

Radio Amateurs of Canada Response to SMSE-010-12

Radio Amateurs of Canada (RAC) offers the following answers and comments for consideration:

- 1. Should Industry Canada allow amateur radio operation to use the five frequencies 5332 kHz, 5348 kHz, 5348 kHz, 5358.5 kHz, 5373 kHz and 5404 kHz, which are harmonized with U.S. amateur use, on a no-protection, no-interference basis? Transmission would be restricted to a 2.8 kHz bandwidth centred on each of these frequencies.***

Answer: Yes

RAC supports this proposal. RAC believes it is necessary to be compatible with the U.S. amateur service on these five frequencies for communications between the two countries that may involve the passing of traffic about the well being of victims of a disaster. Sharing this spectrum with U.S. amateurs also provides for a greater opportunity to test equipment, antenna systems, and the variations in propagation at these frequencies. Furthermore, most commercial amateur equipment available to Canadian amateurs is designed for the large American amateur market and already has these 5 frequencies programmed into the radio transceivers. RAC respects the need for a limitation of 2.8 kHz channel bandwidth and that all emissions must be centred on each channel frequency to be consistent with the U.S. RAC respects that this spectrum is offered on a Secondary Status basis and the amateur service must not cause interference to nor claim protection from Primary Status users.

- 2. Should Industry Canada harmonize emission modes and designators with those specified in the United States for these five frequencies – i.e. telephony (2K80J3E), data (2K80J2D), RTTY (60H0J2B) and CW (150HA1A)?***

Answer: Yes.

RAC believes it will be necessary to properly coordinate the usage of these channels with our counterpart, the American Radio Relay League (ARRL) representing amateur service users in the USA. This will not only involve the use of spectrum, but also types of communications modes that are allowed. While it is an exception to the practice of specifying the emission bandwidths for amateur service band allocations in Canada, RAC believes the shared nature of these five specific channel allocations can be best coordinated by limiting emission designators to those allowed in the USA.

3. *Should Industry Canada specify a maximum effective radiated power of 100 W peak envelope power.*

Answer: Yes, with qualification

RAC acknowledges that the U.S. limits power on these frequencies to 100 watts PEP “Effective Radiated Power” with reference to a dipole antenna. This, we believe, is imposed to minimize the potential of interference to primary status users of the spectrum. Because it is difficult for many amateurs when establishing their station and antenna system, especially in quickly deployed remote site locations, to determine the exact performance of the antenna system, RAC proposes that limitation should be 100 watts transmitter PEP RF output without reference to “Effective Radiated Power”. RAC believes this approach is reasonable considering that most antenna radiators for this band will be dipoles or other simple wire or monopole antennas that will have at best, zero gain relative to a dipole.

4. *Should Industry Canada allow Canadian amateurs access to the 5329 kHz frequency for domestic communications only? Transmissions would be restricted to a 2.8 kHz bandwidth centred on this frequency.*

Answer: No, with qualification.

RAC believes that a specific 5329 kHz channel allocation would be beneficial and allow Canadian amateurs to develop emergency networks which do not overlap with U.S. channels. RAC believes that through appropriate band planning policy set by RAC, the use of this frequency can be managed for domestic communications. RAC sees no reason to restrict international communications with amateurs where their administrations may permit.

5. *Should Industry Canada specify emission designators and peak envelope power for this additional frequency? If so, what should these be?*

Answer: No with qualification.

Ideally, RAC would like this channel allocation to be free of the limitations specified for the five channel allocations shared with the amateur service in the U.S. We respect that all emissions must be maintained within plus/minus 1.4 kHz of the centre frequency of the channel and this permits one single SSB voice emission (2K80J3E) centred on the frequency or may also allow a number of narrow bandwidth signals using modes such as PSK31 (60HOJ2B) or CW (150HA1A) to communicate concurrently within the channel space of 2.8 kHz. As a practical matter, RAC would suggest the power limitations for this frequency to be consistent with the other channels, that is, 100 watts PEP transmitter output power.

6. Comments are invited on this proposal to update the Canadian Table of Frequency Allocations.

RAC supports the proposed footnote wording to be added to the Canadian Table of Frequency Allocations. We see it as being consistent with the other items proposed by Industry Canada and with our recommendations in this response. We trust this change to the table can take place without necessarily awaiting other changes to the Canadian Table that involve other services as happens from time to time.

7. Comments are invited on this proposal to update the RBR-4 with these technical and operation parameters. (As shown on 5 page of the consultation document)

As noted in our answer to question 3, RAC believes that a limitation 100 W PEP transmitter output power without reference to Effective Radiated Power is appropriate. As to the emission modes and designations; RAC accepts the proposed conditions for the five frequencies harmonized with the U.S. amateur service. However, RAC recommends that for the frequency 5.329 MHz, the Department not specify emission modes nor require the transmitted signal be centred on the channel frequency.

This concludes the comments and recommendation by Radio Amateurs of Canada to Consultation Document SMSE-010-12.