

Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, DC 20554

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Federal Communications Commission  
Office of Secretary

In the Matter of )  
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Sirius Satellite Radio Inc. ) File No. SAT-STA 20060623-00067  
)  
Request for Modification of Special )  
Temporary Authority to Operate )  
Terrestrial Repeaters )

Received

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Policy Branch  
International Bureau

To: Acting Chief, International Bureau

Sirius Satellite Radio Inc. ("Sirius") hereby opposes the Petitions to Deny filed by licensees in, and a trade association for, the 2.3 GHz Wireless Communications Service ("WCS").<sup>1</sup> Each petition objects to Sirius' recent request to modify<sup>2</sup> its long-standing FCC authorization for a network of terrestrial repeaters. For the reasons set forth below the Commission should reject the Petitions and grant Sirius' application.

## I. Background

The FCC first allocated 2.3 GHz spectrum for the new satellite digital audio radio ("satellite DARS") in 1995; service rules and an auction followed two years later. Sirius

<sup>1</sup> BellSouth Mobile Data, Inc. ("BellSouth"), NextWave Broadband Inc. ("NextWave") and the WCS Coalition ("WCSC"), all filed September 18, 2006, in File No. SAT-STA-20060623-00067. In early September, Sprint/Nextel withdrew its previously filed non-opposition to the Sirius application, for reasons addressed by one or more Petitioners here. Letter from Paul Sinderbrand to Patrick Donnelly (dated Sept. 7, 2006).

<sup>2</sup> Request for Special Temporary Authority, File No. SAT-STA-20060623-00067 (filed June 23, 2006).

paid \$83 million for one of two satellite DARS licenses.<sup>3</sup> By mid 2001 – after investing over \$1 billion and years ahead of its license milestones – Sirius had constructed and launched three state-of-the-art satellites.<sup>4</sup> Positioned in highly elliptical orbit, Sirius’ satellite constellation broadcasts two space- and frequency-diverse transmission paths, at relatively high look angles, to consumer satellite DARS receivers.

From the start, satellite DARS was defined to include a ground-based component of “complementary terrestrial repeaters.”<sup>5</sup> This network was intended to overcome signal fading and multipath where terrain, buildings or interference otherwise would generate localized service availability challenges.

Unfortunately, though the FCC published draft repeater rules in 1997,<sup>6</sup> the docket stalled when WCS licensees – including Petitioners – suddenly demanded DARS repeaters be treated like WCS base stations, which are capped at 2,000 Watts eirp.<sup>7</sup> This position fundamentally inverted the facts: The WCS rulemaking<sup>8</sup> confirmed the need to “protect prospective satellite DARS licensees from interference from WCS operations,”<sup>9</sup> made WCS secondary to satellite DARS,<sup>10</sup> and adopted Part 27 technical limits designed

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<sup>3</sup> FCC News Release WL-7023 (April 2, 1997).

<sup>4</sup> Sirius recently requested authority for a fourth spacecraft to be launched into geostationary orbit.

<sup>5</sup> 47 C.F.R. § 2.106, international footnote S5.393 (formerly 750B).

<sup>6</sup> *Establishment of 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).

<sup>7</sup> 47 C.F.R. § 27.50(a).

<sup>8</sup> *Amendment of the Commission’s Rules to Establish Part 27, the Wireless Communications Service (“WCS”)*, 12 FCC Rcd 10785, ¶ 45 (1997) (“WCS Recon Order”).

<sup>9</sup> *Id.*, ¶ 3.

<sup>10</sup> *See id.*, ¶ 27 (“We also recognize that the 2320-2345 MHz frequency band is the only spectrum specifically available for provision of Satellite DARS in the United States. Accordingly, if Satellite DARS in this spectrum is subject to excessive interference, the service will not be successful and the American public will not benefit from the service.”); *see also* 47 C.F.R. § 27.64.

to “ensure that WCS operations do not cause harmful interference or disturbance to adjacent satellite DARS reception.”<sup>11</sup>

With its repeater infrastructure in legal limbo, Sirius would have been unable to deliver the high-quality, seamless signal coverage satellite DARS promised. So, with commercial kick-off approaching,<sup>12</sup> Sirius sought Special Temporary Authorization (“STA”) for approximately 100 repeaters throughout the continental United States—which Petitioners also fought. Recognizing that unfortunate and unforeseeable procedural delays should not jeopardize a new and unique offering, the FCC in September 2001 granted Sirius’ STA,<sup>13</sup> specifically confirming that satellite DARS repeaters met the statutory criteria:

