



PUBLIC NOTICE

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PUBLIC SAFETY AND HOMELAND SECURITY BUREAU PROVIDES GUIDANCE TO U.S. PUBLIC SAFETY AGENCIES ALONG THE CANADA BORDER SEEKING TO ROAM INTO CANADA OR IMPROVE CROSS-BORDER COMMUNICATIONS VIA BASE STATION REPEATERS

By this *Public Notice*, the Public Safety and Homeland Security Bureau (Bureau) provides guidance to U.S. public safety licensees seeking to: (1) roam into Canada with their mobile or hand-held portable radio equipment; (2) communicate from the U.S. through base station repeaters in Canada; or (3) host Canadian public safety licensees seeking to communicate through base station repeaters in the U.S.

Our guidance is based upon recent arrangements and understandings reached by Bureau staff with officials from Innovation, Science and Economic Development Canada (ISED). The licensing guidance we provide below applies to any public safety licensee operating a Private Land Mobile Radio (PLMR) system in any frequency band authorized under Part 90 of the Commission's rules.¹

Cross-Border Communication Scenarios

Public safety licensees and their associated first responders who operate PLMR radio equipment along the U.S.-Canada border have long expressed a need to roam across the border with their licensed radio equipment or to communicate across the border through base station repeaters in the other country.²

Specifically, these licensees indicate that their first responders could improve their ability to respond to emergency incidents along the border if they could communicate under the following three scenarios:

- Scenario 1: operate their own mobile and/or hand-held portable radio transceivers on the opposite side of the border;
- Scenario 2: use base station repeaters on the opposite side of the border to interoperate with public safety licensees in the other country;
- Scenario 3: use base station repeaters on the opposite side of the border to communicate with public safety licensees in their own country.³

¹ See 47 CFR § 90.20.

² In the context of this Public Notice, the term "first responder" refers to any person authorized by a licensee to operate PLMR radio equipment under its license.

³ The three cross-border scenarios were first presented to officials from the FCC and ISED at a 2009 conference hosted by the U.S. Department of Homeland Security's (DHS) Office of Emergency Communications (OEC) in Niagara Falls New York. The conference was attended by first-responders from the both the U.S. and Canada.

In response to these scenarios, Bureau staff along with staff at the International Bureau and State Department worked with ISED to determine what changes to international agreements or licensing procedures were needed, if any, to permit public safety licensees along the border to operate in the manner described above.

Below we summarize their results and conclusions.

Scenario 1 – Conditions for Cross-Border Roaming

In October 2014, the FCC and ISED (collectively the Agencies) signed a “Statement of Intent” (SOI) to update roaming privileges for licensees operating on public safety spectrum which were originally adopted by the U.S. and Canada via a Convention in 1952.⁴ The SOI removed barriers to roaming with hand-held portable units and eliminated the need for the host country to issue permits to public safety licensees crossing the border.⁵ The SOI is available on the Commission’s website at: <https://www.fcc.gov/encyclopedia/international-agreements>.

Pursuant to the SOI, first responders operating along the U.S. - Canada border may now roam across the border with their mobile and hand-held portable radio units to perform duties for which they are licensed provided the first responder’s public safety agency is properly licensed in its country of origin.⁶ No additional approval or permits are required if the first responder’s agency is licensed in its home country for the frequencies the first responder is using.

Consequently, U.S. first responders seeking to roam across the border into Canada for temporary operations on the other side of the border may now do so provided the first responder’s agency is licensed for the frequencies it intends to operate in Canada.

⁴ In 1952 the U.S. and Canada ratified a Convention which addresses citizens of either country operating radio equipment in the other country. See Convention Between Canada and the United States of America Relating to the Operation by Citizens of Either Country of Certain Radio Equipment of Stations in the Other Country (signed Feb 8, 1951 and entered into force May 15, 1952) (1952 Convention).

⁵ See Statement of Intent of the Federal Communications Commission of the United States of America and the Department of Industry of Canada Related to the Cross-Border Operation of Portable Radios by Public Safety Agencies Along the United States-Canada Border (Oct 2014)(SOI).

⁶ Enforcement authority remains with the country in which the transmitter is operating.

