



October 29, 2019

Mr. Michael Christensen  
Director, Coordination and Terrestrial Engineering  
Spectrum and Telecommunications Sector  
Innovation, Science and Economic Development Canada  
235 Queen Street, 6<sup>th</sup> Floor  
Ottawa, ON, K1A 0H5  
(Submitted by email)

Dear Mr. Christensen,

**Re: SRSP-305.9 Issue 6, Technical Requirements for Fixed Line of-Sight Radio Systems Operating in the Band 5925-6425 MHz**

Introduction

RABC has completed its review of the proposed draft revision of SRSP-305.9, Issue 6. Overall, RABC agrees with the latest version provided by the Department on April 11, 2019, which includes the removal of RF channel bandwidth below 5 MHz and addition of support for 60 MHz RF channel bandwidth.

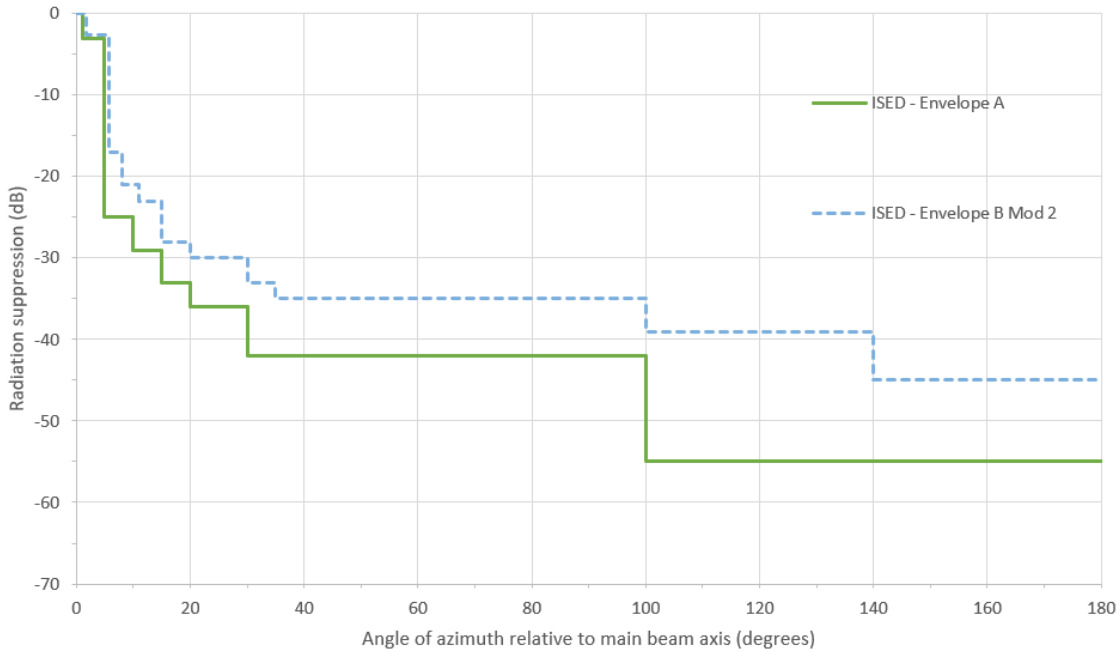
The only remaining item in which RABC membership could not reach consensus is on a proposed revised envelope B. As a result, RABC is providing the Department with two (2) views concerning the revising of SRSP 305.9 for the Department's consideration. These two views are explained below.

FS Proponents' View

FS proponents are proposing replacing envelope B in Table 7 and Figure 1 of currently in-force SRSP-305.9 for outside of moderate and highly congested areas with the envelope B below. This would relax the current envelope B 1 to 4 dB over some angles between 5 and 35 degrees allowing the use of certain high performance 1.2 meter antennas, in addition to 1.8 meter antennas. The intent is to provide more flexibility in FS link deployment, with significant potential cost savings for FS operators and therefore facilitating the operation of FS networks. Following many discussions, it is the FS proponents' view that it will be very unlikely that a FS link using 1.2 meter antennas would receive more interference from future potential interferer (e.g. FSS earth stations, FS links, etc.), than if the FS link would have used 1.8 meter antennas complying with envelope B as specified in the current SRSP-305.9 (Issue 5).

