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### Reply Comments To:

#### **Consultation on New Access Licensing Framework, Changes to Subordinate Licensing and White Space to Support Rural and Remote Deployment (Canada Gazette, Part 1, August 4, 2021, Notice number SLPB-004-21)**

The Railway Association of Canada (RAC) would like to provide their reply to the comments received for the consultation on a “New Access Licensing Framework, Changes to Subordinate Licensing and White Space to Support Rural and Remote Deployment.” The RAC commends the department on the initiative of providing access to broadband in areas where spectrum has been underutilized.

The RAC was established in 1917, the RAC represents nearly 60 freight, intercity, commuter, and tourist railways that move close to 100 million people, and more than \$320 billion in goods, across the country each year. The railways operate an extensive communications network consisting of thousands of kilometers of fibre optics, thousands of radio sites and wireless operations in some of Canada’s most remote regions. These communications are essential to the safe and efficient movement of trains across the rail network.

The US-Canada railways were granted access to 6 channels in the 900 MHz LMR band to deploy Advance Train Control Systems in 1990. These channels have been used for the two following primary functions in Canada:

1. To display train location and position of switches to the dispatcher as well as to allow the dispatcher to align switches in the field to allow the safe and efficient movement of trains; and
2. To broadcast train wheel temperature to the back office, where the information is analyzed to identify trends which could potentially lead to derailments.

The consultation asks whether broadband should be allowed in the 900 MHz LMR band in rural and remote areas. These Automated Train Control System (ATCS) railroads channels lie within the band being considered for this broadband spectrum. However, the consultation identifies only 400 licences across the country. This information is taken from the department’s System Management System (SMS).

The railroads have a significant deployment of radios on these channels which are not recorded in the SMS. There are over 340 base stations and 1450 fixed mobiles installed across Canada. The Appendix A below shows a graphical representation of these radio sites. A significant portion of these sites are installed in rural and remote regions and must be protected from interference at all costs.

This information about these radio installations resides in the RAC database. Due to technical difficulties, it has not been possible to upload this information into the department's SMS. The RAC has been providing regular exports of the database to the department as an alternative.

### **Questions Posed by Notice of Consultation SLPB-004-21**

#### **Q37**

*ISED is seeking comments on its proposal to issue access radio licenses in the 897.5-900.5 MHz and 936.5-939.5 MHz portions of the 900 MHz LMR band in rural and remote Tier 5 service areas and only in locations within those service areas where there will be no interference to existing LMR operations.*

#### **Q38**

*ISED is seeking comments on availability of equipment for the proposed broadband service, including the feasibility of modifying 3GPP band 8 equipment.*

The RAC supports the comments put forth by the Canadian Electricity Association of assigning this broadband spectrum in the 900 MHz LMR band in rural to Critical Infrastructure Operators (CIOs). This assignment would allow for the deployment of robust reliable private broadband communications necessary to support future applications, such as Enhanced Train Control, and spur innovation.

The RAC also agrees that a 5/5 MHz channel for broadband would be more beneficial from an equipment availability perspective, but that this modification may pose problems since it does not match with the FCC 900 MHz band plan. Adopting a licensing approach which ensures no interference to existing systems should be implemented.

**In the long term, the RAC feels that it is in Canada's best interest to harmonize the band plan with the American 900 MHz band plan.** Not doing so will end up causing interference issues and sharing conflicts which may lead to inefficient use of the spectrum in the border area. Any migration to a new band plan will need to afford enough time for the users of the spectrum to adjust to the changes.

In the FCC Report and Order the American railroads were given 10 contiguous channels at the beginning of the 900 MHz block (A Block). The American railroads were given 6 years to migrate off their existing ATCS channels. A similar arrangement should be made for the Canadian railroads to allow the American Association of Railroads and the RAC to coordinate the channels between themselves.

If this proposal were adopted, there would have to be sufficient time to allow the railroads to migrate to the new channels. This migration would result in the release of several channels within the broadband channel block.

The RAC believes that a further consultation would be necessary to enact changes to the 900 MHz LMR band to harmonize the spectrum usage at the border and to explore the assignment of broadband to Critical Infrastructure Operators. The RAC would welcome the opportunity to discuss this relocation as well as the proposal of assigning CIOs as primary users of band 8 with ISED.

Yours Respectfully,



**Caroline Healey**  
Executive Vice-President and General Counsel  
Railway Association of Canada

**APPENDIX A – PLOT OF CANADIAN ATCS DEPLOYMENTS**

