THE  
ORDER OF

Federal Communications Commission

*Stephen B. Hunter*

2 SIGNATURES REQUIRED OVER \$2,500.00  
VOID AFTER 180 DAYS

⑈ 198588 ⑈

⑆054001220⑆ 2030000034277⑈

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