

SAT-STA-20061013-00119 IB2006002809  
XM Radio Inc.

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File # SAT-STA-20061013-00119  
Call Sign (or other identifier) Grant Date 12/21/10  
Term Dates see conditions  
From 12/21/10 To:  
Approved: Stephen J. Duall  
Stephen J. Duall  
Chief, Satellite Policy Branch



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:  
Request for Special Temporary Authority

I. Applicant

Name:	XM Radio Inc.	Phone Number:	202-380-1383
DBA Name:		Fax Number:	202-380-1373
Street:	1500 Eckington Place, NE	E-Mail:	james.bliz@xmradio.com
City:	Washington	State:	DC
Country:	USA	Zipcode:	20002
Attention:	James S. Blitz		-

**Attachment to Grant**  
**Application of XM Radio Inc. for Special Temporary Authority**  
**IBFS File No. SAT–STA–20061013–00119**

Special temporary authority (STA) is granted to XM Radio Inc. (XM) to operate the terrestrial repeaters as specified in Attachment D to the Consent Decree adopted on July 25, 2008 (FCC 08-177), for a period of 180 days. This grant is taken in response to the Commission's instruction in the *Establishment of Rules and Policies for the Digital Audio Radio Satellite Service in the 2310-2360 MHz Frequency Band*, IB Docket No. 95-91, *Second Report and Order*, FCC 10-82 (rel. May 20, 2010).<sup>1</sup> As a result of the Commission's instruction, we also take the ministerial action of dismissing the petition filed by the WCS Coalition to deny XM's STA request to operate repeaters at a power level in excess of 2,000 watts equivalent isotropically radiated power. This authorization is granted according to the technical parameters specified in XM Radio's application and is subject to the terms and conditions of the Consent Decree and the conditions below.


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. 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. This STA expires 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

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<sup>1</sup> *Second Report and Order* at para. 264 (instructing the International Bureau to grant all requests for STA to operate terrestrial repeaters pending as of May 20, 2010).

**Attachment to Grant**  
**Application of XM Radio Inc. for Special Temporary Authority**  
**IBFS File No. SAT-STA-20061013-00119**

C.F.R. § 1.115 may be filed within 30 days of the date of the Public Notice announcing this action.

 <b>GRANTED*</b> International Bureau *with conditions	<b>File #</b> <u>SAT-STA-20061013-00119</u>
	<b>Call Sign</b> _____ <b>Grant Date</b> <u>12/21/10</u>
	<b>(or other identifier)</b> _____ <b>Term Dates</b> <u>see</u>
	<b>From</b> <u>12/21/10</u> <b>To:</b> <u>conditions</u>
	<b>Approved:</b> <u><i>Stephen J. Duall</i></u> Stephen J. Duall Chief, Satellite Policy Branch

<b>2. Contact</b>			
<b>Name:</b>	James S. Blitz	<b>Phone Number:</b>	202-380-1383
<b>Company:</b>	XM Radio Inc.	<b>Fax Number:</b>	202-380-1373
<b>Street:</b>	1500 Eckington Place, NE	<b>E-Mail:</b>	james.blitz@xmradio.com
<b>City:</b>	Washington	<b>State:</b>	DC
<b>Country:</b>	USA	<b>Zipcode:</b>	20002 -
<b>Attention:</b>		<b>Relationship:</b>	
(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 CRY - Space Station (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.)

See attached letter.

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  
James S. Blitz

11. Title of Person Signing  
Vice President, Regulatory Counsel

12. Please supply any need attachments.

Attachment 1: STA Request

Attachment 2: Exhibits

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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# PUBLIC NOTICE

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## THE INTERNATIONAL BUREAU ANNOUNCES MANDATORY ELECTRONIC FILING OF COORDINATION NOTIFICATIONS FOR EARTH STATIONS ON VESSELS OPERATING IN THE C-BAND

The International Bureau announces that beginning 30 days from the release of this public notice coordination notification for Earth Stations on Vessels (ESVs) operating in the C-band must be filed electronically via the International Bureau Filing System (IBFS), in accordance with the rules adopted in the Commission's Mandatory Electronic Filing Report and Order.<sup>1</sup> Paper versions of these coordination notifications will not be accepted as of that date and will be returned to the applicant without being processed, unless a waiver is approved by the Commission.