Scenarios 2 and 3 – Conditions for Use of Base Station Repeaters in the Other Country

Staff from the Agencies agree that first responders operating mobile or hand-held radio equipment along the U.S-Canada border may communicate through base station repeaters located in the other country, as described above in Scenarios 2 and 3, provided the licensee of the first responder's radio obtains written consent from the licensee of the base station repeater (host licensee) and the following conditions are met:

- the base station repeater is properly licensed in the country in which it is located;
- the host licensee maintains control and is responsible for operation of its base station repeater at all times;
- a licensee obtains written consent from the host licensee before permitting its first responders to communicate with a base station repeater in the other country; and
- a licensee is properly licensed in its own country for the frequencies its first responders use to communicate through a base station repeater in the other country.

The requirements detailed above apply regardless of whether the first responder intends to use the base station on the other side of the border to interoperate with counterparts in the other country (Scenario 2) or to interoperate with first responders in its own country (Scenario 3).

After researching the issue, staff at the Agencies concluded that the sharing mechanisms described in Scenarios 2 and 3, although not specifically contemplated, are consistent with existing regulations and international agreements.⁷ Thus, staff found no need to modify current regulations or agreements.

Nonetheless, staff at the Agencies agree that licensees should meet the requirements described above before their users can begin communicating through a base station repeater in the other country. Furthermore, although we instruct licensees to first obtain written consent from the host licensee, we seek to minimize the burden on both the licensee seeking consent and the host licensee issuing consent by providing the parties maximum flexibility to decide the format of the written document.⁸

⁷ See 47 CFR § 1.928 (detailing requirements for coordination of frequency assignments with Canada).

⁸ When obtaining written consent, we advise licensees to ensure that their mobile and portable radios can support the trunked radio features of the base station repeater in the other country. We also advise U.S. licensees to share with their Canadian counterparts any domestic mutual aid agreements (U.S. licensee-to-U.S. licensee) which are already in place and for which cross-border communications are contemplated.

U.S. Base Station Licensees Hosting Canadian Licensee's First Responders

The licensee of a base station repeater located in the U.S. may act as a host for a public safety first responder from Canada provided the U.S. licensee meets the requirements described above beforehand. Specifically, the U.S. host licensee should first agree to terms of use for the base station repeater and provide its written consent to the Canadian licensee.

The written consent should indicate the call sign or co-channel serial (COSER) coordination number (if applicable) of the Canadian licensee whose first responders are permitted to communicate through the base station repeater and list the input/output frequencies to which they will have access. As noted above, the format for written consent is left to the parties involved. The host licensee should maintain a record of its written consent and provide a copy to Bureau staff if requested.

If the licensee of the base station repeater in the U.S. needs to modify the technical parameters of its license prior to hosting a first responder from Canada, we recommend it include with its modification application a copy of its written consent to the Canadian licensee to assist Bureau staff in processing the application. Examples of modifications which could be needed include adding additional channels or increasing the effective radiated power listed on the license.

Once a U.S. licensee provides its written consent and makes any necessary modifications to its license, it may act as a host for a Canadian first responder seeking to use the base station repeater to communicate with its counterparts in the U.S. (Scenario 2) or with first responders in Canada (Scenario 3). The Canadian first responder must be properly licensed in Canada for the frequencies on which it operates before it can communicate through the base station repeater in the U.S.

U.S. Licensees Seeking a Canadian Host

Any U.S. public safety licensee seeking to have its first responders communicate through a base station repeater in Canada must first obtain written consent from the Canadian licensee of that base station (host licensee). The written consent from the host licensee in Canada should be addressed to the licensee of the first responder's radio. In addition, ISED may require the host licensee to add a condition to its license before permitting U.S. first responders to communicate through the base station repeater in Canada.

We suggest that the written consent include the call sign or COSER coordination number (if applicable) of the base station repeater in Canada and list the input/output frequencies to which the U.S. first responder will have access. The format for written consent is left to the parties involved. The U.S. licensee receiving written consent from a host licensee in Canada should maintain a record of the consent and provide a copy to Bureau staff if requested.

If a U.S. licensee needs to modify the technical parameters of its license prior to communicating through a base station repeater in Canada, we recommend it include with its modification application a copy of the written consent it received from the host licensee in Canada to assist Bureau staff with processing the application. Examples of modifications which could be needed include adding channels or increasing the number of mobile units listed on the license.

Once a U.S. licensee receives written consent from the host licensee in Canada and makes any necessary modifications to its license, its first responders may use the base station repeater in Canada to

communicate with their counterparts in Canada (Scenario 2) or with first responders in the U.S. (Scenario 3) provided the host is properly licensed in Canada and has added any necessary conditions to its license.

