

ANNEX A

DISTRIBUTION/ALLOTMENT OF FREQUENCIES FOR GENERAL AND SPECIAL SHARING ARRANGEMENTS

Channelling Plan

Narrowband (NB) channels are to be 6.25 kHz wide for a total of 1920 channels. The narrowband channels can be combined to create 12.5 kHz or 25 kHz wide channels. The frequencies corresponding to the lower and upper band edge of the channel number are defined by the following formulas, where n is the channel number:

Channel Number	Lower NB Edge (MHz)	Upper NB Edge (MHz)
1 to 480	$f_n = 764.0 + (0.00625)*(n-1)$ where n = 1 to 480	$f_n = 764.0 + (0.00625)*(n)$ where n = 1 to 480
481 to 960	$f_n = 773.0 + (0.00625)*(n-481)$ where n = 481 to 960	$f_n = 773.0 + (0.00625)*(n-480)$ where n = 481 to 960
961 to 1440	$f_n = 794.0 + (0.00625)*(n-961)$ where n = 961 to 1440	$f_n = 794.0 + (0.00625)*(n-960)$ where n = 961 to 1440
1441 to 1920	$f_n = 803.0 + (0.00625)*(n-1441)$ where n = 1441 to 1920	$f_n = 803.0 + (0.00625)*(n-1440)$ where n = 1441 to 1920

For the purposes of this Arrangement, wideband (WB) channels are to be 50 kHz wide for a total of 240 channels. The wideband channels can be combined to create wider channels or partitioned to create narrower channels. The frequencies corresponding to the lower and upper band edge of the channel number can be determined by the following formulas, where n is the channel number:

Channel Number	Lower WB Edge (MHz)	Upper WB Edge (MHz)
1 to 120	$f_n = 767.0 + (0.05)*(n-1)$ where n = 1 to 120	$f_n = 767.0 + (0.05)*(n)$ where n = 1 to 120
121 to 240	$f_n = 797.0 + (0.05)*(n-121)$ where n = 121 to 240	$f_n = 797.0 + (0.05)*(n-120)$ where n = 121 to 240

A1. In the Sharing Zones, except Sectors 1 and 2, Canada will have primary and unrestricted geographic use of the following channels:

Table 1a – Canada Primary Narrowband Channels in Sharing Zones (except Sectors 1 and 2)

Narrowband Base/Mobile Channels		
(base/mobile)	To	(base/mobile)
181 / 1141	To	182 / 1142
185 / 1145	To	198 / 1158
221 / 1181	To	222 / 1182
225 / 1185	To	238 / 1198
261 / 1221	To	262 / 1222
265 / 1225	To	278 / 1238
301 / 1261	To	302 / 1262
305 / 1265	To	318 / 1278
327 / 1287	To	480 / 1440
481 / 1441	To	634 / 1594
643 / 1603	To	656 / 1616
659 / 1619	To	660 / 1620
683 / 1643	To	696 / 1656
699 / 1659	To	700 / 1660
723 / 1683	To	736 / 1696
739 / 1699	To	740 / 1700
763 / 1723	To	776 / 1736
779 / 1739	To	780 / 1740

Table 1b – Canada Primary Wideband Channels in Sharing Zones (except Sectors 1 and 2)

Wideband Base/Mobile Channels		
(base/mobile)	To	(base/mobile)
1 / 121	To	27 / 147
31 / 151	To	36 / 156
40 / 160	To	45 / 165
76 / 196	To	81 / 201
85 / 205	To	90 / 210

A2. In the Sharing Zones, except Sectors 1 and 2, the United States will have primary and unrestricted geographic use of the following channels:

Table 2a – U.S. Primary Narrowband Channels in Sharing Zones (except Sectors 1 and 2)

Narrowband Base/Mobile Channels		
(base/mobile)	To	(base/mobile)
13 / 973	To	22 / 982
25 / 985	To	38 / 998
41 / 1001	To	62 / 1022
65 / 1025	To	78 / 1038
81 / 1041	To	102 / 1062
105 / 1065	To	118 / 1078
121 / 1081	To	142 / 1102
145 / 1105	To	158 / 1118
161 / 1121	To	180 / 1140
201 / 1161	To	220 / 1180
241 / 1201	To	260 / 1220
281 / 1241	To	300 / 1260
321 / 1281	To	326 / 1286
635 / 1595	To	640 / 1600
661 / 1621	To	680 / 1640
701 / 1661	To	720 / 1680
741 / 1701	To	760 / 1720
781 / 1741	To	800 / 1760
803 / 1763	To	816 / 1776
819 / 1779	To	840 / 1800
843 / 1803	To	856 / 1816
859 / 1819	To	880 / 1840
883 / 1843	To	896 / 1856
899 / 1859	To	920 / 1880
923 / 1883	To	936 / 1896
939 / 1899	To	948 / 1908

