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September 21, 2020

Informal Objection of Sirius XM Radio Inc. to 3G Wireless Requests for Experimental Special Temporary Authority, File Nos. 1402-EX-ST-2020 & 1404-EX-ST-2020

Sirius XM Radio Inc. ("Sirius XM"), the licensed provider of Satellite Digital Audio Radio Service ("SDARS") in the 2320-2345 MHz frequencies, submits this informal objection to the above-referenced requests of 3G Wireless, LLC ("3G Wireless" or "3G") for experimental Special Temporary Authority ("STA").

Sirius XM has analyzed the STA requests, and the operations planned by 3G Wireless in two Wireless Communications Service ("WCS") frequency bands – the 2312-2320 MHz band and the 2352-2360 MHz band – are expected to cause harmful interference to Sirius XM subscribers' service. 3G Wireless seeks to use this spectrum to support remote video coverage of motorsports racing events in Charlotte, NC, and Atlanta, GA, pursuant to a commercial agreement between 3G Wireless and NASCAR Media Group – operations that do not qualify for treatment as experimental under Section 5.5 of the Commission's rules. The events during which 3G plans to use WCS spectrum are expected to attract significant numbers of Sirius XM subscribers whose service could be disrupted by these transmissions.

Sirius XM's past practice has been to contact 3G Wireless directly in an attempt to reach a mutually acceptable resolution, an approach that has been successful with other experimental applicants. However, 3G has consistently ignored or failed to timely respond to such outreach and has been dismissive of Sirius XM's concerns, as discussed in the attached pleadings involving another recent 3G experimental STA request, File No. 1254-EX-ST-2020. Given 3G's actions, Sirius XM has concluded that it must put its interference concerns on the record with the Commission, rather than rely on cooperation from 3G, in order to ensure service to SDARS customers is protected.

Sirius XM remains open to discussing the instant STA requests with 3G Wireless but would need additional information regarding the planned operations in the WCS spectrum to better assess the interference threat:

1. Will the 3G Wireless transmission equipment meet the specifications required of all WCS licensees under Part 27, including the emissions limits in Section 27.53 of the rules that were adopted to limit the risk of interference to SDARS from transmissions in the WCS spectrum?
2. Please supply the following information regarding the transmitted waveforms:
 - a. Peak to average power ratios.
 - b. Out-of-band emission masks showing how much power would be in-band to the SDARS spectrum at 2320-2345 MHz.

- c. Explain how the waveforms vary with time:
 - i. Are they on continuously or do they operate in pulsed or TDM mode?
 - ii. If they are not continuous, what are the duty cycles, pulse rates, and other waveform characteristics?
- 3. Please provide more specific planned locations of mobile video transmitters:
 - a. Will any video transmitters be located on top of any buildings, grandstands, or other structures?
 - b. Will any airborne platforms (helicopters, drones, balloons, kites, aerial "high-wires", etc.) be used to transmit any video signals?

To ensure that Sirius XM subscribers are protected from interference, Sirius XM asks that the Commission decline to authorize 3G's proposed use of the 2312-2320 MHz and 2352-2360 MHz bands or any other WCS spectrum unless and until Sirius XM's concerns are resolved. At the very least, the Commission should include in any grant of authority for WCS spectrum a requirement to comply with Section 27.53, consistent with prior Commission practice in experimental authorizations for these frequencies. *See, e.g., 3G Wireless, LLC, Call Sign WP9XSC, File No. 2258-EX-ST-2019, Grant at 16, Special Condition 5 ("Operations in the WCS bands (2305-2320 MHz and 2345-2360 MHz) must comply with the emission limits applicable to those bands. See 47 C.F.R. § 27.53(a).")*.

Any questions regarding this submission can be addressed to Karis Hastings, outside counsel for Sirius XM, at 202-599-0975, karis@satcomlaw.com.

ATTACHMENT: SIRIUS XM PLEADINGS IN FILE NO. 1254-EX-ST-2020



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September 4, 2020

**Objection of Sirius XM Radio Inc. to 3G Wireless Request for
Experimental Special Temporary Authority, File No. 1254-EX-ST-2020**

Sirius XM Radio Inc. ("Sirius XM"), the licensed provider of Satellite Digital Audio Radio Service ("SDARS") in the 2320-2345 MHz frequencies requests that the Commission revoke or modify the Special Temporary Authority ("STA") granted to 3G Wireless, LLC ("3G Wireless") in the above-referenced proceeding. Because the STA authorizes operations to commence today, Sirius XM seeks expedited action on this request.

Sirius XM has analyzed the operations planned by 3G Wireless and is concerned that they will cause harmful interference to subscribers' reception of the Sirius XM signal. Sirius XM raised its concerns directly with 3G Wireless in an attempt to reach a mutually acceptable resolution, reaching out initially on August 24. After simply ignoring the Sirius XM request for more than a week, 3G Wireless today rejected it outright, stating that the "FCC has already granted the STA" and suggesting that 3G Wireless is entitled to operate absent a complaint of "actual interference." The relevant email chain is copied below.

