

## ARRANGEMENT M

### 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 2155–2162 MHz AND 2500-2690 MHz BY TERRESTRIAL STATIONS ALONG THE CANADA-UNITED STATES BORDER

The Department of Industry of Canada (“Industry Canada”) and the Federal Communications Commission of the United States of America (“FCC”), hereinafter referred to as the “Agencies”,

Have agreed to the following:

#### 1. Scope

- 1.1 This Arrangement is done pursuant to the *Exchange of Notes (October 24, 1962) between the Government of Canada and the Government of the United States of America concerning the coordination and use of radio frequencies above thirty megacycles per second*, with annex, done at Ottawa October 24, 1962, as amended, and covers the sharing and coordination of frequency spectrum for the establishment and operation of terrestrial stations in the bands 2155–2162<sup>1</sup> MHz and 2500-2690<sup>2</sup> MHz along the Canada-United States Border. For the purposes of this Arrangement, terrestrial stations refer to stations in the fixed, mobile (except aeronautical mobile) and broadcasting service.
- 1.2 This Arrangement is subject to review at any time at the request of either Agency, the U.S. Department of State or the Department of Foreign Affairs and International Trade of Canada.

#### 2. General Principles

- 2.1 The Agencies shall share the frequency bands 2155-2162 MHz and 2500-2690 MHz on an equal basis along the border and, to the extent possible, the Agencies shall have full use of these frequencies or sub-bands within their respective countries.

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<sup>1</sup> Canada is using the frequency band 2110 to 2155 MHz for advanced mobile services and anticipates using the frequency band 2155 to 2162 MHz for similar services. In the U.S., the FCC has issued licences in the Advanced Wireless Services in the frequency band 2110 to 2155 MHz and has allocated and designated the frequency band 2155 to 2175 MHz for Advanced Wireless Services.

<sup>2</sup> In the U.S., the FCC restructured the frequency band 2495-2690 MHz to introduce Broadband Radio Service (“BRS”) and Educational Broadband Service (“EBS”) in that band. BRS is formerly known as the Multipoint Distribution Service (MDS)/Multichannel Multipoint Distribution Service (“MMDS”). EBS is formerly known as the Instructional Television Fixed Service (“ITFS”). In Canada, Industry Canada restructured the frequency band 2500-2690 MHz to introduce BRS in that band, which will provide mobile service. Multipoint Communications Systems (“MCS”), providing broadband Internet access, and Multipoint Distribution Systems (“MDS”), providing broadcasting distribution services, continue to operate in that frequency band. MDS is authorized by the Canadian Radio-television and Telecommunications Commission (“CRTC”) and/or Industry Canada.

- 2.2 The Agencies shall require that licensees in the frequency bands 2155-2162 MHz and 2500-2690 MHz carry out coordination for their respective service areas on both sides of the border in accordance with Section 3 of this Arrangement.
- 2.3 The Agencies shall encourage licensees to enter into agreements with licensees on the other side of the boarder. These agreements are intended to facilitate coordination and allow for the reasonable and timely development of the respective systems of the licensees. These agreements also allow for the provision of services by each licensee within its licensed service area to the extent possible.
- 2.4 The Agencies shall encourage licensees that enter into agreements under section 2.3 above to take full advantage of interference mitigation techniques such as antenna directivity, polarization, frequency offset, shielding, site selection and/or power control to facilitate the coordination of the licensees' stations.
- 2.5 The Agencies shall provide all data and calculations for determining compliance with this Arrangement upon request by the other Agency.
- 2.6 If a licence for operation in the frequency bands 2155-2162 MHz and 2500-2690 MHz is transferred, assigned or reissued, the Agencies shall require any existing agreement that formed the basis of coordination in the border area to continue to apply with respect to the new licensee unless a new agreement is reached.
- 2.7 In certain exceptional circumstances, the Agencies may agree to special coordination allowing variation(s) in technical conditions in this Arrangement through an exchange of correspondence.

