RADIO ADVISORY BOARD OF CANADA
CONSEIL CONSULTATIF CANADIEN DE LA RADIO

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235 Queen Street, 6th Floor
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(Submitted by email)

**Subject: SRSP-306.4, Draft Issue 7**

Dear Josette Gallant,

**Introduction**

In October 2024, the Department requested that RABC review draft issue 7 of Standard Radio System Plan (SRSP)-306.4, – *Technical Requirements for Fixed Line-of-Sight Radio Systems Operating in the Band 6425-6930 MHz.* The Board assigned the review of the standard to the Fixed Wireless Communications Committee.

The Committee held two meetings to review the proposed changes to the standard, during which feedback was provided to the Department. The Board's formal comments provided below. Attached to this letter is a version of the draft SRSP that includes some specific recommendations from the Board, highlighted using tracked changes for ease of reference.

**Comments**

Section 1 of the SRSP

The Board has recommended rewording of paragraph 4 to better clarify the application of certain provisions of SRSP-300 GEN.

It would be appropriate to continue to exempt TV Studio Transmitter Link (STL) from minimum hop length in SRSP-300-Gen, 6.3, where technical justification is provided. TV STL is a special case where many other factors determine the location of the television transmitter site and studio site. There are many communities where the transmitter is located less than the minimum hop length from the studio. The RABC notes that the major TV transmission towers in Vancouver, Calgary, Toronto, Ottawa and Montreal are less than 24 km from the city centre.

Section 4

The specific recommendations for this section are included in the attachment.

RABC members believe that the draft proposed by ISED would result in a Canada-specific standard, as the proposed 250 MHz spacing would not align with any other country. A unique Canadian standard that is not aligned with other countries would make it very difficult, if not impossible, for Canadian licensees to procure equipment necessary to utilize the band as envisioned by the Department. Furthermore, it is unlikely that there will be enough greenfield applications to justify moving away from the 340 MHz spacing.

In addition, RABC strongly encourages the Department to present the Channel Arrangement Descriptions in a table format in an Annex of the SRSP. We believe that presenting this information in table format would make it much easier for readers to understand.

Section 4.9

We note that many current TV STL systems are using 20 MHz channels. RABC Broadcasting Members have reached out to equipment vendors to ask what the impact may be for new TV STL systems that would need to meet the greater spectral efficiency of 4.4 bits/s/Hz. The complete answer is not yet clear, but it may require utilizing 32 QAM or higher, which could have a negative impact on system reliability and/or path length. Further, if future TV STL require higher data capacity and channel bandwidth than 20 MHz, fewer channels are available in the new band plan. There may be a need for an exemption for TV STL systems where technical justification is provided.

Section 6

Section 6 of the SRSP-306.4, Issue 7, outlines the minimum antenna characteristics. Where an antenna is deployed in an uncongested area, its co-polarized radiation envelope in the horizontal plane of the antenna must remain within Envelope B. Levels of congestion are determined by the Geographical Differences Policy guideline found in part B, section 1.6 of Spectrum Utilization Policy SP 1-20 GHz. That document defines an uncongested area as “an uncongested area is where 90% or more of the channels are available for use in 90% or more of the possible directions.”

Spectrum Utilization Policy SP 1-20 GHz has been published since 1995. However, the definition of “congested areas” has remained exceedingly unclear. For example, in 2019, Xplore sought permission to build microwave backhaul links (pursuant to SRSP-310.7). Xplore was required to follow up with ISED directly for every link to determine whether the area was congested. At that time, and as can be seen in the attached redacted email correspondence, ISED indicated that “at this time, congested areas are more oral” indicating that ISED was providing oral confirmation of an area’s congested status.

It is imprudent to rely on Spectrum Utilization Policy SP 1-20 GHz due to the uncertain nature of its definition of “uncongested areas.” Defining an uncongested area requires calculating the percentage of channels available for use as well as the percentage of directions where they are available. Depending on what interference analysis systems are used (e.g. ISED EMC, FCSA TSIP), different calculation methods could produce different results, introducing uncertainty in the design process.

While ISED has made all the underlying data available, developing a software tool to provide congestion demarcations would be both costly and time-consuming. Requiring each provider to develop such a tool is also likely to produce inconsistent results as among providers if the tool is not standardized.

Instead, in light of the experience Xplore and other members have had, RABC recommends that ISED calculate and publish a map clearly identifying congested and uncongested areas to support antenna design. Developing individual tools would be costly, time-consuming, and lead to inconsistent results. Clear, standardized information would streamline policy administration and conserve resources for both providers and ISED, eliminating the need for case-by-case confirmations.

**Conclusion**

At the request of the Department, RABC posted the draft standard on its website to facilitate comments from Canada's World Trade Organization (WTO) partners. RABC did not receive any comments on its WTO portal.

The Board has now completed its review. We appreciate having had the opportunity to review the updated standard.

Sincerely,

J. D. Farnes

J. David Farnes
General Manager

Attachments (2)