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April 18, 2002

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

Re: *Review of Part 15 and Other Parts of the Commission's Rules (ET Docket No. 01-278) -- WRITTEN EX PARTE PRESENTATION*

Dear Ms. Dortch:

We are writing on behalf of the License Exempt Alliance ("LEA"), a nationwide coalition of carriers, equipment vendors, Internet service providers and others who offer or support wireless broadband services over license-exempt spectrum in the 2.4 GHz and 5 GHz bands.[1] For the reasons set forth below, the LEA urges the Commission to reject the disingenuous "back door" attempt by Sirius Satellite Radio, Inc. ("Sirius") and XM Radio, Inc. ("XM") to use the Commission's *Notice of Proposed Rulemaking* ("*NPRM*") in ET Docket No. 01-278 as a pretext for imposing substantially lower out-of-band emission limits on Part 15 license-exempt devices operating in the 2.4 GHz band.[2]

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[1] The LEA has been organized under the auspices of The Wireless Communications Association International, Inc., the trade association of the wireless broadband industry.

[2] *See Review of Part 15 and Other Parts of the Commission's Rules (Notice of Proposed Rulemaking)*, ET Docket No. 01-278, FCC 01-290 (rel. October 15, 2001); Comments of Sirius Satellite Radio, Inc., ET Docket No. 01-278, at 1-2 (filed Feb. 12, 2002) (the "Sirius Comments"); Comments of XM Radio, Inc., ET Docket No. 01-278, at 5-8 (filed Feb. 12, 2002) (the "XM Comments"); Reply Comments of XM Radio, Inc., ET Docket No. 01-278, at 5-6 (filed Mar. 12, 2002) (the "XM Reply Comments"). Presently, Sections 15.109 and 15.209 of the Commission's Rules generally require that emissions above 960 MHz from unintentional and intentional Part 15 radiators not exceed 500 uV/m measured at a distance of three meters. 47 C.F.R. §15.109, 15.209. Sirius's comments incorporate by reference the company's undocketed petition for rulemaking filed January 23, 2002, in which Sirius proposed that the Commission lower the Part 15 emissions limit to 8.6 uV/m at 3 meters (as measured in a 1 MHz bandwidth) for emissions into the satellite Digital Audio Radio service ("SDARS") band (2320-2345 MHz). *See* Petition for Rulemaking filed by Sirius Satellite Radio Inc. re: Revision of Part 15 and Part 18 of the Rules Regarding the Out-Of-Band Emissions of Radio Frequency Devices, RM-_____ (filed Jan. 23, 2002) (the "Sirius Petition") XM has made a similar proposal for non-vehicular Part 15 devices; for vehicular Part 15 devices, XM

First, Sirius/XM's unsolicited attack on Part 15 devices is plainly beyond the scope of the *NPRM*. In fact, Sirius has urged the Commission to "broaden the scope" of the *NPRM* to address the issue, thus implicitly acknowledging that the issue is not within the scope of that document.[3] The history of ET Docket No. 01-278 confirms that the Commission does not believe that Part 15 out-of-band emissions pose a threat of harmful interference to SDARS operations. The Commission adopted the *NPRM* in response to its *Biennial Regulatory Review 2000 Updated Staff Report* (the "*Updated Staff Report*"),[4] for which the staff "reviewed Part 15 to determine whether there were any rules that could be modified or eliminated."[5] At no point did the staff recommend that the Commission modify or eliminate its Part 15 out-of-band emission limits with respect to the SDARS band - indeed, the staff suggested that the Commission do the opposite:

> Emission limits affect the design and performance of devices, and prevent interference among devices. However, *unnecessarily restrictive limits can impede innovation and development of new markets.* Accordingly, the staff recommended reviewing Commission rules on intentional and unintentional emission limits above 2 GHz to determine whether the limits are appropriate. *No comments were received on this staff recommendation.*[6]

Quite clearly, then, *and with no objection from Sirius or XM*, the staff was most concerned that the Commission's existing Part 15 emission limits were too restrictive, and requested that the Commission explore the possibility of relaxing those limits to enhance the potential of Part 15 devices to bring new and innovative services to the public. In response, the Commission's *NPRM* identified two specific areas for possible modification of its Part 15 out-of-band emission limits, neither of which involve the out-of-band emissions Sirius/XM have

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proposes to reduce the limit to 8.6 uV/m at 3 meters, as measured in a 2 MHz bandwidth, for emissions into the SDARS band. XM Comments at (ii).