In 2004, the Commission determined to extending electronic filing requirements to all pleadings and other filings governed by Part 25.<sup>2</sup> The International Bureau subsequently issued a Declaratory Order noting that it would release public notices announcing the effective date of electronic filing for various types of filings.<sup>3</sup>

Section 25.221 of the Commission's rules contains provisions for Blanket Licensing for ESVs in the 3700-4200 and 5925-6425 MHz Band (the C-Band).<sup>4</sup> Section 25.221(e) requires that C-Band ESVs complete coordination prior to operating within 200 kilometers of either the baseline of the United States or U.S.-licensed fixed offshore installations.<sup>5</sup> Coordination is to be completed using a coordination method and interference criteria objective determined by the frequency coordinator. Upon completion of coordination, a notification must be sent to the Commission, whereupon the Commission will issue a Public Notice.<sup>6</sup>

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<sup>1</sup> Amendment of the Commission's Space Station Licensing Rules and Policies, 2000 Biennial Regulatory Review -- Streamlining and Other Revisions of Part 25 of the Commission's Rules Governing the Licensing of, and Spectrum Usage by, Satellite Network Earth Stations and Space Stations, *Fourth Report and Order*, 19 FCC Rcd 7419 (2004) (*Fourth Report and Order*); Amendment of the Commission's Space Station Licensing Rules and Policies, *Declaratory Order*, 19 FCC Rcd 19564 (Int'l Bureau 2004) (*IBFS Part 25 Declaratory Order*).

<sup>2</sup> *Fourth Report and Order*, 19 FCC Rcd at 7419.

<sup>3</sup> *IBFS Part 25 Declaratory Order*, 19 FCC Rcd at 19565..

<sup>4</sup> 47 C.F.R. § 25.221.

<sup>5</sup> 47 C.F.R. § 25.221(e).

<sup>6</sup> *Id.*

In a June 15, 2005 Public Notice, the International Bureau listed the information that must be submitted before a notification of a successfully completed frequency coordination could be placed on Public Notice.<sup>7</sup> It also directed notifications to be filed in the form of a letter to the Secretary, FCC, referencing relevant call signs and file numbers, with an electronic courtesy copy submitted via email to [ESV @fcc.gov](mailto:ESV@fcc.gov). As noted above, beginning 30 days from the release of this public notice notifications filed with the Secretary will no longer be accepted. Instead, all notifications must be filed electronically via IBFS (<http://licensing.fcc.gov/myibfs/>). The notifications should be filed in the form of a statement referencing the relevant call signs and file numbers. Filers should upload the document into IBFS by selecting "Pleadings or Comments" from the IBFS main page. Under "Pleading Type" select "Statement." This action will allow Branch staff to receive the notification electronically. The coordination notification will be reviewed for completeness and placed on the Satellite Division's SES weekly public notice under the heading "Informative." The specific information that must be submitted in the notification is unchanged and operators should refer to Section 25.221(e) of the Commission's rules and our June 15, 2005 Public Notice.

Questions regarding this Public Notice should be directed to Paul Blais, Chief, Systems Analysis Branch, at (202) 418-7274 or [Paul.Blais@fcc.gov](mailto:Paul.Blais@fcc.gov).

Action by the Chief, International Bureau.

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<sup>7</sup> The International Bureau Provides Guidance Concerning the Notice Requirement for C-Band Coordination by Earth Stations On Vessels, *Public Notice*, DA 05-1671, 20 FCC Rcd 10748 (Int'l Bur. 2005)(*June 15 Public Notice*).





SATELLITE  
RADIO

October 13, 2006

**Via Electronic Filing**

Mr. John Giusti  
Acting Chief  
International Bureau  
Federal Communications Commission  
445 12th Street, S.W.  
Washington, D.C. 20554

**Re: XM Radio Inc.  
Request for Special Temporary Authority to Operate  
Satellite Digital Audio Radio Service Terrestrial Repeaters**

Dear Mr. Giusti:

XM Radio Inc. ("XM"), hereby requests Special Temporary Authority ("STA") to operate its Satellite Digital Audio Radio Service ("SDARS") terrestrial repeaters, as identified in Exhibit A, for a period of 180 days.<sup>1</sup>

As the Commission is aware from the emergency application submitted last week, XM's terrestrial network "as built" varies in a number of respects from the authorizations originally granted for the construction of the network. *Most importantly, the network as built is far smaller and less powerful than what the FCC authorized XM to build and so should be far less troubling to licensees of adjacent spectrum.* While XM was authorized to build almost 1200 repeaters, it has, in fact, built only about 800. Similarly, XM was authorized to build over 100 high-power repeaters, yet built only a relative handful, predominantly building low-power repeaters instead. Moreover, many of the "variances" arose only because XM decided to use sectorized antennas instead of omni-directional antennas, since sectorized antennas both cause less interference and turn out to be more effective. And many of the other variances are *de minimis*, involving repeaters that are a few feet higher or lower than intended or are located a few yards away from where expected.

