

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matter of)	
)	
XM Radio Inc.)	
)	IBFS No. SAT-STA-20050418-00086
Request for Special Temporary Authority)	
To Operate a Lower Power Terrestrial Repeater)	
At PGA Tour Events)	
)	

ORDER

Adopted: June 09, 2005

Released: June 09, 2005

By the Chief, Satellite Division, International Bureau:

I. INTRODUCTION

1. By this Order, we partially grant the application of XM Radio Inc. ("XM Radio") for special temporary authority ("STA") to operate one lower power terrestrial repeater¹ at weekly Professional Golf Association ("PGA") tour events throughout 2005. Specifically, we grant XM Radio's STA request for operations at those events that occur within 180 days of release of this Order, and that are unopposed by Total RF Marketing Inc. ("Total RF"). Grant of this authority is without prejudice to XM Radio's STA request for operations at events that are opposed by Total RF, or that occur beyond this 180 day time period.

II. BACKGROUND

2. XM Radio, one of two licensees in the Satellite Digital Audio Radio Service ("SDARS"), filed its request for special temporary authority on April 18, 2005.² In its request, XM Radio seeks to operate one "lower power" repeater at weekly PGA tour events that occur during the period of June through December 2005.³ XM Radio states that the repeater would transmit at a maximum Effective Isotropically Radiated Power ("EIRP") of 2 kilowatts ("kW") and would be limited to coverage of a specific golf course for each PGA tour event. XM Radio proposes that operations of this repeater be subject to the same terms and conditions that have been imposed by the Commission in the past on its

¹ Terrestrial repeaters are used in certain areas where it may be difficult to receive signals transmitted by a satellite, including "urban canyons" between tall buildings, heavily foliated areas, tunnels and other places where obstructions could limit satellite visibility and cause multi-path interference from reflected signals. 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, 5810 ¶ 138 (1997).

² XM Radio Inc., Request for Special Temporary Authority to Operate a Lower Power Terrestrial Repeater at PGA Tour Events, IBFS No. SAT-STA-20050418-00086 (filed April 18, 2005) ("*STA Request*").

³ A list of proposed PGA tour events is provided as Exhibit A to XM Radio's *STA request*.

terrestrial repeater operations.⁴

3. XM Radio asserts that grant of its STA request would serve the public interest. Specifically, XM Radio anticipates that many spectators of the PGA tour events will utilize XM Radio's portable, hand-held receivers to listen to coverage of the events via XM Radio's dedicated golf channel.⁵ XM Radio states that while many areas of a golf course, such as fairways and greens, provide an unobstructed view of its satellites, there are other areas where view of the satellites may be obstructed, particularly by trees and foliage.⁶ XM Radio states that it will be able to mitigate any such interference through the operation of a single, 2 kW EIRP repeater at each event.

4. XM Radio's STA request was placed on Public Notice on April 22, 2005.⁷ Total RF, a supplier of wireless broadcast infrastructure and communications facilities, filed two letters opposing XM Radio's request.⁸ Total RF expresses concern that grant of XM Radio's request would cause harmful interference to its wireless services at the PGA tour events and would be contrary to Commission's rules governing grants of special temporary authority.

5. By letters dated June 1 and June 2, 2005, XM Radio and Total RF inform the Commission that Total RF no longer opposes XM Radio's request to operate at PGA tour events where Total RF does not also plan to operate.⁹ XM Radio and Total RF also note that they are engaged in discussions to negotiate a technical resolution to interference concerns that could allow the two operations to peacefully coexist at the remaining PGA tour events.¹⁰

III. DISCUSSION

6. The Communications Act of 1934, as amended, gives the Commission authority to grant temporary authority in extraordinary circumstances where such temporary operations are in the public interest and where delay in operation would prejudice the public interest.¹¹ Similarly, the Commission's rules governing satellite facilities permit grants of special temporary authority, for a period not to exceed 180 days, under extraordinary circumstances.¹² A request for special temporary authority must contain the full particulars of the proposed operation, including all facts sufficient to justify the temporary

⁴ See, e.g., XM Radio, Inc., Application for Special Temporary Authority to Operate Satellite Digital Audio Radio Service Complementary Terrestrial Repeaters, *Order and Authorization*, 16 FCC Rcd 16781 (Int'l Bur. 2001) ("*XM Radio 2001 STA Order*").