[3] Sirius Comments at 1; *see also* XM Comments at 11-12 ("While the SDARS licensees have expressed their concerns regarding out-of-band emissions of unlicensed devices operating in the 2400-2483.5 MHz band in the radio frequency ("RF") lighting, ultra-wideband ("UWB"), and spread spectrum devices proceedings, the Commission does not specifically address these concerns in the *NPRM*.") (footnotes omitted).

[4] *See The 2000 Biennial Regulatory Review Report* (the "*Regulatory Review Report*") and *Federal Communications Commission Biennial Regulatory Review 2000 Updated Staff Report* (the "*Updated Staff Report*") , FCC 00-456 (January 17, 2001).

[5] *NPRM* at ¶ 3.

[6] *Updated Staff Report* at 61 (emphasis added); *see also Regulatory Review Report* at ¶ 73 ("We accept staff's recommendation to initiate steps as necessary to clarify ambiguities in the Commission's equipment authorization rules and eliminate ambiguities in equipment test procedures. *We also accept staff's recommendations to initiate proceedings to modify certain technical rules that may inhibit the development of new unlicensed products*.") (emphasis added).

attacked here.[7] The Commission's intent not to review the out-of-band emissions issue *vis à vis* SDARS is reinforced by the fact that the Commission is already conducting a separate rulemaking on substantive changes to its technical rules for Part 15 spread spectrum devices in the 2.4 GHz band, and has not raised the matter there either.[8] Sirius/XM's poorly camouflaged effort to transform the *NPRM* into something it is not should be dismissed for these reasons alone.[9]

In any event, even if the Commission were to overlook the procedural impropriety of Sirius/XM's tactics (and it should not), there is one undisputed fact that should end any further consideration of Sirius/XM's proposal to slash the Commission's out-of-band emissions limits for Part 15 devices in the 2.4 GHz band: *both Sirius and XM have conceded that Part 15 devices in the 2.4 GHz band are not causing harmful interference to SDARS operations.* Sirius, for example, has acknowledged that "there is no problem right now,"[10] and XM freely admits that "a

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[7] *NPRM* at ¶ 7 ("We have identified two specific areas where we believe changes may be warranted. The first concerns emission limits in the frequency range above 38.6 GHz, and the second concerns certain types of receivers operating above 960 MHz that are exempt from equipment authorization and from complying with the emission limits for unintentional radiators.").

[8] *See Amendment of Part 15 of the Commission's Rules Regarding Spread Spectrum Devices and Wi-LAN, Inc. Application for Certification of an Intentional Radiator Under Part 15 of The Commission's Rules (Further Notice of Proposed Rulemaking and Order)*, ET Docket No. 99-231, DA 00-2317 (rel. May 11, 2001).

[9] On this point, Sirius/XM would do well to consult their own filings in the Commission's pending RF lighting proceeding, ET Docket No. 98-42. There, the Commission has proposed to "relax the line-conducted emission limits and to adopt radiated emission limits above 1 GHz for RF lighting devices." *1998 Biennial Regulatory Review – Amendment of Part 18 of the Commission's Rules to Update Regulations for RF Lighting Devices (Notice of Proposed Rulemaking)*, 13 FCC Rcd 11307 (1998) (the "*RF Lighting Notice*"). In response, the primary RF lighting proponent, Fusion Lighting, Inc., has recommended that the Commission adopt a "safe harbor" for out-of-band emissions by RF lighting devices. *See, e.g.*, Letter from Robert J. Unger, Esq., Counsel for Fusion Lighting, Inc., to William F. Caton, Acting Secretary, Federal Communications Commission, ET Docket No. 98-42 (filed Mar. 22, 2002). Undaunted, Sirius/XM have objected to Fusion Lighting's proposal as being outside the scope of the *RF Lighting Notice*, claiming that "because the [*RF Lighting Notice*] did not address the possibility of changing Section 18.111, the provision of the Commission's Rules that establishes that out-of-band operations of Part 18 devices are secondary to licensed services, *a fortiori*, [the *RF Lighting Notice*] cannot possibility [*sic*] be deemed to be sufficient notice to alert interested parties to the possibility that the Commission would make fundamental changes to its concepts of primary and secondary in the proceeding." Letter from Patrick L. Donnelly, Senior Vice President and General Counsel, Sirius Satellite Radio, Inc., and Lon C. Levin, Vice President and Regulatory Counsel, XM Radio, Inc., ET Docket No. 98-42, at 5 (filed Apr. 3, 2002). Sirius/XM's reasoning would apply equally to their own comments in ET Docket No. 01-278: since the Commission never proposed to amend Sections 15.109 or 15.209 in the *NPRM* nor otherwise suggested that its Part 15 out-of-band emission limits were inadequate to protect SDARS operations, the *NPRM* cannot be deemed to have put interested parties on notice that the Commission might dramatically reduce those limits as proposed by Sirius/XM.

