

## **Non-Interference Compliance**

Regarding Facility id 154234

Channel 260

### **Description of Exhibit 13 Contents**

This exhibit demonstrates that the proposed facility complies with contour overlap and interference protection provisions in all of the applicable rule sections and that this application for a construction permit is in full compliance with 47 C.F.R. § 74.1204.

**Let it be noted that should any actual real world interference occur, the applicant acknowledges that it will promptly suspend operation of this translator in accordance with 47 C.F.R. § 74.1203.**

Page 2 of this exhibit is an explanation of the method used to demonstrate compliance with contour overlap and interference provisions based on 47 C.F.R. § 74.1204(d), which states:

*[A]n application otherwise precluded by this section will be accepted if it can be demonstrated that no actual interference will occur due to intervening terrain, lack of population or such other factors as may be applicable.*

Page 3 of this exhibit contains the tabulated data from the interference analysis, which shows all stations whose protected contours come within 50 km of the 34 dBμ F(50,10) contour of the proposed translator. These tabulated values were calculated using data from the FCC's CDBS files and 30 arc second terrain data. The column labeled "Adj" shows the number of channels difference between the entry and the proposed translator. The column labeled "Dist" shows the distance in km. The column labeled "Overlap" shows the area of contour overlap in square kilometers.

Page 4 of this exhibit is a portion of a USGS 1:24,000 scale 7.5 minute quadrangle at full scale with the calculated area of interference overlaid. The sheet includes the quadrangle name and measurement scale at the bottom-left corner (note: "Mt" refers to meters). The area of interference was calculated using the free space equation and 120 radials.

Pages 5 and 6 of this exhibit are aerial photos of the vicinity surrounding the proposed translator's tower site.

**As can be verified, the only structures under the predicted area of interference are support structures for the various towers at this "tower farm."**

Since the proposed translator is within 320 km of the Canadian border, 47 C.F.R. § 74.1235(d) has been taken into account and this applicant certifies that in no direction does the 34 dBμ F(50,10) extend beyond 60 km, and this application is therefore in full compliance with 47 C.F.R. § 74.1235(d)(3), which states that "the distance to the 34 dBμ interfering contour may not exceed 60 km in any direction," and hence complies with 47 C.F.R. § 74.1204(h).

### Compliance with 47 C.F.R. § 74.1204(d)

All authorized second and third adjacent stations with which the proposed translator has contour overlap are tabulated below. Column four show the station's signal level at the proposed translator's tower site, and column five gives the minimum value within the entire standard interfering contour of the proposed translator (100 dBμ for most classes, 94 for class B, 97 for class B1). The minimum second or third adjacent F(50,50) contour within the proposed translator's standard interfering contour was used to calculate the proposed translator's actual "worst-case" interfering contour.

<b>Application_id</b>	<b>File Number</b>	<b>Callsign</b>	<b>Contour at Tower</b>	<b>Min. Contour</b>
282603	BLH19990310KE	WCRB	61.6	61.6
Minimum F(50,50) Contour of Adjacent Station within Proposed Translator's Standard Interfering Contour				<b>61.6</b>

FCC 02-244 at Section II.A.5 states that "when demonstrating that 'no actual interference will occur due to . . . other factors,' pursuant to Section 74.1204(d), an applicant may use the undesired-to-desired signal ratio method." The undesired-to-desired ratio for second and third adjacent stations required by § 74.1204(a) is 40 dB. Since the minimum protected contour strength within the proposed translator's standard interference contour is **61.6 dBμ**, this makes the proposed translator's worst-case interfering contour **101.6 dBμ**. By the free-space equation, this contour is calculated to extend a maximum of **184.5 m** from the transmit antenna.

The interfering contour of the proposed translator was calculated for 120 radials and plotted on the pertinent portion of a USGS quadrangle (page 4 of this exhibit). As demonstrated on the quadrangle, there are no populated structures or highways within the area of interference (Note: FCC 02-244 at Section II.A.6 states that USGS quadrangles "have been recognized as acceptable to demonstrate lack of population"). Hence, in accordance with 47 C.F.R. § 74.1204(d) and the clarification provided by the FCC in the decision *Re: Living Way Ministries* (FCC 02-244), a lack of population has been demonstrated within the area of interference and this application is therefore in full compliance with 47 C.F.R. § 74.1204.

