

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

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In re Application of:
Sirius Satellite Radio Inc. Request for Special
Temporary Authority

File No. SAT-STA-20010724-00064

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Satellite Policy Branch
International

Reply Comments of Sirius Satellite Radio Inc.

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Dated: August 31, 2001

Executive Summary

The Commission should grant Sirius' request for special temporary authority to operate terrestrial repeaters. Sirius' request is warranted under Section 25.120 of the FCC's rules by the extended four year delay in adoption of final rules governing the satellite DARS' licensees operation of such repeaters, which has severely prejudiced the public. Absent service rules, Sirius faces the imminent prospect of sacrificing quality of service or delaying initiation of high-quality nationwide satellite DARS. Grant of an STA would minimize the effects to consumers of further processing time and thus serve the public interest.

Sirius agrees to abide by the terms and conditions typically associated with its special temporary authority. Additional information requested on repeater technical design, marketing, and business plans is irrelevant, unduly burdensome and should not be adopted.

Sirius prefers operation of terrestrial repeaters pursuant to rules rather than an STA. At this time, however, Sirius can no longer put the public interest in satellite DARS on hold. Thus, Sirius again urges the Commission to promulgate rules no later than November 2001.

Commenters' local programming fears and concerns regarding Sirius' experimental authority are totally unfounded. Sirius will not originate local programming via terrestrial repeaters operated pursuant to an STA or pursuant to subsequent rules. Although, Sirius has conducted experiments consistent with its Part 5 experimental license, it seeks an STA under Part 25 of the Commission's rules to commence "commercial operation".

The Commission should address the broad interference concerns raised by comments in its pending rulemaking proceeding. Sirius' operation of terrestrial repeaters under an STA is unlikely to cause harmful interference to commercial WCS operation. Furthermore, any

requirement for the satellite DARS licensees to protect WCS would upend the historical context in which the Commission established both services. In any event, any possible disruption of WCS service results from the WCS licensees' technical choices, and can be cured prospectively using improved technology.

For these reasons, Sirius respectfully requests that the FCC grant its request for an STA.

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Reply Comments

Sirius Satellite Radio Inc. ("Sirius"), by its attorneys, hereby replies to the comments filed on its above-referenced application for special temporary authority ("STA") to operate satellite digital audio radio service ("satellite DARS") terrestrial repeaters.¹ The Commission should issue an STA to Sirius because, as shown below, its request satisfies the legal standards for grant and serves the public interest. Furthermore, the issues raised by the commenters—in particular local programming fears and concerns regarding Sirius' experimental authority—are totally unfounded and do not support denial. The FCC should address the Wireless Communications Service ("WCS") licensees' concern regarding interference in the related terrestrial repeater rulemaking. Sirius urges the agency promptly to replace any STA with final service rules that offer the satellite DARS licensees competitive parity in the deployment and operation of terrestrial repeaters.

¹ Sirius Satellite Radio Inc. Request for Special Temporary Authority to Operate Satellite DARS Terrestrial Repeaters, Exhibit A (File No. SAT-STA-20010724-00064) (filed July 24, 2001) ("Sirius STA Request"); see *Applications Accepted for Filing*, Report No. SAT-00077 (July 31, 2001) (Public Notice).

I. BACKGROUND

The Commission initiated its inquiry into service rules for the operation of satellite DARS terrestrial repeaters nearly four years ago.² Since that time, the Commission received numerous comments. No one disputes the Commission's decision to authorize satellite DARS terrestrial repeaters or the satellite DARS licensees' operation of such terrestrial repeaters up to an EIRP of 2kW. However, a controversy remains concerning the extent to which operation of high-power terrestrial repeaters may interfere with WCS licensees' commercial operations.

It is important to understand that—notwithstanding WCS licensees' arguments about “blanketing” or “brute force” overload—any possible disruption of WCS services caused by satellite DARS terrestrial repeaters results from the WCS licensees' technical choices. WCS transceivers (both consumer and base-station) have been designed to receive across the entire WCS upper or lower bands. This explains the WCS claims of overload interference—WCS equipment has been designed to accommodate WCS operations, without properly recognizing satellite DARS operations. Rather than penalize satellite DARS, the FCC should require WCS licensees to redesign their equipment to reject authorized transmissions in the satellite DARS band.

