

## **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 WFNK and W300BN have outgoing contour overlaps from the proposed translator, so no interference to other stations is anticipated. Incoming overlap is not prohibited.

WFNK is second adjacent to the proposed translator, and, according to §74.1204(d),

**"The provisions of this section concerning prohibited overlap will not apply where the area of such overlap lies entirely over water. In addition, an application otherwise precluded by this section will be accepted if it can be demonstrated that no actual interference will occur due to ... lack of population ... ."**

The F(50,50) signal from WFNK at the proposed site is 88.1 dBu. A 40 dB ratio of undesired to desired signal strength gives an allowable interfering F(50,10) field strength of 128.1 dBu. With 10 Watts ERP, the free-space equations give the distance to this contour of 19.6 meters from the antenna. The antenna is 47 meters from the ground, so the signal never reaches the ground. Examination of aerial photos (Google maps is best here) and topographic maps (TopoZone) shows that no building (other than the transmitter building and a small garden shed) is within 20 meters of the tower. This leaves the area of interference over 27 meters above the ground. Hence §74.1204(d) applies, and the predicted area of interference is acceptable to the Commission.



W300BN is the current application, and need not be protected.

Maps are attached to demonstrate clearance to WFMX.C and WXKS-FM.

No other entries are sufficiently close to the proposed translator to require analysis.

### **IF Separation**

The proposal is fully spaced to WJZF and to the pair of Auburn/Lewiston translator applications that are mutually exclusive and not accepted for filing.

### **Canadian Consideration**

The proposed translator is 168.6063 km from the nearest point in Canada, within the 320 km limit established by treaty. The 0.010 kW ERP does not exceed the maximum 250 Watts, and the maximum 37.0 km F(50,10) 34 dBu contour (see attachment) 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 not cross the common border (37.0 km maximum contour distance is less than the 168.6063 km minimum distance to Canada), Canadian concurrence is not required. The relevant document for this analysis is the July 9, 1997 modification to the February 25, 1991 agreement.

<div style="text-align: center;"> Light Of Li fe Ministries, Inc  ME Portland 300 minor change  CH# 300D - 107.9 MHz, Pwr= 0.01 kW, HAAT=144.5 M, COR= 192.9 M  Average Protected F(50-50)= 6.96 km </div>										
REFERENCE									DISPLAY DATES	
43 45 28.0 N.									DATA 03-17-07	
70 19 16.0 W.									SEARCH 04-23-07	

CH	CALL	TYPE	AZI .	DI ST	LAT.	Pwr(kW)	INT(km)	PRO(km)	*OUT*	
CITY		STATE	<--	FILE #	LNG.	HAAT(M)	COR(M)	LICENSEE	(Overlap in km)	
298C1	WFNK	LIC NCX	343.3	28.49	44 00 12.0	100.000	9.8	70.7	-42.46*<	
Lewi ston		ME	163.3	BLH20050310AAL	70 25 24.0	280	408	Nassau Broadcasting Iii, L		
300D	W300BN	CP C	145.3	9.07	43 41 26.7	0.038	14.0	4.4	-21.58<	
Portland		ME	325.3	BNPFT20030828AEM	70 15 24.8	4	81	Light Of Li fe Ministries,		
300C2	WFMX	CP NCX	23.8	116.26	44 42 46.0	15.000	118.4	47.2	46.37	
Skowhegan		ME	204.2	BPH20061002BAN	69 43 36.0	203	292	Mountain Wi reless, Inc.		
One Step Appli cati on										
300C3	WFMX	LIC CN	23.8	116.26	44 42 46.0	6.000	101.7	39.4	54.09	
Skowhegan		ME	204.2	BLH19941102KB	69 43 36.0	203	292	Mountain Wi reless, Inc.		
Proposed to canada as B1 on 910128-Accepted by canada on 910529										
300D	W300BC	CP C	223.6	43.02	43 28 38.9	0.019	17.7	5.4	14.20	
Sanford		ME	43.4	BNPFT20030828ABL	70 41 19.7	63	143	Light Of Li fe Ministries,		
300B	WXKS-FM	LIC CN	201.8	168.55	42 20 50.0	20.500	129.4	65.8	68.48	
Medford		MA	21.3	BLH19911018KE	71 04 59.0	235	258	Amfm Radi o Li censes, L.I.c		

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Terrain database is NGDC 30 SEC

ERP and HAAT are on direct line to and from reference station.

Incoming contour overlap is ignored.

\*\*\*"affixed to 'IN' or 'Out' values = site inside protected contour. "<" = 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.