There are, however, a number of variances of greater significance that would understandably be of interest to other licensees. But none of these variances (and, indeed, none of our repeaters) have caused a single instance of interference to any licensed service. Moreover, all of these variances are in the public interest. First and foremost, they permit XM to provide valuable entertainment, information, and emergency services to millions of American consumers with the high quality they expect. Second, they do not make the interference environment any

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<sup>1</sup> 47 C.F.R. § 25.120(b)(2).

more difficult for other licensees. Accordingly, the bulk of this STA application essentially seeks Commission authorization for XM to operate its terrestrial network as built and operated before a number of repeaters were turned off or powered down about two weeks ago.

This STA request also includes a request to move or otherwise modify the parameters of a number of existing repeaters because of lease expirations and the like, and a request to modify the parameters of some authorized but unconstructed repeaters to provide more robust service to consumers in a number of locations. If the Commission grants this STA request, the XM terrestrial network will be far smaller and lower powered than was previously approved by the Commission – and will provide far better service to consumers. The Commission therefore, should promptly grant this STA request, and should keep the STA in place until final rules covering SDARS terrestrial networks are adopted.

**Background.** The Commission has recognized that terrestrial repeaters are critical to enable SDARS licensees to overcome the effects of signal blockage and multipath interference.<sup>2</sup> Consistent with this policy, in September 2001, the International Bureau (“Bureau”) granted XM an STA to operate a network of terrestrial repeaters while the Commission concluded its rulemaking proceeding regarding final technical rules for this service.<sup>3</sup> In granting this STA, the Bureau recognized that XM “needs to employ terrestrial repeaters to provide adequate service.” See *XM STA Order* ¶ 7: Soon after receiving this STA, XM began providing commercial satellite radio service. Since that time, satellite radio has proven to be a highly attractive service to American consumers, confirming the Commission’s vision in establishing the satellite radio service. As of today, XM has over 7 million subscribers.

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<sup>2</sup> See *Establishment of Rules and Policies for the Digital Audio Radio Satellite Service in the 2310-2360 MHz Frequency Band*, 12 FCC Rcd 5754 (1997) (“*DARS Order and FNPRM*”).

<sup>3</sup> *XM Radio, Inc., Application for Special Temporary Authority to Operate Satellite Digital Audio Radio Service Complimentary Terrestrial Repeaters, Order and Authorization*, DA 01-2172, at ¶ 18 (rel. September 17, 2001) (“*XM STA Order*”). Since the time the Bureau issued the *XM STA Order*, the Bureau has granted XM additional STAs to operate terrestrial repeaters. See *XM Radio Inc. Request for Special Temporary Authority*, File No. SAT-STA-20020815-00153 (granted September 30, 2002); *XM Radio Inc., Order and Authorization*, DA 04-2987, File No. SAT-STA-20031112-00371 (Deputy Chief, Satellite Division, International Bureau, September 15, 2004). Pursuant to the terms of the *XM STA Order*, XM subsequently filed the specific sites and technical specifications of its repeaters with the Bureau, thereby establishing the parameters of its network at that time, similar to the manner in which the Commission authorizes other services through a blanket license. See Letter from Lon C. Levin, XM, to Ms. Magalie Roman Salas, FCC, SAT-STA-20010712-00063 (November 13, 2001).

The key to XM's success is the quality of its music, sports, and news programming. XM's programming includes a large selection of commercial-free music channels devoted to an enormous variety of genres, including rock, country, jazz, gospel, classical, soul, hip-hop, bluegrass, folk, and reggae; sports programming that includes live, play-by-play broadcasts of Major League Baseball games; children's channels; and talk formats. Breaking news and critical information is provided by such channels as CNN, CNN en Español, CNN Headline News, FOX News, ABC News & Talk, the Weather Channel, CNBC, MSNBC, Bloomberg Radio/Business, BBC World Service, and CSPAN Radio.

