

TELECOMMUNICATION: HIGH FREQUENCY RADIO STATIONS ON NORTH AMERICAN CONTINENT

Arrangement between Canada, Cuba, Newfoundland, and the United States drawn up at a shortwave radio conference at Ottawa January 21–25, 1929; related notes of February 1, 26, and 28 and March 6 and 15, 1929

Entered into force March 1, 1929

*Terminated as to Cuba October 5, 1933*¹

Treaty Series 777–A

AN ARRANGEMENT BETWEEN UNITED STATES, CANADA, CUBA, AND OTHER NORTH AMERICAN NATIONS RELATIVE TO THE ASSIGNMENT OF FREQUEN- CIES ON THE NORTH AMERICAN CONTINENT

(1) The sovereign right of all nations to the use of every radio channel is recognized.

Nevertheless, until technical development progresses to the stage where radio interference can be eliminated, it is agreed that special administrative arrangements are essential in order to promote standardization and to minimize radio interference.

(2) The Governments agree that each country shall be free to assign any frequency to any radio station within its jurisdiction upon the sole condition that no interference with any service of another country will result therefrom.

(3) It is agreed that each Government shall use Appendix I attached hereto, as a general guide in allocating channels to the various services specified therein.

(4) Channels are divided into two classes (1) common channels which are primarily assigned to particular services in all countries, and (2) general communication channels which are assigned for use in specific areas.

(5) With regard to the general communication channels, it is considered that at the present stage of the art, the use of radio channels below 3500 K/C will not normally cause interference at distances greater than 1000 miles and such channels may, therefore, be used with freedom from interference by stations separated by such distance. It is further recognized that stations operating on frequencies above 3500 K/C may become sources of interference at distances in excess of 100 miles, particularly at night.

(6) The Governments agree to take advantage of the physical facts just explained, and by suitable geographical distribution of these two classes of

¹ Pursuant to notice of denunciation given by Cuba Oct. 5, 1932, in accordance with terms of para. 17. By an exchange of notes between the United States and Canada dated Feb. 6 and Apr. 1, 1933, it was agreed that the arrangement would continue in force for the United States, Canada, and Newfoundland.

channels throughout North America and the West Indies, to make available for general communication services, the total number of channels set forth in Appendix 2 attached hereto.

(7) Each Government shall have the right to assign to stations under its jurisdiction, in the manner it deems best, such general communication channels as are allocated to that Government under this agreement, as set forth in Appendix No. 2. The Governments agree not to assign to stations within their respective jurisdiction any of the general communication channels allocated to other Governments, unless it can be accomplished without causing interference.

(8) The marine calling frequency of 5525 K/C shall be used until superseded by an international assignment.

(9) In addition to the frequencies assigned specially for experiments (1604, 2398 and 4596 K/C) the Governments agree that experimentation by particularly qualified experimenters, may be authorized on any other channel provided no interference is caused with established services, as provided in Regulation No. 11 of the International Radio Convention of Washington 1927.²

(10) The Governments agree to adopt a radio frequency standard based on the unit of time, and to compare at least once every six months, the actual radio frequency measuring standards.

(11) The Governments agree to require all stations, other than mobile and amateur stations, under their jurisdiction, to tune their transmitters with an accuracy of 0.025 percent, or better, of their national frequency standard.

(12) The Governments agree to require all stations likely to cause international interference, other than mobile and amateur stations, to maintain their frequency with an accuracy of 0.05 percent, or better, at all times.

(13) For the purpose of this agreement a channel shall be regarded as a band of frequencies the width of which varies with its position in the range of frequencies under consideration, but which progresses numerically from the lower to the higher frequencies, as shown in the following table:—

<i>Frequency (K/C)</i>	<i>Channel Width (K/C)</i>
1500-2198	4
2200-3313	6
3316-4400	8
4405-5490	10
5495-6000	15

(14) The Governments agree to adopt for the present in their national plan of allocation a separation of 0.2 percent between radio frequency channels; and to permit stations under their respective jurisdiction to occupy the assigned frequency and the adjacent frequencies to the limit permitted by the frequency maintenance tolerances and necessitated by the type of emission the station may be authorized to use. For commercial telephony a band width of six kilocycles shall be permitted. For the present, a 100 kilocycle band width shall be considered standard for television.

² Convention signed at Washington Nov. 25, 1927 (TS 767), *ante*, p. 683.

(15) The Governments agree to require stations under their jurisdiction to use transmitters which are as free as practicable from all emissions (such as those due to harmonics, decrement, spacing waves, frequency modulation, key clicks, type of keying, mush, etc.) not essential to the type of communication carried on, and which would be detrimental to communication being carried on by stations in other countries.

