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September 12, 2011

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

Re: Notice of Oral *Ex Parte* Presentation
WT Docket No. 07-293; IB Docket No. 95-91

Dear Ms. Dortch:

In accordance with Section 1.1206 of the Commission's rules, 47 C.F.R. § 1.1206, this letter notifies the Commission that on September 8, representatives from Sirius XM Radio Inc. ("Sirius XM") met with staff from the Office of Engineering and Technology ("OET"), the Wireless Telecommunications Bureau ("WTB") and the International Bureau ("IB") on issues associated with the above-captioned proceedings.

Participating in the meeting were Terrence Smith, Craig Wadin, Riza Akturan and James Blitz from Sirius XM, and myself. We spoke with Julius Knapp, Ron Repasi and Pat Forster from OET; Linda Chang, Paul Moon and Moslem Sawez from WTB; and Stephen Duall and Chip Fleming from IB.

In general, Sirius XM reiterated its positions and recommendations detailed in its most recently filed pleadings in the above-referenced dockets.¹ Sirius XM expressed appreciation for the Commission's efforts to adopt appropriate technical standards for WCS transmissions and comprehensive coordination requirements as well as its commitment to resolve harmful interference if it should occur. Sirius XM stated that the protections adopted in the Commission's May 2010 Order were minimally necessary to protect satellite radio service. The attached slides were distributed to the staff and represent a detailed summary of the meeting's entire range of discussions.

¹ See Petition For Partial Reconsideration and Clarification of Sirius XM Radio Inc., WT Docket No. 07-293, (filed Sept. 1, 2010) ("Sirius XM Petition"). See also, Sirius XM Radio Inc. Reply To Oppositions Of The WCS Coalition And AT&T Inc., WT Docket No. 07-293, (filed Nov. 2, 2010) ("Sirius XM Reply").



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As indicated in the attached slides, Sirius XM again urged the Commission to reject recommendations to increase the WCS uplink duty cycle limits because such proposals would substantially increase the potential for interference to satellite radio receivers while providing only modest increases in WCS data throughput. Sirius XM committed to providing the Commission with data that demonstrates this effect and will do so in the coming days.

Please let me know if there are any questions about this submission.

Sincerely,

/s/ Michael A. Lewis

Michael A. Lewis
Engineering Consultant
Wiley Rein LLP
Counsel for Sirius XM Radio Inc.

Attachment

Electronic CC: FCC Meeting Participants



FCC - Sirius XM meeting

September 8, 2011

Introduction and Agenda

- Reconsideration status update?
- Further discussion of issues from our recent ex parte:
 - Clarifications
 - Outdoor antenna ban
 - Duty cycle
 - Power density
 - Coordination with WCS Licensees
- Update on Smart Grid applications in WCS C & D blocks

Clarifications Needed

- Ability to Address Interference
 - FCC rules require WCS operators
 - To take the necessary precautions to prevent interference and, in the event of harmful interference, to take necessary steps to remedy interference.
 - How will this be enforced? Through the Equipment Certification process?
- Peak EIRP for WCS Fixed and CPE Stations
 - We assume that peak EIRP must not exceed 20 watts, where the peak of the signal is defined for the allowed PAR levels as measured at 0.1% CCDF.
- Definition of CPE
 - There is ambiguity on how to distinguish CPE from base stations.
 - We assume Base stations are at one end of a link and CPEs are at the other.

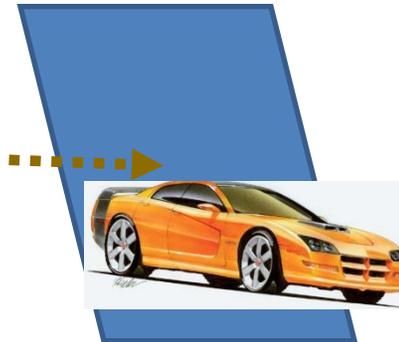
Importance of Retaining Ban on Outdoor WCS Antennas

CURRENT



Flexible (vs. mobile and portable use cases) CPE rules were allowed assuming that the interference would be attenuated (1) when passing thru wall(s) and (2) by distance separation before reaching the victim SDARS subscriber

