

**Non-Interference Compliance for
Reach Communications, Incorporated
Regarding Facility ID 148955 Channel 220**

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	63.97	63.84
607211	BXLH20001130ABQ	WYUU	62.16	62.01

Minimum F(50,50) Contour of Adjacent Station within Proposed Translator's Standard Interfering Contour:
62.01 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 **62.01 dBμ**, this makes the proposed translator's worst-case interfering contour **102.01 dBμ**. By the free-space equation, this contour is calculated to extend a maximum of **211.85 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 **5.94 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:	BKG77/2 Half Wave Spaced
CORAGL:	67 m
Maximum ERP:	0.0145 kW
Interfering Contour:	102.01 dBμ
Max Int. Contour Distance:	211.85 m
Min Ground Clearance:	5.94 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	14.50	211.85	211.85	67.00
5	0.988	14.15	209.31	208.52	48.76
10	0.947	13.00	200.63	197.58	32.16
15	0.871	11.00	184.53	178.24	19.24
20	0.792	9.10	167.79	157.67	9.61
25	0.682	6.74	144.48	130.95	5.94
30	0.565	4.63	119.70	103.66	7.15
35	0.469	3.19	99.36	81.39	10.01
40	0.376	2.05	79.66	61.02	15.80
45	0.273	1.08	57.84	40.90	26.10
50	0.188	0.51	39.83	25.60	36.49
55	0.131	0.25	27.75	15.92	44.27
60	0.079	0.09	16.74	8.37	52.51
65	0.047	0.03	9.96	4.21	57.98
70	0.022	0.01	4.66	1.59	62.62
75	0.01	0.00	2.12	0.55	64.95
80	0.003	0.00	0.64	0.11	66.37
85	0.001	0.00	0.21	0.02	66.79
90	0	0.00	0.00	0.00	67.00