Licensing Along Border Under Any of the Three Scenarios

U.S. public licensees and their associated first responders seeking to operate under any of the three scenarios described above should be aware of the licensing and coordination requirements for the frequency band in which they seek to operate. For instance, Bureau staff coordinates with Canada any application for the VHF or UHF frequency bands in which the applicant is:

- seeking a frequency in the 30-174 MHz or 450-470 MHz bands⁹ which is,
 - within the coordination zone¹⁰ and,
 - proposing to operate at an effective radiated power (ERP) greater than three watts.

The purpose of this coordination is to determine whether or not an applicant's proposal is likely to cause harmful interference to a licensee in Canada.¹¹ Coordination is required for any frequency in these VHF or UHF band segments including the interoperability frequencies. We list the designated U.S. VHF and UHF interoperability frequencies in Attachment B.

Thus, as noted above, any applicant seeking to license frequencies or facilities in these frequency bands to operate under any of the three scenarios can significantly reduce the risk of an inadvertent rejection by ISED if it includes with its application a description of how it intends to interoperate with licensees in Canada, including, if available, copies of any written agreements between the licensees.¹² Bureau staff will include this detail as part of an information exchange with staff at ISED when coordinating applications for these frequency bands.¹³

⁹ The Agencies license applications in the 30-174 MHz and 450-470 MHz frequency bands on a first-come, first-served basis. *See* Exchange of Notes between the Government of the United States of America and the Government of Canada Concerning the Coordination and Use of Radio Frequencies Above Thirty Megacycles per Second, with Annexes (Oct 24, 1962) (Above 30 MHz Agreement). *See also* 47 CFR § 1.928 (detailing FCC rule requirements pursuant to the Above 30 MHz Agreement).

¹⁰ "Line A" defines the coordination zone in the U.S. along the border with Canada for the lower 48 states while "Line C" establishes a similar coordination zone in the U.S. along the border with Canada in Alaska. *See* 47 CFR § 1.928(e).

¹¹ ISED will typically reject a U.S. coordination proposal that is predicted to produce a signal strength exceeding -146 dBW based on 10% time / 50% location variability at the location of a Canadian base or mobile station operating on the proposed frequency. *See* Public Safety and Homeland Security Bureau, Wireless Telecommunications Bureau, and International Bureau Provide Guidance to Part 22 and Part 90 Applicants Seeking VHF and UHF Frequencies Along the U.S. – Canada Border, *Public Notice*, 24 FCC Rcd 5578, 5579 (2009).

¹² 47 CFR § 90.129(h) (supplemental information to be routinely submitted with applications, include requests for authorization to communicate with foreign stations in accordance with §§ 90.20(b) or 90.417 of the Commission's rules). *See also* 47 CFR § 90.175(a) (frequency coordinators may request, and applicants are required to provide, all appropriate technical information, system requirements, and justification for requested station parameters when such information is necessary to identify and recommend the most appropriate frequency.)

¹³ 47 CFR § 1.928 (provides for the exchange of frequency assignment information and engineering comments on proposed assignments along the U.S.-Canada border areas in certain bands above 30 MHz). *See also* 47 CFR

Coordination with Canada is typically not needed for U.S. public safety applicants seeking to license channels in the 700 MHz (narrowband) or 800 MHz bands.¹⁴ U.S. licensees may operate on channels designated as primary to the U.S. in these frequency bands provided they meet the requirements outlined in Arrangements F and Q respectively.¹⁵

Furthermore, the designated mutual aid and interoperability channels in these bands are also available for cross-border communications between first responders in the U.S. and Canada.¹⁶ We list these channels in Attachment B. A U.S. first responder may operate on these channels to communicate along the border with other first responders in the U.S. or across the border to interoperate with their Canadian counterparts.¹⁷

U.S. public safety agencies eligible to hold a license pursuant to Section 90.20 of the Commission's rules may have their first responders operate mobile units and hand-held portable units on the mutual aid and interoperability channels in the 700 MHz (narrowband) or 800 MHz bands without the agency having an individual license for those channels.¹⁸ These agencies, however, must hold an individual license in order to operate a base station or control station on these mutual aid or interoperability channels.¹⁹

Finally, we recognize that in some cases, a U.S. public safety licensee may need to license a channel outside the Public Safety Pool in order to interoperate with licensees in Canada because, in many instances, public safety licensees in Canada use different channels than their U.S. counterparts.²⁰ In these instances, the public safety licensee may seek a waiver to operate on a U.S. channel for which it would otherwise not be eligible. Any licensee seeking such a waiver, however, must demonstrate that it has no other option for communicating with the licensee across the border and that its proposed operation will

§ 90.175(i) (applications for facilities near the U.S.-Canada border area may require coordination with the Canadian government).