The historical context of satellite DARS and WCS licensing also does not support requiring terrestrial repeaters to operate at power levels at or below an EIRP of 2kW. The Commission established and auctioned WCS after satellite DARS and with full knowledge of its

² See *Rules and Policies for the Digital Audio Radio Satellite Service in the 2310-2360 MHz Frequency Band*, 12 FCC Rcd 5754 (1997) (Report and Order Memorandum Opinion and Order and Further Notice of Proposed Rulemaking) (“*Terrestrial Repeater NPRM*”).

proposed use of high-power terrestrial repeaters. The WCS rules, including power limitations, were intended to foreclose the possibility of interference to satellite DARS. The current WCS licensee-petitioners knew prior to the WCS spectrum auction that their network design must permit operation immediately adjacent to satellite DARS transmissions.

Sirius, and presumably WCS licensees, would prefer to resolve these issues in the FCC's on-going rulemaking. However, the *Report and Order* has been long delayed. Prompt grant of the instant STA will ensure that the public is not further denied the benefits of Sirius' new service pending final rules.

II. SIRIUS' REQUEST FOR SPECIAL TEMPORARY AUTHORITY SATISFIES THE LEGAL STANDARDS FOR GRANT

The delay in finalizing service rules for terrestrial repeaters alone justifies grant of Sirius' STA request. Section 25.120 of the FCC's rules gives the agency clear authority to permit special temporary operation of radio facilities where—as here—“there are extraordinary circumstances requiring temporary operations in the public interest and that delay in the institution of these temporary operations would seriously prejudice the public interest.”³ In such cases, the Commission further requires applicants to provide “the full particulars of the proposed operation.”⁴ As demonstrated below, Sirius' request satisfies this legal standard.

³ 47 C.F.R. § 25.120.

⁴ *Id.*

A. Grant of Sirius' Request for Special Temporary Authority Is Compelled by "Extraordinary Circumstances" and Will Serve the Public Interest

The delay in adopting service rules for terrestrial repeaters is "extraordinary" because the FCC has long possessed sufficient information to issue rules. The Commission sought and received public comment on the satellite DARS licensees' operation of terrestrial repeaters at least three times. In 1997, the agency recognized "that DARS providers will need to rely on terrestrial repeaters and gap fillers" and sought comment on proposed service rules.⁵ At that time, a large number of comments were filed—none of which raised serious objection to the operation of terrestrial repeaters or the Commission's proposed rules. Shortly thereafter, Sirius and XM filed replies. Only a few months later, the FCC requested comments on letters from the satellite DARS licensees that further detailed their repeater plans.⁶ Nearly two and one-half years later, Sirius proactively refreshed the record by filing Supplemental Comments and urging the Commission to seek public comment on its additional information.⁷ The Commission did so and, again, numerous entities filed comments and Sirius and XM filed replies.⁸ Furthermore,

⁵ *Terrestrial Repeater NPRM*, 12 FCC Rcd at 5770; *see also* 47 C.F.R. § 25.201 (defining satellite DARS as "involv[ing] complementary repeating terrestrial transmitters").

⁶ *See Satellite Policy Branch Information: Applications Accepted for Filing*, Report No. SPB-112 (Dec. 23, 1997) (establishing a reply comment deadline of January 9, 1998).

⁷ *Rules and Policies for the Digital Audio Radio Service in the 2310-2360 MHz Frequency Band*, IB Docket No. 95-91, Supplemental Comments of Sirius Satellite Radio Inc. (filed Jan. 18, 2000).

⁸ *See Satellite Policy Branch Information*, IB Docket No. 95-91, Gen Docket No. 90-357 (dated Jan. 21, 2000) (establishing a comment deadline of February 22, 2000 and a reply comment deadline of March 8, 2000); Comments were submitted by BellSouth Corporation and BellSouth Wireless Cable, Inc.; MCI WorldCom, Inc.; Wireless Communications Association International, Inc.; and National Association of Broadcasters. Sirius Satellite Radio Inc.; XM

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commenters filed numerous *ex parte* presentations. Each of the commenters on Sirius' request for an STA has expressed its views in this rulemaking proceeding. Accordingly, the FCC possesses a full and complete record upon which to base terrestrial repeater rules. The delay in adopting rules is an "extraordinary circumstance" supporting grant of an STA to Sirius.

