



**AWS Subcommittee
Draft Meeting Notes – V3
February 10, 2020
13:00 to 14:30**

RABC Review of RSS-192 and SRSP-520

Participants

Geoff Catliff (Chair)	TELUS	Mark Draper	Rogers
Josette Gallant	ISED	Terry Duchcherer	CanWISP
Alain Abou-Zeid	ISED	Brenda Bouchette	ABC/CanWISP
Hughes Nappert	ISED	Javad Jafarian	Bell
Mahmudur Rahman	ISED	Dave Case	CISCO/CECA
Mariane Huard	ISED	Don Falle	Inukshuk
Christine Hsu	ISED	Jonathan Mackenzie	CWTA
Abrar Fuad	ISED	Rob Berezowski	Sasktel/CWTA
Loan Tran	ISED	Jad Berberi	Huawei/CWTA
Susan Winter	CECA	Kevin Dick	Huawei/CWTA
Fabiano Chaves	Nokia/CECA	Gabriel Lascut	Ericsson/CECA
Emmanuel Neilz	Nokia/CECA	Jody Mitiche	Ericsson/CECA
Frank Korinek	Motorola/CECA	Daryl Smith	Ericsson/CECA
Adam Tenenbaum	TELUS	Elisabeth Neasmith	Telesat/CSSIF
Sam Luu	TELUS	Esam Ghanem	Xplornet/CWTA
Ivo Maljevic	TELUS	Dave Morley	Freedom Mobile/CWTA
Matthew Mulvihill	TELUS	William Gooding	Eastlink/CWTA
Greg Thompson	TELUS	Alex Kent	CEA
Rahim Nathoo	TELUS	Veena Rawat	GSMA
Alexis Ouellet Patenaude	CBC/Radio Canada	Kirk Nesbitt	CAB
Julie Bergeron	CBC/Radio Canada		
Paul Goodrick	Rogers		
Jean-Yves Bernard	Rogers	David Farnes (Secretary)	RABC

Discussion

- Dave Farnes summarized the various pieces of information that had been shared since the first call, including:
 - Notes from the January 27th call
 - Feedback to the Department from Nokia, Ericsson and Huawei
 - New draft RSS-192, Issue 4, version 3
 - New draft SRSP-520, Issue 1, version 3
 - Proposed definitions of AAS and non-AAS (for use in the RSS and SRSP_
- Geoff Catliff welcomed everyone.
- Geoff noted that meeting notes from the January 27th call were circulated by Dave Farnes. He asked for comments/corrections. A minor correction was raised and agreed to. The meeting notes were then adopted.
- Josette suggested we begin by reviewing the document containing the proposed definitions of AAS and non-AAS

Proposed definitions of AAS and non-AAS

- Alain presented the document, noting that definition 3 is the Department's proposal. Following discussion, members agreed on a modified version of the first definition of AAS:
 - Active antenna system (AAS) refers to antenna system where the amplitude and / or phase between antenna elements is dynamically adjusted resulting in an antenna pattern that varies in response to short term changes in the radio environment. AAS may be integrated in P-MP hub station equipment, base station equipment and non-fixed subscriber equipment. This is intended to exclude long-term beam shaping such as fixed electrical down tilt.
- Members agreed with the proposed definition 1 for non-AAS

RSS-192

- Alain Abou-Zeid presented the revised document, focusing on the sections with new text.
- Table 1. Jean-Yves and Jody suggested that a footnote be added to express the limits as per 10 MHz blocks.
- Table 2. Veena asked whether a vendor can certify equipment as Type 1 vs Type 2? Isn't this an operational issue? Recommend that the RSS include synchronized (Type 1) while placing unsynchronized into the SRSP. Josette explained that the Department is trying to future proof the standard as technology evolves to possibly include Type 2 equipment. Emanuel asked whether Type 1 equipment can be deployed in synchronized and unsynchronized scenarios? Christine explained yes, but the operator must operate per the SRSP (which involves additional limits and coordination). Veena reiterated that this is exactly her point. Emmanuel agreed with Veena that the special cases belong in the SRSP. Jean-Yves expressed concern that the wording could create problems for operators because they may be required to change existing equipment. Josette

explained that the standard applies to new equipment. Veena suggested that the discussion be suspended pending a review of the SRSP. Members agreed.

- Section 8.7.2. Adam suggested that the limits as proposed do not align with 3GPP. Josette responded that the text came from a vendor suggesting that the limits are aligned with 3GPP. She asked Adam to supply source information to confirm that the proposed limits are not in alignment with 3GPP. **Adam to supply source information.**
- Section 8.7.3. Josette indicated that the Department would like to hear from incumbents in adjacent bands as to whether the proposed text is acceptable. **Incumbents in adjacent bands to provide feedback.** Emanuel expressed concern that aligning with parts of both ECC and FCC specs (mixing the two) will result in special equipment requirements for Canada. Adam expressed concern that the emission limits will require a 20 MHz guard band, which will result in the elimination of 2 blocks for use by operators. Jad agreed that a guard band will be required. He noted that the ECC is protecting radar in specific locations; the limits are not imposed nationwide. He recommended that Canada put the specific requirement in the SRSP. Adam supported this point. Jad also suggested that the -14 TRP limit could impact existing equipment. Jody asked whether a non-AAS mask could be included? Discussion revealed that Ericsson supplied a proposal which was inadvertently overlooked by the Department. **ISED to review proposal for non-AAS mask.** Fabiano noted that, globally, these frequencies are “in-band”. Canada is looking at “out-of-band”. He proposed that a single limit be adopted for this specific range. Josette requested that a written proposal be forwarded to the Department. **Fabiano to provide written proposal.**
- Section 8.7.4. Adam expressed the view that this text aligns with 3GPP; therefore, no concerns.

