



Sirius XM Radio Inc.
1500 Eckington Place NE
Washington, DC 20002

T: 202-380-1383
F: 202-380-4981

siriusxm.com

January 31, 2019

Via Electronic Filing (ECFS)

Marlene H. Dortch, Secretary
Federal Communications Commission
445 12th Street SW
Washington, DC 20554

Re: Ex Parte Notice: Amendment of Parts 1, 2, 22, 24, 27, 90 and 95 of the Commission's Rules to Improve Wireless Coverage Through the Use of Signal Boosters, WT Docket 10-4

Dear Ms. Dortch:

Sirius XM Radio Inc. ("Sirius XM") submits this letter to follow up on its Comments¹ responding to the Commission's *Second Further Notice of Proposed Rulemaking* in this proceeding.² Both the Comments and this letter focus exclusively on the aspect of the FNPRM inquiring whether the Commission should allow use of Consumer Signal Boosters in the Wireless Communications Service ("WCS") band at 2305-2320 MHz and 2345-2360 MHz.³ Sirius XM operates in the Satellite Digital Audio Radio Service ("SDARS") band at 2320-2345 MHz, which is surrounded on both sides by the WCS band.

The Comments discussed the harm that would be caused by allowing consumer signal boosters to operate in the WCS band, stemming from the significant technical challenges inherent in WCS band operations due to its adjacency to the SDARS band and the resulting risk of interference to Sirius XM's operations in that band. The Commission has long recognized those challenges and the interference risk, adopting the current WCS rules only after a rulemaking lasting for well over a decade before finally coming up with rules that would promote WCS development while limiting the potential for harmful interference to SDARS subscribers caused by WCS operations.⁴

¹ See Comments of Sirius XM Radio Inc., WT Docket No. 10-4 (filed May 18, 2018) (the "Comments").

² Amendment of Parts 1, 2, 22, 24, 27, 90 and 95 of the Commission's Rules to Improve Wireless Coverage Through the Use of Signal Boosters, Second Report and Order and Second Further Notice of Proposed Rulemaking, WT Docket No. 10-4, FCC 18-35 (Mar. 22, 2018) (the "FNPRM").

³ *Id.* ¶ 24.

⁴ Amendment of Part 27 of the Commission's Rules to Govern the Operation of Wireless Communications Services in the 2.3 GHz Band, WT Docket No. 07-293, Establishment of Rules and Policies for the Digital Audio Radio Satellite Service in the 2310-2360 MHz Band, IB Docket No. 95-91, GEN Docket No. 90-357, RM-8610, Order on Reconsideration, 27 FCC Rcd 13651 (2012) (the "2012 WCS Order").

The Comments also explained that allowing signal boosters in the WCS band would upset the careful balance that the Commission established in the WCS rulemaking and would further complicate the coordination challenges that WCS and SDARS licensees address every day as the WCS band continues to mature. In the 2012 WCS Order and prior decisions in that docket, the Commission acknowledged the difficulties of relaxing technical restrictions on the WCS band, given the band's proximity to SDARS spectrum, and threaded the needle to design specialized rules intended to accommodate the interests of both services.⁵ To accomplish this goal, those rules adopt a unique definition of interference to SDARS, impose strict limits on the technical operations of WCS licensees, establish procedures for measuring and resolving interference, impose information sharing requirements, and place a duty on the parties to cooperate to identify and avoid interference.⁶ An assumption underlying the rules was that WCS band users would be FCC-licensed entities that understand and strive to work within the Commission's requirements, including by developing formal coordination agreements, and that have the capacity to address and resolve the technical concerns that inevitably would arise.

This is in fact what has transpired so far. As those rules contemplated, Sirius XM and AT&T (which controls almost all WCS licenses) work together extensively to avoid, identify, and where necessary, resolve interference that WCS transmissions cause or might cause to SDARS receivers, including through detailed coordination agreements. In order to deal with interference concerns, both Sirius XM and AT&T are committed to conducting ongoing – often daily – communications, requiring the participation of technical, legal, and executive personnel throughout their organizations. To be clear, this is not a scenario where the Commission adopted rules and little further interaction is needed to effectuate the rules' purpose. Interference avoidance in this context requires constant diligence and focus by these Commission licensees, each of which has recognized the challenges and committed the time of multiple employees and substantial corporate resources to the effort for the long-term future.

This process simply is not adaptable to a scenario where thousands or hundreds of thousands of consumer signal boosters are also allowed to operate in the WCS band. There is no practical likelihood those users could enter into coordination agreements or develop other mechanisms for coordinating their WCS band use with Sirius XM and AT&T, and the process the Commission adopted in the WCS rules following years of deliberation – as effectively supplemented by coordination agreements between Sirius XM and AT&T – would cease to function. Coordinating use of the WCS band would grind to a halt, despite the best efforts of the Commission, Sirius XM, and AT&T.

The balanced interests underlying the WCS rules would be upset by allowing consumer signal boosters in the band, with significant risk of harm to both WCS and SDARS customers. Adding consumer boosters to the WCS band would dramatically increase the risk of interference

⁵ See Comments of AT&T Services, Inc. at 3, WT Docket No. 10-4 (filed May 18, 2018) (“special rules were devised for WCS regarding power levels and emission masks, and mobile use was prohibited altogether in the C and D Blocks”).

⁶ See *e.g.*, 47 C.F.R. §§ 27.50, 27.53, 27.64, and 27.72.

to SDARS, requiring the Commission to revise its already restrictive power limits on WCS operations to avoid impairing satellite radio reception.⁷ Such revisions to the WCS rules to accommodate booster transmissions would not only take years to implement, but when finalized, could restrict AT&T's own ability to serve its customers relying on the WCS band for their wireless services. And this result does not even consider the likelihood that consumer signal booster usage in the WCS band might directly and negatively affect the wireless service AT&T provides to its WCS customers.⁸

Moreover, if the Commission were to allow consumer signal boosters to use the WCS band and those boosters in fact cause interference, it would be extremely difficult, if not impossible, for the Commission to resolve the problems the devices are causing. Once consumer boosters are authorized and in the hands of users, the Commission will have no practical means to identify which devices are responsible for causing interference, much less ensure those devices terminate their transmissions, or to initiate enforcement proceedings against booster users who fail to comply. It would be equally difficult for the Commission to tighten its technical rules applying to consumer boosters once they have been authorized and marketed for use. The Commission has limited resources to resolve interference caused by consumer devices and it would face significant practical challenges in attempting to do so.

The best approach in this context, by far, would be for the Commission to continue its prohibition against any consumer signal booster usage in the WCS band. Considering the careful balance between SDARS and WCS interests underlying the Part 27 technical framework and the significant risk of harm that would be caused to licensees in both of these bands, the Commission should not consider allowing consumer signal boosters in the WCS band.

Should any questions arise in connection with this matter, please communicate directly with the undersigned.

Very truly yours,

A handwritten signature in blue ink, appearing to read "James S. Blitz", with a long horizontal line extending to the right.

James S. Blitz
Vice President, Regulatory Counsel

⁷ See 47 C.F.R. § 27.64(d) (defining harmful interference to SDARS).

⁸ See Reply Comments of AT&T Services, Inc. at 1, WT Docket No. 10-4 (filed June 18, 2018) ("the Commission should not permit the operation of Consumer Signal Boosters in 2.3 GHz Wireless Communications Service ('WCS') spectrum, as there is a significant risk of interference to commercial wireless and other wireless operations").