The lengthy delay in issuance of terrestrial repeater service rules has prejudiced the public severely. Absent service rules, both satellite DARS licensees face the imminent prospect of sacrificing quality of service or delaying initiation of high-quality nationwide satellite DARS. Grant of an appropriate STA would minimize the effects on consumers of further processing time and serve the public interest in promptly initiating this exciting new radio service.

In sum, the extraordinary circumstances associated with the regulatory delay in adopting service rules and the public interest in uninterrupted reception of satellite DARS in the near term unequivocally support grant of an STA.

B. Sirius Provided the Commission With the "Full Particulars" of its Proposed Operation of Terrestrial Repeaters

Although several commenters allege otherwise,⁹ Sirius provided the Commission with the full particulars of its proposed operation of terrestrial repeaters pursuant to the STA. Sirius' request included an Exhibit providing, for each currently planned terrestrial repeater with an

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Radio, Inc.; Metricom, Inc., and the Aerospace & Flight Test Radio Coordinating Council submitted Reply Comments.

⁹ Comments of AT&T Wireless Services, Inc. at 4 (filed August 21, 2001) ("AWS Comments"); Comments in Opposition to Grant of STA Requests of the Wireless Communications Association International, Inc. at 3 (filed August 21, 2001) ("WCA Comments"); Comments of Metricom, Inc., Debtor-in-Possession at 5 (filed August 21, 2001) ("Metricom Comments").

EIRP greater than 2kW: (1) geographic coordinates; (2) antenna type; (3) antenna orientation; (4) antenna radiation pattern and any applicable vertical downtilt; (5) total EIRP; and (6) height Above Ground Level (AGL).¹⁰ Sirius did not provide such data for any low-power repeaters (*i.e.*, EIRP of 2kW or less) because all parties have long disclaimed any desire to restrict or regulate such repeaters.¹¹

C. Sirius Agrees To Abide By The Terms and Conditions Typically Associated with Special Temporary Authority

Sirius agrees to operate its terrestrial repeaters pursuant to an STA consistent with the following terms and conditions typically associated with such authority.

- First, upon notification of a complaint of interference to a licensed radiocommunication station providing service to the public, Sirius will coordinate its above 2kW terrestrial repeaters with the affected licensee.¹²
- Second, to facilitate other licensees' ability to notify Sirius of interference,¹³ Sirius designates Robert Langston, Senior Performance Engineer, as its contact representative for interference complaints.

¹⁰ Sirius STA Request, Exhibit A. Sirius' 104 transmitter sites will employ 151 radiators as a result of its use of "sectorized" antennas in some cases.

¹¹ See AWS Comments at 6-7; Opposition to STA Request of WorldCom, Inc. at 2 (filed August 21, 2001) ("WorldCom Comments"); WCA Comments at 5-6; Metricom Comments at 8. Repeaters under 2kW should be considered as falling within Sirius' space segment license. *Cf.* 47 C.F.R. § 25.201 (definition of DARS).

¹² A requirement for Sirius to cease operations the moment a complaint of interference is received unintentionally could provide WCS licensees an unwarranted and inequitable "veto" over Sirius' lawful use of the spectrum, which would prejudice the on-going rulemaking proceeding, and offer WCS licensees an anticompetitive incentive to delay further the rulemaking proceeding.

¹³ See Metricom Comments at 9; AWS Comments at 11. Mr. Langston can be reached at rlangston@siriusradio.com.

- Third, Sirius' special temporary authorization will not prejudice any ultimate decision in the pending repeater rulemaking.¹⁴
- Fourth, Sirius agrees to attenuate its terrestrial repeaters' out-of-band emissions below the transmitted EIRP by no less than $75 + 10 \log (p)$.¹⁵
- Fifth, Sirius agrees to notify the Commission within 30 days of any changes in the operational characteristics of its terrestrial repeaters.¹⁶

These concessions should alleviate all of the commenters' reasonable concerns associated with temporary operation of terrestrial repeaters pending conclusion of the Commission's rulemaking.