3G Wireless has been granted authority to operate in two segments of the Wireless Communications Service ("WCS") frequencies: the 2312-2320 MHz band, immediately adjacent to the licensed Sirius XM frequencies and the 2352-2360 MHz band. 3G Wireless plans to use the spectrum to support video coverage of motor racing events which are likely to draw significant numbers of Sirius XM subscribers. Prior to the STA grant, Sirius XM asked 3G Wireless to notch out these two band segments to prevent interference with Sirius XM's service to those subscribers.

Sirius XM has also requested that 3G Wireless confirm whether it has obtained the consent of AT&T that is required under the STA grant prior to any operations in the WCS spectrum. 3G Wireless has not answered that question.

To ensure that Sirius XM subscribers are protected from interference, Sirius XM asks that the Commission revoke the above-referenced STA or modify it to remove the 2312-2320 MHz and 2352-2360 MHz frequencies. At the very least, the Commission should require that any operations in WCS spectrum comply with Section 27.53, consistent with Commission practice in experimental authorizations for these frequencies. *See, e.g., 3G Wireless, LLC, Call Sign WP9XSC, File No. 2258-EX-ST-2019, Grant at 16, Special Condition 5 ("Operations in the WCS bands (2305-2320 MHz and 2345-2360 MHz) must comply with the emission limits applicable to those bands. See 47 C.F.R. § 27.53(a).")*.

Any questions regarding this submission can be addressed to Karis Hastings, outside counsel for Sirius XM, at 202-599-0975, karis@satcomlaw.com.

Attachment: Email Correspondence

Greg,

This is an extremely disappointing response to our repeated attempts to reach out to 3G Wireless and resolve our concerns with you. Given your refusal to cooperate we will be in touch with the FCC immediately to ask that they revoke or modify the STA grant, providing them a copy of this email correspondence.

With respect to your observations below, I note that as Sirius XM has previously advised you, SDARS operations are highly sensitive to interference from operations in the WCS frequencies adjacent to the SDARS band. The FCC has recognized this and imposed strict out-of-band emission limits on WCS providers, set forth in Section 27.53(a) of the rules, expressly to protect reception by Sirius XM subscribers. In addition, Sirius XM has a coordination agreement with AT&T, the WCS licensee, that regulates the amount of interference that can be caused to Sirius XM, and introduction of additional interfering signals from 3G Wireless would make it difficult if not impossible to ensure that the coordinated levels are maintained.

In light of this existing regulatory framework, Sirius XM is fully entitled to protection from the harmful interference that your operations in the WCS bands would create, and we do not have to wait for our subscribers to experience actual interference before objecting. I also note that the STA grant requires 3G to obtain the consent of AT&T prior to any operations in the WCS bands. Have you received such consent?

I will forward a copy of our objection when we have filed it with the FCC.

Best regards,
Karis

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Attachment: Email Correspondence

From: Greg Robinson <GregR@3gwireless.tv>
Sent: Friday, September 4, 2020 4:09 PM
To: Karis Hastings <karis@satcomlaw.com>
Cc: Stephen Tobias <StephenT@3gwireless.tv>; Greg Scheer <GregS@3gwireless.tv>; Chris Imlay <chris@imlaylaw.com>
Subject: RE: Sirius XM Request for Notch Out of 2312-2320 MHz and 2352-2360 MHz Frequencies from 3G Wireless Experimental STA Request, File No. 1254-EX-ST-2020

Hi Karis,
FCC has already granted the STA. If there is an actual interference complaint 3G will be happy to address it at that time, but we don't have reason to believe that there will be any. Also, Sirius/XM is not entitled to out of band interference protection to the extent of 3G having to notch out the adjacent bands to those for DBS. 3G will make every effort to reduce the likelihood of interference by reducing our bandwidth and limiting the power level near the DBS band, 2320 to 2352 MHz.
Please don't hesitate to contact me if you have any further questions.

Regards,
Greg Robinson
3G

From: Karis Hastings [<mailto:karis@satcomlaw.com>]
Sent: Friday, September 04, 2020 3:58 PM
To: Greg Robinson
Cc: Stephen Tobias; Greg Scheer; Chris Imlay
Subject: RE: Sirius XM Request for Notch Out of 2312-2320 MHz and 2352-2360 MHz Frequencies from 3G Wireless Experimental STA Request, File No. 1254-EX-ST-2020
Importance: High

Sirius XM renews its request that 3G Wireless comply with the notch out requested below. As I indicated in the telephone message I left Stephen Tobias, if I do not hear from the company this afternoon, Sirius XM will notify the FCC regarding 3G's failure to respond and ask that the STA be modified or suspended.