SRSP-520

- Mahmud Rahman reviewed the new updates.
- Paragraph 12. New footnote added per agreement during last call.
- Paragraph 14. Christine noted the SRSP doesn't cover the transition period. The transition plan will be released prior to the auction.
- Paragraphs 23 and 24. Mahmud asked if the industry was ready to remove the square brackets. Jean-Yves asked for more time to consider the text in this section.
- Paragraph 24. Jean-Yves asked whether this means new or existing Fixed P-P? Christine indicated that it applies to new (reference text in paragraph 12).
- Paragraph 34. Mahmud asked whether we can agree on -114.5? Jean-Yves and Don agreed. Jean-Yves recommended that “100% of the time” be removed. The Department agreed. Don argued that Annex B is out of date. Mahmud replied that the Department intends to update Annex B. The Department will also make reference to Annex B in paragraph 34. The Department will remove the square brackets around -114.5.
- Paragraphs 35 & 36. Do we need both paragraphs? Don indicated that the 70 km limit is too large; is the text still in square brackets? Esam agreed – it's a huge area. Mahmud replied that yes, the text is still in square brackets. The Department is looking for an acceptable limit recognizing that e.i.r.p has increased and that TDD will be used. Open

to discussion. Perhaps paragraph 35 should be removed. Christine indicated that, in light of the discussion, the Department's proposal is to eliminate paragraph 35. **Don and Esam to respond regarding the proposal to eliminate paragraph 35.**

- Paragraph 36 a). The Department will remove "100% of the time".
- Paragraphs 41 and 42. These relate to the RSS. Mahmud stressed that both paragraphs are to be read together.
- Paragraph 41. Jean-Yves asked about the use of "broadband" in the paragraph. Discussion revealed that broadband will be used in the titles of the RSS and SRSP. The Department will review for consistency. Adam asked whether we are missing the case of systems operating in adjacent blocks and in different (adjacent) licence areas, given the proposed use of the clause "operating in the same licence area" in Paragraph 41. **Mahmud replied that the Department would review the question.**
- Footnote 6. Mark Draper suggested that the following be added: ", or if one system is idle while the other system is transmitting or receiving". After discussion it was agreed that the Department should make the addition.
- Paragraph 51. Esam reiterated his concerns regarding coordination with WBS. Christine explained that both WBS and Flexible Use have primary status in the band, therefore coordination is required. Esam expressed concern that since it is operationally impossible to coordinate (i.e. no database of information regarding who to coordinate with), operators would be forced to shut down. Christine referenced paragraphs 47 & 48 where it is stated that the first step is for operators to coordinate and then contact the Department if the situation cannot be resolved. Esam noted that there are 100s of WBS operators. Don indicated that WBS equipment does not filter well, so the systems will receive interference. Christine suggested that the Department could add an out of band emission limit and remove the coordination requirement. **Esam to provide feedback regarding the possible addition of an out of band emission limit.** Brenda suggested, in light of the problems with the database, that the existing text could reflect a requirement to coordinate with "properly registered systems".
- Paragraph 53. Mark Draper asked whether Rogers would have to coordinate with the earth station in Weir, QC every time it adds a base station in Ottawa or Montreal? Discussion revealed that the earth station in question is located in a valley intentionally to avoid receiving interference. Marc then asked whether the 150 km distance could be reduced? **The Department to consider whether the 150 km distance can be reduced. Mahmud also indicated that Annex B will be updated.**
- Section 10 – International Coordination. Esam reiterated his concern regarding coordination with US operators. Mahmud replied that the Department is discussing the issue with the FCC and is pushing for one point of contact. Esam expressed concern that Canadian operators are being asked to sign off on a standard while international coordination uncertainties exist. Further, Esam is not clear how one point of contact will help in light of the dynamic spectrum allocation in the US. Christine responded that this would be an interim measure. Esam asked whether Canadian operators can deploy or are they on hold? Christine responded that she understood the challenge since US operators are deploying. Veena noted the differences in timing between Canada and the

US. An interim solution may be ok, but for how long? How will the US deployment impact the Canadian auction and use of the band in Canada? Don noted that there are already 1000s of existing Canadian systems near the border. **Christine to seek approval to share the interim plan being developed with the FCC.** Veena suggested that it would be good if the Canadian systems are registered in the US database.

Closing comments/questions

- Geoff encouraged industry to provide feedback quickly.
- Josette proposed industry feedback be provided by close of business Thursday, allowing the Department time to provide new drafts Monday afternoon. **Agreed.**
- The next call is scheduled for February 20th

The meeting adjourned at 14:50.

J. David Farnes
General Manager