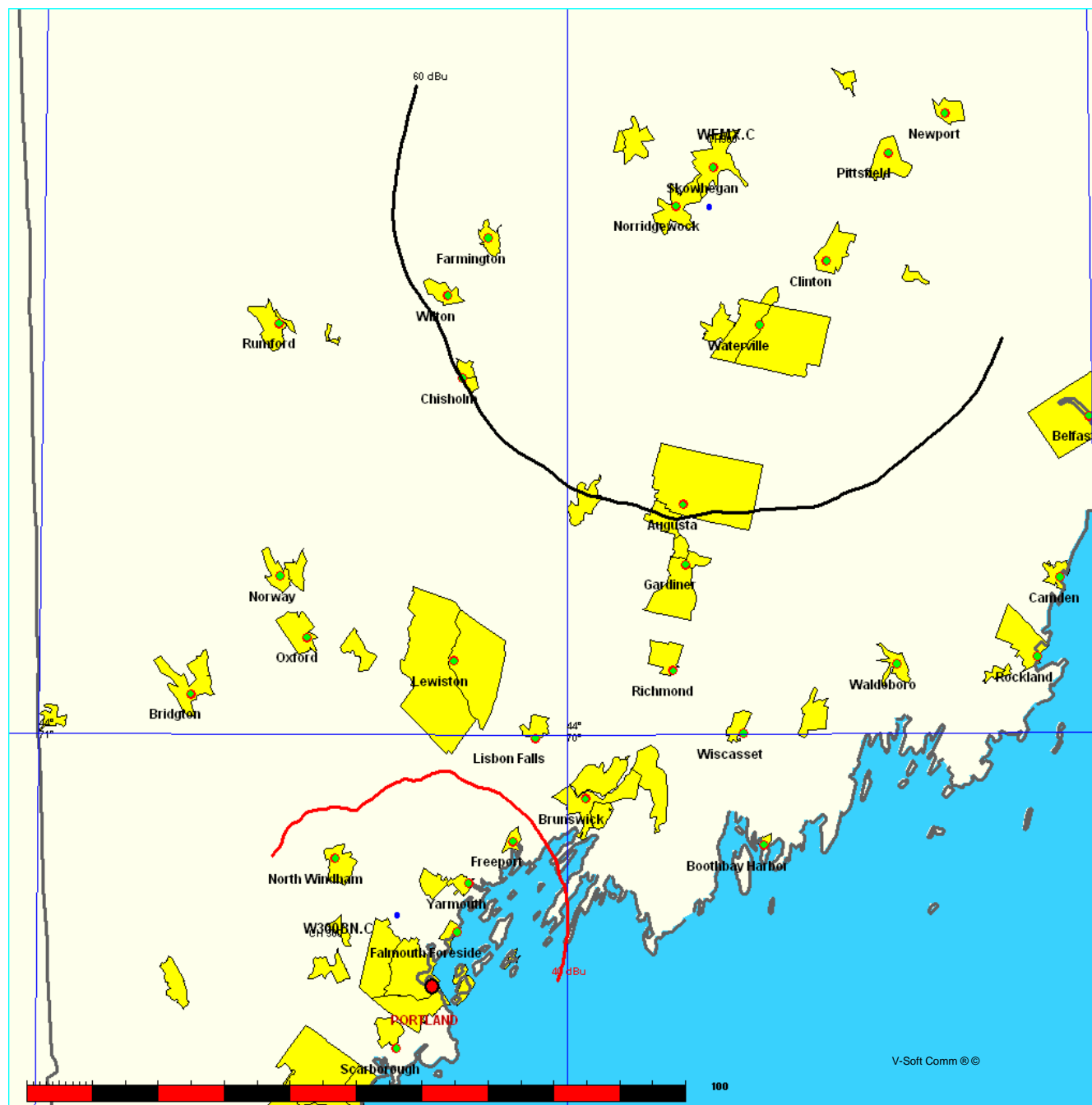
Light Of Life Ministries, Inc  
ME Portland 300 minor change

FMCommander Single Allocation Study  
04-23-2007

W300BN.C CH 300 D  
0.01 kW 192.9 M COR  
Prot. = 60 dBu  
Intef. = 40 dBu

WFMX-C CH 300 C2 BPH20061002BAN  
15.0 kW, 292 M COR  
Prot. = 60 dBu  
Intef. = 40 dBu