Best regards,
Karis

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Attachment: Email Correspondence

From: Karis Hastings <karis@satcomlaw.com>
Sent: Wednesday, September 2, 2020 3:41 PM
To: 'Greg Robinson' <GregR@3gwireless.tv>
Cc: 'Stephen Tobias' <StephenT@3gwireless.tv>; 'Greg Scheer' <GregS@3gwireless.tv>;
'Chris Imlay' <chris@imlaylaw.com>
Subject: RE: Sirius XM Request for Notch Out of 2312-2320 MHz and 2352-2360 MHz
Frequencies from 3G Wireless Experimental STA Request, File No. 1254-EX-ST-2020
Importance: High

Gentlemen,

I have not received a response to my email below. Please confirm as soon as possible whether 3G Wireless will comply with the notch out Sirius XM has requested. Otherwise, Sirius XM will file an objection with the FCC.

Best regards,
Karis

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Attachment: Email Correspondence

From: Karis Hastings <karis@satcomlaw.com>
Sent: Monday, August 24, 2020 11:51 AM
To: 'Greg Robinson' <GregR@3gwireless.tv>
Cc: 'Stephen Tobias' <StephenT@3gwireless.tv>; 'Greg Scheer' <GregS@3gwireless.tv>; 'Chris Imlay' <chris@imlaylaw.com>
Subject: Sirius XM Request for Notch Out of 2312-2320 MHz and 2352-2360 MHz Frequencies from 3G Wireless Experimental STA Request, File No. 1254-EX-ST-2020

Greg,

As you know, I am outside counsel for Sirius XM, the satellite digital audio radio service (SDARS) provider. Sirius XM has previously advised you that any operations by 3G Wireless in the 2310-2355 MHz range are problematic for Sirius XM because of the risk of interference to Sirius XM's licensed SDARS operations. The above-referenced experimental STA request includes two band segments within that range: the 2312-2320 MHz band immediately adjacent to the licensed Sirius XM spectrum and the 2352-2360 MHz band. 3G Wireless seeks to use these frequencies during motor racing events which are likely to draw significant numbers of Sirius XM subscribers. Sirius XM is concerned that at the power levels proposed, the 3G Wireless transmissions in these frequency bands would interfere with Sirius XM's service to those subscribers.

To prevent this harmful interference, Sirius XM requests that 3G Wireless notch out the 2312-2320 MHz and 2352-2360 MHz bands from this STA request.

Can you please get in touch with me regarding this matter? My contact information is below. As we have done before, we would prefer to resolve our concerns directly with 3G Wireless if possible, but if we do not hear from you, we will submit an objection to the FCC.

Best regards,
Karis

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September 21, 2020

TIME SENSITIVE: EXPEDITED ACTION REQUESTED

**Reply of Sirius XM Radio Inc. Regarding 3G Wireless Request for
Experimental Special Temporary Authority, File No. 1254-EX-ST-2020**

Sirius XM Radio Inc. ("Sirius XM"), the licensed provider of Satellite Digital Audio Radio Service ("SDARS") in the 2320-2345 MHz frequencies, submits this reply regarding Sirius XM's request that the Commission revoke or modify the Special Temporary Authority ("STA") granted to 3G Wireless, LLC ("3G Wireless" or "3G") in the above-referenced proceeding.¹ The Sirius XM Objection identified harmful interference that the operations planned by 3G Wireless in two Wireless Communications Service ("WCS") frequency bands – the 2312-2320 MHz band and the 2352-2360 MHz band – were expected to cause to Sirius XM subscribers' service. Sirius XM documented its attempts to resolve these concerns with 3G Wireless, which at first ignored, then summarily rejected, Sirius XM's requests. Sirius XM asked the Commission to revoke the 3G Wireless STA, modify it to remove the 2312-2320 MHz and 2352-2360 MHz frequencies, or at a minimum require any operations in these bands by 3G Wireless to comply with the out-of-band emission limits for WCS set forth in Section 27.53 of the Commission's rules, which are designed to protect SDARS subscribers from receiving interference.²

The 3G Wireless Response³ contributes nothing of substance on these issues, expressing an exaggerated level of entitlement and outrage wholly at odds with 3G's position as an interloper seeking, for commercial rather than experimental purposes, to transmit in spectrum allocated to other parties. As discussed below, 3G Wireless ignores both the Commission's rules governing experimental operations and the relative priorities of licensees using spectrum in conformance with the Table of Allocations versus the limited rights of experimental authorization holders. 3G Wireless also fails to acknowledge a simple underlying fact – that 3G's own failure to engage in a technical discussion when Sirius XM initially raised its concerns eliminated any possibility that a timely resolution could be reached to accommodate 3G's spectrum request without endangering service to Sirius XM's subscribers. In light of this record, Sirius XM renews its request that the Commission promptly revoke or modify the 3G Wireless STA and seeks such action prior to September 25, 2020, when 3G Wireless next plans to operate, threatening interference to Sirius XM's service.

¹ Objection of Sirius XM Radio Inc. to 3G Wireless Request for Experimental Special Temporary Authority, File No. 1254-EX-ST-2020, filed Sept. 4, 2020 ("Sirius XM Objection").

