

**Non-Interference Compliance for
Reach Communications, Incorporated
Regarding Facility ID 148955 Channel 221**

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
287237	BLH19990720KH	WYUU	65.12	65.01
607211	BXLH20001130ABQ	WYUU	65.72	65.57

Minimum F(50,50) Contour of Adjacent Station within Proposed Translator's Standard Interfering Contour:
65.01 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 **65.01 dBμ**, this makes the proposed translator's worst-case interfering contour **105.01 dBμ**. By the free-space equation, this contour is calculated to extend a maximum of **438.60 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 **0.59 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 1/2
CORAGL:	127 m
Maximum ERP:	0.124 kW
Interfering Contour:	105.01 dBμ
Max Int. Contour Distance:	438.6 m
Ground Clearance:	.59 m

NICOM BKG77/2 Depression Propagation Elevations - Two Bay Half Wave Spaced

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	124.00	438.60	438.60	127.00
5	0.988	121.04	433.33	431.68	89.23
10	0.947	111.20	415.35	409.04	54.88
15	0.871	94.07	382.02	369.00	28.13
20	0.792	77.78	347.37	326.42	8.19
25	0.682	57.68	299.12	271.10	0.59
30	0.565	39.58	247.81	214.61	3.10
35	0.469	27.28	205.70	168.50	9.01
40	0.376	17.53	164.91	126.33	21.00
45	0.273	9.24	119.74	84.67	42.33
50	0.188	4.38	82.46	53.00	63.83
55	0.131	2.13	57.46	32.96	79.93
60	0.079	0.77	34.65	17.32	96.99
65	0.047	0.27	20.61	8.71	108.32
70	0.022	0.06	9.65	3.30	117.93
75	0.01	0.01	4.39	1.14	122.76
80	0.003	0.00	1.32	0.23	125.70
85	0.001	0.00	0.44	0.04	126.56
90	0	0.00	0.00	0.00	127.00