Sirius cannot agree, however, to certain other unreasonable, and unprecedented, concerns raised by BellSouth. For example, Sirius cannot accept an STA that "terminates no later than 180 days from the grant and no extensions or waivers will be granted."¹⁷ Sirius urges the Commission to issue service rules for terrestrial repeaters well in advance of 180 days following grant of an STA. Adoption of final rules would obviate the need for renewal. The Commission's advance decision to deny a timely filed request for extension, however, would violate its statutory authority and rules.¹⁸ In addition, BellSouth's request for additional

¹⁴ AWS Comments at 12 & n.26; Metricom Comments at 9-10; Comments of BellSouth at 36 (filed August 21, 2001) ("BellSouth Comments").

¹⁵ Sirius Request for STA at 3; BellSouth Comments at 36.

¹⁶ BellSouth Comments at 37.

¹⁷ BellSouth Comments at 36.

¹⁸ 47 U.S.C. § 309 (f) (authorizing the Commission to "extend such temporary authorization"); 47 C.F.R. § 25.120 (allowing extension of STA beyond the termination date upon application to the Commission).

information on repeater technical design, marketing, and business plans is irrelevant, unduly burdensome and should not be adopted.¹⁹

Sirius will cooperate with WCS licensees to minimize interference to their commercial operations.

III. SIRIUS WOULD PREFER TO OPERATE TERRESTRIAL REPEATERS PURSUANT TO RULES RATHER THAN AN STA

Sirius agrees with those commenters that prefer operation of terrestrial repeaters pursuant to rules rather than an STA.²⁰ That is precisely why Sirius refreshed the record of the rulemaking in 2000 and why, since that time, it has repeatedly urged the FCC promptly to adopt rules.²¹ After more than a decade of planning its service, Sirius can no longer put the public interest in satellite DARS “on hold” pending Commission action. Sirius is willing to operate its terrestrial repeaters, albeit for a brief period, pursuant to an STA. Sirius again recommends that the agency assign high-priority to the adoption of terrestrial repeater rules and promulgate the rules no later than November 2001. Any such rules, of course, must provide competitive parity between the satellite DARS licensees in their ability to deploy terrestrial repeaters.

¹⁹ BellSouth Comments at 37-38.

²⁰ Metricom Comments at 6; AWS Comments at 11.

²¹ *See e.g.*, Letter from Carl R. Frank, Counsel to Sirius, to Magalie Roman Salas, Secretary, FCC at 3 (Feb. 5, 2001) (“Accordingly, Sirius respectfully requests that the Commission bring the above-referenced rulemaking to its long-delayed conclusion.”); Letter from Carl R. Frank, Counsel to Sirius, to Magalie Roman Salas, Secretary, FCC at 7 (Feb. 27, 2001) (“The FCC rapidly should adopt a Report and Order in this docket, in time for the fast-approaching service start date of both satellite DARS licensees.”).

IV. TERRESTRIAL RADIO'S COMPETITIVE FEARS ARE UNFOUNDED; SIRIUS WILL NOT ORIGINATE LOCAL PROGRAMMING FROM ITS TERRESTRIAL REPEATERS

Despite Sirius' and the Commission's assertions that the satellite DARS licensees will not originate local programming from terrestrial repeaters, the NAB and certain terrestrial radio operators retrace old ground and hypothesize a fanciful threat to their existing businesses.²² Once again, radio interests claim that Sirius intends to originate local programming via repeaters. This is simply not true.

As the FCC well knows, the NAB and a few radio broadcasters have a long history of opposing satellite DARS for purely competitive reasons. The Commission comprehensively rejected those concerns in two *Report and Orders* in 1995 and 1997. In its 1997 *Terrestrial Repeater NPRM*, the Commission sought to eliminate additional objection by prohibiting "the use of terrestrial repeaters to transmit locally originated programming."²³ Sirius concurred in this approach many times²⁴ and re-affirms that it does not plan to use its terrestrial repeaters operating pursuant to an STA or subsequent rules to distribute local programming.

²² See Comments of the National Association of Broadcasters at 13 (filed August 21, 2001) ("NAB Comments"); Comments of Entercom Communications Corp. at 3 (filed August 21, 2001) ("Entercom Comments").

²³ *Terrestrial Repeater NPRM*, 12 FCC Rcd at 5812.

