

**Non-Interference Compliance for  
Reach Communications, Incorporated  
Regarding Facility ID 152950 Channel 295**

**Description of Exhibit 12 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. The applicant acknowledges that it will comply with 47 C.F.R. § 74.1203 in regards to resolving any interference that may occur.

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 contains a tabulation of the vertical radiation pattern of the proposed antenna and the minimum ground clearance of the interfering contour based on this pattern.

Page 4 includes tabulations of the vertical radiation pattern for the proposed antenna provided by the antenna manufacturer.

Page 5 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.

Page 6 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. The area of interference was calculated using the free space equation and 120 radials.

Page 7 of this exhibit is a high resolution aerial photo of the vicinity surrounding the proposed translator's tower site provided by the U.S. Geological Survey's National Aerial Photography Program. It has been included to provide clarification of the vicinity.

## 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.

Application ID	File Number	Callsign	Contour at Tower	Min. Contour
1298077	BLH20090310AAB	WJGH	146.65	146.22
680588	BMLH20030908ABP	WOKV-FM	121.6	121.43

Minimum F(50,50) Contour of Adjacent Station within Proposed Translator's Standard Interfering Contour:  
**121.43 dBμ.<sup>1</sup>**

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 **121.43 dBμ**, this makes the proposed translator's worst-case interfering contour **161.43 dBμ**. By the free-space equation, this contour is calculated to extend a maximum of **.59 m** from the transmit antenna.

The maximum horizontal plane of the interfering contour was calculated for 120 radials and plotted on the pertinent portion of a USGS quadrangle (page 8 of this exhibit). However, the field strength of the proposed translator's antenna varies with angle of depression from horizontal. The antenna relative fields are tabulated on the following page at 5 degree increments, starting at 5 degrees below horizontal. Antenna relative field strength data was provided and certified by the manufacturer of the proposed antenna. Using a free-space calculation that neglects any loss due to reflection, the vertical ground clearance of the proposed translator's interference contour has been tabulated. As shown on the following page, the area of interference clears the ground level by **244.74 m** from the tower. The applicant has taken into account USGS quadrangles and relevant aerial photography instating that no structures, except possibly tower support structures, puncture the area of interference. 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:	NICOM
Antenna Model:	BKG77
CORAGL:	245 m
Maximum ERP:	0.099 kW
Interfering Contour:	161.43 dBμ
Max Int. Contour Distance:	.59 m
Ground Clearance:	244.74 m

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<sup>1</sup> This translator shall become a "fill-in" translator to WFXJ..

# **NICOM BKG77 Depression Propagation Elevations - single bay**

Depress Angle Below Horizontal	Antenna Relative Field	ERP (watts)	Distance to Interfering Contour (m)	Horizontal Distance to Contour from Antenna (m)	Vertical Clearance of Interfering Contour (m)
0	1	99.00	0.46	0.46	254.00
5	0.999	98.80	0.46	0.46	253.96
10	0.982	95.47	0.45	0.45	253.92
15	0.954	90.10	0.44	0.43	253.89
20	0.918	83.43	0.42	0.40	253.85
25	0.871	75.11	0.40	0.36	253.83
30	0.818	66.24	0.38	0.33	253.81
35	0.758	56.88	0.35	0.29	253.80
40	0.691	47.27	0.32	0.24	253.79
45	0.616	37.57	0.28	0.20	253.80
50	0.538	28.65	0.25	0.16	253.81
55	0.465	21.41	0.21	0.12	253.82
60	0.391	15.14	0.18	0.09	253.84
65	0.313	9.70	0.14	0.06	253.87
70	0.239	5.65	0.11	0.04	253.90
75	0.176	3.07	0.08	0.02	253.92
80	0.128	1.62	0.06	0.01	253.94
85	0.103	1.05	0.05	0.00	253.95
90	0.105	1.09	0.05	0.00	253.95