We find that grant of an STA in these circumstances is appropriate and violates neither the Communications Act nor the Commission’s rules. In 1997 when the Commission adopted service rules for SDARS and requested further comment on complementary terrestrial repeaters, it was clearly contemplated that the repeaters were to be part of the proposed satellite systems. In the service rules and in Sirius’s individual SDARS license, Sirius was given specific milestone requirements including dates by which its system must be constructed and put into operation. Sirius has proceeded with satellite construction, has in fact launched both [*sic*] of its satellites, and need to employ terrestrial repeaters to provide adequate service. While Sirius was building its system, the Commission has been working to resolve the complex technical issues involved in adopting final rules to authorize SDARS repeaters but the Commission has not yet completed this rulemaking. We find that this situation has created the extraordinary

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<sup>11</sup> *WCS Recon Order*, ¶ 136. Given the primacy of satellite DARS over WCS, the agency repeatedly cautioned potential WCS auction bidders to “consider carefully whether their anticipated uses and business plans can be successfully implemented” within the technical limits, explaining that “wide area, full mobility systems and service such as those being provided or anticipated in the cellular and PCS bands are likely to be of questionable feasibility.” *Amendment of the Commission’s Rules to Establish Part 27, the Wireless Communications Services (“WCS”)*, Memorandum Opinion and Order, 12 FCC Rcd 3977, 3979 (1997). As the agency well knows, “mobile stations” include temporarily fixed receivers (*see* 47 C.F.R. § 2.1), such as portable computers connected to the Internet via wireless broadband, the most recent iteration of the ever-changing WCS business plan. The message was received, as reflected at the auction: though held only a few weeks after satellite DARS licensees paid the treasury \$170 million for 25 MHz (or nearly \$7 million per megahertz), the winning WCS licensees spent less than \$14 million for 30 MHz (under \$0.5 million per megahertz).

<sup>12</sup> Sirius began commercial service in February 2002.

<sup>13</sup> *Sirius Satellite Radio Inc. Special Temporary Authority*, 16 FCC Rcd 16773 (“*Sirius STA Order*”), *recon.* 16 FCC Rcd 18481 (2001).

circumstances required by the statute and our rules to justify grant of an STA. It would be unfair to penalize Sirius for complying with our required milestone schedule on the one hand but on the other force it to seriously delay initiation of service because there are no final repeater rules.<sup>14</sup>

Since commencing commercial operations, the FCC has granted Sirius STA to operate approximately 240 terrestrial repeaters. Of course, like all STAs, Sirius' repeaters operate on a non-interference basis; the FCC also required all repeaters to conform to any future Part 25 rule.

Overcoming market risks and regulatory uncertainties, Sirius has triumphed, delivering high quality, multi-channel programming to more than five million subscribers throughout the continental United States. Essential to Sirius' success is its terrestrial network which, after the FCC approved several modest STA expansions, today consists of approximately 140 operating terrestrial repeaters reaching zones where localized blocking and shadowing prevent satellite reception. The instant application is a product of Sirius' operating experience, with the 16 additional repeaters, adjacent to existing Sirius terrestrial transmitters, filling perceived service area challenges. Each proposed transmitter was engineered at power levels no more than necessary to plug perceived service availability shortfalls—in general, the new repeaters are of relatively low power, varying from 2400 to 7000 Watts/sector. To accommodate Sirius' growing subscriber base and fill additional network challenges, Sirius also expects to seek to amend other STAs already granted to identify final locations or seek additional STAs for relatively low power additional repeaters.

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<sup>14</sup> *Id.*, ¶ 7 (footnotes omitted).

## II. Argument

Petitioners offer three related rationales opposing Sirius' request to add 16 new sites to the current terrestrial repeater STA.<sup>15</sup> First, that the application falls short of the statutory justification for STA.<sup>16</sup> Next, that the new repeaters could cause future interference. Finally, that repeater expansion should be frozen pending completion of the repeater docket and any resulting rules,<sup>17</sup> which they confidently claim will limit satellite DARS repeaters to 2000 Watts.<sup>18</sup>

Arguments that an STA would be unjustified have already been asked and answered. The FCC considered, and rejected, Petitioners' identical claim in its 2001 STA order, holding that, since Sirius had completed construction and was ready to start service, the stalled repeater docket "has created the extraordinary circumstances required by the statute and our rules to justify grant of an STA."<sup>19</sup> The Commission also concluded that the Section 25.120<sup>20</sup> requirement for specificity was satisfied by disclosing the technical specifications of each proposed repeater.<sup>21</sup> And the Sirius STA was temporary—pending, and subject to, adoption of final rules. All three conditions remain true today.<sup>22</sup> Plus, if anything, the current equities are clearer—in nine years, Sirius raised nearly billions in capital, completed network construction and shortly will

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<sup>15</sup> BellSouth sees great significance in the application's failure to note BellSouth's June 21, 2006, email objection. BellSouth at 4-6. Sirius regrets the error; the email objection was simply overlooked. No insult was intended, and – given BellSouth's formal Petition here – no rights were affected.