[10] Charny, "Will Wi-Fi Overwhelm Satellite Radio?" *CNET News.com* (Apr. 8, 2002), at http://news.com.com/2100-1033-877572.html. *See also* Welton, "Parties Differ on Effect of FCC Petition" (Apr. 2, 2002), at http://www.anywhereyougo.com/wireless/article.po?id=3961813 ("[Sirius] acknowledges that the [Sirius Petition] . . . was not filed because Sirius subscribers were experiencing interference from stray signals now.").

recent study shows that SDARS frequencies at present are free of virtually any noise."[11] In fact, one FCC official was recently quoted as saying that "[w]e're not aware of any problems with the existing emission limits" for Part 15 devices operating in the 2.4 GHz band.[12] Nonetheless, relying on their own surmise and little else, Sirius/XM allege that the Commission must adopt their out-of-band emissions proposal to protect them from the possibility that the proliferation of Part 15 devices *may* eventually cause interference to SDARS operations at some unknown level at some unknown location(s) at some undetermined point in the future.[13] This, of course, will not do – as previously observed by Chairman Powell, "undue speculation about potential harm can always be invoked to justify continued regulation,"[14] and it otherwise is well settled that rule proposals grounded in speculation cannot be squared with the Commission's overriding obligation to "put itself in a position to know" whether the alleged problem "is a real or fanciful threat."[15]

Indeed, the notion that Sirius/XM are the victims of unforeseen circumstances cannot be taken seriously. The Part 15 out-of-band emission limits of which Sirius/XM now complain were originally adopted by the Commission in 1989, *i.e.*, six years prior to the Commission's

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[11] XM Comments at (ii). Similarly, XM cites no instances of harmful interference from Part 15 devices since it commenced service in September 2001.

[12] *See* Welton, n. 10 *supra*.

[13] *See, e.g.*, XM Comments at 15 ("New classes of unlicensed devices, many of which are being developed for widespread deployment in a mobile environment, could cause chronic interference to SDARS receivers."); *id.* at 16 ("[I]t is likely that *millions* of these unlicensed transmitters, including spread spectrum devices in the 2.4 GHz band, will soon be entering the RF environment in the United States. As a result, there is a high probability that these devices will frequently be used in close proximity to operating SDARS receivers.") (emphasis in original). Much of XM's argument on this point appears to be based on its assumption that it is uniquely entitled to provide its customers with high-quality service, since "people using mobile phones have accepted the fact that intermittent outages or bursts of noise occur during the course of a conversation." *Id.* at 18. There are those at the Commission and elsewhere who might beg to differ. *See, e.g.*, Fowler, "More Houston Callers Cut Cords as Cell-Phone Rates Fall," *The Houston Chronicle* (Aug. 8, 2001) ("While prices are falling, consumer complaints about [mobile] service are not . . . FCC officials said the agency currently isn't sharing consumer complaint data while it reviews how it collects such information, but Tom Sugrue, head of the FCC's wireless bureau, said that complaints are on the rise overall. . . 'The bar has been raised substantially for quality service,' Sugrue says. . . Knox Bricken, an analyst with the Yankee Group, said that its most recent survey indicates at least 30 percent of cell-phone users say they are unhappy with frequent disruptions of their service.").

[14] Dissenting Statement of Commissioner Michael K. Powell re: *Rulemaking to Amend Parts 1, 2, 21 and 25 of the Commission's Rules to Redesignate the 27.5-29.5 GHz Frequency Band, to Reallocate the 29.5-30.0 GHz Frequency Band, To Establish Rules and Policies for Local Multipoint Distribution Service and for Fixed Satellite Services*, 14 FCC Rcd 21520, 21556 (1999).