²⁴ In 1997, Sirius affirmed that "terrestrial devices will not be used to originate programming." *Rules and Policies for the Digital Audio Radio Service in the 2310-2360 MHz Frequency Band*, IB Docket No. 95-91, *Comments of CD Radio* at 3 (filed June 13, 1997). A year later, Sirius urged the Commission to "promulgate rules permitting satellite DARS licensees to operate terrestrial repeaters...so long as they are not used to originate programming." *Rules and Policies for the Digital Audio Radio Service in the 2310-2360 MHz Frequency Band*, IB Docket No. 95-91, *Reply Comments of CD Radio* at 5 (filed Jan. 21, 1998). Again last year, Sirius reiterated that "the plain meaning of the revised rule does not permit Satellite DARS to

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The NAB claims that Sirius might uplink local advertisements to its satellites in the middle of night so that they could be stored on a terrestrial repeater for transmission during the day.²⁵ The Commission should disregard this unfounded speculation because it contravenes Sirius' stated intent not to originate local programming over terrestrial repeaters.²⁶ Accordingly, the NAB's concerns are unfounded and should not obstruct grant of Sirius' request for an STA.²⁷

V. SIRIUS' REQUEST FOR SPECIAL TEMPORARY AUTHORITY IS NOT AN APPROPRIATE FORUM TO QUESTION SIRIUS' USE OF IT'S EXPERIMENTAL AUTHORITY

Sirius respectfully requests that the Commission not co-mingle issues pertaining to experimental authority with the instant request for an STA. Sirius received authority under Part 5 of the Commission's rules to experiment in the 2320-2345 MHz band on October 14, 1999.²⁸

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provide locally originated programming over terrestrial repeaters and Sirius does not harbor any ulterior motive to do so." *Rules and Policies for the Digital Audio Radio Service in the 2310-2360 MHz Frequency Band*, IB Docket No. 95-91, *Reply Comments of Sirius Satellite Radio Inc.* at 4 (filed Mar. 8, 2000).

²⁵ NAB Comments at 13.

²⁶ The statement of Mr. Haynes, cited by Mt. Wilson, is inaccurate and was not authorized by Sirius. See *Mt. Wilson FM Broadcasters, Inc.* at 4-5 (filed August 21, 2001) ("Mt. Wilson Comments"). In any event, Mr. Haynes is no longer employed by Sirius.

²⁷ Sirius notes that terrestrial broadcasters will soon operate a digital radio service as well. See www.ibiquity.com/navframe.html?02content.html (noting the CEO of Ibiquty Digital's statement that "[t]he completion of our FM test program and our soon to be completed AM test program, coupled with the participation in our rollout plans by the major industry participants, puts us firmly on track to make digital AM and FM radio a reality in 2002").

²⁸ Experimental Radio Station Construction Permit and License for Satellite CD Radio, Inc., Call Sign WA2XXE (File No. 0037-EX-ML-2000) (July 5, 2000); Satellite CD Radio, Inc. Application to Modify Experimental Authority (filed June 13, 2000); Experimental Radio Station Construction Permit and License for Satellite CD Radio, Inc., Call Sign WA2XXE (File No. 0252-EX-ML-1999) (Oct. 14, 1999); Satellite CD Radio, Inc., Application for Experimental

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Since that time, Sirius has conducted experiments consistent with its authority. Sirius filed the instant request for an STA, in contrast, under Part 25 of the Commission's rules. Some commenters seek to "link" Sirius' Part 5 experiments to its Part 25 request.²⁹ To the contrary, Sirius sought special temporary authority under Part 25 of the rules in recognition of the fact that its experimental authority under Part 5 would not allow "commercial operation" of any facilities it constructed at its own risk. Although the International Bureau is the proper forum to comment on Sirius' request for special temporary authority, commenters should direct concerns regarding Sirius' experimental authority to the Office of Engineering and Technology.

VI. THE COMMISSION SHOULD RESOLVE INTERFERENCE CONCERNS IN THE RULEMAKING PROCEEDING

The commenters have raised no new interference concerns in response to Sirius request for an STA; rather, they repeat arguments already fully explored in the Commission's docketed rulemaking proceeding regarding the establishment of service rules for satellite DARS terrestrial repeaters. The record of that rulemaking reveals a dispute about the nature, extent and fairness of interference between some satellite DARS repeaters and WCS receivers. It also contains technical data explaining the means by which WCS licensees can minimize any such interference.³⁰ These broad interference issues are best resolved in the context of the

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Authority (filed Sept. 21, 1999).

