



November 15, 2007

Via IBFS

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

**Re: XM Radio Inc.
Request for 180-Day Special Temporary Authority to Operate
A Substitute Low-Power Repeater in New York City, New York**

Dear Ms. Dortch:

Pursuant to Section 25.120(b)(2) of the Commission's rules,¹ XM Radio Inc. ("XM"), a Satellite Digital Audio Radio Service ("SDARS") licensee, hereby requests 180-Day Special Temporary Authority ("STA") to operate in its licensed frequency band (2332.5-2345 MHz) a substitute low-power repeater in New York City, NY, pursuant to the technical parameters listed in Exhibit A. The substitute repeater will operate at a higher power (2,000 watts average EIRP) than the repeater it will replace (1,328 watts average EIRP), but still at no higher than 2 kW.

XM seeks authority to operate this substitute low-power repeater because the repeater to be replaced (NYC172A) must be removed from its current location as soon as possible. XM is having difficulty maintaining an adequate source of power for the existing repeater and has decided to place a substitute repeater at another location. Grant of the STA will serve the public interest by ensuring seamless repeater coverage for residents of New York City, thereby ensuring that they continue to receive high quality satellite radio service.

This request is similar in nature to others that the International Bureau has granted to XM this year. Specifically, the Bureau has authorized XM to operate replacement repeaters in Las Vegas, NV,² and Miami, FL,³ due to the demolition of the buildings on which the original repeaters were located.

¹ 47 C.F.R. § 25.120(b)(2).

² See XM Radio Inc., File No. SAT-STA-20070330-00059 (filed March 30, 2007; granted May 25, 2007); *Public Notice*, Report No. SAT-00447 (June 1, 2007).

³ See XM Radio Inc., File No. SAT-STA-20070628-00092 (filed June 28, 2007; granted July 31, 2007); *Public Notice*, Report No. SAT-00463 (rel. Aug. 3, 2007) (increasing this repeater's power from 1213 watts to 1462 watts).

The Commission has recognized that SDARS operators require terrestrial repeaters to provide high-quality service nationwide.⁴ Consistent with this policy, in September 2001, the Bureau granted XM an STA to operate a nationwide network of terrestrial repeaters, including the New York City repeater that XM will be removing (NYC172A).⁵ In the years since, the Bureau has granted XM additional STAs to operate its terrestrial repeaters, pending issuance of final rules governing the deployment and use of repeaters.⁶

Extraordinary circumstances – in particular XM’s inability to consistently receive an adequate source of power to the repeater site – justify this STA request.⁷ As the Bureau recognized when it granted the original XM STA in 2001, XM’s terrestrial repeater network enables XM to provide “high quality radio signals to listeners in areas that have limited radio service,” continuous high-quality radio coverage for individuals on long-distance trips, and “[d]iverse program formats, including educational, ethnic and religious programming.”⁸ In this case, grant of the STA will serve the public interest by providing seamless service to residents of New York City, thereby ensuring that they continue to receive the diverse, high-quality service they have come to expect.

Technical Information for Substitute Low-Power Repeater. Attached as Exhibit A is the following technical information pertaining to the substitute low-power repeater: (1) antenna type; (2) antenna orientation; (3) average EIRP; (4) height above ground level (“AGL”); and (5) antenna downtilt. The specification sheet for the antenna is attached as Exhibit B.

⁴ See *Establishment of Rules and Policies for the Digital Audio Radio Satellite Service in the 2310-2360 MHz Frequency Band, Report and Order, Memorandum Opinion and Order, and Further Notice of Proposed Rulemaking*, 12 FCC Rcd 5754, 5770 ¶ 37 (1997).

⁵ See *XM Radio, Inc., Application for Special Temporary Authority to Operate Satellite Digital Audio Radio Service Complimentary Terrestrial Repeaters, Order and Authorization*, DA 01-2172, 16 FCC Rcd. 16781, at ¶ 18 (2001) (“*XM STA Order*”).

⁶ See, e.g., *XM Radio, Inc.; Request for Special Temporary Authority to Operate Additional Satellite Digital Audio Radio Service Terrestrial Repeaters, Order and Authorization*, 19 FCC Rcd. 18140 (2004) (granting XM an STA in File No. SAT-STA-20031112-00371, effective Sept. 15, 2004); *Public Notice*, 2002 FCC Lexis 5670 (rel. Oct. 30, 2002) (granting XM an STA in File No. SAT-STA-20020815-00153, effective Sept. 30, 2002); *Public Notice*, 2003 FCC Lexis 4803 (rel. Aug. 29, 2002) (granting XM an STA in File No. SAT-STA-20030409-00076, effective June 26, 2003). XM has filed applications to renew its STAs, and those renewal applications are pending before the Commission.