XM's success in the market has also allowed it to play an increasingly important role in public safety. In addition to the news channels which, as noted, often provide listeners with critical information, XM broadcasts emergency alerts and safety information nationwide, on a 24 hour/7 days a week basis, through its (i) XM Emergency Alert Channel 247 (which is "free-to-air", *i.e.*, no subscription required), addressing regional and nationwide events, and (ii) 21 nationally-transmitted Instant Traffic, Weather & Alert channels, which also provide emergency information and Amber Alerts specific to select areas around the country. XM also participates in the national Emergency Alert System, providing Presidential Level alerts and certain state and local alerts, and airs a Red Cross Radio channel when the country experiences disasters (as with the XM Emergency Alert Channel 247, this channel is "free-to-air").

On October 2, 2006, XM filed a request for a 30-day STA (the "30-Day STA Request") in which it explained that its repeater network – as built and operating – varies in numerous instances from the network authorized by the STAs the Commission has granted.<sup>4</sup> Overall, the network contains over 300 fewer repeaters than authorized and operates at lower power levels. Moreover, many of the variances are *de minimis*. Many, however, do represent significant differences in certain aspects from the site-specific authorizations in XM's existing STAs.<sup>5</sup> XM has previously provided much, if not all, of this information to the other SDARS licensee and, with regard to their licensed markets, to the Wireless Communications Service ("WCS")

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<sup>4</sup> See XM Radio Inc., Request for 30-Day STA, File No. SAT-STA-20061002-00114 (filed October 2, 2006). XM has attached the 30-Day STA Request as Exhibit B hereto and incorporates it herein by reference.

<sup>5</sup> The 30-Day STA Request (attached as Exhibit B) shows variances in yellow that fall into the following categories: repeaters not obviously covered by XM's current STA grants; antennas added to an existing authorized site (*e.g.*, a single panel antenna changed to two panel antennas); repeaters operating with an EIRP greater than authorized; repeaters operating at a location differing more than 5 seconds from authorized location; repeaters with a different antenna type than authorized; repeaters with antenna orientation differing from that authorized; repeaters with antenna height differing from that authorized; and repeaters with antennas having down-tilt differing from that authorized.

licensees that participated in negotiations with XM concerning the pending repeater rulemaking. See *DARS Order and FNPRM*. Moreover, XM has not received any interference complaints from any WCS licensee resulting from the operation of its repeaters.

As the Commission is aware, XM took steps about two weeks ago to eliminate some of the largest variances, including turning down to authorized power levels 210 repeaters that were operating less than 2 dB above authorized power levels and turning down to authorized power levels nine (of eleven) repeaters that were operating at more than 2 dB above authorized power levels. At the same time, XM also turned off the transmitters of fifteen (of nineteen) repeaters that were operating without any obviously applicable STA.

As XM explained in the 30-Day STA Request, there are a number of reasons for the variances between the repeater network as authorized and as built and operated. The largest reason for the variances is that XM determined many authorized repeaters could simply be eliminated or that multiple repeaters could be replaced by a single repeater at a somewhat different location. Other reasons for the variances include: transcription errors in information originally provided to the Commission; installation by contractors that differed from the parameters listed in the STA; the realization that some locations for planned repeaters were unavailable; the reorientation of antennas to optimize network performance; the replacement of several authorized repeaters by a single repeater in a different location; and the relocation or addition of a repeater based on data from drive tests and customer feedback which demonstrated a need for better service.

Some of the most significant variances developed because XM found, as it deployed the network, that it was able to substitute one new repeater for several other repeaters or that it needed to adjust the power or location of a central repeater to avoid self-interference within the network. The Declaration of Jeffrey Snyder attached to the 30-Day STA Request, who at the time the repeater network was built held the position of XM's Vice President of Repeater Engineering and Operations, provides an explanation of how the design and deployment of the repeater networks evolved during the initial months of the system's deployment. In no case, however, did XM operate such repeaters in a market where it did not have authority to operate repeaters.