Table 2b – U.S. Primary Wideband Channels in Sharing Zones (except Sectors 1 and 2)

Wideband Base/Mobile Channels		
(base/mobile)	To	(base/mobile)
49 / 169	To	72 / 192
94 / 214	To	120 / 240

- A3. In Sector 1, Canada will have primary and unrestricted geographic use of the following channels:

Table 3a – Canada Primary Narrowband Channels in Sector 1

Narrowband Base/Mobile Channels		
(base/mobile)	To	(base/mobile)
305 / 1265	To	318 / 1278
429 / 1389	To	480 / 1440
481 / 1441	To	532 / 1492
643 / 1603	To	656 / 1616

Table 3b – Canada Primary Wideband Channels in Sector 1

Wideband Base/Mobile Channels		
(base/mobile)	To	(base/mobile)
24 / 144	To	27 / 147
31 / 151	To	34 / 154
87 / 207	To	90 / 210
94 / 214	To	97 / 217

A4. In Sector 1, the United States will have primary unrestricted geographic use of the following channels:

Table 4a – U.S. Primary Narrowband Channels in Sector 1

Narrowband Base/Mobile Channels		
(base/mobile)	To	(base/mobile)
13 / 973	To	22 / 982
25 / 985	To	38 / 998
41 / 1001	To	62 / 1022
65 / 1025	To	78 / 1038
81 / 1041	To	102 / 1062
105 / 1065	To	118 / 1078
121 / 1081	To	142 / 1102
145 / 1105	To	158 / 1118
161 / 1121	To	182 / 1142
185 / 1145	To	198 / 1158
201 / 1161	To	222 / 1182
225 / 1185	To	238 / 1198
241 / 1201	To	262 / 1222
265 / 1225	To	278 / 1238
281 / 1241	To	302 / 1262
321 / 1281	To	428 / 1388
553 / 1493	To	640 / 1600
659 / 1619	To	680 / 1640
683 / 1643	To	696 / 1656
699 / 1659	To	720 / 1680
723 / 1683	To	736 / 1696
739 / 1699	To	760 / 1720
763 / 1723	To	776 / 1736
779 / 1739	To	800 / 1760
803 / 1763	To	816 / 1776
819 / 1779	To	840 / 1800
843 / 1803	To	856 / 1816
859 / 1819	To	880 / 1840
883 / 1843	To	896 / 1856
899 / 1859	To	920 / 1880
923 / 1883	To	936 / 1896
939 / 1899	To	948 / 1908

Table 4b -- U.S. Primary Wideband Channels in Sector 1

Wideband Base/Mobile Channels		
(base/mobile)	To	(base/mobile)
1 / 121	To	23 / 143
35 / 155	To	36 / 156
40 / 160	To	45 / 165
49 / 169	To	72 / 192
76 / 196	To	81 / 201
85 / 205	To	86 / 206
98 / 218	To	120 / 240

- A5. In Sector 2, Canada will have primary unrestricted geographic use of the following channels:

Table 5a – Canada Primary Narrowband Channels in Sector 2

Narrowband Base/Mobile Channels		
(base/mobile)	To	(base/mobile)
101 / 1061	To	102 / 1062
105 / 1065	To	118 / 1078
141 / 1101	To	142 / 1102
145 / 1105	To	158 / 1118
181 / 1141	To	182 / 1142
185 / 1145	To	198 / 1158
211 / 1171	To	222 / 1182
225 / 1185	To	238 / 1198
241 / 1201	To	262 / 1222
265 / 1225	To	278 / 1238
281 / 1241	To	302 / 1262
305 / 1265	To	318 / 1278
321 / 1281	To	480 / 1440
481 / 1441	To	640 / 1600
643 / 1603	To	656 / 1616
659 / 1619	To	680 / 1640
683 / 1643	To	696 / 1656
699 / 1659	To	720 / 1680
723 / 1683	To	736 / 1696
739 / 1699	To	750 / 1710
763 / 1723	To	776 / 1736
779 / 1739	To	780 / 1740
803 / 1763	To	816 / 1776
819 / 1779	To	820 / 1780
843 / 1803	To	856 / 1816
859 / 1819	To	860 / 1820