¹⁴ See Sharing Arrangement Between the Department of Industry of Canada and the Federal Communications Commission of the United States of America Concerning the Use of the Frequency Bands 806-824 MHz, and 851-869 MHz by the Land Mobile Service Along the Canada-United States Border (Aug 2011) (Arrangement F); Sharing Arrangement Between the Department of Industry of Canada and the Federal Communications Commission of the United States of America Concerning the Use of the Frequency Bands 768-776 MHz and 798-806 MHz by the Land Mobile Service Along the Canada-United States Border (May 2013) (Arrangement Q).

¹⁵ Arrangement F at § 5; Arrangement Q at § 5.

¹⁶ Arrangement F at § 3.2.3; Arrangement Q at § 3.2.4.

¹⁷ Interoperability channels are to be used only for coordination of tactical communications or for similar emergency communications between or among public safety agencies. See Arrangement F at § 3.2.3, n. 1; Arrangement Q at § 3.2.4, n.2.

¹⁸ *The Development of Operational, Technical and Spectrum Requirements for Meeting Federal, State and Local Public Safety Agency Communication Requirements Through the Year 2010*, Third Memorandum Opinion and Order and Third Report and Order, 15 FCC Rcd 19844, 19885 ¶ 90 (2000).

¹⁹ *Id.*

²⁰ Unlike the U.S., ISED does not specify dedicated public safety interoperability channels in the 150-174 MHz and 450-470 MHz bands.

not cause interference to other U.S. or Canadian incumbent operators. Commission staff will evaluate requests of this nature on a case-by-case basis.²¹

Paperwork Reduction Act

This document contains new information collection requirements subject to the Paperwork Reduction Act of 1995 (PRA), Public Law 104-13. It will be submitted to the Office of Management and Budget (OMB) for review under Section 3507(d) of the PRA. OMB, the general public, and other Federal agencies are invited to comment on the new information collection requirements contained in this document. In addition, pursuant to the Small Business Paperwork Relief Act of 2002, Public Law 107-198, see 44 U.S.C. 3506(c)(4), the Bureau will seek specific comment on how the Bureau might further reduce the information collection burden for small business concerns with fewer than 25 employees.

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²¹ See, e.g., *State of Washington*, Order, 22 FCC Rcd 10121 (2007) (granting Washington State Patrol a waiver to operate on a paging frequency in order to interoperate with the Royal Canadian Mounted Police).

Attachment A: Summary of Licensing Requirements Under Three Cross-Border Scenarios

Conditions for Licensing Under Three Cross-Border Communication Scenarios

❖ *U.S. Public Safety Licensee First Responder Roaming into Canada (Scenario 1)*

A U.S. public safety licensee's first responder may roam across the border into Canada with his or her mobile and portable radio equipment provided it is:

- properly licensed in the U.S. for the frequencies on which it operates
- performing duties for which it is licensed

Roaming is permitted pursuant to the 1952 Convention and the Statement of Intent (SOI) signed by between the FCC and ISED in Oct. 2014.

❖ *U.S. Public Safety Licensee First Responder Communicating with a Base Station Repeater in Canada (Scenario 2 or 3)*

A U.S. public safety licensee's first responder may communicate with a base station repeater in Canada if, beforehand, the licensee:

- is properly licensed in the U.S. for the frequencies on which it operates
- obtains written consent from the licensee of the base station in Canada (host licensee)

Communications with the base station repeater in Canada may only occur if the host licensee is properly licensed in Canada. The host may also need to add a condition to its license.

Once these conditions are met, the U.S. licensee's first responders may use the base station repeater in Canada to communicate with their counterparts in Canada (Scenario 2) or with first responders in the U.S. (Scenario 3) provided the host licensee maintains control and is responsible for the base station repeater's operation at all times.

- ❖ *U.S. Licensee Hosting a Canadian Licensee's First Responder Seeking to Communicate with a Base Station Repeater in the U.S.
(Scenario 2 or 3 for licensee in Canada)*

The licensee of a base station repeater located in the U.S. (host licensee) may permit a Canadian first responder to communicate through its base station repeater provided that, beforehand, the host licensee:

- is properly licensed in the U.S. for the base station frequencies on which it transmits
- agrees to terms of use and provides written consent to the Canadian licensee.