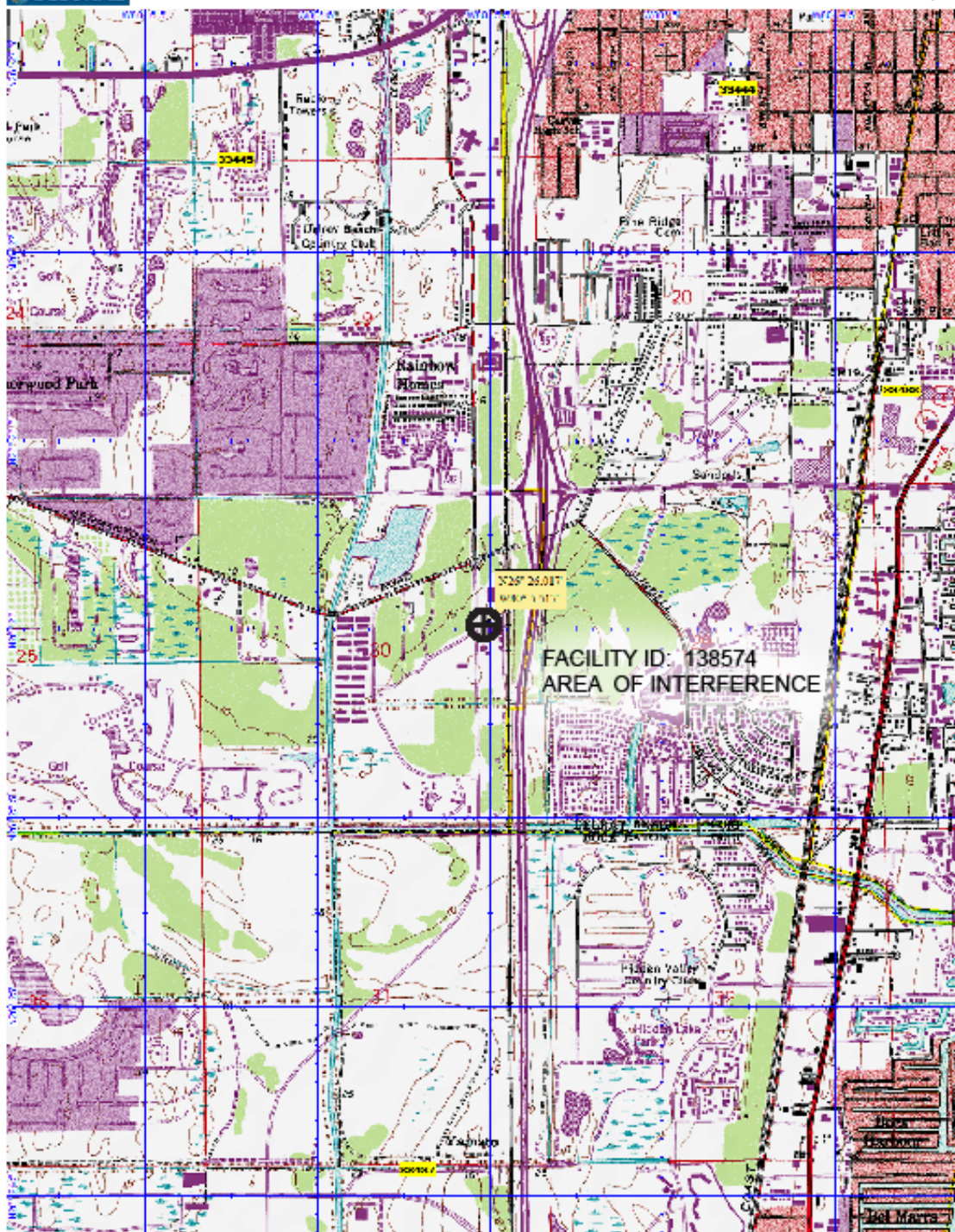


BAG 77

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	Cl s	ERP	AMS L	Ch	Ad j	Dist
18512	BLH19990720KH	WYUU	CBS RADIO STATIONS INC.	LIC	SAFETY HARBOR	FL	C2	5000 0	151	223	2	42.93
18512	BXLH20001130ABQ	WYUU	CBS RADIO STATIONS INC.	LIC	SAFETY HARBOR	FL	C2	5000 0	139	223	2	25.09
5116	BLED19900604KA	WYFO	BIBLE BROADCASTING NETWORK, INC.	LIC	LAKELAND	FL	C3	2500 0	139	220	-1	49.55
3059	BLH20040406ACI	WLTQ-FM	CITICASTERS LICENSES, INC.	LIC	VENICE	FL	C3	1150 0	147	221	0	93.5
21034	BLED19880725KD	WFTI-FM	FAMILY STATIONS, INC.	LIC	ST. PETERSBURG	FL	A	3000	89	219	-2	33.2
3059	BXMLH20100702CJN	WLTQ-FM	CITICASTERS LICENSES, INC.	LIC	VENICE	FL	C3	9200	82	221	0	93.5
3059	BXLH20090720ACV	WLTQ-FM	CITICASTERS LICENSES, INC.	LIC	VENICE NEW PORT	FL	C3	9200 1650	82	221	0	93.5
60262	BLED20030605ACV	WCIE	RADIO TRAINING NETWORK, INC.	LIC	RICHEY	FL	C3	0 9900	96	218	-3	43.49 147.7
48716	BLH20011221AAP	WWKA	COX RADIO, INC.	LIC	ORLANDO	FL	C	0 9640	463	222	1	4 147.7
48716	BXPH20110112ADA	WWKA	COX RADIO, INC.	CP	ORLANDO	FL	C	0 4100	400	222	1	4
11026	BLED20020207AAS	WHGN	THE MOODY BIBLE INSTITUTE OF CHICAGO	LIC AP	CRYSTAL RIVER	FL	C2	0	165	220	-1	94.42
148951	BNPFT20030317HGR	NEW	RADIO ASSIST MINISTRY, INC.	P	PLANT CITY	FL	D	19 1600	118.3	275	54	23.18 113.4
81147	BLED20071101AAM	WJFH	RADIO TRAINING NETWORK, INC.	LIC	SEBRING	FL	C2	0	165.5	218	-3	5 205.1
47387	BLH20070622AAU	WAFZ-FM	GLADES MEDIA COMPANY LLC	LIC AP	IMMOKALEE	FL	A	5600	105	221	0	7
148949	BNPFT20030317HGM	NEW	RADIO ASSIST MINISTRY, INC.	P AP	PALM HARBOR GREATER SUN	FL	D	19	101.8	275	54	32.85
148945	BNPFT20030317HER	NEW	RADIO ASSIST MINISTRY, INC.	P AP	CENTER NEW PORT	FL	D	13	129.7	275	54	32.83
158583	BNPFT20030317MWB	NEW	CIRCUITWERKES	P	RICHEY	FL	D	250	38	274	53	36.33 146.9
174244	BPED20100910AAA	WMYE	CALL COMMUNICATIONS GROUP, INC.	CP AP	FORT MYERS NEW PORT	FL	A	350	309	220	-1	9
156026	BNPFT20030317FFE	NEW	CORNERSTONE COMMUNITY RADIO, INC.	P	RICHEY	FL	D	250	30	274	53	38.46 147.0
174244	BLED20080625ACD	WMYE	CALL COMMUNICATIONS GROUP, INC.	LIC AP	FORT MYERS	FL	A	1200	108	220	-1	9
151712	BNPFT20030317HEX	NEW	RADIO ASSIST MINISTRY, INC.	P	HAINES CITY	FL	D	10 2500	209	224	3	79.02 258.3
73151	BLH19930218KB	WJXR	WJXR, INC.	LIC	MACCLENNY	FL	C3	0	126	221	0	8



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MN (8.1° W)

0 200 400 600 800 1000 1200
feet
Scale 1:24,000