Table 5b – Canada Primary Wideband Channels in Sector 2

Wideband Base/Mobile Channels		
(base/mobile)	To	(base/mobile)
1 / 121	To	27 / 147
31 / 151	To	36 / 156
40 / 160	To	42 / 162
79 / 199	To	81 / 201
85 / 205	To	90 / 210
94 / 214	To	120 / 240

- A6. In Sector 2, the United States will have primary unrestricted geographic use of the following channels:

Table 6a – U.S. Primary Narrowband Channels in Sector 2

Narrowband Base/Mobile Channels		
(base/mobile)	To	(base/mobile)
13 / 973	To	22 / 982
25 / 985	To	38 / 998
41 / 1001	To	62 / 1022
65 / 1025	To	78 / 1038
81 / 1041	To	100 / 1060
121 / 1081	To	140 / 1100
161 / 1121	To	180 / 1140
201 / 1161	To	210 / 1170
751 / 1711	To	760 / 1720
781 / 1741	To	800 / 1760
821 / 1781	To	840 / 1800
861 / 1821	To	880 / 1840
883 / 1843	To	896 / 1856
899 / 1859	To	920 / 1880
923 / 1883	To	936 / 1896
939 / 1899	To	948 / 1908

Table 6b – U.S. Primary Wideband Channels in Sector 2

Wideband Base/Mobile Channels		
(base/mobile)	To	(base/mobile)
43 / 163	To	45 / 165
49 / 169	To	72 / 192
76 / 196	To	78 / 198

- A7. In the areas listed in paragraph 6.2, the following channels must be coordinated in accordance with the procedures specified in Arrangement A annexed to the *Agreement Concerning the Coordination and Use of Radio Frequencies Above Thirty Megacycles per Second*, with Annex, as amended 24 June 1965:

Table 7a – Narrowband Channels Requiring Coordination in Areas Listed in Paragraph 6.2

Narrowband Base/Mobile Channels		
(base/mobile)	To	(base/mobile)
101 / 1061	To	102 / 1062
105 / 1065	To	118 / 1078
141 / 1101	To	142 / 1102
145 / 1105	To	158 / 1118
211 / 1171	To	220 / 1180
241 / 1201	To	260 / 1220
281 / 1241	To	300 / 1260
321 / 1281	To	326 / 1286
635 / 1595	To	640 / 1600
661 / 1621	To	680 / 1640
701 / 1661	To	720 / 1680
741 / 1701	To	750 / 1710
803 / 1763	To	816 / 1776
819 / 1779	To	820 / 1790
843 / 1803	To	856 / 1816
859 / 1819	To	860 / 1820

Table 7b – Wideband Channels Requiring Coordination in Areas Listed in Paragraph 6.2

Wideband Base/Mobile Channels		
(base/mobile)	To	(base/mobile)
43 / 163	To	45 / 165
76 / 196	To	78 / 198
94 / 214	To	120 / 240

- A8. In the areas listed in paragraph 6.3, the following channels must be coordinated in accordance with the procedures specified in Arrangement A annexed to the *Agreement Concerning the Coordination and Use of Radio Frequencies Above Thirty Megacycles per Second*, with Annex, as amended 24 June 1965:

Table 8a – Narrowband Channels Requiring Coordination in Areas Listed in Paragraph 6.3

Narrowband Base/Mobile Channels		
(base/mobile)	To	(base/mobile)
101 / 1061	To	102 / 1062
105 / 1065	To	118 / 1078
141 / 1101	To	142 / 1102
145 / 1105	To	158 / 1118
181 / 1141	To	182 / 1142
185 / 1145	To	198 / 1158
211 / 1171	To	222 / 1182
225 / 1185	To	238 / 1198
241 / 1201	To	262 / 1222
265 / 1225	To	278 / 1238
281 / 1241	To	302 / 1262
321 / 1281	To	428 / 1388
533 / 1493	To	640 / 1600
659 / 1619	To	680 / 1640
683 / 1643	To	696 / 1656
699 / 1659	To	720 / 1680
723 / 1683	To	736 / 1696
739 / 1699	To	750 / 1710
763 / 1723	To	776 / 1736
779 / 1739	To	780 / 1740
803 / 1763	To	816 / 1776
819 / 1779	To	820 / 1790
843 / 1803	To	856 / 1816
859 / 1819	To	860 / 1820

Table 8b – Wideband Channels Requiring Coordination in Areas Listed in Paragraph 6.3

Wideband Base/Mobile Channels		
(base/mobile)	To	(base/mobile)
1 / 121	To	23 / 143
35 / 155	To	36 / 156
40 / 160	To	42 / 162
79 / 199	To	81 / 201
85 / 205	To	86 / 206
98 / 218	To	120 / 240

ANNEX B

**LIMITS OF EFFECTIVE RADIATED POWER AND ANTENNA HEIGHT
FOR GENERAL SHARING ARRANGEMENTS**

Effective Radiated Power (ERP) is defined as the product of the power supplied to the antenna and its gain relative to a half-wave dipole in a given direction.