Scale = 1:1,500,000



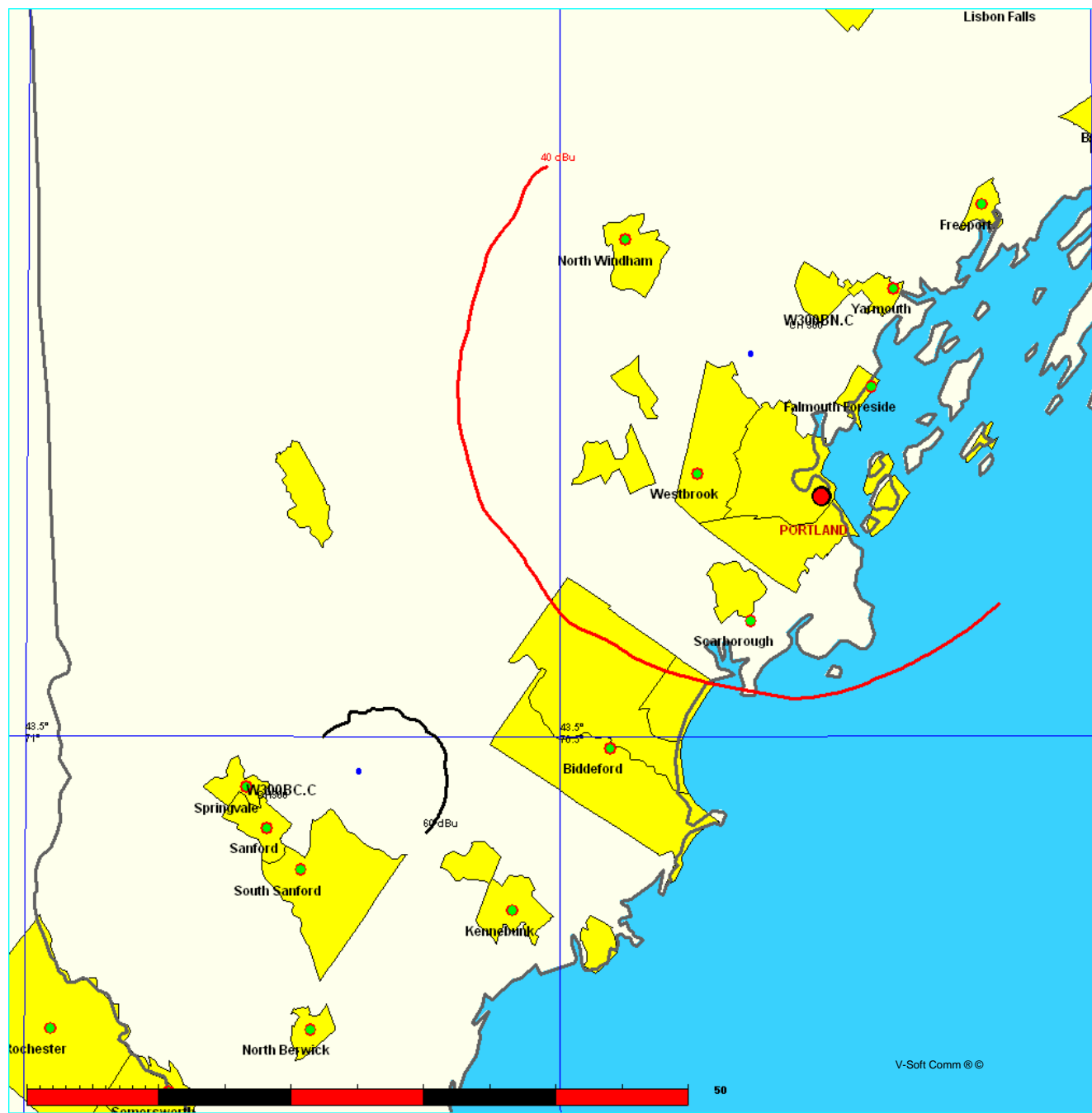
Light Of Life Ministries, Inc  
ME Portland 300 minor change

FMCommander Single Allocation Study  
04-23-2007

W300BN.C CH 300 D  
0.01 kW 192.9 M COR  
Prot. = 60 dBu  
Intef. = 40 dBu

W300BC.C CH 300 D BNPFT20030828ABL  
0.019 kW, 143 M COR  
Prot. = 60 dBu  
Intef. = 40 dBu

Scale = 1:750,000



Light Of Life Ministries, Inc  
ME Portland 300 minor change

FMCommander Single Allocation Study  
04-23-2007

W300BN.C CH 300 D  
0.01 kW 192.9 M COR  
Prot. = 60 dBu  
Intef. = 34 dBu

WXKS-FM CH 300 B BLH19911018KE  
20.5 kW, 258 M COR  
Prot. = 54 dBu  
Intef. = 40 dBu