<sup>16</sup> WCSC at 7-8; NextWave at 3-8; BellSouth at 3-4. Inconsistently, BellSouth concedes Sirius "perhaps . . . satisfied the standards of Section 15.120(b)(1)." BellSouth at 3.

<sup>17</sup> NextWave at 8-11.

<sup>18</sup> BellSouth at 6-7; WCSC at 4, 8; NextWave at 7.

<sup>19</sup> *Sirius STA Order*, ¶ 7.

<sup>20</sup> 47 C.F.R. § 25.120.

<sup>21</sup> *Sirius STA Order*, ¶ 9. Notably, Petitioners neither dispute nor present evidence challenging the application's statement that the proposed repeaters are required to fill coverage gaps. Sirius notes that false assertions in its application could be subject to 18 U.S.C. § 1001, as well as FCC enforcement authority.

<sup>22</sup> Sirius' June 23, 2006, application included a spreadsheet supplying the same technical parameters for the 16 new sites as was included in all previous and later approved repeater STA requests.

enter its sixth year of commercial operations; over the same period, Petitioners risked little, built next to nothing and serve almost no one.<sup>23</sup>

Second, although the petitions are replete with references to interference, the crucial issue, like the fictional dog in Dartmoor,<sup>24</sup> is what the WCS licensees *don't* say. Petitioners do not claim Sirius' proposed repeaters will cause harmful interference to WCS transmissions. Nor, for the most part, could they: few built commercial 2.3 GHz networks, and none of those overlap the sites Sirius proposes to add.<sup>25</sup> So, lacking any plausible present interference, Petitioners proffer hypothetical harms to dreamed-about deployments. Such stories are insufficient grounds to deny the instant STA. Indeed, any additional restrictions would be duplicative, because WCS licensees offering substantial service before the construction deadline would be protected from "interference caused by SDARS repeaters . . . during the period the STA is in effect."<sup>26</sup>

Finally, Petitioners ask the Commission to suspend STA modifications until adoption of repeater rules which, they insist, always contemplated a 2 kilowatt cap on permitted repeater power.<sup>27</sup> This turns law and policy on its head; the 2001 STA intended exactly the reverse: limited and temporary approval bridging regulatory red tape with, given the paucity of WCS build-out, little risk of harmful interference. Petitioners' other concerns – "allocation amnesia" about satellite DARS spectrum

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<sup>23</sup> Elsewhere, Petitioners have requested a three-year extension of the WCS construction period. *Wireless Telecommunications Bureau Seeks Comment on Consolidated Request for Waiver of the WCS Construction Rule*, DA 06-2009 (May 10, 2006).

<sup>24</sup> Cf. Arthur Conan Doyle, *The Hound of the Baskervilles* (1901).

<sup>25</sup> BellSouth operates a handful of systems, none of which apparently overlap the satellite signal gaps at issue in the instant application. See Letter from Jeanine Poltronieri to Marlene Dortch, WT Docket No. 06-102, IB Docket No. 95-91 (filed Sept. 20, 2006).

<sup>26</sup> *Sirius STA Order*, ¶ 13.

<sup>27</sup> BellSouth at 6-7; WCSC at 4, 8; NextWave at 7.

primacy;<sup>28</sup> certainty, without citation, of an imagined 2,000 Watt limit;<sup>29</sup> and rage about a recent Sirius/XM proposal to grandfather all existing 2.3 GHz transmitters<sup>30</sup> – are topics for the rulemaking, and irrelevant to an STA confined to the pre-finality period.<sup>31</sup>

### III. Conclusion

The sole issue here is whether to authorize an expansion of the Sirius repeater network where both circumstances and conditions remain unchanged since the 2001 STA. Lacking any genuine basis for objection, Petitioners misread the law, invent specious issues and demand duplicative protections. Even were their claims correct – and they are not – the Petitions are best directed to the repeater rulemaking, not this STA request. Accordingly, the FCC should deny all Petitions and grant the Sirius application.

Respectfully submitted,

/s/ Patrick L. Donnelly

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<sup>28</sup> *E.g.*, WCSC at 2-3.

<sup>29</sup> *E.g.*, BellSouth at 7 & n.12.

<sup>30</sup> *E.g.*, NextWave at 14-16.

<sup>31</sup> To its credit, WCSC acknowledges “this proceeding is not the place to debate the merits of the proposal that Sirius and XM have just put forth.” WCSC at 6.

**CERTIFICATE OF SERVICE**

I, Pam Conley, do hereby certify that on October 2, 2006, I served a copy of the aforementioned **Reply of Sirius Satellite Radio** upon the following parties either by U.S. first-class mail, postage pre-paid, or by electronic mail delivery (\*):

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