⁷ See 47 U.S.C. § 309(f); 47 C.F.R. § 25.120(b)(1).

⁸ *XM STA Order*, 16 FCC Rcd at 16784 (¶ 9).

Interference Considerations. The substitute low-power repeater will operate at 2,000 watts average EIRP, an increase from the current repeater's power level of 1,328 watts. XM has not received any reports of interference related to the operation of the existing repeater. It is highly unlikely that the substitute low-power repeater will create interference to other licensees. To the extent XM's original 2001 STA requires it to coordinate with affected Wireless Communications Services ("WCS") licensees prior to operating any repeater,⁹ XM is sending a copy of this STA application to counsel for Horizon Wi-Com, LLC ("Horizon") in satisfaction of this coordination requirement.¹⁰ Moreover, as the Bureau acknowledged in granting XM's original repeater STA request, the WCS licensees have confirmed that operation of terrestrial repeaters at an EIRP of 2 kW or less is not an interference concern.¹¹ However, if prohibited interference does occur, XM will cease operation of the substitute repeaters until such interference can be eliminated.¹² To the extent the Commission finds it necessary, however, XM requests a waiver of the coordination requirement on the grounds that (i) it has received no interference complaints about the recently deconstructed repeater; (ii) the substitute repeater will operate at low-power, meaning that it does not have significant interference potential; and (iii) a waiver allows for continuous service.

⁹ See *XM STA Order* ¶ 14.

¹⁰ Despite the Bureau's statement in the *XM STA Order* (at ¶ 14) that it expects "WCS licensees to provide a schedule or as much advance notice as possible of when their stations are to be placed in operation," XM has not received information directly from any WCS licensee regarding plans for WCS deployment in these markets. However, XM's own review of Commission files show that Horizon has certified that it operates a WCS station in the New York City Market, Call Sign KNLB312, File No. 0003045277 (filed May 29, 2007). It is not clear from Horizon's certification whether its base station is receiving transmissions from CPE or whether it is engaged in transmit-only operations. If only the latter, potential interference to the Horizon base station is not an issue. In any event, XM has conducted an interference analysis and determined that this replacement repeater site will not create interference to Horizon's operating WCS site.

¹¹ *XM STA Order* ¶ 12 ("The comments from WCS licensees express concern about blanketing interference from DARS repeaters that operate with an Equivalent Isotropically Radiated Power (EIRP) above 2 kW."). Moreover, in March 2007, the WCS Coalition said that it will defer from objecting to STA requests that propose operations of no more than 2,000 watts EIRP, even if they do not specify peak or average EIRP, provided that grant of the STA (i) is conditioned on operation on a non-interference basis; and (ii) is subject to the condition that the issue of peak versus average EIRP will be addressed in the pending DARS rulemaking (IB Docket No. 95-91). See Letter from Paul J. Sinderbrand, Counsel to the WCS Coalition, to Ms. Helen Domenici, FCC, File No. SAT-STA-20061207-00145 (March 19, 2007). XM agrees to these conditions.

¹² XM's Repeater Control Center (202-380-4725) is available on a continuous basis to receive such reports of any suspected interference and take immediate corrective action.

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Ownership and Control of Repeaters. XM will own the substitute low-power repeater, and it is responsible for its installation and operation.

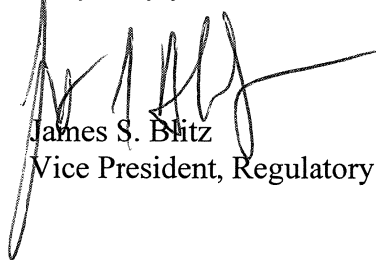
Certifications. XM certifies that it will operate this substitute low-power repeater subject to the conditions and certifications set forth in the *XM Radio STA Order* granting XM's September 2001 request for STA to operate terrestrial repeaters. Granting this request will not alter XM's obligation to protect authorized radiocommunications facilities from interference, and it will not prejudice the outcome of the Commission's ongoing rulemaking pertaining to the deployment and operation of terrestrial repeaters.

XM 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 is submitting payment to the Federal Communications Commission in the amount of Seven Hundred Ninety Dollars (\$790.00) -- the filing fee applicable to requests for STAs for geostationary ("GSO") satellites.¹³

Please direct any questions regarding this matter to the undersigned.