TX station:
Frequency: 100.00 MHz

Site name: 2 BAY 1/2

Vertical diagram at an azimuth of 0° degrees

Dep (°)	Er (%)	ERP (W)	Dep (°)	Er (%)	ERP (W)	Dep (°)	Er (%)	ERP (W)
0.0	100.0	747.3	54.0	14.2	15.0	108.0	1.8	0.2
0.9	100.0	746.6	54.9	13.1	12.9	108.9	2.1	0.3
1.8	99.8	745.0	55.8	12.2	11.0	109.8	2.3	0.4
2.7	99.7	742.5	56.7	11.2	9.4	110.7	2.6	0.5
3.6	99.4	739.1	57.6	10.3	8.0	111.6	2.9	0.6
4.5	99.2	734.7	58.5	9.5	6.7	112.5	3.2	0.8
5.4	98.8	729.5	59.4	8.7	5.6	113.4	3.5	0.9
6.3	98.3	721.9	60.3	7.9	4.7	114.3	3.9	1.1
7.2	97.5	710.3	61.2	7.2	3.9	115.2	4.3	1.4
8.1	96.6	698.0	62.1	6.5	3.2	116.1	4.7	1.6
9.0	95.7	685.1	63.0	5.9	2.6	117.0	5.1	1.9
9.9	94.7	670.3	63.9	5.3	2.1	117.9	5.5	2.3
10.8	93.6	655.0	64.8	4.7	1.7	118.8	5.9	2.6
11.7	92.5	639.2	65.7	4.2	1.3	119.7	6.4	3.1
12.6	91.2	622.1	66.6	3.7	1.0	120.6	6.9	3.6
13.5	89.9	604.2	67.5	3.3	0.8	121.5	7.4	4.1
14.4	88.6	586.1	68.4	2.9	0.6	122.4	7.9	4.7
15.3	87.1	567.5	69.3	2.5	0.5	123.3	8.5	5.4
16.2	85.7	548.5	70.2	2.2	0.4	124.2	9.0	6.1
17.1	84.2	529.4	71.1	1.9	0.3	125.1	9.6	6.9
18.0	82.6	510.3	72.0	1.6	0.2	126.0	10.2	7.8
18.9	80.9	489.6	72.9	1.4	0.1	126.9	10.9	8.8
19.8	79.2	469.1	73.8	1.2	0.1	127.8	11.5	9.9
20.7	77.5	448.8	74.7	1.0	0.1	128.7	12.2	11.1
21.6	75.7	428.2	75.6	0.8	0.1	129.6	12.9	12.4
22.5	73.8	407.5	76.5	0.7	0.0	130.5	13.6	13.7
23.4	72.0	387.3	77.4	0.6	0.0	131.4	14.3	15.2
24.3	70.1	367.4	78.3	0.5	0.0	132.3	15.0	16.8
25.2	68.2	347.8	79.2	0.4	0.0	133.2	15.8	18.6
26.1	66.3	328.7	80.1	0.3	0.0	134.1	16.5	20.5
27.0	64.4	310.1	81.0	0.2	0.0	135.0	17.3	22.5
27.9	62.4	291.2	81.9	0.2	0.0	135.9	18.1	24.6
28.8	60.4	273.0	82.8	0.1	0.0	136.8	19.0	26.9
29.7	58.5	255.5	83.7	0.1	0.0	137.7	19.8	29.3
30.6	56.5	238.7	84.6	0.1	0.0	138.6	20.6	31.9
31.5	54.6	222.6	85.5	0.0	0.0	139.5	21.5	34.6
32.4	52.7	207.2	86.4	0.0	0.0	140.4	22.4	37.5
33.3	50.7	192.3	87.3	0.0	0.0	141.3	23.3	40.5
34.2	48.8	177.8	88.2	0.0	0.0	142.2	24.2	43.6
35.1	46.9	164.0	89.1	0.0	0.0	143.1	25.0	46.8
36.0	45.0	151.0	90.0	0.0	0.0	144.0	25.9	50.2
36.9	43.1	138.7	90.9	0.0	0.0	144.9	26.8	53.8
37.8	41.2	127.1	91.8	0.0	0.0	145.8	27.7	57.5
38.7	39.4	116.2	92.7	0.0	0.0	146.7	28.6	61.3
39.6	37.6	105.6	93.6	0.0	0.0	147.6	29.6	65.6
40.5	35.8	95.7	94.5	0.1	0.0	148.5	30.7	70.3
41.4	34.0	86.4	95.4	0.1	0.0	149.4	31.7	75.1
42.3	32.3	77.8	96.3	0.1	0.0	150.3	32.7	80.1
43.2	30.6	69.9	97.2	0.2	0.0	151.2	33.8	85.4
44.1	28.9	62.5	98.1	0.3	0.0	152.1	34.9	90.8
45.0	27.3	55.8	99.0	0.3	0.0	153.0	35.9	96.4
45.9	25.8	49.6	99.9	0.4	0.0	153.9	37.0	102.2
46.8	24.3	44.0	100.8	0.5	0.0	154.8	38.0	108.1
47.7	22.8	38.8	101.7	0.6	0.0	155.7	39.1	114.2
48.6	21.4	34.2	102.6	0.7	0.0	156.6	40.0	119.8
49.5	20.1	30.1	103.5	0.9	0.1	157.5	41.0	125.3
50.4	18.8	26.3	104.4	1.0	0.1	158.4	41.9	130.9
51.3	17.5	23.0	105.3	1.2	0.1	159.3	42.7	136.5
52.2	16.4	20.0	106.2	1.4	0.1	160.2	43.6	142.1
53.1	15.2	17.3	107.1	1.6	0.2	161.1	44.5	147.8