² See *id.* at 1, citing 47 C.F.R. § 27.53(a).

³ Response of 3G Wireless, LLC to Objection of Sirius XM Radio Inc., File No. 1254-EX-ST-2020 ("3G Wireless Response"). The 3G Wireless Response is dated September 8, 2020, but according to OET's experimental database, it was not actually filed until September 9, 2020, the same date that counsel for 3G Wireless emailed a copy to Sirius XM.

I. The 3G Wireless STA Conflicts with Commission Rules and Precedent

In its initial response to Sirius XM's repeated messages regarding the STA, 3G Wireless pointed out that the STA had already been granted, as though that occurrence had relieved 3G Wireless from any obligation to address Sirius XM's interference concerns. But as the first sentence in the STA grant makes clear, the STA "may be terminated by the Commission at any time without advance notice or hearing if in its discretion the need for such action arises."⁴ The circumstances here justify immediate termination, or at least a modification of the STA's terms.

3G Wireless has not proposed any "experimental" operations. As a threshold matter, 3G's STA request does not even attempt to justify why experimental authority would be warranted in this instance – or indeed, for any of the many similar situations in which 3G Wireless has sought "experimental" STAs over the years.⁵ Section 5.5 of the Commission's rules defines "Experimental radio service" as follows:

A service in which radio waves are employed for purposes of experimentation in the radio art or for purposes of providing essential communications for research projects that could not be conducted without the benefit of such communications.⁶

In seeking this STA, 3G Wireless claimed only that the planned operations would support remote video coverage of motorsports racing events pursuant to a commercial agreement between 3G Wireless and NASCAR Media Group. 3G Wireless makes no argument that its use would advance the radio art or support research projects. This defect alone warrants revocation of the instant STA and denial of other 3G Wireless STA requests with similar non-compliant justifications.⁷

Commission rules make clear that Sirius XM's operations are entitled to protection. As a licensed user of spectrum operating pursuant to U.S. frequency allocations, Sirius XM is fully within its rights to insist that any experimental operations will not and could not disrupt service to SDARS subscribers. The Commission's rules are clear on this subject, stating: "Operation of an experimental radio station is permitted only on the condition that harmful interference is not caused to any station operating in accordance with the Table of Frequency Allocation of part 2

⁴ 3G Wireless Request for Experimental Special Temporary Authority, File No. 1254-EX-ST-2020, granted Aug. 26, 2020 ("STA Grant") at 1.

⁵ 3G Wireless has recently filed two new requests for experimental STAs that raise the same concerns for Sirius XM as the instant STA. See 3G Wireless Requests for Experimental Special Temporary Authority, File Nos. 1402-EX-ST-2020 (filed Sept. 11, 2020) and 1404-EX-ST-2020 (filed Sept. 14, 2020). Sirius XM is also filing the instant Reply in the Commission's application files for those two requests, as an attachment to an informal objection to those applications. Section II of the instant filing summarizes 3G Wireless's history of applying for similar STAs while failing to acknowledge the primary rights of license holders in the bands 3G proposes to use.

⁶ 47 C.F.R. § 5.5.

⁷ See note 5, *supra*.

of this chapter.”⁸ This provision is not limited to interference from in-band operations. Thus, 3G’s suggestions that Sirius XM has “not established that its receivers are protected” from out-of-band emissions⁹ are misplaced – the Commission’s rules expressly establish that Sirius XM is entitled to protection against any interference from experimental operations.

Moreover, as the Sirius XM Objection observes, the Commission has previously expressly required 3G Wireless to comply with the out-of-band emission limits in Section 27.53 that were established to protect SDARS from interference.¹⁰ Allowing 3G Wireless to evade these limits would create a perverse situation in which the holder of a mere experimental STA could operate without the constraints applicable to licensed WCS systems – restrictions intended to limit the risk of interference to SDARS from transmissions in the WCS spectrum that the Commission adopted following lengthy and detailed proceedings and compromises between WCS and SDARS licensees.¹¹

3G Wireless, not Sirius XM, bears the burden of proof with respect to potential harmful interference. Although 3G Wireless recognizes that it is prohibited from causing harmful interference to Sirius XM,¹² 3G Wireless wrongly suggests that Sirius XM must make a showing that interference would likely occur.¹³ 3G Wireless cites absolutely no support for this claim, which is contradicted by express Commission precedent. In particular, when the Commission reviewed the experimental regulations and adopted rules for program experimental licenses, it declined to adopt its proposal that would have “unduly shift[ed] the burden regarding interference analysis onto incumbent licensees.”¹⁴ Instead, the Commission ensured “that the burdens associated with preventing harmful interference remain the same as at present – *on the*

⁸ 47 C.F.R. § 5.84. This rule applies prospectively, prohibiting an experimental applicant from causing interference. The rule goes on to require that experimental users remedy interference after the fact by terminating their operations, but that is a separate obligation. See *id.*

⁹ 3G Wireless Response at 2.