The repeater network that XM is requesting to operate with the technical parameters in Exhibits A.1 and A.2 represents over 300 fewer repeaters than the FCC authorized XM to operate in its existing STAs, including 85 fewer high power repeaters, and over 250 fewer medium power repeaters (operating in the 2 - 10 kW range). From an overall system standpoint, the total power being radiated and particularly the radiation of high power signals in urban markets results in a network that should be less objectionable to other parties than the network approved by the Commission in XM's previous STAs.

**Request for STA.** As described more fully below, attached as Exhibits A.1, A.2, and A.3 are lists of the technical parameters pertaining to the repeaters for which XM requests authority to operate pursuant to this STA.<sup>6</sup> To assist the Bureau in its analysis of this request, Exhibit A.1 highlights in yellow all the variances from XM's authorized repeater network that it sought to authorize in the 30-Day STA Request; Exhibit A.1 also highlights in blue the variances that XM seeks to authorize in this STA for which it did not seek authority in the 30-Day STA Request. Exhibit A.4 is a list of the repeaters for which XM intends to surrender its existing authorizations, provided that the Commission grants this STA request.

*Exhibit A.1 -- Repeaters for which XM requests authority to operate immediately upon grant of this STA (799 sites).* With the exception of the power level of 210 repeaters for which XM took remedial action to reduce in EIRP by up to 2 dB, XM is requesting authority to restore operation of its network to the technical parameters in effect prior to XM's recent remedial actions. The technical parameters pertaining to these repeaters are the same as XM disclosed in the 30-Day STA Request (*see* Exhibit B), with the following exceptions:

- As XM discussed in the 30-Day STA Request, XM took remedial action to reduce the power of nine of eleven repeaters that were operating at more than 2 dB above authorized power levels.<sup>7</sup> In that request, XM also sought authority to increase to pre-existing power levels five of those nine repeaters that XM had reduced in power.<sup>8</sup> With this application, XM requests authority to operate all eleven of these repeaters (i.e., the five repeaters which XM requested to increase power in the 30-Day STA Request, plus the remaining six repeaters that were operating at more than 2 dB above authorized power levels) for a period of 180 days at their pre-existing power levels.
  - The two repeaters in the Nashville and New York City markets serve high traffic routes that are highly dependent on repeater coverage to fill gaps in satellite service.
  - The five repeaters in the New York, Sacramento, San Francisco, and Washington, DC markets are near major traffic routes.

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<sup>6</sup> The exhibits provide the following technical information for each of the repeaters XM seeks to operate pursuant to this STA: (1) market; (2) number of sectors; (3) antenna type; (4) average EIRP; (5) antenna orientation; (6) antenna downtilt (7) geographic coordinates; and (8) antenna height. XM has also attached as Exhibit C the antenna specification sheets for each of the antenna types listed.

<sup>7</sup> In the 30-Day STA Request, XM also sought authority to continue to operate the two repeaters the power of which it did not turn down. This request remains pending.

<sup>8</sup> In the 30-Day STA Request, XM sought authority to operate these five repeaters at pre-existing power levels. This request remains pending.

- The remaining four repeaters in the New York and Pittsburgh markets provide coverage for a combination of key traffic routes and smaller scale urban areas.
- As XM discussed in the 30-Day STA Request, XM took remedial action to turn off fifteen of nineteen repeaters that were not obviously covered by any existing STA.<sup>9</sup> In that request, XM sought authority to return to operation eight of the fifteen repeaters that XM had turned off.<sup>10</sup> With this application, XM requests authority to resume operations of these nineteen repeaters (i.e., the eight repeaters which XM requested authority to return to operation in the 30-Day STA Request, plus the remaining eleven repeaters that were not obviously covered by any existing STA) for a period of 180 days.
  - The four repeaters in the Boston, Buffalo, Detroit, and Providence markets serve core urban areas, where there are large areas dependent on the terrestrial repeater signal for coverage.
  - The eight repeaters in the Birmingham, Cincinnati, Detroit, New York, and St. Louis markets serve major roadways.
  - The remaining seven repeaters in the Cleveland, Minneapolis, Nashville, New York, Raleigh, San Francisco, and Washington, D.C. markets provide coverage to important traffic routes.