Very truly yours,



James S. Blitz
Vice President, Regulatory Counsel

cc: Stephen Duall, FCC
Rajendra Singh, Horizon Wi-Com (rsingh@tvllc.com)
Thomas Gutierrez, Lukas Nace Gutierrez & Sachs (tgutierrez@fcclaw.com)

¹³ See International and Satellite Services Fee Filing Guide (October 2006).

Exhibit A

CITY	CITY ABBR.	SITE NO.	ANTENNA NUMBER	SITE LATITUDE (N)	SITE LONGITUDE (W)	ANTENNA TYPE	ANTENNA ORIENTATION (DEG AZ)	ANT HEIGHT (FEET AGL)	ANTENNA DOWNTILT (DEG)	TOTAL AVERAGE EIRP (W)
New York City	NYC	172B	Tx1	40-39-59	73-53-31	TA-2304-2S-DAB(120)	85	98	0	2000

Exhibit B

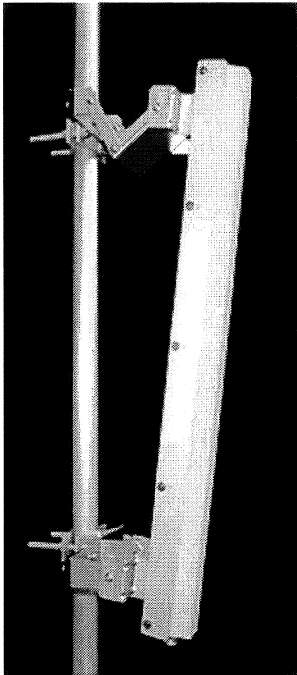
Antenna Specification Sheet



TA-2304-2-DAB

Medium Power Adjustable Sector

2330-2345 MHz



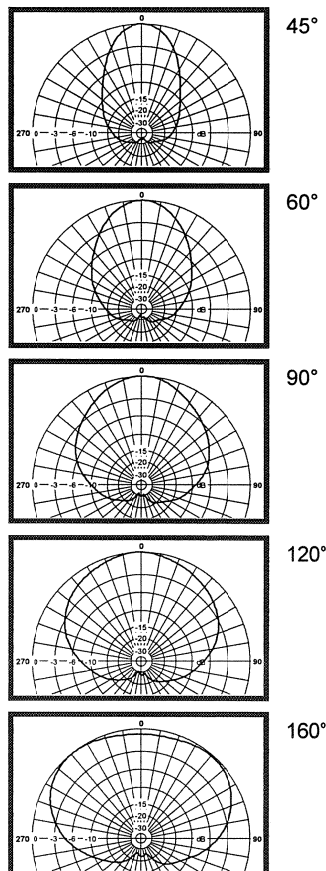
The TA-2304-2-DAB is a medium power vertically polarized sectoral antenna specifically designed for Digital Audio Broadcast transmission. The antenna is designed to provide field adjustable azimuth beamwidths of 45, 60, 90, 120, or 160 degrees by use of side panels. The antenna elements are at DC ground to aid in lightning protection.

Electrical Specifications

Frequency Range: 2330-2345 MHz
Gain: 17 dBi @ 45°, 16 dBi @ 60°, 14 dBi @ 90°
 13 dBi @ 120°, 11.5 dBi @ 160°
VSWR: 1.3:1 max.
Front to Back Ratio: 15 dB @ 180° +/- 35°
Polarization: Vertical
Power Rating: 200 W avg., 800 W peak
H-Plane Beamwidth: 45°, 60°, 90°, 120°, 160°
E-Plane Beamwidth: 7.5 degrees
Cross Pol. Discrimination: 15 dB
Impedance: 50 ohms nominal
Termination: 7/16 DIN female

Typical mid band values. (For details, contact factory)
 Specifications subject to change without notice

H-Plane



Mechanical Specifications

Length: 39.5 in. (1003 mm)
Width: 6.5 in. (165 mm) with 45° side panels
 5.0 in. (127 mm) without 45° side panels
Depth: 3.5 in. (89 mm)
Weight (incl. Clamps): 8 lb. (3.6 kg)
Rated Wind Velocity: 125 mph (200 km/h)
Hor. Thrust at rated wind: 86 lb. (39 kg)
 with 45° side panels: 113 lb. (51 kg)
Mechanical Tilt: +5° to -15°
Mounting (O.D.): 0.75 - 3.0 in. (19 - 76 mm)

Materials

Radiating Elements: Tin Plated copper on PCB
Reflector: Irridited aluminum
Radome: Gray UV stabilized ASA
Clamps: Aluminum and HDG steel

E-Plane