Once the above conditions are met, Canadian licensee's first responders may use the base station repeater in the U.S. to communicate with their counterparts in the U.S. (Scenario 2) or first responders in Canada (Scenario 3) provided the host licensee maintains control and is responsible for the repeater's operation at all times.

Attachment B – Use of Mutual Aid and Interoperability Channels Along Canada Border

- ❖ U.S. licensees need an individual license to operate on these channels in the Canada coordination zones defined by Lines A and C.

150-162 MHz Band

<u>Interoperability Channel (MHz)</u>	<u>Industry Label*</u>	<u>Purpose</u>
151.1375 MHz (base/mobile)	VTAC11	Tactical
154.4525 MHz (base/mobile)	VTAC12	Tactical
155.7525 MHz (base/mobile)	VCALL10	Calling
158.7375 MHz (base/mobile)	VTAC13	Tactical
159.4725 MHz (base/mobile)	VTAC14	Tactical

450-470 MHz Band

<u>Interoperability Channel (MHz)</u>	<u>Industry Label*</u>	<u>Purpose</u>
453.2125 MHz (base/mobile) 458.2125 MHz (mobile)	UCALL40D UCALL40	Calling
453.4625 MHz (base/mobile) 458.4625 MHz (mobile)	UTAC41D UTAC41	Tactical
453.7125 MHz (base/mobile) 458.7125 MHz (mobile)	UTAC42D UTAC42	Tactical
453.8625 MHz (base/mobile) 458.8625 MHz (mobile)	UTAC43D UTAC43	Tactical

* Industry adopted channel nomenclature but not specified in FCC rules.

- ❖ U.S. licensees need no separate authorization to operate mobile and hand-held portable units on the following channels. This blanket licensing approach applies to operation anywhere in the U.S. including along the border with Canada. Operation of a base or control station on these channels, however, requires an individual license.

Licensees may use these channels for cross-border tactical communications with agencies in Canada.

800 MHz Band

<u>Mutual Aid Channel (MHz)</u>	<u>Label *</u>	<u>Purpose</u>
851.0125 MHz (base/mobile) 806.0125 MHz (mobile)	8CALL90D 8CALL90	Calling
851.5125 MHz (base/mobile) 806.5125 MHz (mobile)	8TAC91D 8TAC91	Tactical
852.0125 MHz (base/mobile) 807.0125 MHz (mobile)	8TAC92D 8TAC92	Tactical
852.5125 MHz (base/mobile) 807.0125 MHz (mobile)	8TAC93D 8TAC93	Tactical
853.0125 MHz (base/mobile) 808.0125 MHz (mobile)	8TAC94D 8TAC94	Tactical

700 MHz Band

<u>Interoperability Channel (MHz)</u>	<u>Label *</u>	<u>Purpose**</u>
769.14375 MHz (base/mobile) 799.14375 MHz (mobile)	7TAC51D 7TAC51	Tactical General Public Safety
769.24375 MHz (base/mobile) 799.24375 MHz (mobile)	7CALL50D 7CALL50	Calling
769.39375 MHz (base/mobile) 799.39375 MHz (mobile)	7MED65D 7MED65	Tactical EMS
769.49375 MHz (base/mobile) 799.49375 MHz (mobile)	7MED66D 7MED66	Tactical EMS
769.64375 MHz (base/mobile) 799.64375 MHz (mobile)	7TAC52D 7TAC52	Tactical General Public Safety