BKO 77

Vertical	-66	0.297	54	0.479	174	0.488
Values	-63	0.345	57	0.436	177	0.479
-180	0.487	-60	0.391	60	0.391	
-177	0.478	-57	0.436	63	0.345	
-174	0.467	-54	0.479	66	0.297	
-171	0.460	-51	0.523	69	0.253	
-168	0.454	-48	0.568	72	0.211	
-165	0.447	-45	0.616	75	0.176	
-162	0.439	-42	0.661	78	0.145	
-159	0.429	-39	0.706	81	0.120	
-156	0.419	-36	0.745	84	0.105	
-153	0.402	-33	0.783	87	0.100	
-150	0.385	-30	0.818	90	0.105	
-147	0.369	-27	0.852	93	0.118	
-144	0.359	-24	0.881	96	0.134	
-141	0.350	-21	0.910	99	0.151	
-138	0.338	-18	0.934	102	0.168	
-135	0.326	-15	0.954	105	0.185	
-132	0.314	-12	0.972	108	0.202	
-129	0.303	-9	0.987	111	0.219	
-126	0.290	-6	0.999	114	0.236	
-123	0.278	-3	0.999	117	0.252	
-120	0.265	0	1.000	120	0.265	
-117	0.251	3	0.999	123	0.278	
-114	0.236	6	0.999	126	0.290	
-111	0.218	9	0.987	129	0.304	
-108	0.202	12	0.972	132	0.314	
-105	0.185	15	0.954	135	0.327	
-102	0.168	18	0.934	138	0.338	
-99	0.151	21	0.910	141	0.350	
-96	0.134	24	0.881	144	0.360	
-93	0.118	27	0.852	147	0.370	
-90	0.105	30	0.818	150	0.386	
-87	0.100	33	0.783	153	0.403	
-84	0.105	36	0.745	156	0.420	
-81	0.120	39	0.706	159	0.430	
-78	0.145	42	0.661	162	0.440	
-75	0.176	45	0.616	165	0.448	
-72	0.211	48	0.568	168	0.455	
-69	0.253	51	0.523	171	0.461	

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Facility ID	File Number	Callsign	Licensee	Sts	City	St	Cls	ERP	AMSL	Ch	Adj	Dist
51974	BLH20090310AAB	WPLA	CLEAR CHANNEL BROADCASTING LICENSES, INC.	LIC	GREEN COVE SPRINGS	FL	C1	98000	310	297	2	0.75
28894	BMLH20030908ABP	WOKV-FM	COX RADIO, INC.	LIC	PONTE VEDRA BEACH	FL	A	6000	104	293	-2	0.17
55706	BLH19881109KA	WEJZ	REDA BROADCASTING CORP. OF NEVADA	LIC	JACKSONVILLE	FL	C0	100000	304	241	-54	9.15
153382	BLFT20070122ALJ	W295AG	RADIO ASSIST MINISTRY, INC.	LIC	ST. MARYS	GA	D	29	80	295	0	54.16
73409	BMLH20040629AAN	WKZY	6 JOHNSON ROAD LICENSES, INC.	LIC	CROSS CITY	FL	C1	100000	155	295	0	144.56
16906	BMLH20000803ACB	WEAG-FM	DICKERSON BROADCASTING, INC.	LIC	STARKE	FL	A	2700	196	292	-3	64.63
54649	BLH19960111KA	WKBX	RADIO KINGS BAY, INC.	LIC	KINGSLAND	GA	A	6000	101	292	-3	59.22
157231	BNPFT20030317KLW	NEW	RFENGINEERS.COM, INC	APP	OCALA	FL	D	250	55	295	0	134.14
140192	BLFT20090902AAV	W295AO	RTG RADIO, LLC, DEBTOR-IN-POSSESSION	LIC	VALDOSTA	GA	D	250	124	295	0	177.59
16844	BLH19961227KE	WGZR	MONTEREY LICENSES, LLC	LIC	BLUFFTON	SC	C1	100000	244	295	0	226.76
153096	BPFT20091027ADD	W292DE	FLAGLER COUNTY BROADCASTING, LLC	CP	PALM COAST	FL	D	250	361	292	-3	87.3
29569	BMLH20100809CHA	WXXL	AMFM RADIO LICENSES, L.L.C.	LIC	TAVARES	FL	C1	100000	284	294	-1	190.39
12203	BLH20020314AAN	WOKA-FM	COFFEE COUNTY BROADCASTERS, INC.	LIC	DOUGLAS	GA	C1	100000	377	294	-1	198.07
170483	BNPH20070501AFY	NEW	MATTOX BROADCASTING, INC.	CP	PATTERSON	GA	A	6000	124	296	1	134.12
140570	BNPFT20030310AVM	NEW	ANNA TRAPANI	APP	OCALA	FL	D	200	73	296	1	129.82
9033	BLH20020425ABR	WCJX	RTG RADIO, LLC, DEBTOR-IN-POSSESSION	LIC	FIVE POINTS	FL	A	3800	141	293	-2	107.6