¹⁰ See Sirius XM Objection at 1, *citing* 3G Wireless, LLC, Call Sign WP9XSC, File No. 2258-EX-ST-2019, Grant at 16, Special Condition 5 (“Operations in the WCS bands (2305-2320 MHz and 2345-2360 MHz) must comply with the emission limits applicable to those bands. See 47 C.F.R. § 27.53(a).”). OET has also imposed this condition on experimental authorizations granted to other parties that include the WCS bands. See, e.g., *Raytheon SAS*, Call Sign WP9XYE, File No. 0021-EX-ST-2020, Grant at 2, Special Condition 8 (same).

¹¹ See, e.g., *Amendment of Part 27 of the Commission’s Rules to Govern the Operation of Wireless Communications Services in the 2.3 GHz Band*, Order on Reconsideration, 27 FCC Rcd 13651, 13655-59 (2012) (discussing the procedural history of the rules governing co-existence between WCS and SDARS).

¹² 3G Wireless Response at 2 (“3G is well-aware [sic] that OET issues all Part 5 STAs and Experimental licenses on a non-interference basis”).

¹³ *Id.* (objecting that Sirius XM “has not provided any technical analysis even suggesting that 3G’s STA transmissions will result in out-of-band emissions that threaten SXM’s downlink service” and claiming that Sirius XM “does not get to regulate adjacent and/or non-adjacent band uses without at least a showing of the likelihood of interference”) (emphasis in original).

¹⁴ *Promoting Expanded Opportunities for Radio Experimentation and Market Trials under Part 5 of the Commission’s Rules and Streamlining Other Related Rules*, Report and Order, 28 FCC Rcd 758 (2013) (“Experimental Rules Order”) at 786, ¶ 73.

*potential interferer.*¹⁵ In this case, Sirius XM – the victim of interference that would be caused by the 3G Wireless operations – is not required to make any showing to convince 3G Wireless that its concerns of interference are well founded. To the contrary, 3G Wireless as the “potential interferer” must produce evidence refuting Sirius XM’s concerns, and it should have done so before the Commission granted the STA.

3G Wireless has not satisfied this burden nor even recognized its obligation to do so. Contrary to the Commission’s requirements, 3G Wireless has provided no analysis or data, only unproven assertions that fail to address the operational requirements of the Sirius XM network. For example, in its original STA request, 3G Wireless certified “that the operation of the requested channels for the purposes specified herein will not cause interference to any established stations.”¹⁶ But 3G Wireless has provided no indication that this claim reflected meaningful consideration of the potential impact on SDARS subscribers. The last-minute email referenced in the 3G Wireless Response (sent to Sirius XM at 5:30 p.m. on September 4, the Friday of Labor Day weekend and the date on which 3G Wireless planned to begin operations under the STA) similarly provides nothing but an unsupported statement by the company’s representative expressing his view that a 2 MHz separation from the SDARS spectrum should be a sufficient guard band so as to not cause any harmful interference.

The precedent cited above makes clear that the Commission expects an experimental applicant to provide more – *i.e.*, the presentation of an “interference analysis”¹⁷ – when a question has been raised about the potential for proposed operations to disrupt licensed services. Statements by 3G Wireless of its willingness to resolve any interference after it occurs¹⁸ are inadequate and do not absolve 3G of its duty to respond to Sirius XM’s concerns and to prevent interference from happening in the first place. This is especially true for SDARS, because the one-way nature of the service makes it impossible for Sirius XM to effectively monitor whether interference is occurring in real time. Subscribers rarely complain if they experience a disruption in their satellite radio service – if subscribers instead regard interference as indicative of reduced service quality, Sirius XM may lose customers over time without ever knowing the cause.

3G Wireless did not provide, and indeed could not have provided, a substantive showing that its planned operations would not adversely affect licensed SDARS services for the simple reason that 3G Wireless chose to ignore Sirius XM’s interference concerns rather than to engage with Sirius XM upfront, which could have enabled it to understand those concerns and identify potential solutions. This behavior – which is far from an isolated incident, as discussed below – demonstrates that 3G Wireless is unqualified to hold experimental authority because it is unwilling to fulfill the responsibilities and comply with the requirements that Commission policies impose to protect licensed users.

¹⁵ *Id.* at 787, ¶ 77 (emphasis added).

¹⁶ 3G Wireless Request for Experimental Special Temporary Authority, File No. 1254-EX-ST-2020, at 1.

¹⁷ Experimental Rules Order, 28 FCC Rcd at 786, ¶ 73.

¹⁸ 3G Wireless Response at 2.

II. 3G Wireless Has a History of Ignoring Sirius XM's Interference Concerns

The instant STA proceeding reflects a long-standing and concerning pattern on the part of 3G Wireless. For many years, Sirius XM has regularly monitored the experimental filings at the Commission to identify requests that seek to use either the SDARS or WCS bands and may present a risk of harmful interference to Sirius XM's operations. Each such request is reviewed by Sirius XM engineering personnel who have extensive knowledge of the evolving SDARS operating environment and experience with interference events that have disrupted service to subscribers in the past. If the engineering assessment is that an experimental application presents a realistic interference threat, the request is flagged for follow-up. Counsel to Sirius XM then reaches out to the applicant to either seek more information that would address Sirius XM's concerns or to ask that spectrum be removed from the application if the proposed use raises major issues. These messages always emphasize that Sirius XM's preference is to resolve any issues directly with the applicant rather than submitting an objection to the Commission.

