

ARRANGEMENT I

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 1710 - 1755 MHz AND 2110 - 2155 MHz BY ADVANCED WIRELESS SERVICES 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 advanced wireless services (“AWS”) operating in the bands 1710-1755 MHz and 2110-2155 MHz along the Canada-United States border.
- 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 1710-1755 MHz and 2110-2155 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 for the provision of AWS.
- 2.2 The Agencies shall require that AWS licensees in the frequency bands 1710-1755 MHz and 2110-2155 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 AWS licensees to enter into agreements with licensees on the other side of the border. 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' systems.

- 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 1710-1755 MHz and 2110-2155 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 between AWS Stations

- 3.1 Coordination of an AWS station shall be required if: (a) it is located at a distance less than 72 km from the United States-Canada border; and (b) the power flux density ("pfd") produced by the AWS station at ground level anywhere in the other country's territory exceeds -106 dBW/m^2 in any 1 MHz bandwidth.
- 3.2 When coordination is required, the Agencies shall ensure that the following process is applied:
 - 3.2.1 The licensee seeking coordination shall determine the maximum pfd value that could be produced at and beyond the border by any single transmitting AWS station. In making this determination (calculation), the licensee shall use good engineering practice and generally accepted terrain-sensitive propagation models;
 - 3.2.2 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;
 - 3.2.3 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 the deployment of the AWS station. The date of postmark shall be taken as the date of response. If no objection is raised within that time frame, then the licensee initiating the coordination request may proceed with deployment of the AWS station;
 - 3.2.4 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;
 - 3.2.5 In the event that licensees cannot reach a mutually acceptable solution within 30 days of a receipt of an objection, either licensee may request its Agency to facilitate resolution of the case with the other Agency. An AWS 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

3.2.6 In cases where there is no licensee within 72 km on the opposite side of the border, any AWS station shall not produce a pfd at and beyond the border that exceeds $-106 \text{ dB(W/m}^2\text{)}$ in any 1 MHz bandwidth, unless agreed to by the Agencies.

3.3 The Agencies shall require that AWS licensees coordinate using the process described above if modifications to any of their AWS stations would result in a pfd at or beyond the border that exceeds -106 dBW/m^2 in any 1 MHz bandwidth.

4. Cross-Border Coordination of AWS Stations with Existing Stations

4.1 New fixed microwave stations (non-AWS) in the bands 1710-1755 MHz and 2110-2150 MHz authorized after the entry into force of this Arrangement shall not receive protection from, nor cause interference to, any AWS stations on the other side of the border or any fixed microwave station authorized by the other Agency prior to the entry into force of this Arrangement.

4.2 The operation of an AWS station shall be on the basis that interference is not caused to existing fixed microwave stations authorized by the other Agency prior to the entry into force of this Arrangement.

4.3 The Agencies shall require coordination of any AWS station located within 120 km of the border with fixed microwave stations licensed prior to the entry into force of this Arrangement. Such coordination shall be based on:

4.3.1 Guidelines for applying the interference protection criteria for fixed stations as specified in the Telecommunications Industry Association's Telecommunications Systems Bulletin TSB 10: "Interference Criteria for Microwave Systems", as amended from time to time; or

4.3.2 Other procedures acceptable to the AWS and fixed microwave licensees.

4.4 It is recognized that in some instances the Agencies may be required to become involved in the coordination process.

4.5 In the event that there is interference to any fixed microwave station from an AWS station located beyond 120 km from the border, the Agencies agree to take appropriate steps to resolve such interference.

4.6 The Agencies shall require AWS licensees to coordinate with existing licensees operating in the 2150-2155 MHz band when the pfd level of the AWS station exceeds -116 dBW/m^2 in any 1 MHz bandwidth at or beyond the border.

5. Information Exchange

- 5.1 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.
- 5.2 When necessary, the Agencies shall provide information to their respective licensees to facilitate the coordination required under this Arrangement.
- 5.3 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)

Center frequency (MHz)

Polarization

Antenna pattern/tabulation of the pattern

Azimuth of the maximum antenna gain

Bandwidth and emission designation