⁵ See *STA Request* at 2. XM Radio states that it plans to offer its portable, hand-held receivers for sale or lease to spectators at the PGA tour events. See *id.*

⁶ See *STA Request* at 2. XM Radio also states that the portable radios will allow spectators to be aware of impending severe weather. See *id.*

⁷ FCC Public Notice, *Policy Branch Information: Satellite Space Applications Accepted for Filing*, Rep. No. SAT-00286.

⁸ Letter from Fred Fellmeth, General Counsel, Total RF, Inc., to Marlene H. Dortch, FCC, dated May 19, 2005; Letter from Fred Fellmeth, General Counsel, Total RF, Inc., to Marlene H. Dortch, FCC, dated April 23, 2005.

⁹ Letter from Bruce Jacobs, Counsel to XM Radio Inc., to Marlene Dortch, FCC, dated June 1, 2005 ("*XM Radio June 1 Letter*"); Letter from Fred Fellmeth, General Counsel, Total RF, Inc., to Marlene H. Dortch, FCC, dated June 2, 2005 ("*Total RF June 2 Letter*").

¹⁰ See *XM Radio June 1 Letter*; *Total RF June 2 Letter*.

¹¹ 47 U.S.C. § 309(f).

¹² 47 C.F.R. § 25.120.

authority sought and the public interest therein.¹³ When determining whether to grant an STA, “convenience to the applicant, such as marketing considerations or meeting scheduled customer in-service dates, will not be deemed sufficient for this purpose.”¹⁴

7. We find that the public interest is served by the grant XM Radio’s request to operate its lower power repeater at the PGA tour events that have been notified by XM Radio in Exhibit A to its *STA Request* and that are no longer opposed by Total RF.¹⁵ No other party opposes XM Radio’s proposed operations at these events, and the Commission has previously identified many public interest benefits that SDARS can provide.¹⁶ Furthermore, the need for complementary terrestrial repeaters to overcome the effects of satellite signal blockage and multi-path interference was anticipated by the Commission when it adopted service rules for SDARS.¹⁷

8. We also find that extraordinary circumstances support grant of XM Radio’s request. In 1997, when the Commission adopted service rules for SDARS and requested comment on complementary terrestrial repeaters, it clearly contemplated that repeaters were to be part of the proposed satellite systems.¹⁸ In the service rules and in its license, XM Radio was given specific milestone requirements, including dates by which its system must be constructed and put into operation.¹⁹ XM Radio has complied with its milestone requirements, but states that it needs to employ terrestrial repeaters to provide adequate service.²⁰ The Commission has not, however, adopted final rules to govern the licensing and operation of SDARS terrestrial repeaters. The Commission has been working to resolve the complex technical issues involved in adopting final rules to authorize SDARS repeaters, but this rulemaking is not yet completed. As a result, it would be unfair to penalize XM Radio for complying with our required milestone schedule on the one hand, but on the other hand effectively force it to seriously delay initiation of service because there are no final repeater rules.

9. As stated above, the Commission’s rules do not permit grants of special temporary authority exceeding 180 days. Accordingly, the authority granted in this Order is limited to those events that occur within 180 days of release of this Order. XM Radio must seek additional special temporary authority for those events that occur outside of this time period. This Order is without prejudice to the grant of such additional requests, or to disposition of XM Radio’s proposed operations at PGA tour events that are opposed by Total RF.