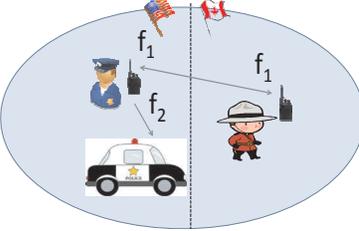
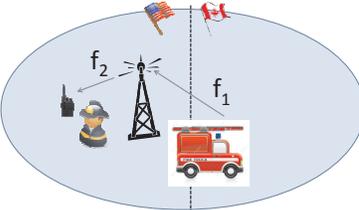
<u>Interoperability Channel (MHz)</u>	<u>Label *</u>	<u>Purpose**</u>
769.74375 MHz (base/mobile) 799.74375 MHz (mobile)	7TAC55D 7TAC55	Tactical General Public Safety
769.89375 MHz (base/mobile) 799.89375 MHz (mobile)	7FIRE63D 7FIRE63	Tactical Fire
769.99375 MHz (base/mobile) 799.99375 MHz (mobile)	7FIRE64D 7FIRE64	Tactical Fire
770.14375 MHz (base/mobile) 800.14375 MHz (mobile)	7TAC53D 7TAC53	Tactical General Public Safety
770.24375 MHz (base/mobile) 800.24375 MHz (mobile)	7TAC56D 7TAC56	Tactical General Public Safety
770.39375 MHz (base/mobile) 800.39375 MHz (mobile)	7LAW61D 7LAW61	Tactical Law Enforcement
770.49375 MHz (base/mobile) 800.49375 MHz (mobile)	7LAW62D 7LAW62	Tactical Law Enforcement
770.64375 MHz (base/mobile) 800.64375 MHz (mobile)	7TAC54D 7TAC54	Tactical General Public Safety
770.89375 MHz (base/mobile) 800.89375 MHz (mobile)	7MOB59D 7MOB59	Tactical Mobile Repeater
770.99375 MHz (base/mobile) 800.99375 MHz (mobile)	7GTAC57D 7GTAC57	Tactical Other Public Service
773.00625 MHz (base/mobile) 803.00625 MHz (mobile)	7MED86D 7MED86	Tactical EMS
773.10625 MHz (base/mobile) 803.10625 MHz (mobile)	7TAC71D 7TACD71	Tactical General Public Safety
773.25625 MHz (base/mobile) 803.25625 MHz (mobile)	7CALL70D 7CALL70	Calling
773.35625 MHz (base/mobile) 803.35625 MHz (mobile)	7MED87D 7MED87	Tactical EMS
773.50625 MHz (base/mobile) 803.50625 MHz (mobile)	7FIRE83D 7FIRE83	Tactical Fire

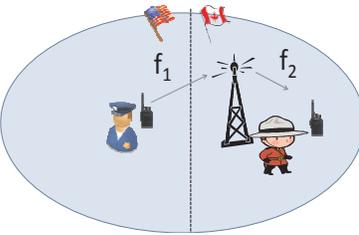
<u>Interoperability Channel (MHz)</u>	<u>Label *</u>	<u>Purpose**</u>
773.60625 MHz (base/mobile) 803.60625 MHz (mobile)	7TAC72D 7TAC72	Tactical General Public Safety
773.75625 MHz (base/mobile) 803.75625 MHz (mobile)	7TAC75D 7TAC75	Tactical General Public Safety
773.85625 MHz (base/mobile) 803.85625 MHz (mobile)	7FIRE84D 7FIRE84	Tactical Fire
774.00625 MHz (base/mobile) 804.00625 MHz (mobile)	7LAW81D 7LAW81	Tactical Law Enforcement
774.10625 MHz (base/mobile) 804.10625 MHz (mobile)	7TAC73D 7TAC73	Tactical General Public Safety
774.25625 MHz (base/mobile) 804.25625 MHz (mobile)	7TAC76D 7TAC76	Tactical General Public Safety
774.35625 MHz (base/mobile) 804.35625 MHz (mobile)	7LAW82D 7LAW82	Tactical Law Enforcement
774.50625 MHz (base/mobile) 804.50625 MHz (mobile)	7MOB79D 7MOB79	Tactical Mobile Repeater
774.60625 MHz (base/mobile) 804.60625 MHz (mobile)	7TAC74D 7TAC74	Tactical General Public Safety
774.85625 MHz (base/mobile) 804.85625 MHz (mobile)	7GTAC77D 7GTAC77	Tactical Other Public Service

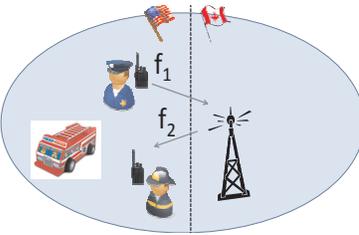
* Industry adopted channel nomenclature but not specified in FCC rules.

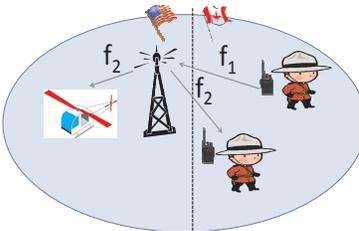
** Tactical designations are industry adopted standard but not specified in FCC rules.