(16) Appendices Numbers 1 and 2, together with the chart showing graphically the distribution of the frequencies, which are attached hereto, shall constitute a part of this agreement. [Chart not printed here; see separate print of TS 777-A.]

(17) This agreement shall go into effect on March 1st, 1929, and shall remain in force until January 1st, 1932, and thereafter for an indeterminate period and until one year from the day on which a denunciation thereof shall have been made by any one of the contracting parties.

APPENDIX NO. 1
Allocation of Channels to Services
(Arranged in order of kilocycles)

Channels ¹	Service	No. of channels
1504 to 1600	Maritime Mobile Services ²	25
1600 to 1648	Air Mobile Services ³	12
1648 to 1712	Mobile Services	16
1712 to 2000	Amateurs	72
2000 to 2200	Experimental Visual Broadcasting	50
2200 to 2296	General Communication Services ⁴	16 (32)
2296 to 2398	Maritime and Air Mobile Services ³	17
2398 to 2470	Mobile Services	12
2470 to 2506	Air Mobile Services	6
2506 to 2602	Maritime Mobile Services	16
2602 to 2650	Air Mobile Services	8
2650 to 2746	Maritime and Air Mobile Services	16
2746 to 2950	Experimental Visual Broadcasting	34
2950 to 3004	Maritime and Air Mobile Services	9
3004 to 3058	General Communication Services ⁴	9 (18)
3058 to 3106	Air Mobile Services	8
3106 to 3148	Maritime Mobile Services	7
3148 to 3412	General Communication Services ⁴	40 (80)
3412 to 3500	Maritime and Air Mobile Services	11
3500 to 3996	Amateurs	62
3996 to 4100	General Communication Services ⁴	13
4100 to 4196	Maritime and Air Mobile Services	12
4196 to 4745	General Communication Services ⁴	60
4745 to 4795	Maritime and Air Mobile Services ³	5
4795 to 5495	General Communication Services ⁴	70
5495 to 5690	Maritime and Air Mobile Services	13
5690 to 6000	General Communication Services ⁴	20
		⁵ 639 (704)

NOTES:
¹ The last channel in each group is assigned to the service indicated immediately abreast the group except as specially noted to the contrary.
² The channel 1600 Kc/s is assigned to Mobile Services.
³ The channels 1604, 2398 and 4795 Kc/s are assigned to Experimental Services.
⁴ For details regarding General Communication Services, see Appendix 2.
⁵ Taking into account Articles 5 and 6 of the Agreement, this total is increased by 65.

APPENDIX No. 2

Distribution of General Communication Channels

UNITED STATES

3154	3348	4260	4585	4995	5235
3160	3356	4268	4595	5005	5245
3166	3364	4276	4605	5015	5255
3172	3372	4284	4615	5025	5265
3178	3380	4292	4625	5035	5275
3184	3388	4300	4635	5045	5285
3190	3396	4308	4645	5055	5295
3232	3404	4316	4655	5065	5305
3238	3412	4364	4665	5075	5315
3244	4012	4372	4675	5085	5325
3250	4020	4380	4685	5095	5335
3256	4028	4388	4695	5105	5345
3262	4036	4396	4705	5115	5355
3268	4044	4405	4715	5125	5365
3274	4052	4415	4725	5135	5855
3280	4060	4425	4735	5145	5870
3286	4068	4435	4745	5155	5885
3292	4076	4445	4925	5165	5900
3298	4084	4525	4935	5175	5915
3304	4092	4535	4945	5185	5930
3310	4100	4545	4955	5195	5945
3316	4204	4555	4965	5205	5960
3324	4236	4565	4975	5215	5975
3332	4244	4575	4985	5225	5990
3340	4252				

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CANADA AND NEWFOUNDLAND

2206	3022	3214	3316	4465	5415
2212	3028	3220	3324	4475	5425
2218	3034	3226	3332	4485	5435
2224	3040	3232	x3340	4495	5445
2230	3046	3238	x3348	4815	5455
2236	3052	3244	x3356	4825	5465
2242	3058	3250	x3364	4835	5475
2248	x3154	3256	x3372	4845	5485
2254	x3160	3262	x3380	4855	5495
2260	x3166	3268	x3388	4865	5705
2266	x3172	3274	x3396	4875	5720
2272	x3178	3280	x3404	4885	5735
2278	x3184	3286	x3412	4895	5750
2284	x3190	3292	4324	4905	5765
2290	3196	3298	4332	5385	5780
2296	3202	3304	4340	5395	5795
3010	3208	3310	4348	5405	5810
3016					

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x Used by Newfoundland.