[15] *Home Box Office, Inc. v. FCC*, 567 F.2d 9, 50 (D.C. Cir. 1977), *cert. denied*, 434 U.S. 829 (1977). *See also City of Chicago v. FPC*, 458 F.2d 731, 742 (D.C. Cir. 1971), *cert. denied*, 405 U.S. 1074 (1972) (a "regulation perfectly reasonable and appropriate in the face of a given problem [is] highly capricious if that problem does not exist").

allocation of spectrum for SDARS, eight years prior to the Commission's auction of SDARS spectrum and twelve years prior to XM's launch of its SDARS system.[16] Moreover, just one week after the SDARS auction, the Commission amended its rules to reduce the potential emissions from spread spectrum devices into the SDARS band.[17] Sirius/XM offer no explanation for their previous silence on any of this, nor do they explain why they could not have designed their systems to accommodate Part 15 emissions that they knew were permissible under the Commission's rules years before the SDARS allocation/auction and the subsequent launch of SDARS service.[18]

Likewise, the projected use of Part 15 devices in the marketplace is old news. For example, in a report released over a year before XM launched service, the Commission noted that Ericsson had introduced a Bluetooth-enabled wireless headset as far back as November 1999, and that analysts were predicting that a total of 200 million Bluetooth-enabled devices would be shipped by the end of 2003.[19] Ironically, even Sirius/XM's most ardent supporters have long been aware of Bluetooth's commercial potential. XM, for example, frequently notes that its SDARS service was named "Product of the Year" by *Fortune*, citing to an article in the December 24, 2001 issue by Peter Lewis.[20] Yet in an article published in the same magazine on October 9, 2000 (nearly a year before XM launched its "Product of the Year"), Mr. Lewis wrote: "A few years from now all new household appliances -- smart phones, cell phones, TV sets, kitchen appliances, digital cameras, printers, garage-door openers, air conditioners-- will come with Bluetooth networking capabilities and will be able to talk to one another."[21]

Finally, even if the Commission were to overlook the fact that Sirius/XM has asked the agency to address a problem that does not exist in a proceeding where the issue has not been raised, there is nothing in Sirius/XM's technical showings that would even begin to justify any further inquiry into the matter, much less a revision of the Commission's rules. Recent filings by

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[16] *See* XM Comments at 2, 6-7.

[17] *See* Reply Comments of Intersil Corporation, ET Docket No. 01-278, at 6 (filed Mar. 12, 2002) (the "Intersil Reply Comments").

[18] *See* Reply Comments of Motorola, Inc., ET Docket No. 01-278, at 1-2 (filed Mar. 12, 2002) ("[I]t should be noted that nothing has changed the interference environment for either Sirius or XM since the Commission originally authorized the service, [so] the designers of these systems should have been fully aware, and factored into the design, [the fact] that other devices are authorized to emit signals at the Part 15 levels that Sirius and XM are now raising concerns [about].") (the "Motorola Reply Comments").

[19] *Implementation of Section 6002(b) of the Omnibus Budget Reconciliation Act of 1993 – Annual Report and Analysis of Competitive Market Conditions With Respect to Commercial Mobile Services (Fifth Report)*, at 47 (rel. Aug. 18, 2000).

[20] XM Comments at 4 n.4.

[21] *See* http://www.fortune.com/indexw.jhtml?channel=artcol.jhtml&doc_id=00000496.

Motorola, Inc. and Intersil Corporation demonstrate that Sirius/XM's speculation about potential interference is attributable to weaknesses in their own system design, flaws in their technical assumptions and their failure to account for the compensatory effects of their terrestrial repeater networks.[22] Moreover, Sirius/XM cite no precedent or public policy basis for their suggestion that Part 15 operators alone should bear the cost of equipment modifications to protect ill-designed SDARS receivers, nor do they provide any support for their bald assertion that the cost of such modifications will be insignificant in any case.[23] Sirius/XM's silence perhaps is understandable, given that they have taken precisely the opposite position in IB Docket No. 95-91 *vis à vis* interference from their high-power terrestrial repeaters into Wireless Communications Service ("WCS") receivers operating in the immediately adjacent 2305-2320 MHz and 2345-2360 MHz bands. There, even though *they* are the source of the interference at issue, Sirius/XM have argued that WCS licensees must bear the burden of modifying their equipment to eliminate any harm to their operations.[24] The inherent inconsistency of Sirius/XM's posture is self-evident and only provides further support for rejection of their out-of-band emissions proposal for Part 15 2.4 GHz devices in ET Docket No. 01-278.