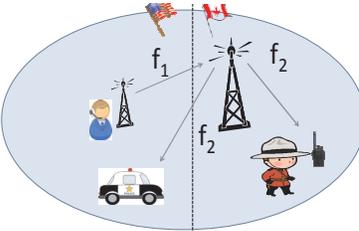
Attachment C: Cross-Border Communication Scenarios with Examples

	Examples	License Requirements	Visual Description
1	<p>Use of mobile or portable radios to communicate in direct mode with public safety officials in other country.</p> <p><u>Example:</u> US public safety licensee first responder using a portable radio in the U.S. to communicate directly with his or her counterpart in Canada and a mobile unit in the U.S.</p> <p>All licensees communicate from their home country.</p>	<p>All licensees must be properly licensed in their home country for frequencies on which they transmit.</p> <p>In this example, the U.S. licensee will need to hold an individual license for its mobile and portable units operating on frequencies f_1 and f_2 unless these frequencies are interoperability or mutual aid frequencies from the 700 MHz or 800 MHz band in which case no separate authorization is needed.</p> <p>If frequency f_1 or f_2 are from the 150 MHz or 450 MHz bands (including interoperability frequencies) then operation in the Canada coordination zones defined by Lines A and C must be licensed individually and coordinated with Canada prior to operation.</p> <p>We recommend applicants include a copy of any written agreement with licensees in Canada when applying to license frequencies for cross-border communications.</p>	
2	<p>Use of mobile radio (installed in a vehicle) or portable radio traveling across the border for operation on a temporary basis in the other country.</p> <p>Cross-Border Scenario 1.</p> <p><u>Example:</u> A US firefighter crosses the border to assist with a fire in the other country but wants to maintain communication with his or her home jurisdiction.</p>	<p>The base station, mobile, and portable units must be properly licensed in the U.S.</p> <p>Operation on Canada side of border is pursuant to 1952 treaty and the Statement of Intent (SOI).</p> <p>In this example, the U.S. licensee will need to hold a license for its mobile and portable units operating on frequency f_1 and its base station repeater operating on frequency f_2. The base station repeater must be licensed under any scenario, but if frequency f_1 is an interoperability or mutual aid frequency from the 700 MHz or 800 MHz bands then no separate authorization is needed for the mobile or portable units.</p> <p>If frequency f_1 or f_2 is from the 150 MHz or 450 MHz bands (including interoperability frequencies) then operation in the Canada coordination zones defined by Lines A and C must be licensed individually and coordinated with Canada prior to operation.</p>	

Examples	License Requirements	Visual Description
<p>3 Use of a base station repeater in other country to interoperate with first responders in other country.</p> <p>Cross-Border Scenario 2.</p> <p><u>Example:</u> US licensee's first responder using a portable radio in the U.S. to communicate through a base station repeater in Canada to provide logistical support to a Canadian first responder pursuing a suspect in Canada.</p>	<p>All licensees must be properly licensed in their home country for frequencies on which they transmit. Any user seeking to communicate with a base station repeater in the other country must obtain written consent from the license holder for that base station prior to using it. The process for obtaining consent will be left up to the agencies involved.</p> <p>In this example, the US licensee will need to hold an individual license for its mobile and portable units operating on frequency f1 unless frequency f1 is an interoperability or mutual aid frequency from the 700 MHz or 800 MHz bands in which case no separate authorization is needed as noted above.</p> <p>If frequency f1 is from the 150 MHz or 450 MHz bands (including interoperability frequencies) then operation in the Canada coordination zones defined by Lines A and C must be licensed individually and coordinated with Canada prior to operation.</p> <p>The U.S. licensee will need to obtain written consent from the licensee of the base station in Canada (host licensee). The host licensee will need to be properly licensed in Canada and may need to add a condition to its license before the U.S. licensee can begin communicating with the base station repeater.</p> <p>We recommend an applicant seeking to apply for a license in order to communicate with a base station repeater in Canada include with its application a copy of the written consent it received from the licensee of that base station. The written consent should note the base station input and output frequencies (f1 and f2) to which the applicant will have access.</p>	 <p>The diagram illustrates a cross-border communication scenario. A central tower represents a base station repeater. To the left, a US police officer is shown with a radio, and to the right, a Canadian firefighter is shown with a radio. A dashed vertical line separates the two countries. Arrows labeled f1 and f2 indicate the input and output frequencies of the tower. The tower is also shown with a Canadian flag on top, indicating its location in Canada.</p>