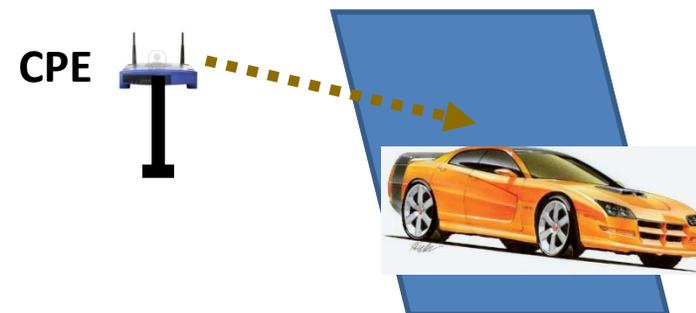
- No guard band
- $2W \geq$ units, $55 + 10 \log P$
- $2W <$ units, $75 + 10 \log P$



WCS's ASK



Rule modification requested by the WCS licensees to allow outdoor CPEs will create detrimental interference by potentially increasing the interference by >25 dB. The outdoor CPEs can be located anywhere; i.e. on the street poles with short distance to SDARS subscribers.

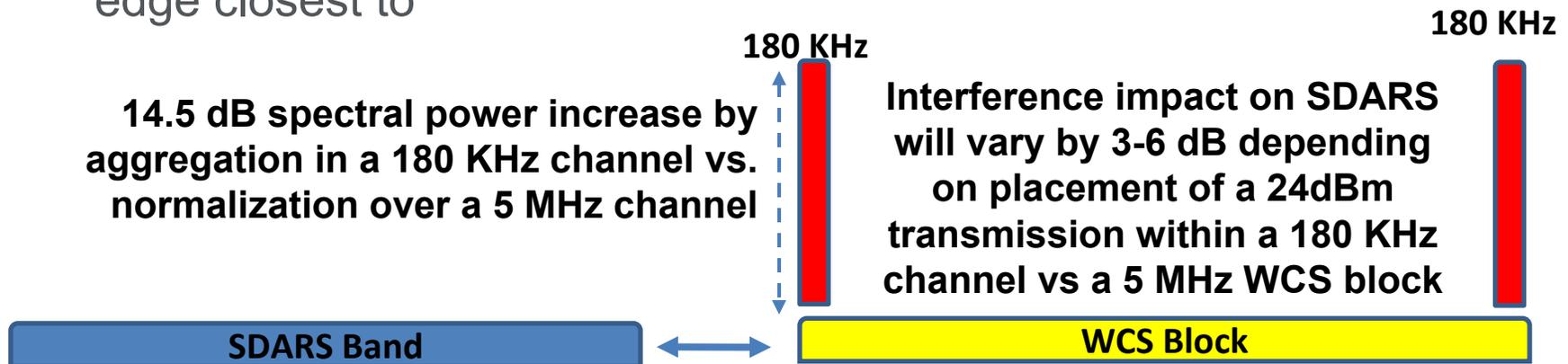


Importance of Maintaining Duty Cycle Limit

- Duty cycle limits are an essential element of interference protection. The current limits for mobile and portable stations using TDD or FDD technology are appropriate and supported by the record
- Current limits are supported by WiMAX and LTE standards and provide 2.5 Mb/s uplink bandwidth for consumer applications
- Increasing duty cycle limits is not supported by test data or other information in the record
 - WCS probability analysis assumed lower duty cycle; uplink transmissions were said to be limited and rare
- Interference impact increases by 1-7 dB when LTE duty cycle increases from 32% to 43%
 - B-lower block LTE transmission tested on a SiriusXM SDARS receiver.
- LTE in-band channel PAR cannot justify increasing WCS duty cycle
 - Increasing duty cycle increases the duration of WCS OOB interference in SDARS Band as well as duration of signal overload

Importance of Retaining Power Density Limits at 50mW/MHz

- There is no data in the record supporting WCS's request to aggregate all permissible power in a narrowband carrier
 - All testing on record has been based on normalized power across 5MHz
- Recent tests show increased interference if aggregation is allowed
 - 24dBm power aggregated in a 180KHz carrier located at WCS block edge closest to



Coordination/Cooperation Concerns

- To date, WCS licensees have not provided site information that we need for coordination. This raises concerns about their future efforts
 - In contrast, Sirius XM has routinely provided copies of STA applications when filed
 - Under Sirius XM's new blanket STA, we send multiple construction notices well in advance of changes to all affected WCS licensees
- The two largest WCS licensees – NextWave and AT&T – are actively shopping significant chunks of their WCS spectrum
- A large number of WCS substantial service were filed over a year ago and never provided to Sirius XM
 - In any event, filings provide little useful information for coordination
 - Requests for additional information have yielded no response
- A process is needed for bringing harmful interference concerns to the Commission for prompt action, should problems occur