

**UNDERSTANDING CONCERNING CELLULAR RADIO SYSTEMS IN THE
BANDS 824-825 MHZ, 845-849 MHZ, 869-870 MHZ AND 890-894 MHZ**

1. The present provisions relating to cellular radio are acceptable for application by analog and digital systems in the new cellular expansion bands noted above. Specifically these provisions are as follows:
 - a) Section 5 of the *Arrangement Between the Department of Communications of Canada and the Federal Communications Commission of the United States Concerning the Use of the Band 806 to 890 MHz along the Canada-United States Border* (Arrangement);
 - b) Letter dated May 26, 1983, to Wendell R. Harris, Common Carrier Bureau, FCC, from G.R. Begley, Telecommunications Engineering Services, DOC; and
 - c) *General Principles for Canada / U.S. Coordination of Cellular Systems*, dated June 12, 1985, and signed jointly by Albert Halprin, Chief, Common Carrier Bureau, FCC and by S.N. Ahmed, Director General, Engineering Programs Branch, DOC.
2. Recognizing that the current Arrangement referred to in (a) above applies only between 806 and 890 MHz, our action herein extends application of that Arrangement to 894 MHz.
3. Any systems on either side of the border not conforming with the above agreed provisions will require coordination on a case-by-case basis.

Richard M. Firestone

December 4, 1989

Robert A. Gordon

January 8, 1990

300 Slater Street
Ottawa, Ontario
Canada
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Our file: 6110-24

May 26, 1983

Mr. Wendell R. Harris
Deputy Chief, Policy and Program
Planning Division
Common Carrier Bureau
Federal Communications Commission
Room 546
1919 M Street, N.W.
Washington, D.C. 20554
U.S.A.

Dear Mr. Harris,

I refer to your letter of April 12, 1983, concerning the application of the Western Union Telegraph Company d/b/a Buffalo Telephone Company for a RCC cellular system in Buffalo, New York, as well as our subsequent discussions on the general question of cross-border coordination of cellular systems.

As identified in our discussions, the Commission and the Department need to quickly arrive at an agreement on two aspects of the cellular system cross-border coordination question. First, we need to establish the wording of a clause which would be added to the authorization documents for cellular systems on either side of the border which would put the applicants on notice to the effect that cross-border coordination is required. Secondly, we need to establish and agree on the exact methodology to be used in coordinating and authorizing cellular systems in border areas.

Concerning the first item, it is agreed that the following clause, which was formulated in our discussions, should appear on authorization documents issued by both the Commission and this Department:

"This authorization is subject to the condition that, in the event that cellular systems using the same frequency block as granted herein are authorized in adjacent territory (Canada/ United States), coordination of any of your transmitter installations which are within 45 miles of the US/Canada border shall be required to eliminate any harmful interference that might otherwise exist and to ensure continuance of equal access to the frequency block by both countries."

On the second point it is felt that we should meet as soon as possible to establish the cross-border cellular systems coordination methodology for both RCC and Wireline systems.

I look forward to our continuing cooperation on this matter.

Yours truly,

G.R. Begley
Manager
Telecommunication Engineering
Services

June 12, 1985

IMPLEMENTATION OF THE CELLULAR GUIDELINES

INTERNAL

1. Both Agencies will exchange copies for application for cell sites within 45 miles of the border.
2. Each agency will inform its affected applicant/operator as appropriate requesting him to contact the other country's applicant/operator and effect coordination as per the attached principles.
3. The applicants will be expected to arrive at a mutual arrangement and notify the respective Agency.

S.N. Ahmed

Albert Halprin

GENERAL PRINCIPLES FOR CANADA/U.S. COORDINATION OF CELLULAR SYSTEMS

1. The frequency bands are to be shared on an equal basis along the border, except as otherwise specified.
2. Compatible independent operation of the systems on either side of the border will be assured through coordination of the pertinent design aspects of the systems such as cell cluster configurations, coverage areas, interference ranges, cell channel complements signalling channels and system housekeeping features such as supervisory audio tones and digital color codes. The system operators will carry out such coordination and if required in consultation with their respective FCC and DOC. The FCC and DOC respectively should be notified of the arrangements agreed to.
3. Except by agreement between both Agencies, the reliable service area of cells (defined to be 35 dBuV/m at the cell perimeter) will not extend across the border.
4. Recognizing that the system expansion plans will be different for systems along the Canada/U.S. border, the following general rules should be followed:
 - a. The initial installations will normally use all channels designated in the plan for these installations before undertaking other expansion measures.
 - b. System expansion measures such as addition of cells, cell splitting and sectorization will not force major changes in the foreign system except by mutual agreement by the service providers.
5. Any changes to the notified arrangements including cell site locations, cell sectorization and cell splitting, will require consultation with the other operator and notification to the FCC and DOC.
6. In the event a satisfactory arrangement is not reached, the respective Agencies should be informed and appropriate steps would be taken.
7. Notwithstanding the above guidelines and the attached principles, each Agency reserves the right to take whatever measures it considers appropriate in the circumstances.

8. Minimum technical factors to be considered are:

- ERP
- antenna height
- cell size
- cell cluster configuration
- frequency plan
- coverage definitions
- signal level at the coverage edge
- interference range
- basis of calculations
- size of coordination zone
- spectrum sharing relative to equal access
- signalling/control

PROPOSAL TO IMPLEMENT THE CELLULAR GUIDELINES

1. Both Agencies will exchange copies of application for cell sites within 45 miles of the border.
2. Each Agency will inform its affected applicant/operator as appropriate requesting him to contact the other country's applicant/operator and effect coordination as per the attached principles.
3. The applicants will be expected to arrive at a mutual arrangement which will be notified to the respective Agency.
4. In the event a satisfactory arrangement is not reached, the respective Agencies should be informed and appropriate steps would be taken.
5. Notwithstanding the above guidelines and the attached principles, each Agency reserves the right to take whatever measures it considers appropriate in the circumstances.

GENERAL PRINCIPLES FOR COORDINATION OF CELLULAR SYSTEMS IN U.S./CANADA BORDER AREAS

1. The frequency bands are to be shared on an equal basis along the border, except as otherwise specified.
2. Compatible independent operation of the systems on either side of the border will be assured through coordination of the pertinent design aspects of the systems such as cell cluster configurations, coverage areas, interference ranges, cell channel complements, signalling channels and system housekeeping features such as supervisory audio tones and digital color codes. The system operators will carry out such coordination and if required in consultation with their administration (FCC or DOC). The FCC and DOC will be notified of the arrangements agreed to.
3. Except by agreement between both Agencies, the reliable service area of cells (defined to be 35 dBuV/m at the cell perimeter) will not extend across the border.
4. Recognizing that the system expansion plans will be different for systems along the Canada/U.S. border, the following general rules should be followed:
 - a) The initial installations will normally use all channels designated in the plan for these installations before undertaking other expansion measures.
 - b) System expansion measures such as addition of cells, cell splitting and sectorization will not force major changes in the foreign system except by mutual agreement between the service providers.
5. Any changes to the notified arrangements including cell site locations, cell sectorization and cell splitting, require consultation with the other operator and notification to FCC and DOC respectively.
6. Technical factors to be considered to achieve operational compatibility of systems:
 - ERP
 - antenna height
 - cell size
 - cell cluster configuration
 - coverage definitions
 - signal level at the coverage edge and basis of calculation
 - interference range
 - size of coordination zone
 - spectrum sharing relative to equal access principle
 - signalling/control
 - others as appropriate