With the overwhelming majority of experimental applicants, this process works as it should, yielding a mutually satisfactory outcome. Most applicants respond promptly to Sirius XM, either agreeing to the requested changes or asking for further discussion to better understand the technical issues and determine whether a compromise solution can be reached that does not require notch-out of any spectrum. Sirius XM has participated in many such discussions over the years and has never refused to engage with an experimental applicant that wants to better understand the technical basis for Sirius XM's interference concerns.

Sirius XM's experience with 3G Wireless has been quite different from the norm and demonstrates a pattern of disregarding the priority rights of licensed services and occasional need for concessions by experimental applicants. In a series of emails between Sirius XM and 3G Wireless dating back to September 2015 (examples of which are attached hereto), 3G has repeatedly ignored or slowly responded to requests from Sirius XM concerning experimental license applications, including Sirius XM's offers to engage in engineer-to-engineer conversations that might explain interference concerns or resolve disputes.

The instant proceeding is fully consistent with this five-year pattern. Sirius XM's initial email sent on August 24 was met with silence, leading Sirius XM to follow up with reminders on September 2 and again on September 4 – the day operations under the STA were scheduled to commence. When 3G Wireless finally did reply late in the day on September 4, it summarily dismissed Sirius XM's request. As a result, 3G Wireless squandered any possibility of a timely and substantive discussion of Sirius XM's concerns that might have produced a solution.¹⁹

¹⁹ Given 3G's own failure to timely respond to Sirius XM, any suggestion that the Sirius XM Objection was "Late-Filed" (3G Wireless Response at 1) is absurd. It is also wrong, as the experimental rules do not specify any deadline for submitting informal objections. See 47 C.F.R. § 5.95.

The 3G Wireless Response also questions whether Sirius XM submitted its objection at all, claiming that there was "no indication that the document was actually filed." 3G Wireless Response at 1. In fact, the Sirius XM Objection, which was submitted through the "File an Informal Objection" tab on the experimental licensing website, was promptly posted to the OET Exhibits List page for the STA, which shows a submission date of September 4, 2020. See https://apps.fcc.gov/oetcf/els/reports/ViewExhibitReport.cfm?id_file_num=1254-EX-ST-2020&application_seq=102068.

In contrast to Sirius XM's commitment to being a "good citizen" with respect to spectrum matters, the actions of 3G Wireless demonstrate a total disregard of spectrum etiquette and the Commission's explicit expectations for experimental applicants. The Commission must not sanction such abuse of the experimental process.

III. 3G Wireless Has Not Shown It Has Met the Conditions for WCS Operations

Finally, 3G Wireless has failed to demonstrate that it is entitled to use WCS spectrum under the STA Grant's express terms, which require that "Prior to commencing any operations in WCS frequencies (2305-2320 MHz/2345-2360 MHz), the applicant must obtain consent from the WCS licensee (AT&T)."²⁰ As noted in the Sirius XM Objection, Sirius XM asked 3G Wireless to confirm whether it has obtained AT&T's consent, but 3G Wireless did not answer that question. The 3G Wireless Response also does not provide any indication of whether the company has met the prerequisites for operating in the bands at issue here. However, based on email communications between in-house counsel for AT&T and Sirius XM, it appears that 3G Wireless may not have obtained AT&T's consent.

Absent AT&T's agreement, the STA Grant does not permit 3G Wireless to transmit in the WCS spectrum, wholly apart from the unresolved interference issues raised by Sirius XM. Accordingly, if 3G Wireless continues to claim it is authorized to use the WCS frequency segments under the STA, 3G Wireless must provide evidence that it has received AT&T's consent.

IV. Conclusion

For the foregoing reasons and those set forth in the Sirius XM Objection, the Commission should revoke the STA Grant or at minimum, modify it to remove the 2312-2320 MHz and 2352-2360 MHz bands.

Any questions regarding this submission can be addressed to Karis Hastings, outside counsel for Sirius XM, at 202-599-0975, karis@satcomlaw.com.

²⁰ STA Grant at 6, Special Condition 3.

Attachment: Email Correspondence

From: Karis Hastings [<mailto:karis@satcomlaw.com>]
Sent: Wednesday, September 30, 2015 4:14 PM
To: Greg Robinson; winchworks@me.com
Subject: Recent Experimental STA Request of 3G Wireless, LLC, File No. 0999-EX-ST-2015

Dear Mr. Robinson and Mr. Winch,

I am outside counsel for SDARS operator SiriusXM. On the company's behalf, I monitor the experimental filings at the FCC for any applications that involve frequencies that overlap with or are close to the licensed SiriusXM frequencies at 2320-2345 MHz. The above-referenced application for an experimental STA came up in that search. As granted, that STA permitted 3G Wireless to transmit in the 2345-2361 MHz band from an airborne platform within 10 km of a racetrack near Austin, TX.