In sum, Part 15 manufacturers and service providers have made substantial investments and deployed facilities in reliance on Commission rules and policies that have been in effect for years, and to which Sirius/XM have never objected even though they have had more than ample

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[22] *See, e.g.,* Motorola Reply Comments at 6 ("802.11b devices have penetrated a significant market, yet no real data has been provided that interference from these devices will cause interference, in fact measurements performed on behalf of XM indicate other sources are more likely to cause interference. Interestingly enough in the filing by XM the main source of interference is not the equipment operating in the 2.4 GHz band but interference from vehicle ignition noise."); Intersil Reply Comments at 7 ("Sirius describes a link with a system margin for fading and attenuation of 6.7 dB. This is insufficient for reliable commercial operation in other than a line-of-sight application. Evidence of inadequate design is buttressed by the DARS providers' need to supplement their satellites with a network of 1500 terrestrial repeaters at up to 40 kW. . . Along with patching up an unsuccessful design, the repeater network also eliminates most Part 15 interference concerns. . . The DARS providers do not seriously attempt to argue that repeater transmissions will suffer interference from Part 15, so the urban areas with the highest Part 15 densities should also be those with the least interference into DARS, thanks to the repeaters.").

[23] *See, e.g.*, XM Reply Comments at 6. Sirius/XM also do not explain how their proposed 18-month phase-in of their proposed reduction in the Commission's Part 15 out-of-band emission limits can be reconciled with their assertion that deployments of Part 15 devices over time will increase their exposure to harmful interference. *See, e.g.,* Sirius Petition at 28. Further, although Sirius/XM allege that they are concerned about aggregate interference from multiple Part 15 devices, they do not explain exactly how in such "aggregate" situations the Commission is to distinguish between Part 15 devices that are "grandfathered" under the 18-month rule versus those that are not. *See, e.g., id.* at 8 (urging the Commission to "consider the cumulative interference effect of multiple [Part 15] devices").

[24] *See, e.g.,* Letter from Joseph P. Clayton, President and Chief Executive Officer, Sirius Satellite Radio Inc., and Hugh Panero, President and Chief Executive Officer, XM Radio, Inc., to Chairman Michael K. Powell, IB Docket No. 95-91, at 1 (Mar. 14, 2002) ("Operating at our present levels, we will not cause any interference to the system design that the WCS licensees have proposed. . . WCS licensees can – at little or no additional cost – use standard techniques to protect their consumer equipment that will not impact the performance of their systems and will not require modification to our repeaters.").

opportunity to do so. Moreover, it is evident from recent press coverage by *The Wall Street Journal* and others that consumers are now beginning to realize the full benefits of the Commission's ongoing effort to promote deployment and use of Part 15 devices for broadband service.[25] Now, Sirius/XM belatedly seek to reverse those gains under the bogus cloak of "unfair surprise," in the hope that commendations such as "Product of the Year" will blind the Commission to the fact that their case is barren of merit. The Commission has not been fooled by such tactics before and should not be fooled now. Sirius/XM's out-of-band emissions proposal for Part 15 devices in the 2.4 GHz band should be rejected.

Should you have any questions regarding this matter, please contact the undersigned.

Respectfully submitted

/s/
Robert D. Primosch
Counsel for the License-Exempt Alliance

cc: Chairman Michael K. Powell
Commissioner Kathleen Q. Abernathy
Commissioner Michael J. Copps
Commissioner Kevin J. Martin
Donald Abelson
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Bruce Franca
Julius Knapp
Peter Tenhula
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Paul Margie
Sam Feder
Lisa Gaisford
Geraldine Matisse
Karen Rackley

[25] *See, e.g.,* Weber, "Satellite Radio Stations' Complaints Could Force FCC to Limit Wi-Fi," *The Wall Street Journal*, at B1 (Apr. 1, 2002).