²⁹ AWS Comments at 6; BellSouth Comments at 22; Mt. Wilson Comments at 3-4; WCA Comments at 6 n.16.

³⁰ As a minimum, Sirius recommends that the FCC's final rules should authorize at least 150 high-power terrestrial repeaters (per satellite DARS licensee) exempt from coordination with WCS licensees. Contrary to NAB's assertion in this proceeding, Sirius has not "advocated that it be allowed to deploy at least 1150 repeaters with EIRP of up to 40kW without any coordination

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Commission's rulemaking proceeding. Nevertheless, Sirius responds below to the specific interference concerns filed in this proceeding.³¹

Sirius' operation of terrestrial repeaters under an STA is unlikely to cause harmful interference to commercial WCS operations. Only two commenters—AWS and WorldCom—claim any commercial operations. AWS admitted that Sirius' operation of 104 terrestrial repeaters sites could cause harmful interference in just six markets.³² These six markets cover “both existing stations and those stations that should be operational by the end of this year (*i.e.*, during the term of the STAs requested by XM and Sirius).”³³ Although AWS claims that terrestrial repeaters will cause additional interference as it continues to “roll out” service, the Commission should not foreclose Sirius' STA on the basis of speculative interference to future service. Similarly, WorldCom alleges immediate interference to its WCS facilities operating in

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with, and regardless of impact on, wireless operators.” NAB Comments at 5-6 & n.15. To support its assertion, NAB cites a February 20, 2001 letter from Sirius' counsel that does not exist. The NAB's confusion may stem from its reliance on AWS' February 20, 2001 letter that, in any event, misinterprets the rules Sirius proposed on January 25, 2001.

³¹ See WorldCom Comments, Exhibit 1; AWS Comments at 7-8; Comments of Navini (filed August 21, 2001); Comments of Beam Reach Networks (filed August 21, 2001); Metricom Comments at 8-9, Exhibit 1; BellSouth Comments at 28-33 and Attachments.

³² AWS Comments at Attachment A. Sirius has been conducting terrestrial repeater experiments in Houston since 1999. As part of these experimental transmissions, Sirius coordinated with numerous entities and since that time has received no complaints of interference. Letter of Carl R. Frank, Counsel for Sirius Satellite Radio Inc. to Magalie Roman Salas, Secretary, FCC, *Ex Parte* Presentation in IB Docket No. 95-91 (dated Feb. 13, 2001); Letter of Carl R. Frank, Counsel for Sirius Satellite Radio Inc. to Magalie Roman Salas, Secretary, FCC, *Ex Parte* Presentation in IB Docket No. 95-91 (dated Feb. 5, 2001).

³³ AWS Comments at 7.

one market—Memphis, Tennessee.³⁴ Even conceding that these claims are true—which Sirius does not—any interference generated by satellite DARS repeaters would be relatively narrow in area and likely resolved through coordination. The FCC and commenters agree that terrestrial repeaters operating below 2kW will be permitted by the proposed rules. The commenters fail to recognize that sufficient numbers of low power terrestrial repeaters to provide broadcast equivalent coverage will cause greater interference than the repeater array proposed by the Sirius STA Request and that Sirius' proposed terrestrial repeaters will cause less interference to the operations of the WCS licensees.

The Commission should not obligate satellite DARS licensees to protect WCS commercial operations. The FCC auctioned spectrum and licensed satellite DARS *before* WCS. The WCS licensees knew, or should have known, of the satellite DARS licensees' intent to operate high power terrestrial repeaters in adjacent spectrum.³⁵ Providing the WCS licensees a

³⁴ WorldCom Comments at 2.

