

## **Exhibit 12**

### **Interference Analysis Overlap Requirements**

According to CFR 47 §74.1204(a), translators are required to protect all existing FM stations from interference due to overlap of the protected contours of the existing stations with the interfering contours of the new translators.

#### **US Stations**

In the attached tabular printout, only AP230 has an outgoing contour overlap from the proposed translator, so no interference to other stations is anticipated.

AP230 is the current application, and need not be protected.

Again, no other entries are sufficiently close to the proposed translator to require analysis.

#### **IF Separation**

No stations separated by 53 or 54 channels were found by the search.

#### **Canadian Consideration**

The proposed translator is 37 km from the nearest point in Canada, within the 320 km limit established by treaty. The 0.01 kW ERP does not exceed the maximum 250 Watts, and the maximum 43.0 km F(50,10) 34 dBu contour (see data printout) does not exceed the statutory 60 km. No Canadian stations were found in the above search. Hence there is no outgoing interference with any Canadian stations. Because the 34 dBu F(50,10) contour does cross the common border (43.0 km maximum contour distance is greater than the 37 km minimum distance to Canada), Canadian concurrence is required. The relevant document for this analysis is the July 9, 1997 modification to the February 25, 1991 agreement.

Exhibit 12  
Island Falls, ME08

REFERENCE	CH# 230D - 93.9 MHz, Pwr= 0.01 kW, HAAT=246.2 M, COR= 390 M	DISPLAY DATES
46 01 33 N	Average Protected F(50-50)= 9.17 km	DATA 05-03-03
68 15 04 W	Ave. F(50-10) 40 dBu= 30.5 54 dBu= 12.9 80 dBu= 2.0 100 dBu= .2	SEARCH 07-31-03

CH	CALL	TYPE	AZI.	DIST	LAT.	Pwr (kW)	COR (M)	PRO (km)	*IN*	*OUT*
CITY	STATE		<--	FILE #	LNG.	HAAT (M)	INT (km)	LICENSEE	(Overlap	in km)
230D	AP230	APP C	0.0	0.00	46 01 33	0.010	390	8.5	-35.66*<	-33.20*<
Island Falls	ME		180.0	BNPFT20030314CJO	68 15 04	212	24.7	Light Of Life Ministries,		
229D	AP229	APP C	87.5	30.74	46 02 14	0.019	245	5.0	15.81	14.42
Hodgdon	ME		267.5	BNPFT20030317LGW	67 51 16	53	11.3	Bangor Baptist Church		
232C	ALLO		358.1	151.73	47 23 25	100.000	0	34.4	139.99	114.41
Edmundston	NB		178.1		68 18 59	-249	2.9			
231C	R---	ADD	110.5	168.28	45 28 41	100.000	0	34.4	69.49	115.71
St. John	NB		290.5		66 14 04	-124	18.2			
Proposed by Canada 961210-Accepted by Commission 970224										
231C	231	PRO HN	110.6	168.34	45 28 39	100.000	0	34.4	69.55	115.77
Saint John	NB		290.6		66 14 02	-125	18.2			
228B	R---	DEL	19.0	120.55	47 03 00	50.000	0	36.1	108.86	81.33
Grand Falls	NB		199.0		67 44 00	-205	3.1			
228B	ALLO		19.0	120.55	47 03 00	50.000	0	36.1	108.86	81.33
Grand Falls	NB		199.0	RM9019	67 44 00	-205	3.1			

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 "\*\*\*Affixed to 'IN' or 'Out' values = site inside protected contour.  
 ERP and HAAT are on direct line to and from reference station. "<" = Contour Overlap

## HOW TO READ THE FM COMPUTER PRINT-OUT

The computer print-out should be self-explanatory for the most part. The parameters of the station being checked, (reference station) are printed in the heading. The 60 dBu protected contour is predicted from the Commission's F(50-50) table, while the 40, 54, 80 and 100 dBu contours are interference contours derived from the Commission's F(50-10) table. Contour distances are in kilometers and are predicted using spline interpolation from data points identical to those published in Report No. RS 76-01 by Gary C. Kalagian. Critical contour distances are determined using the Commission's TVFMINT FORTRAN subroutine. When interference contour distances are less than 16 kilometers the F(50-50) tables are used. If signal contour distances are less than 1.6 km the free-space equation is used.

The column listed "**\* IN \***" is the sum of the reference station's 60 dBu protected contour and the data file station's interference contour subtracted from the distance between the stations. (All distances are derived by the method detailed in Sec. 73.208 of the Rules and Regulations as amended in Docket 80-90.) Therefore, the column is a measure of incoming interference. Negative distances in this column indicate the presence of interference. Listed antenna heights are the average heights of eight standard radials as found in the Commission's records unless otherwise noted, in which case the specific antenna heights along the azimuths between the reference station and the database station are used and visa versa. The column labeled "**\* OUT \***" shows the distance of kilometers of overlap or clearance between the reference station's interference contour and the database station's protected contour. Negative distance figures in this column indicate outgoing interference.

For I.F., commercial, international and other spacing based relationships, the "IN" and "OUT" columns change their significance. The letter "R" stands for the minimum required distance in kilometers, while the letter "M" in the next column follows the available clear space separation in kilometers or "Margin". Minimum commercial separation distances were taken from Sec 73.207 of the rules as amended. This procedure is also used for all Canadian and Mexican spacing. Canadian separation distances were derived from the "Canadian/American Working Agreement".

Under the "BEARING" column, the first row of numbers indicate the bearings from true north of the data base stations in relationship with the reference station, while the numbers in the second row indicate the reverse bearings from the database station to the reference station.

The columns labeled "INT" and "PRO" hold the distance in kilometers of the appropriate interference contour and the protected contour of a data base station.

The first three letters of the "TYPE" column identify the current F.C.C. status of the stations. The fourth letter will be a "D" or "Z" (Sec. 73.215) if the facility is directional. The fifth letter will be an E, H or V depending on the type of antenna polarization. The sixth letter will be a 'Y' if the antenna uses beam tilt.

Exhibit 12  
 Canadian Terrain and Contour Data  
 AP230 Island Falls, ME

ERP 0.01 kW  
 N. Lat. 46 1 33  
 W. Lon. 68 15 4

Center of Radiation 390.00 m AMSL

Azimuth Deg T.	Avg Elev 3-16 km Meters AMSL	Effective Antenna Ht Meters AAT	ERP Kilowatts	Distance to Contour (km) 34.0 dBu F(50,10)
0	230.2	159.8	0.0100	34.8
30	192.1	197.9	0.0100	38.4
60	273.5	116.5	0.0100	29.6
90	210.3	179.7	0.0100	36.7
120	144.1	245.9	0.0100	43.0<--
150	164.5	225.5	0.0100	41.2
180	178.3	211.7	0.0100	39.8
210	186.6	203.4	0.0100	39.0
240	149.6	240.4	0.0100	42.5
270	182.5	207.5	0.0100	39.4
300	204.5	185.5	0.0100	37.3
330	176.8	213.2	0.0100	40.0
Average	191.083	198.917	<--HAAT m	