



***Submission to Innovation, Science and Economic Development
Canada***

***Consultation on the Technical and Policy Framework for White Space
Devices***

(Canada Gazette, Part 1, Notice No. SMSE-018-17, November 15, 2017)

c/o Director General, Engineering, Planning and Standards Branch
Innovation, Science and Economic Development Canada
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Introduction

1. The CAB is the national voice of Canada's private broadcasters, representing the vast majority of Canadian programming services, including private radio and television stations, networks, specialty, pay and pay-per-view services.
2. We appreciate the opportunity to comment on ISED's consultation paper, "*SMSE-018-17 Consultation on the Technical and Policy Framework for White Space Devices*," on behalf of our members. Our members look forward to participating constructively in this process.
3. This Consultation is closely related to the Department's decisions and potential outcomes of SMSE-019-17 – Consultation on the Technical, Policy and Licensing Framework for Wireless Microphones.
4. CAB members will be acutely impacted by the Government of Canada's 600 MHz repurposing initiative. The severity of these impacts and the need for reimbursement, as a direct result of repurposing the 600 MHz Band, are well documented in the CAB's Response¹ to SLPB-005-17 Consultation on a Technical, Policy and Licensing Framework for Spectrum in the 600 MHz Band².
5. The CAB Technical Coordinating Committee (TCC) participated greatly in the development of the Radio Advisory Board of Canada response to this Consultation. The TCC submits the following additional comments to the questions outlined in the Consultation.

Q1. ISED is seeking comments on its proposal to harmonize with the U.S. framework regarding the operation of fixed white space devices in the channels 3 and 4 (60-72 MHz).

6. The CAB supports ISED's proposal to harmonize with the U.S. and permit the operation of fixed WSDs in channels 3 and 4 (60-72 MHz).

Q2. ISED is seeking comments on its proposal to harmonize with the U.S. framework regarding the operation of personal/portable white space devices in channels 14 to 20 (470-512 MHz).

7. The CAB supports ISED's proposal to harmonize with the U.S. and permit the operation of personal/portable WSDs in channels 14 to 20 (470-512 MHz). The CAB

¹ [https://www.ic.gc.ca/eic/site/smt-gst.nsf/vwapj/SLPB-005-17_comments_CAB.pdf/\\$file/SLPB-005-17_comments_CAB.pdf](https://www.ic.gc.ca/eic/site/smt-gst.nsf/vwapj/SLPB-005-17_comments_CAB.pdf/$file/SLPB-005-17_comments_CAB.pdf)

² <http://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/sf11316.html>

notes that the Department intends to review the technical rules for WSDs included in RSS-222.

Q3. ISED is seeking comments regarding its proposal to limit the use of white space devices to spectrum below 608 MHz at this time.

8. The 600 MHz Band is currently utilized by licensed television stations as well as unlicensed wireless microphones, cameras and intercom equipment (“WMs”),
9. Private broadcasters will bear the brunt of repurposing the 600 MHz Band. We estimate this cost to exceed \$106 million. A review of the DTV Allotment Plan , published April 2017, indicates that CAB member television stations represent 79% of Regular Power stations in the Plan. In addition, public, educational and low power TV stations will also be affected. While we do not have specifics on such costs for these additional stations, we believe it would be prudent for ISED to assume that mandatory transition costs for public, educational and low power broadcasters would exceed \$10 million.
10. The above cost estimates do not include the cost of replacing narrow band WMs that also now face displacement from the 600 MHz Band.
11. Unlicensed wireless microphones, cameras and intercom equipment (“WMs”), have become an integral part of radio and television station operations because of their flexibility and rapid deployment for news gathering, special events and in-studio uses. When television stations were required to vacate the 700 MHz Band, WMs, cameras and intercoms, also in the 700 MHz band, became obsolete. Broadcasters were thus required to make substantial investments of millions of dollars to replace wireless equipment displaced from the 700 MHz Band. Much of that new equipment operates in the 600 MHz band. When mobile services are deployed in the 600 MHz Band, broadcasters will be required to abandon these investments and, again, purchase new equipment costing millions of dollars more. One television group alone spent \$1 million to replace 700 MHz WM equipment and now estimates over \$1.6 million to replace 600 MHz equipment.
12. The cost of replacement wireless microphones, cameras and intercom equipment should therefore be reimbursed to radio and television broadcasters.
13. In the parallel Consultation on the Technical, Policy and Licensing Framework for WMs, broadcasters are encouraged by the opportunity to utilize the Duplex Gap and Guard Band exclusively for WMs. This will mitigate the impact by allowing at least some existing WM systems to continue to operate.
14. It will be a number of years until the 600 MHz Band begins to be deployed by mobile services. Mobile services may not be deployed until after the completion of the Digital Television (DTV) Transition Schedule, four years from now. Hence there is

no risk of interference if unlicensed WMs are permitted to continue operation for quite some time.

15. ISED should rescind or modify SAB-003-17 to allow existing unlicensed WMs to continue to operate for as long as possible until mobile services are actually deployed several years from now in each region of the country.
16. Restricting the use, at this time, of White Space Devices to spectrum below 608 MHz will allow for a gradual attrition of existing users of the 600 MHz Band until this spectrum is deployed by mobile services. This will preserve the value of equipment investments for a number of years.

Q4. ISED is seeking comments on its proposal to continue to preclude the use of channel 37 (608-614 MHz) by white space devices.

17. The CAB supports ISED's proposal to continue to preclude the use of channel 37 (608-614 MHz) by WSDs.

Conclusion

18. In recent years, Canadian OTA television broadcasters have assisted the Government to make more spectrum available for mobile use at a significant cost to their bottom lines. They have done this while continuing to provide Canadians from coast to coast to coast with local programming on OTA stations that informs and reflects their daily lives.
19. Broadcasters are prepared to assist the Government to make additional spectrum available in the 600 MHz band, while preserving the future of local programming across Canada. However, they will be unable to do so without assistance from the Government of Canada.
20. The CAB submits that this assistance should include the following:
 - a. Reimbursement to radio and television broadcasters to cover 100 percent of all costs associated with the 600 MHz conversion, including replacement costs of wireless microphones, cameras and intercom equipment, along the lines provided to broadcasters in the United States;
 - b. Funding to be created from spectrum auction proceeds to support local television;
 - c. Assurance that no OTA television station will be forced to shut down or accept undo interference for reasons beyond its control; and,
 - d. Assurance that television stations will continue to be protected from interference from RRBS and White Space Devices at all times, including

television stations that elect to extend their channel conversion beyond the scheduled cut-over date.

- e. ISED should rescind or modify SAB-003-17 to allow existing unlicensed WMs to continue to operate for as long as possible until mobile services are actually deployed several years from now in each region of the country.