NicomUsa, Inc

Facility ID	File Number	Callsign	Licensee	Sts	City	St	Cls	ERP	AMSL	Ch	Adj	Dist
18512	BLH19990720KH	WYUU	CBS RADIO STATIONS INC.	LIC	SAFETY HARBOR	FL	C2	50000	151	223	3	44.58
18512	BXLH20001130ABQ	WYUU	CBS RADIO STATIONS INC.	LIC	SAFETY HARBOR	FL	C2	50000	139	223	3	29.6
60262	BLED20030605ACV	WLPJ	RADIO TRAINING NETWORK, INC.	LIC	NEW PORT RICHEY	FL	C3	16500	96	218	-2	33.14
5116	BLED19900604KA	WYFO	BIBLE BROADCASTING NETWORK, INC.	LIC	LAKELAND	FL	C3	25000	139	220	0	55.8
21034	BLED19880725KD	WFTI-FM	FAMILY STATIONS, INC.	LIC	ST. PETERSBURG	FL	A	3000	89	219	-1	39.49
106675	BNPFT19991020AAF	NEW	THE MOODY BIBLE INSTITUTE OF CHICAGO	APP	TAMPA	FL	D	170	41	217	-3	12.63
106675	BNPFT19991020AAF	NEW	THE MOODY BIBLE INSTITUTE OF CHICAGO	APP	TAMPA	FL	D	170	40	217	-3	12.63
11026	BLED20020207AAS	WHGN	THE MOODY BIBLE INSTITUTE OF CHICAGO	LIC	CRYSTAL RIVER	FL	C2	41000	165	220	0	83.63
106676	BNPFT19991020AAG	NEW	RADIO TRAINING NETWORK, INC.	APP	OLDSMAR	FL	D	19	115	217	-3	20.2
48716	BLH20011221AAP	WWKA	COX RADIO, INC.	LIC	ORLANDO	FL	C	99000	463	222	2	147.38
106676	BNPFT19991020AAG	NEW	RADIO TRAINING NETWORK, INC.	APP	OLDSMAR	FL	D	19	115	217	-3	20.2
158583	BNPFT20030317MWB	NEW	CIRCUITWERKES	APP	NEW PORT RICHEY	FL	D	250	38	274	54	26.54
3059	BLH20040406ACI	WLTQ-FM	CITICASTERS LICENSES, L.P.	LIC	VENICE	FL	C3	11500	147	221	1	103.86
122931	BNPFT20000302ABP	NEW	FAITH PLEASES GOD CHURCH CORP.	APP	CLEARWATER	FL	D	38	72	217	-3	31.81
156026	BNPFT20030317FFE	NEW	CORNERSTONE COMMUNITY RADIO, INC.	APP	NEW PORT RICHEY	FL	D	250	30	274	54	28.76
122931	BNPFT20000302ABP	NEW	FAITH PLEASES GOD CHURCH CORP.	APP	CLEARWATER	FL	D	30	72	217	-3	31.81
122931	BNPFT20000302ABP	NEW	FAITH PLEASES GOD CHURCH CORP.	APP	CLEARWATER	FL	D	30	72	217	-3	31.8
81147	BLED20071101AAM	WJFH	RADIO TRAINING NETWORK, INC.	LIC	SEBRING	FL	C2	16000	166	218	-2	123.23
123269	BNPFT20000418AAN	NEW	LIFETALK BROADCASTING ASSOCIATION SUNCOAST EDUCATIONAL BROADCASTING CORP.	APP	OCALA	FL	D	10	334	220	0	135.73
63899	BLED19890424KA	WSEB	CALL COMMUNICATIONS GROUP, INC.	LIC	ENGLEWOOD	FL	C1	62000	86	217	-3	136.6
174244	BMPED20080317AAE	WMYE	CALL COMMUNICATIONS GROUP, INC.	APP	FORT MYERS	FL	A	1200	108	220	0	158.39
174244	BNPED20071019ADW	WMYE	CALL COMMUNICATIONS GROUP, INC.	CP	FORT MYERS	FL	A	1500	108	220	0	158.39