	Examples	License Requirements	Visual Description
4	<p>Use of a base station repeater located on the opposite side of the border to interoperate with first responders (base, mobile or portable) located in its own country.</p> <p>Cross-Border Scenario 3.</p> <p><u>Example:</u> U.S. Public Safety licensee's first responder using a portable radio in the U.S. to communicate through a base station repeater located in Canada to communicate with first responders in the U.S. fighting a fire.</p>	<p>All licensees must be properly licensed in their home country for frequencies on which they transmit. Any user seeking to communicate with a base station repeater in the other country must obtain written consent from the license holder of that base station prior to using it. The process for obtaining consent will be left up to the agencies involved.</p> <p>In this example, the US licensee will need to hold an individual license for its mobile and portable units operating on frequency f_1 unless frequency f_1 is an interoperability or mutual aid frequency from the 700 MHz or 800 MHz bands in which case no separate authorization is needed as noted above.</p> <p>If frequency f_1 is from the 150 MHz or 450 MHz bands (including interoperability frequencies) then operation in the Canada coordination zones defined by Lines A and C must be licensed individually and coordinated with Canada prior to operation.</p> <p>The U.S. licensee will need to obtain written consent from the licensee of the base station in Canada (host licensee). The host licensee will need to be properly licensed in Canada and may need to add a condition to its license before the U.S. licensee can begin communicating with the base station repeater.</p> <p>We encourage an applicant seeking to apply for a license in order to communicate with a base station repeater in Canada to include with its application a copy of the written consent it received from the licensee of that base station. The written consent should note the base station input and output frequencies (f_1 and f_2) to which the applicant will have access.</p>	

Examples	License Requirements	Visual Description
<p>5 Use of a base station repeater by first responders on the opposite side of the border to communicate with their counterparts on both sides of the border.</p> <p>Combination of Cross-Border Scenarios 2 and 3.</p> <p><u>Example:</u> Canadian licensee's first responder using a portable radio in Canada to communicate through a base station repeater in the U.S. to coordinate a search and rescue mission with first responders on both sides on the border.</p>	<p>All licensees must be properly licensed in their home country for frequencies on which they transmit. Any user seeking to communicate with a base station repeater in the other country must obtain written consent from the license holder for that base station prior to using it. The process for obtaining consent will be left up to the agencies involved.</p> <p>In this example, the US licensee (host licensee) will need to hold a license for its base station repeater operating on frequency f_2 even if it is using an interoperability or mutual aid frequency from the 700 MHz and 800 MHz bands.</p> <p>Furthermore, the host licensee must agree to terms of use and provide written consent to the licensee in Canada before its first responders can begin communicating with the base station repeater.</p> <p>If the licensee of the base station repeater needs to apply for a new license or to make a modification to an existing license in order to act as a host for an agency from Canada, we recommend it include with its application a copy of its written consent to the agency from Canada to assist Bureau staff with processing of the application</p>	

Examples	License Requirements	Visual Description
<p>6 Use of a base station on one side of the border to communicate via base station repeater on the opposite side of the border with first responders located on the both sides of the border.</p> <p>Combination of Cross-Border Scenarios 2 and 3.</p> <p><u>Example:</u> A U.S. dispatcher communicates via a control station (FX1) through a base station repeater in Canada in order to interoperate with first responders on both sides of the border.</p>	<p>All licensees must be properly licensed in their home country for frequencies on which they transmit. Any user seeking to communicate with a base station repeater in the other country must obtain written consent from the license holder for that base station prior to using it. The process for obtaining consent will be left up to the agencies involved.</p> <p>In this example, the US licensee will need to hold a license for its control station (FX1) operating on frequency f_1 even if it is using an interoperability or mutual aid frequency from the 700 MHz and 800 MHz bands.</p> <p>The U.S. licensee will need to obtain written consent from the licensee of the base station in Canada (host licensee). The host licensee in Canada will need to be properly licensed in Canada and may need to add a condition to its license before the U.S. licensee can begin communicating with the base station repeater.</p> <p>We encourage an applicant seeking to apply for a license in order to communicate with a base station repeater in Canada to include with its application a copy of the written consent it received from the licensee of that base station. The written consent should note the base station input and output frequencies (f_1 and f_2) to which the applicant will have access.</p>	 <p>The diagram shows a vertical dashed line representing the border between the United States (left) and Canada (right). On the US side, there is a control station labeled 'FX1' and a dispatcher. On the Canadian side, there is a base station repeater and a first responder. Arrows indicate the flow of communication: from the US control station to the Canadian repeater at frequency f_1, and from the Canadian repeater to the first responder at frequency f_2. A US flag is on the left and a Canadian flag is on the right.</p>