Scale = 1:3,000,000

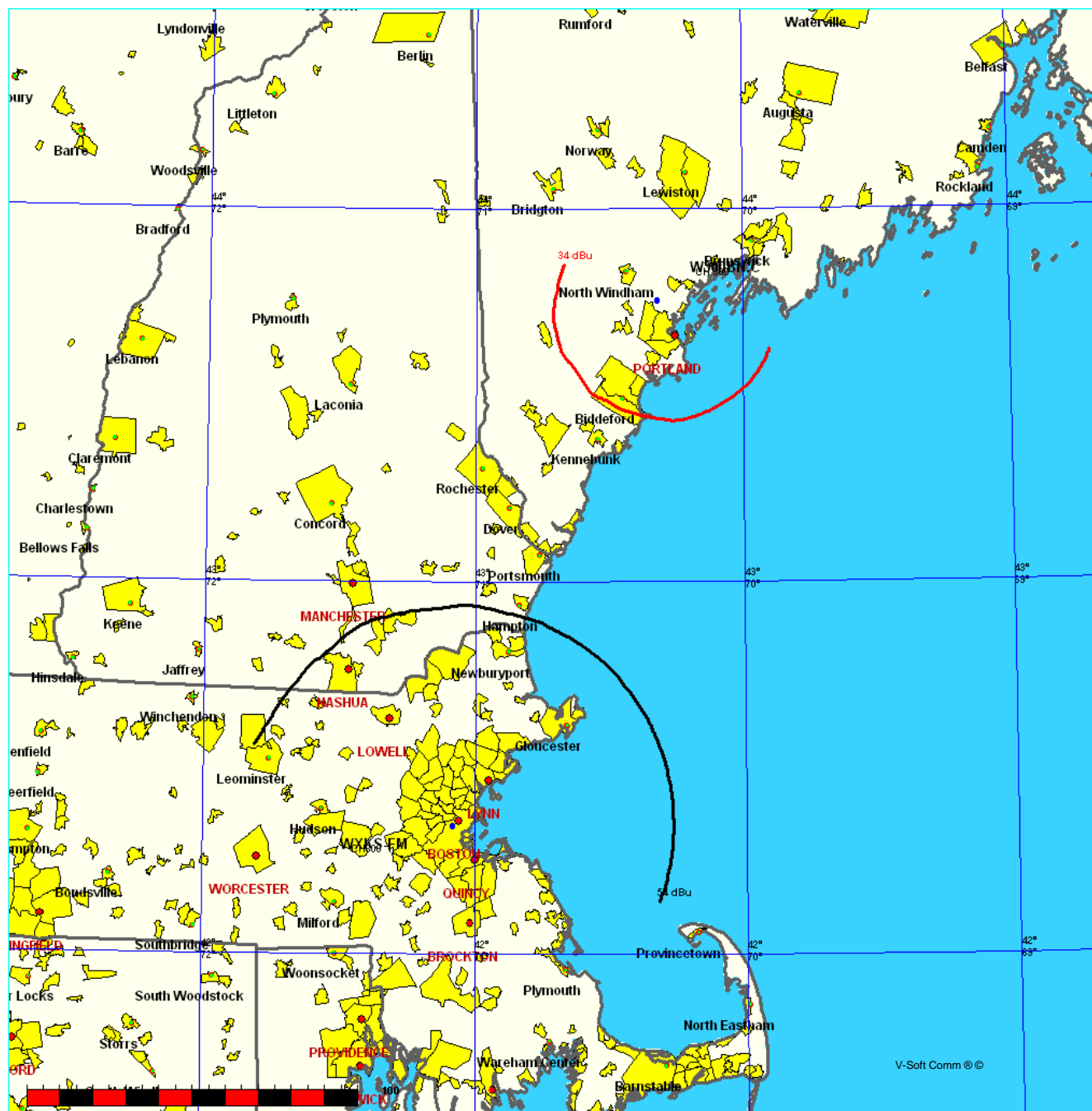




Exhibit 12  
Terrain and Contour Data  
ME Portland Prop

ERP 0.01 kW  
N. Lat. 43 45 28  
W. Lon. 70 19 16  
Center of Radiation 193.00 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	87.7	105.3	0.0100	28.1
30	58.0	135.0	0.0100	31.9
60	32.7	160.3	0.0100	34.8
90	19.8	173.2	0.0100	36.1
120	10.7	182.3	0.0100	37.0
150	14.3	178.7	0.0100	36.7
180	26.9	166.1	0.0100	35.4
210	40.1	152.9	0.0100	34.0
240	50.0	143.0	0.0100	32.8
270	65.8	127.2	0.0100	30.9
300	80.0	113.0	0.0100	29.2
330	98.0	95.0	0.0100	26.6
Average	48.667	144.333	<--HAAT m	