³⁵ Contrary to AWS' assertions, *see* Letter from William M. Wiltshire, Counsel to AWS, to Thomas Sugrue, Chief, Wireless Telecommunications Bureau, IB Docket No. 95-91, File No. SAT-STA-20010712-00063, File No. SAT-STA-20010724-00064 (Aug. 8, 2001) ("AWS August 8, 2001 Letter"), Sirius provided notice of its intent to operate high-power terrestrial repeaters more than a decade ago. *See Application of Satellite CD Radio, Inc. for Authority to Construct, Launch and Operate a Space Station in the Satellite Sound Broadcasting Service at 103° West Longitude*, File Nos. 49-DDS-P/LA-90, 50-DDS-P/LA-90, at 21 (May 18, 1990). In addition, Sirius' November 14, 1997 letter—cited and acknowledged by AWS—proposed repeater power levels up to approximately 400 kilowatts and provides both the proposed maximum transmitter output power (in dBW) and antenna gain levels (in dBi). Letter from Robert D. Briskman to Rosalee Chiara, IB Docket No. 95-91, at 5 (filed Nov. 14, 1997). By definition, Effective Isotropically Radiated Power is "the product of the power supplied to the antenna and the antenna gain in a given direction relative to an isotropic antenna." 47 C.F.R. § 2.1. Although Sirius provided all data required to calculate the power levels proposed, AWS neglects to do so. This oversight cannot constitute surprise nor should it excuse the failure of WCS licensees to design sufficiently interference resilient RF receiver front-ends.

“veto” over Sirius’ operation of terrestrial repeaters—pursuant to an STA or final rules—would upend the historical context in which the Commission established both services.

Any possible disruption of WCS services results from the WCS’ licensees’ technical decisions. The WCS licensees’ transceivers (both consumer and base station) receive across the entire WCS upper or lower bands. These transceivers do not adequately reject authorized transmissions in the satellite DARS band. In contrast, Sirius has designed a receiver that adequately rejects XM’s transmissions.

In any event, the WCS licensees can cure any interference problem prospectively. The Commission should require WCS licensees exclusively to deploy base station and user equipment designed with modern engineering techniques to minimize the potential for overload interference. In fact, Sirius, faced with a similar interference problem, developed a front-end for the terrestrial portion of its receiver that handles overload interference from XM’s terrestrial transmissions, in spectrum separated by as little as 8 MHz. The WCS licensees’ inexcusable failure to employ similar engineering does not warrant imposing additional obligations on satellite DARS licensees.³⁶

Finally, the Commission should reject the WCS licensees’ attempt to parallel the current proceedings with the four-year-old decision requiring WCS licensees to protect certain legacy analog MDS and ITFS transceivers.³⁷ The FCC crafted the WCS rules to uphold the reasonable

³⁶ Put differently, and mindful of the *a priori* policy to ensure that WCS did not interfere with satellite DARS, WCS petitioners cannot simply limit their equipment procurement to off-the-shelf systems when satellite DARS licensees have gone so much further.

³⁷ WCA Comments at 6-9.

expectations of MDS and ITFS customers in the face of a newly created and licensed service.³⁸ Sirius and XM have built and launched five satellites, invested hundreds of millions of dollars in studio, customer care and other infrastructure, and the Commission has codified the necessary protection requirements in Coordination Agreements with Canada and Mexico. In contrast, WCS was subsequently licensed, has few, if any, current customers, could employ filtering³⁹ and most of the licensees hold other spectrum (either PCS or MMDS) in which to utilize equipment abnormally sensitive to adjacent carriers. The WCS proceeding does not support hamstringing satellite DARS licensees to excuse WCS licensee's twin failures to understand the interference environment initially and to design appropriately capable equipment.

³⁸ See *Amendment of the Commission's Rules to Establish Part 27, the Wireless Communications Service*, 12 FCC Rcd 3977 (1997).

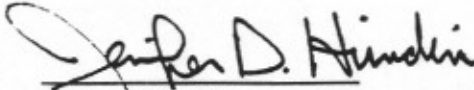
³⁹ At least some WCS licensees have agreed that filters in base stations might mitigate the interference.

VII. CONCLUSION

For the reasons discussed, Sirius respectfully requests that the Commission grant its request for special temporary authority to operate terrestrial repeaters sites in connection with its satellite DARS system for a period of 180 days or until such time as the Commission issues final rules governing the use of satellite DARS terrestrial repeaters.

Respectfully submitted,

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Dated: August 31, 2001

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I hereby certify that on this 31st day of August 2001, I caused copies of the foregoing

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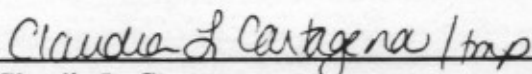
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