CUBA

2206	2230	3010	3028	3208	4505
2212	2236	3016	3196	4004	5375
2218	2242	3022	3202	4212	5825
2224	2248				

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OTHER NATIONS

2254	2278	3034	3058	4220	4515
2260	2284	3040	3214	4228	4805
2266	2290	3046	3220	4356	4915
2272	2296	3052	3226	4455	5840

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SUMMARY

Services	No. of channels
Maritime Mobile Services Exclusively	47
Air Mobile Services Exclusively	33
Amateurs	134
Experimental Visual Broadcasting	84
Air and Maritime Mobile Services	81
Experimental	3
Mobile Services	29
General Communication Services	228
Total	639
Grand total	704

NOTE: The grand total is obtained by adding on 65 channels made available through the application of articles 5 and 6 of the Agreement.

RELATED NOTES

*The Chairman of the Canadian Delegation to the Chairman
of the American Delegation*

[Telegram]

Ottawa, 1st. February, 1929.

Judge E. O. SYKES,

Federal Radio Commission, Washington, D.C.

“In accordance with the undertaking given by the Canadian delegation at the closing session of the Conference on Friday last, I now have the honour to advise that the proposals for the distribution of channels as set forth in detail in appendices Numbers One and Two and graphic chart attached to draft of document headed “Suggestions for an agreement between United States, Canada, Cuba, Mexico and other North American nations relative to the assignment of frequencies on the North American continent”, as per copy transmitted to you by Commander Craven, are approved and accepted by the Canadian delegation. stop. The United States delegation, having already by majority vote approved of these proposals as generally outlined at the final session of the Conference, it is our understanding that there but remains for approval the Articles of Agreement as suggested in draft document in question. stop. As soon as we are advised that this is confirmed by the United States delegation and that these Articles of Agreement are approved and accepted by them, the whole may be considered as approved and accepted by the Canadian authorities.”

A. JOHNSTON.

*The American Minister to the Canadian Secretary of State
for External Affairs*

*Ottawa, Canada,
February 26, 1929.*

No. 314.

SIR:

With regard to the recent short wave length radio conference at Ottawa, I am instructed by my Government to inform you that it approves the recommendations of the delegates at the conference and will announce the agreement effective March 1, 1929.

I avail myself of the occasion to renew to you, Sir, the assurances of my highest consideration.

WILLIAM PHILLIPS

The Right Honorable

WILLIAM LYON MACKENZIE KING, C.M.G., LL.B., LL.D.,
Secretary of State for External Affairs, Ottawa

*The Canadian Secretary of State for External Affairs
to the American Minister*

DEPARTMENT OF EXTERNAL AFFAIRS
CANADA

No. 16

Ottawa, 28th February, 1929.

SIR,

I have the honour to acknowledge your Note of February 26th, 1929, regarding the recent Short Wave Radio Conference at Ottawa.

It is gratifying to the Government of the Dominion of Canada to learn that the Government of the United States approve the recommendations of the delegates at the Conference. The Canadian Government have pleasure in stating that they also accept these recommendations.

It is noted that your Government will announce the agreement effective March 1st, 1929. I have the honour to request that you be good enough to inform them that we will accordingly announce the agreement as effective on the same day.

Accept, Sir, the renewed assurances of my highest consideration,

O. D. SKELTON

For the Secretary of State for External Affairs

The Honourable WILLIAM PHILLIPS,
*Minister of the United States of America,
United States Legation, Ottawa*

*The Canadian Secretary of State for External Affairs
to the American Minister*

DEPARTMENT OF EXTERNAL AFFAIRS
CANADA

No. 21.

Ottawa, 6th March, 1929.

SIR,

With reference to my Note of February 28th, 1929, regarding the recent Short Wave Radio Conference at Ottawa, I have the honour to state that according to a telegraphic communication received from the Newfoundland delegate, the Government of Newfoundland accept the recommendations of the delegates at the Conference and consider the agreement to be effective as from March 1st, 1929.

I may add that we have not yet received any information from the Governments of Cuba and Mexico as to their views on the same subject.

Accept, Sir, the renewed assurances of my highest consideration.

O. D. SKELTON

For the Secretary of State for External Affairs

The Honourable WILLIAM PHILLIPS,
*Minister of the United States of America,
United States Legation, Ottawa*

*The Canadian Secretary of State for External Affairs
to the American Chargé d'Affaires ad interim*

DEPARTMENT OF EXTERNAL AFFAIRS
CANADA

No. 23

Ottawa, 15th March, 1929.

SIR,

With reference to my Note of March 6th, 1929, regarding the recent Short Wave Radio Conference at Ottawa, I have the honour to state that, according to a Note received from the Consul General of Cuba, the agreement on this subject is accepted by the Government of the Republic of Cuba.

Accept, Sir, the renewed assurances of my highest consideration,

O. D. SKELTON

For the Secretary of State for External Affairs

FERDINAND L. MAYER, Esquire,
*Chargé d'Affaires ad interim,
United States Legation, Ottawa*