

**Non-Interference Compliance for
Reach Communications, Incorporated
Regarding Facility ID 146621 Channel 246**

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
590309	BLH20011219AAC	WHTQ	82.89	82.24
132867	BLH19890908KA	WPCV	62.16	62.06

Minimum F(50,50) Contour of Adjacent Station within Proposed Translator's Standard Interfering Contour:
62.06 dBμ.

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 **62.06 dBμ**, this makes the proposed translator's worst-case interfering contour **102.06 dBμ**. By the free-space equation, this contour is calculated to extend a maximum of **199.45 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 tower ground level (TGL) by **30.41 m** at the lowest point. 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:	119 m
Maximum ERP:	0.013 kW
Interfering Contour:	102.06 dBμ
Max Int. Contour Distance:	199.45 m
Min Ground Clearance:	30.41 m

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	13.00	199.45	199.45	119.00
5	0.999	12.97	199.25	198.49	101.63
10	0.982	12.54	195.86	192.88	84.99
15	0.954	11.83	190.27	183.79	69.75
20	0.918	10.96	183.09	172.05	56.38
25	0.871	9.86	173.72	157.44	45.58
30	0.818	8.70	163.15	141.29	37.43
35	0.758	7.47	151.18	123.84	32.29
40	0.691	6.21	137.82	105.57	30.41
45	0.616	4.93	122.86	86.87	32.13
50	0.538	3.76	107.30	68.97	36.80
55	0.465	2.81	92.74	53.19	43.03
60	0.391	1.99	77.98	38.99	51.46
65	0.313	1.27	62.43	26.38	62.42
70	0.239	0.74	47.67	16.30	74.21
75	0.176	0.40	35.10	9.09	85.09
80	0.128	0.21	25.53	4.43	93.86
85	0.103	0.14	20.54	1.79	98.54
90	0.105	0.14	20.94	0.00	98.06



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	

Nicom 11 C • 2426 Southport Way Ste B • National City CA 91950 • USA • (619) 477-8296 • fax 6296

Facility ID	File Number	Callsign	Licensee	Sts	City	St	Cls	ERP	AMSL	Ch	Adj	Dist
23443	BLH20011219AAC	WHTQ	COX RADIO, INC.	LIC	ORLANDO	FL	C	99000	463	243	-3	33.04
51981	BPH20070815ABD	WMGF	CLEAR CHANNEL BROADCASTING LICENSES, INC.	CP	MOUNT DORA	FL	C	98000	494	299	53	21.97
51981	BMLH19970515KB	WMGF	CLEAR CHANNEL BROADCASTING LICENSES, INC.	LIC	MOUNT DORA	FL	C	96000	493	299	53	22.14
25872	BLH19890908KA	WPCV	HALL COMMUNICATIONS, INC.	LIC	WINTER HAVEN	FL	C	100000	340	248	2	69.1
151803	BNPFT20030317DGL	NEW	RADIO ASSIST MINISTRY, INC.	APP	ORLANDO	FL	D	13	154	245	-1	17.61
151735	BLFT20071123AAE	W246BT	REACH COMMUNICATIONS, INC.	LIC	CLERMONT	FL	D	27	111	246	0	31.32
146629	BNPFT20030317HFY	NEW	RADIO ASSIST MINISTRY, INC.	APP	MIMS	FL	D	19	96	246	0	48
146627	BNPFT20030317HFN	NEW	RADIO ASSIST MINISTRY, INC.	APP	KISSIMMEE	FL	D	38	91	246	0	43.53
151731	BNPFT20030317DBX	NEW	RADIO ASSIST MINISTRY, INC.	APP	BITHLO	FL	D	19	112	245	-1	32.64
85649	BLFT19980918TD	W247AK	CORNERSTONE BROADCASTING CORPORATION	LIC	DELAND	FL	D	100	52	247	1	33.86
143223	BNPFT20030312BDK	NEW	CORNERSTONE COMMUNITY RADIO, INC. CENTRAL FLORIDA EDUCATIONAL FOUNDATION, INC.	APP	EDGEWATER	FL	D	250	22	247	1	52.09
142461	BPFT20060314AAB	W245AZ	CORNERSTONE BROADCASTING CORPORATION	CP	LEESBURG	FL	D	27	110	245	-1	55.79
142461	BLFT20041021AEF	W245AZ	CORNERSTONE BROADCASTING CORPORATION	LIC	LEESBURG	FL	D	27	104	245	-1	55.79
85650	BLFT19990222TM	W247AL	CORNERSTONE BROADCASTING CORPORATION	LIC	DAYTONA BEACH	FL	D	120	45	247	1	63.78
23352	BPH20010119AEU	WSKY-FM	ENTERCOM GAINESVILLE LICENSE, LLC	CP	MICANOPY INDIAN RIVER SHORES	FL	C2	50000	173	247	1	131.08
63823	BLH19970501KE	WOSN	VERO BEACH BROADCASTERS, LLC	LIC	JACKSONVILLE	FL	C3	23000	109	246	0	139.8
53590	BLH19900420KA	WJGL	COX RADIO, INC.	LIC	HOLIDAY	FL	C	98000	315	245	-1	173.53
67136	BLH19980608KG	WSUN-FM	COX RADIO, INC.	LIC	BRADENTON	FL	C2	11500	226	246	0	151.83
156011	BNPFT20030317FAM	NEW	CORNERSTONE COMMUNITY RADIO, INC.	APP	BRADENTON	FL	D	250	30	246	0	185.75
158520	BNPFT20030317MWG	NEW	CIRCUITWERKES	APP	BRADENTON	FL	D	250	41	246	0	181.45
22094	BLH20060727AAL	WINK-FM	FORT MYERS BROADCASTING COMPANY	LIC	FORT MYERS	FL	C	98000	465	245	-1	216.98
23352	BLH19981109KB	WSKY-FM	ENTERCOM GAINESVILLE LICENSE, LLC	LIC	MICANOPY	FL	C2	13500	312	247	1	156.25
84364	BLFT19980311TF	W247AJ	BIBLE BROADCASTING NETWORK, INC.	LIC	PALM COAST	FL	D	80	56	247	1	92.53
156353	BNPFT20030317HFV	NEW	JUAN ALBERTO AYALA	APP	VINELAND	FL	D	250	112	300	54	37.91
156985	BNPFT20030317LWC	NEW	CARL TUTERA	APP	PORT ST LUCIE	FL	D	190	26	246	0	182.97