10. Finally, we grant these STA applications subject to all the conditions set forth in the

¹³ *Id.*

¹⁴ *Id.*

¹⁵ XM Radio has provided a list of unopposed events as Exhibit A to *XM Radio June 1 Letter*. XM Radio and Total RF have requested additional time to discuss the possibility of a technical resolution to the interference concerns at the remaining events still opposed by Total RF. *See supra* note 10 and accompany text. Accordingly, we will defer action at this time on those events still opposed by Total RF in order to allow discussions to continue.

¹⁶ For example, SDARS will offer high-quality radio signals to listeners in areas that have limited radio service, and can provide diverse program formats, including educational, ethnic and religious programming. *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 5754,5759-5761 (paras. 10-14) (1997) (*SDARS Order and FNPRM*).

¹⁷ *SDARS Order and FNPRM*, 12 FCC Rcd at 5812 (para. 142).

¹⁸ *Id.* at 5810 (para. 138).

¹⁹ 47 C.F.R. § 25.144(b); American Mobile Radio Corporation, *Order and Authorization*, 13 FCC Rcd 8829 (1997).

²⁰ *See STA Request* at 2.

original grant of special temporary authority to XM Radio in 2001.²¹ XM Radio has expressed support for such conditional grant.²² These conditions include the requirement that operation of all SDARS repeaters authorized pursuant to special temporary authority is on a non-interference basis with respect to all permanently authorized radiocommunication facilities, and that XM Radio follow the procedures set forth in paragraphs 14 and 17 of the *XM Radio 2001 STA Order* to protect operational WCS stations.²³ In addition, SDARS repeater out-of-band emissions shall be limited to 75+log(EIRP) dB less than the transmitter EIRP. Also, XM Radio's SDARS repeaters shall comply with 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. In particular, XM Radio must make a routine environmental evaluation for each site to ensure compliance with the Maximum Permissible Exposure limits. Any actions taken as a result of this STA are solely at XM Radio's own risk, and this STA shall not prejudice the outcome of the final rules adopted by the Commission in the terrestrial repeater rulemaking proceeding (IB Docket No. 95-91).

IV. ORDERING CLAUSES

11. Accordingly, IT IS ORDERED that the request of XM Radio Inc. for special temporary authority to operate a terrestrial repeater with a maximum power of 2 kW EIRP at PGA tour events, IBFS No. SAT-STA-20050418-00086, IS GRANTED for operations at events notified by XM Radio in Exhibit A to the *XM Radio June 1 Letter* that occur within 180 days of release of this Order, consistent with this Order and subject to the following conditions:

- (a) Any actions taken as a result of this STA are solely at the applicants' own risk. This STA shall not prejudice the outcome of the final rules adopted by the Commission in IB Docket No. 95-91;
- (b) Operation of all SDARS repeaters authorized pursuant to this STA is on a non-interference basis with respect to all permanently authorized radiocommunication facilities. XM Radio 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);
- (c) 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;
- (d) 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;
- (e) SDARS repeaters shall comply with Part 17 of the Commission's rules – Construction, Marking, and Lighting of Antenna Structures;
- (f) 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;

²¹ See *XM Radio 2001 STA Order*, *supra* note 4.

²² STA Request at 4.

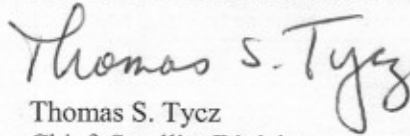
²³ See *XM Radio 2001 STA Order*, 16 FCC Rcd 16786-87.

- (g) SDARS repeater out-of-band emissions shall be limited to $75 + \log(\text{EIRP})$ dB less than the transmitter EIRP;
- (h) This STA will expire after 180 days, or on the date on which permanent rules governing repeater operations become effective, whichever occurs first.

12. XM Radio Inc. is afforded fifteen days from the date of release of this STA to decline this authorization as conditioned. Failure to respond within that period will constitute formal acceptance of the authorization as conditioned.

13. This Order is effective upon release.

FEDERAL COMMUNICATIONS COMMISSION



Thomas S. Tycz
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