- B1. For base stations in Sharing Zones I and III, Sectors 1 and 2 and the Protection Zones, Table B1 lists the limits of Effective Radiated Power (ERP) corresponding to the Effective Antenna Height (EAH) ranges shown. In this case, Effective Antenna Height is calculated by subtracting the Assumed Average Terrain Elevation given in Table B3 from the antenna height above mean sea level.

Table B1
Limits of Effective Radiated Power (ERP) Corresponding to Effective Antenna Heights of Base Stations in Sharing Zones I and III, Sectors 1 and 2 and the Protection Zones

Effective Antenna Height (EAH)		ERP Watts (Maximum)
Metres	Feet	
0 - 152	0 - 500	500
153 - 305	501 - 1000	125
306 - 457	1001 - 1500	40
458 - 609	1501 - 2000	20
610 - 914	2001 - 3000	10
915 - 1066	3001 - 3500	6
Above 1067	Above 3501	5

- B2. For base stations in Sharing Zone II, Table B2 lists the limits of Effective Radiated Power (ERP) corresponding to the antenna height above mean sea level ranges shown.

Table B2
Limits of Effective Radiated Power (ERP) Corresponding to Antenna Heights Above Mean Sea Level of Base Stations in Sharing Zone II

Antenna Height Above Mean Sea Level		ERP Watts (Maximum)
Metres	Feet	
0 - 503	0 - 1650	500
504 - 609	1651 - 2000	350
610 - 762	2001 - 2500	200
763 - 914	2501 - 3000	140
915 - 1066	3001 - 3500	100
1067 - 1219	3501 - 4000	75
1220 - 1371	4001 - 4500	70
1372 - 1523	4501 - 5000	65
Above 1523	Above 5000	5

B3. Table B3 lists the values of Assumed Average Terrain Elevations (AATE) within the Sharing and Protection Zones on both sides of the United States-Canada border.

EAH = Antenna Height Above Mean Sea Level - AATE

Table B3
Values of Assumed Average Terrain Elevation within the Sharing and Protection
Zones on Both Sides of the United States - Canada Border

Longitude (ϕ) (°West)	Latitude (Ω) (°North)	Assumed Average Terrain Elevation			
		United States		Canada	
		Feet	Metres	Feet	Metres
$65 \leq \phi < 69$	$\Omega < 45$	0	0	0	0
"	$45 \leq \Omega < 46$	300	91	300	91
"	$\Omega \geq 46$	1000	305	1000	305
$69 \leq \phi < 73$	All	2000	609	1000	305
$73 \leq \phi < 74$	"	500	152	500	152
$74 \leq \phi < 78$	"	250	76	250	76
$78 \leq \phi < 80$	$\Omega < 43$	250	76	250	76
"	$\Omega \geq 43$	500	152	500	152
$80 \leq \phi < 90$	All	600	183	600	183
$90 \leq \phi < 98$	"	1000	305	1000	305
$98 \leq \phi < 102$	"	1500	457	1500	457
$102 \leq \phi < 108$	"	2500	762	2500	762
$108 \leq \phi < 111$	"	3500	1066	3500	1066
$111 \leq \phi < 113$	"	4000	1219	3500	1066
$113 \leq \phi < 114$	"	5000	1524	4000	1219
$114 \leq \phi < 121.5$	"	3000	914	3000	914
$121.5 \leq \phi < 127$	"	0	0	0	0
$\phi \geq 127$	$54 \leq \Omega < 56$	0	0	0	0
"	$56 \leq \Omega < 58$	500	152	1500	457
"	$58 \leq \Omega < 60$	0	0	2000	609
"	$60 \leq \Omega < 62$	4000	1219	2500	762
"	$62 \leq \Omega < 64$	1600	488	1600	488
"	$64 \leq \Omega < 66$	1000	305	2000	609
"	$66 \leq \Omega < 68$	750	228	750	228
"	$68 \leq \Omega < 69.5$	1500	457	500	152
"	$\Omega \geq 69.5$	0	0	0	0

Table B4
Cities in the United States and Canada that for
the purposes of this agreement shall be considered as falling outside of
Sharing Zone I

These cities are defined as circles with a 30 km radius around the center coordinates listed below.