*Exhibit A.2 -- Repeaters that XM seeks to modify within approximately 90 days due to lease issues or other site problems (7 sites).* Within approximately the next 90 days, six repeaters will require relocation due to existing and upcoming lease issues/site conditions. In addition, one site in Washington, DC, requires reconfiguration of its antennas at the existing site due to demolition of a tower. With this STA request, XM seeks authority for these relocations and modifications, requesting to operate replacements for these repeaters with locations and technical parameters similar to the parameters currently authorized. These repeaters will be replaced on a one-for-one basis, meaning that there will be no net increase in XM's repeaters resulting from the authorization of these replacement repeaters. Six of the seven repeaters that are being replaced are currently providing service to existing XM subscribers, and one repeater, in Philadelphia, has been deconstructed due to prior building demolition. Grant of authority for replacement repeaters is essential to enable XM to continue to serve these subscribers upon expiration of the current site leases.

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<sup>9</sup> In the 30-Day STA Request, XM sought authority to continue to operate the remaining four repeaters. This request remains pending.

<sup>10</sup> In the 30-Day STA Request, XM sought authority to operate these eight repeaters. This request remains pending.

*Exhibit A.3 Repeaters XM is planning to construct with modified parameters within the next one to two years (112 sites).* XM would like to construct and operate 112 sites that were previously authorized by the Bureau in STA grants from 2001 to 2003. XM has not yet constructed or begun operations at these sites, but intends to do so within the next one to two years with slightly modified technical parameters from those the Commission previously authorized. The repeaters as deployed may reflect different technical parameters than those listed in Exhibit A.3. Prior to initiating service on these repeaters, XM proposes to notify the Commission and the WCS licensees as to the final technical parameters with which these repeaters would operate.

*Exhibit A.4 Repeaters XM will return upon grant of this STA (230 sites).* Attached as Exhibit A.4 is a list of the 230 repeater sites for which XM will be able to, and will, relinquish its authority upon grant of this request. Should the Commission grant the instant STA, XM will ask to have these 230 sites (24 high power, 162 medium power, and 44 low power sites) deleted from its STA authorization; however, should the Commission deny or otherwise decline to grant the instant STA, XM wishes to retain the right to operate repeaters at the locations specified in Exhibit A.4

XM certifies that its operation of these repeaters complies with the same conditions the Bureau imposed on XM in granting its original STA. *See XM STA Order* ¶ 18. Specifically, XM certifies the following:

- (a) Any actions taken as a result of this STA are solely at XM's own risk. This STA will not prejudice the outcome of the final rules adopted by the Commission in GEN Docket 95-91.
- (b) Operation of the repeaters authorized pursuant to this STA is on a non-interference basis with respect to all permanently authorized radiocommunication facilities.<sup>11</sup> XM will provide the information and follow the process set forth in the *XM STA Order*, including the requirement that XM cease operating any repeater that interferes, upon receiving a written, descriptive notification identifying the specific source of interference.
- (c) The repeaters are restricted to the simultaneous retransmission of the complete programming, and only that programming, transmitted by the satellite directly to SDARS receivers.

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<sup>11</sup> XM has already provided WCS licensees and the relevant trade association with contact information for an XM office that can receive reports of interference and act on those reports.

- (d) Where applicable, coordination of the repeaters has been completed with all affected Administrations, in accordance with all applicable international agreements including those with Canada and Mexico.
- (e) The repeaters comply with Part 17 of the Commission's rules regarding antenna structures.
- (f) The repeaters 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.
- (g) The out-of-band emissions of the repeaters are limited to 75+log (EIRP) dB less than the transmitter EIRP.

One of the conditions imposed in the original STA grant was the requirement that XM pre-coordinate with WCS licensees any repeater affecting an operational WCS base station. *XM STA Order* ¶ 14. XM is willing to comply with this requirement, but XM is not aware of any operational WCS base station in any of the cities listed in Exhibit A.1, A.2, or A.3.<sup>12</sup>

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 will provide payment to the Federal Communications Commission for the sum of Seven Hundred Thirty-Five Dollars (\$735.00). This filing fee amount is applicable to requests for STAs for geostationary ("GSO") satellites. *See International and Satellite Services Fee Filing Guide* (September 2004).

XM will serve copies of this application on Sirius Satellite Radio and the WCS licensees of record.

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<sup>12</sup> In the *XM STA Order*, the Bureau stated 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 STA Order* ¶ 14. To date, XM has not received information from any WCS licensee regarding their plans for WCS deployment.



Ms. Marlene H. Dortch  
October 13, 2006  
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Please direct any questions regarding this matter to the undersigned.

Very truly yours,



James S. Blitz  
Vice President, Regulatory Counsel