**Antenna Manufacturer:** SWR  
**Antenna Model:** FM1  
**CORAGL:** 24 m  
**Maximum ERP:** 0.01 kW  
**Interfering Contour:** 101.6 dBμ  
**Max Int. Contour Distance:** 184.5 m

**Adjacent Channel Study**  
**For Station NEW, Facility\_id: 154234**

**Co-channel through third adjacent:**

App_id	Fac_id	File_Number	Call	Licensee	Class	City	State	Status	ERP	RCAMSL	Chan	Adj	Dist	Overlap
282603	23441	BLH-19990310KE	WCRB	WGBH EDUCATIONAL FOUNDATION	B	LOWELL	MA	LIC	27	238	258	2	47.6	0.6153
1298694	153138	BLFT-20090304ABF	W260AS	BETHESDA CHRISTIAN BROADCASTING	D	LAWRENCE	MA	LIC	0.01	205	260	0	46.2	0
586764	35407	BLH-20011114ABD	WNTK-FM	SHEILA E. VINKOOR	A	NEW LONDON	NH	LIC	1.45	582	259	1	62.9	0
136544	51124	BLH-19891204KC	WXRG	COUNTY BROADCASTING COMPANY, LLC	A	ATHOL	MA	LIC	1.85	396	260	0	66.1	0
158006	35219	BLH-19910307KE	WHEB	CAPSTAR TX LLC	B	PORTSMOUTH	NH	LIC	50	151	262	2	67.2	0
1077958	135150	BLL-20050802ADL	WOOL-LP	FALLS AREA COMMUNITY TELEVISION, INC.	L1	BELLOWS FALLS	VT	LIC	0	361	261	1	70.6	0
1302372	179311	BLFTB-20090320AAJ	WNTK-FM1	SHEILA E. VINKOOR	D	CLAREMONT	NH	LIC	0.055	170	259	1	73.5	0
203388	6638	BMLD-19941020KD	WBRS	BRANDEIS UNIVERSITY	D	WALTHAM	MA	LIC	0.025	91	261	1	73.5	0
632359	140890	BNPFT-20030317AHP	NEW	SAGA COMMUNICATIONS OF NEW ENGLAND, INC.	D	BRATTLEBORO	VT	APP	0.25	152	262	2	82.3	0
630974	139893	BNPFT-20030317HKV	NEW	VERMONT PUBLIC RADIO	D	BRATTLEBORO	VT	APP	0.01	347	262	2	84.1	0
498410	52127	BLH-20000515ABT	WPNH-FM	NORTHEAST COMMUNICATIONS CORPORATION	A	PLYMOUTH	NH	LIC	0.41	722	261	1	85.5	0
217634	27476	BLED-19951205KA	WHHB	HOLLISTON HIGH SCHOOL	D	HOLLISTON	MA	LIC	0.017	144	260	0	86.7	0
281708	18310	BLH-19990209KB	WWFX	RADIO LICENSE HOLDING CBC, LLC	A	SOUTHBRIDGE	MA	LIC	2.85	359	261	1	87.8	0
1146123	68281	BLH-20061031ACI	WFRD	TRUSTEES OF DARTMOUTH COLLEGE	A	HANOVER	NH	LIC	6	374	257	3	93.9	0
242289	54790	BLH-19970307KF	WXXK	GREAT EASTERN RADIO, LLC	C3	LEBANON	NH	LIC	22	375	263	3	93.9	0
119484	26352	BLFT-19881014TC	W261CB	HARVEST BROADCASTING ASSN. D/B/A HARVEST	D	NORWICH(WEST LE	VT	LIC	0.005	378	261	1	97.6	0
181110	57730	BLFT-19930126TE	W259AB	FRIENDS OF WHAZ	D	MARLBORO, ETC.	VT	LIC	0.006	687	259	1	99.2	0
167770	69854	BLH-19911209KB	WBQQ	WBIN MEDIA CO., INC.	A	KENNEBUNK	ME	LIC	3	114	257	3	104.4	0



UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY







Google earth

feet  
meters

1000

500







100 yds

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