Location	Coordinates [NAD83]	
	Latitude	Longitude
Akron, Ohio	41° 05' 00.2" N.	81° 30' 39.4" W.
Youngstown, Ohio	41° 05' 57.2" N.	80° 39' 01.3" W.
Syracuse, New York	43° 03' 04.2" N.	76° 09' 12.7" W.
Kitchener-Waterloo, Ontario	43° 27' 30.2" N.	80° 29' 59.4" W.
Peterborough, Ontario	44° 18' 00.2" N.	78° 18' 59.2" W.

ANNEX C

BAND OVERLAP COORDINATION AREAS

 AREAS IN WHICH COORDINATION IS REQUIRED

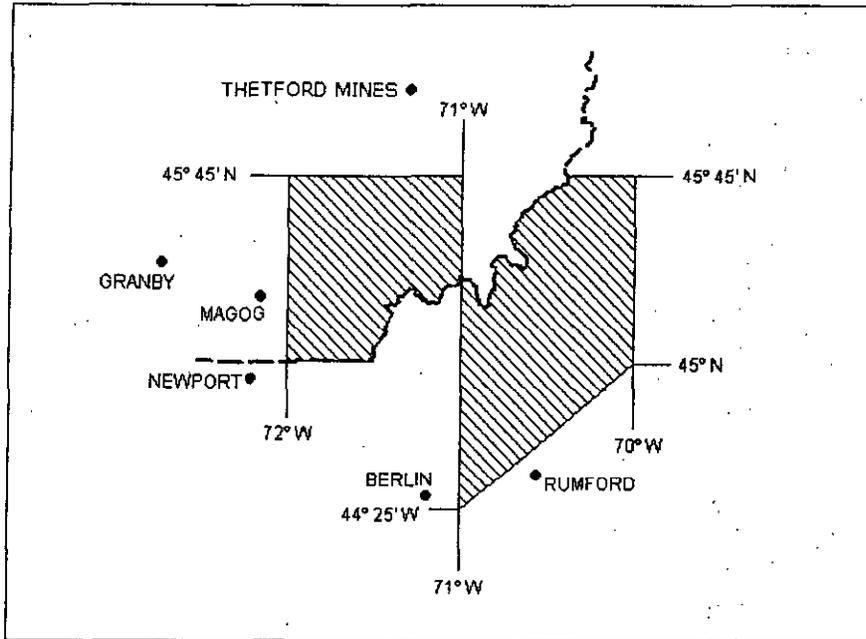


Figure 1

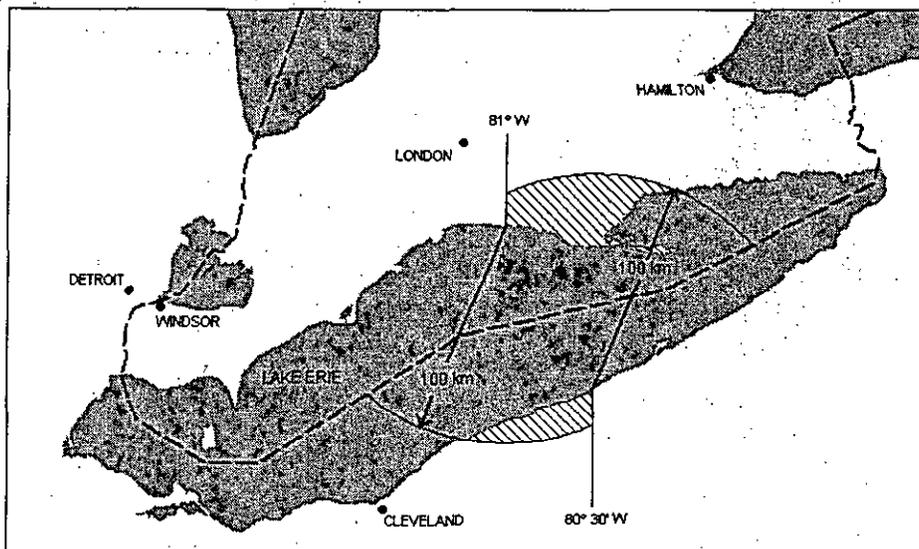


Figure 2