Because the STA was requested and granted such a short period of time before the planned operations, SiriusXM was not able to review the request and raise concerns about the operations with 3G Wireless prior to the event for which the authority was sought. Although SiriusXM is not aware of any disruption of service to SiriusXM customers during the duration of the STA, the company would have preferred to have had greater advance notice of 3G's planned operations in the spectrum immediately adjacent to the licensed SiriusXM band.

Accordingly, we request that 3G Wireless provide SiriusXM with notice at least three weeks in advance if 3G Wireless seeks in the future to use spectrum in the 2305-2360 MHz band range to allow SiriusXM to evaluate the proposal and raise any concerns it might have.

Such notice should be sent to the following individuals:

Douglas Ayerst
Sirius XM
douglas.ayerst@siriusxm.com
954-571-4318

James Blitz
Sirius XM
james.blitz@siriusxm.com
202-380-1383

Karis Hastings
SatCom Law LLC
karis@satcomlaw.com
202-599-0975

Can you please get in touch with me regarding this matter? My contact information is below. Thanks in advance for your cooperation.

Best regards,
Karis Hastings

Karis A. Hastings
SatCom Law LLC
202.599.0975
karis@satcomlaw.com
www.satcomlaw.com



CONFIDENTIALITY. This e-mail and any attachments are confidential and may also be privileged. If you have received this message in error, please do not disclose the contents to anyone, but notify the sender by return e-mail and delete this e-mail (and any attachments) from your system.

From: Karis Hastings <karis@satcomlaw.com>

Sent: Tuesday, July 2, 2019 9:14 AM

To: gregr@3gwireless.tv; stephent@3gwireless.tv

Subject: Sirius XM Request for Notch Out of 2312-2320 MHz from 3G Wireless Experimental STAs, File Nos. 0983-EX-ST-2019 & 1007-EX-ST-2019

All,

As you know, I am outside counsel for Sirius XM, the satellite digital audio radio service (SDARS) operator. On the company's behalf, I monitor the experimental filings at the FCC for any applications that involve frequencies that overlap with or are close to the licensed Sirius XM frequencies at 2320-2345 MHz. The above-referenced applications for experimental special temporary authority came up in that search.

Sirius XM is concerned about the possibility for harmful interference from the planned operations under the STA requests. The frequencies covered by the applications include the 2312-2320 MHz spectrum immediately adjacent to the licensed Sirius XM frequencies and propose use at heavily attended automobile racing events near large cities and other densely populated areas and significant highways. Sirius XM is concerned that at the power levels set forth in the application, operations immediately adjacent to the Sirius XM band could disrupt service to Sirius XM customers attending these events or traveling in these areas.

To avoid the possibility of such service disruption, Sirius XM asks that you remove the 2312-2320 MHz band segment from both STAs. We believe this accommodation is warranted because the Sirius XM satellite signal is very susceptible to interference.

I also note that in previous correspondence with 3G Wireless, Sirius XM has repeatedly requested that 3G Wireless provide Sirius XM with notice at least three weeks in advance of any proposed experimental use of spectrum in the 2305-2360 MHz band range in order to allow adequate time for Sirius XM to evaluate the potential for harmful interference to our service. However, despite prior assurances that 3G Wireless would endeavor to supply such notice, it did not do so in this case. Sirius XM reiterates its request that in future 3G Wireless provide at least three weeks' notice if it seeks to use any spectrum in the 2305-2360 MHz band.

Can you please get in touch with me regarding this matter? My contact information is below. As we have done before, we would prefer to resolve our concerns directly with 3G Wireless if possible, but otherwise we will raise our objections with the FCC.

Best regards,
Karis

Karis A. Hastings
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202.599.0975
karis@satcomlaw.com
www.satcomlaw.com

From: Karis Hastings <karis@satcomlaw.com>

Sent: Thursday, July 16, 2020 3:33 PM

To: Greg Robinson <GregR@3gwireless.tv>

Cc: Stephen Tobias <StephenT@3gwireless.tv>; Greg Scheer <GregS@3gwireless.tv>; Chris Imlay <chris@imlaylaw.com>; Blitz, James <James.Blitz@siriusxm.com>; Ayerst, Douglas <Douglas.Ayerst@siriusxm.com>

Subject: RE: Sirius XM Request for Notch Out of 2312-2320 MHz and 2352-2360 MHz Frequencies from 3G Wireless Experimental STA Request, File No. 0805-EX-ST-2020

Greg,

Thanks for confirming that 3G Wireless will not use the spectrum immediately adjacent to the SDARS band as part of the operations under this experimental STA.