### **3. Cross-Border Coordination**

- 3.1 Stations that were successfully coordinated or notified prior to June 25, 2002 may continue to operate under the terms and conditions of those coordinations or notifications; and stations more than 80 km from the border that were licensed prior to June 25, 2002 may continue to operate in accordance with the parameters of their existing authorizations without further coordination requirements. Any modification to these stations that increases the potential for interference to stations in the other country is subject to section 3.2 below.
- 3.2 Coordination of a terrestrial station is required if: (a) it is located at a distance less than 120 km from the United States-Canada border; and (b) the power flux density (pfd) produced by the terrestrial station at ground level anywhere in the other country's territory exceeds  $-116 \text{ dBW/m}^2$  in any 1 MHz bandwidth. Stations on high elevations that are located at a distance greater than 120 km and less than 160 km from the border that have a radio line of sight path to any point on the surface of the earth at or beyond the border and produce a power flux density ("pfd") at ground level anywhere in the other country's territory that exceeds  $-116 \text{ dBW/m}^2$  in any 1 MHz bandwidth are also subject to coordination. In cases where both the United States-Canada border and the neighbouring service area lie within a body of water, the power flux density shall be calculated at the shoreline of the neighbouring service area.

3.3 When coordination is required, the Agencies shall ensure that the following process is applied:

3.3.1 The licensee seeking coordination shall determine the maximum pfd value that could be produced at and beyond the border by any single transmitting terrestrial station. In making this determination (calculation), the licensee shall use good engineering practice and generally accepted terrain-sensitive propagation models;

3.3.2 It shall be the responsibility of the licensee seeking coordination to communicate with licensees on the other side of the border, by registered mail (or other mutually acceptable method) providing a clear indication of when coordination was initiated;

3.3.3 A recipient of a coordination request shall respond by registered mail (or other mutually acceptable method) within 30 days of receipt to state any objection to deployment of the station. The date of the postmark shall be taken as the date of the response. If no objection is raised within that time frame, then the licensee initiating the coordination request may proceed with deployment of the station;

3.3.4 If a recipient of a coordination request raises an objection within 30 days of receipt of that request, licensees shall collaborate to develop a mutually acceptable solution to the potential interference problem;

3.3.5 In the event that licensees cannot reach a mutually acceptable solution within 30 days of receipt of an objection, either licensee may request its Agency to facilitate resolution of the case with the other Agency. A station subject to coordination shall not be placed in operation until an agreement has been reached between the relevant licensees or until the Agencies have agreed on sharing terms; and

3.3.6 In cases where there is no licensee within 120 km on the opposite side of the border, any station subject to coordination shall not produce a pfd at and beyond the border that exceeds  $-116 \text{ dBW/m}^2$  in any 1 MHz bandwidth, unless agreed to by the Agencies.

3.4 The Agencies shall require that licensees coordinate using the process described above if proposed modifications to any of their terrestrial stations subject to coordination would result in a pfd at or beyond the border that exceeds  $-116 \text{ dBW/m}^2$  in any 1 MHz bandwidth.

#### **4. Information Exchange**

4.1 To facilitate the coordination required under this Arrangement, the Agencies shall exchange information including, but not limited to, either: (1) licensee name(s); (2) licensed service areas; and (3) licensee point(s) of contact; or shall provide to one another alternative means to obtain that information.

4.2 Where necessary, the Agencies shall provide information to their respective licensees to facilitate the coordination required under this Arrangement.

4.3 To facilitate cross-border coordination between licensees, the Agencies shall encourage licensees to exchange data as listed in Annex A to this Arrangement.

## **Annex A - Parameters for Coordination**

Licensee information (Corporate name/Mailing address/Phone/Fax/Email address)

Location of transmitter (Community/State/Province)

Geographical coordinates of transmitting antenna (NAD 83)

Equivalent Isotropic Radiated Power (EIRP) (dBW)

Ground elevation and antenna height above ground (m)

Centre frequency (MHz)

Polarization

Antenna pattern/tabulation of the pattern

Azimuth of the maximum antenna gain

Frequency offset information for analog systems

Bandwidth and Emission designation