As such, from the antenna perspective, the FS proponents' proposal is only to replace current envelope B with the one proposed in Annex 1. Consequently, the FS proponents consider the use of 1.2 meter antennas complying with the proposed revised envelope B as standard equipment as per SRSP-305.9.

**Proposed revised envelope B  
(to replace Table 7 and Figure 1 in latest draft of SRSP-305.9 provided in April by the Department)**



**New Proposed Table 7**

<b>Azimuth in Degrees from Main Lobe</b>	<b>Antenna Directivity in dB Down from Main Lobe</b>
0° to 1.7°	0
1.7° to 5.8°	2.6
5.8° to 8.0°	17
8.0° to 11.0°	21
11.0° to 15.0°	23
15° to 20°	28
20° to 30°	30
30° to 35°	33
35° to 100°	35
100° to 140°	39
140° to 180°	45

### FSS Proponents' View

FSS proponents agreed conditionally with the proposal by FS proponents to replace envelope B, in Table 7 and Figure 1 of currently in-force SRSP-305.9 for outside of moderate and highly congested areas, with a proposed new envelope B. The new envelope B would be relaxed by up to 4 dB, as stated by the FS proponents, over some angles between 5 and 35 degrees, allowing the use of the proposed 1.2 meter antennas (as the characteristics are given above), in addition to 1.8 meter antennas, when it is possible. As mentioned a number of times during the working group meetings, both FS proponents and FSS proponents have agreed that the proposed 1.2 meter antenna mask would provide more flexibility in FS links deployment, potentially saving significant amount of cost for FS operators and therefore facilitating the operation of FS networks. As a result, FSS proponents can agree to this approach with the requirement that these advantages for FS operators should not be at the expense of FSS community, as it is further explained below.

Specifically, there is a foreseen potential issue in the case of a new FSS earth station that could be deployed in the area where a FS link would already be in service using the proposed 1.2 meter antennas as per relaxed envelope B mentioned above (see the characteristics of the proposed 1.2 meter antenna envelope above). While the value of the interference received by a FS 1.2 meter antenna might be unchanged compared to a FS 1.8 meter antenna according to FS proponents, the value of the wanted signal received by 1.2 meter antennas (that have less gain by at least 3.5 dB than 1.8 meter antennas) would be reduced by at least 3.5 dB compared with if 1.8 meter antennas had been used. This is the reason that the FSS proponents have suggested the addition of the “note” given below to the revised SRSP 305.9, in case the Department decides to proceed with the revision.

The discussions led to possible cases that a FS link using the proposed 1.2 meter antennas with relaxed envelope B mentioned above could receive lower signal –to - interference ratio from a new FSS earth station than if the FS link would have used 1.8 meters antennas complying with the currently in-force SRSP-305.9. The FSS proponents noted that the FS proponents have stated that in effect the above impact would be unlikely. FSS proponents have proposed to insert the following “note” in relevant section (e.g., in section 7, but immediately after the new proposed relaxed antenna mask) of the revised SRSP-305.9 (issue 6). The added note given below will address this potential issue:

“In case of future deployment of FSS earth stations, if the signal-to-interference level of any 1.2 meter FS antenna , complying with Envelope B in issue 6 of this SRSP, is less than signal – to – interference level that would have been received as a result of using a 1.8 meter antenna complying with Envelope B in issue 5 of SRSP-305.9, and in cases it triggers a coordination process, the FS operator using the 1.2 meter antenna has the option to move up to the 1.8 meters antenna or accept the potential signal degradation, if any.”

It is noted that the RABC FWCC Chair factually has reported that ISED, in one of the working group meeting, has indicated that the approach of inserting a note such as the one proposed by FSS proponents above is possible, as text is included in the SRSP related to non-standard systems.

Conclusion

The Board appreciates having had the opportunity to comment on the proposed revision to the standard.

Sincerely,

A handwritten signature in black ink, appearing to read "J.D. Farnes". The signature is fluid and cursive, with a long horizontal flourish extending to the right.

J. David Farnes  
General Manager