In response to your question, we are not treating the adjacent WCS bands as guard bands, but as we have previously advised 3G Wireless on multiple occasions, SDARS operations are highly sensitive to interference from operations in those frequencies. The FCC has recognized this and imposed strict out-of-band emission limits on WCS providers, set forth in Section 27.53(a) of the rules, expressly to protect reception by Sirius XM subscribers. In addition, Sirius XM has a coordination agreement with AT&T, the WCS licensee, that regulates the amount of interference that can be caused to Sirius XM, and introduction of additional interfering signals from 3G Wireless would make it difficult if not impossible to ensure that the coordinated levels are maintained.

Sirius XM took into account the power levels requested by 3G Wireless in determining that the operations posed a threat of interference. Even though the power levels are relatively low, the fact that the operations would be occurring in close proximity to the many Sirius XM subscribers who will be attending the racing events creates a significant risk that these subscribers' reception of the Sirius XM service would be disrupted.

Sirius XM has the same interference concerns with respect to the more recent 3G Wireless experimental STA request, File No. 1086-EX-ST-2020, relating to coverage of International Motorsports Association racing events in Plymouth, WI and Alton, VA. Accordingly, Sirius XM requests that 3G Wireless notch out the 2312-2320 MHz and 2352-2360 MHz frequencies from that request as well.

We would be happy to have a call to discuss these matters if it would be helpful. Please let me know if you would like me to arrange something.

Best regards,
Karis

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karis@satcomlaw.com
www.satcomlaw.com



From: Greg Robinson <GregR@3gwireless.tv>
Sent: Wednesday, July 15, 2020 8:41 PM
To: Karis Hastings <karis@satcomlaw.com>
Cc: Stephen Tobias <StephenT@3gwireless.tv>; Greg Scheer <GregS@3gwireless.tv>; Chris Imlay (chris@imlaylaw.com) <chris@imlaylaw.com>
Subject: RE: Sirius XM Request for Notch Out of 2312-2320 MHz and 2352-2360 MHz Frequencies from 3G Wireless Experimental STA Request, File No. 0805-EX-ST-2020

Hi Karis,

We will not use 2316 or 2356 MHz, even though we fall outside the Sirius XM band of 2320 to 2345 MHz.

Just checking, are you claiming 10 MHz either side of this band as a guard band, i.e. 2310 to 2355MHz? Also, I have to point out that our transmissions are at a 100mW power level.

Regards,

Greg Robinson

From: Karis Hastings [<mailto:karis@satcomlaw.com>]
Sent: Wednesday, July 15, 2020 4:42 PM
To: Karis Hastings <karis@satcomlaw.com>; Stephen Tobias <StephenT@3gwireless.tv>; Greg Robinson <GregR@3gwireless.tv>
Subject: RE: Sirius XM Request for Notch Out of 2312-2320 MHz and 2352-2360 MHz Frequencies from 3G Wireless Experimental STA Request, File No. 0805-EX-ST-2020
Importance: High

Gentlemen,

I did not receive a response to my email below. Please confirm whether 3G Wireless will comply with the notch out Sirius XM has requested.

Best regards,
Karis

Karis A. Hastings
SatCom Law LLC
202.599.0975
karis@satcomlaw.com
www.satcomlaw.com



From: Karis Hastings <karis@satcomlaw.com>

Sent: Monday, June 1, 2020 10:42 AM

To: Stephen Tobias <StephenT@3gwireless.tv>; Greg Robinson <GregR@3gwireless.tv>

Subject: Sirius XM Request for Notch Out of 2312-2320 MHz and 2352-2360 MHz Frequencies from 3G Wireless Experimental STA Request, File No. 0805-EX-ST-2020

Gentlemen,

As you know, I am outside counsel for Sirius XM, the satellite digital audio radio service (SDARS) operator. On the company's behalf, I monitor the experimental filings at the FCC for any applications that involve frequencies that overlap with or are close to the licensed Sirius XM frequencies at 2320-2345 MHz. The above-referenced STA request came up in that search.

Sirius XM is concerned about the possibility for harmful interference from the planned operations under the request. As we have previously advised you via email, any operations by 3G Wireless in the 2310-2355 MHz range are problematic for Sirius XM. This experimental STA includes two band segments within that range: the 2312-2320 MHz band immediately adjacent to the licensed Sirius XM spectrum and the 2352-2360 MHz band. 3G Wireless seeks to use these frequencies during a number of motor racing events which are likely to draw significant numbers of Sirius XM subscribers. Sirius XM is concerned that at the power levels proposed, the 3G Wireless transmissions in these frequency bands would interfere with Sirius XM's service to those subscribers.

To prevent this harmful interference, Sirius XM requests that 3G Wireless notch out the 2312-2320 MHz and 2352-2360 MHz bands from this STA request. We believe this accommodation is warranted because the Sirius XM satellite signal is very susceptible to interference.

Can you please get in touch with me regarding this matter? My contact information is below. As we have done before, we would prefer to resolve our concerns directly with 3G Wireless if possible.

Best regards,
Karis

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