

Non-Interference Compliance

Regarding Facility id 151781

Channel 252

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.

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 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.

Pages 4 through 6 include a plot and a tabulation of the vertical radiation pattern for the proposed antenna provided by the antenna manufacturer.

Page 7 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 8 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.

Page 9 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 nature of the buildings in 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
249041	BLH19970624KA	WKGR	62.2	62.1
Minimum F(50,50) Contour of Adjacent Station within Proposed Translator's Standard Interfering Contour				62.1

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 **62.1 dBμ**, this makes the proposed translator's worst-case interfering contour **102.1 dBμ**. By the free-space equation, this contour is calculated to extend a maximum of **198.6 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 **20.2 m** at the lowest point. The applicant has taken into account USGS quadrangles and relevant aerial photography in stating 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.

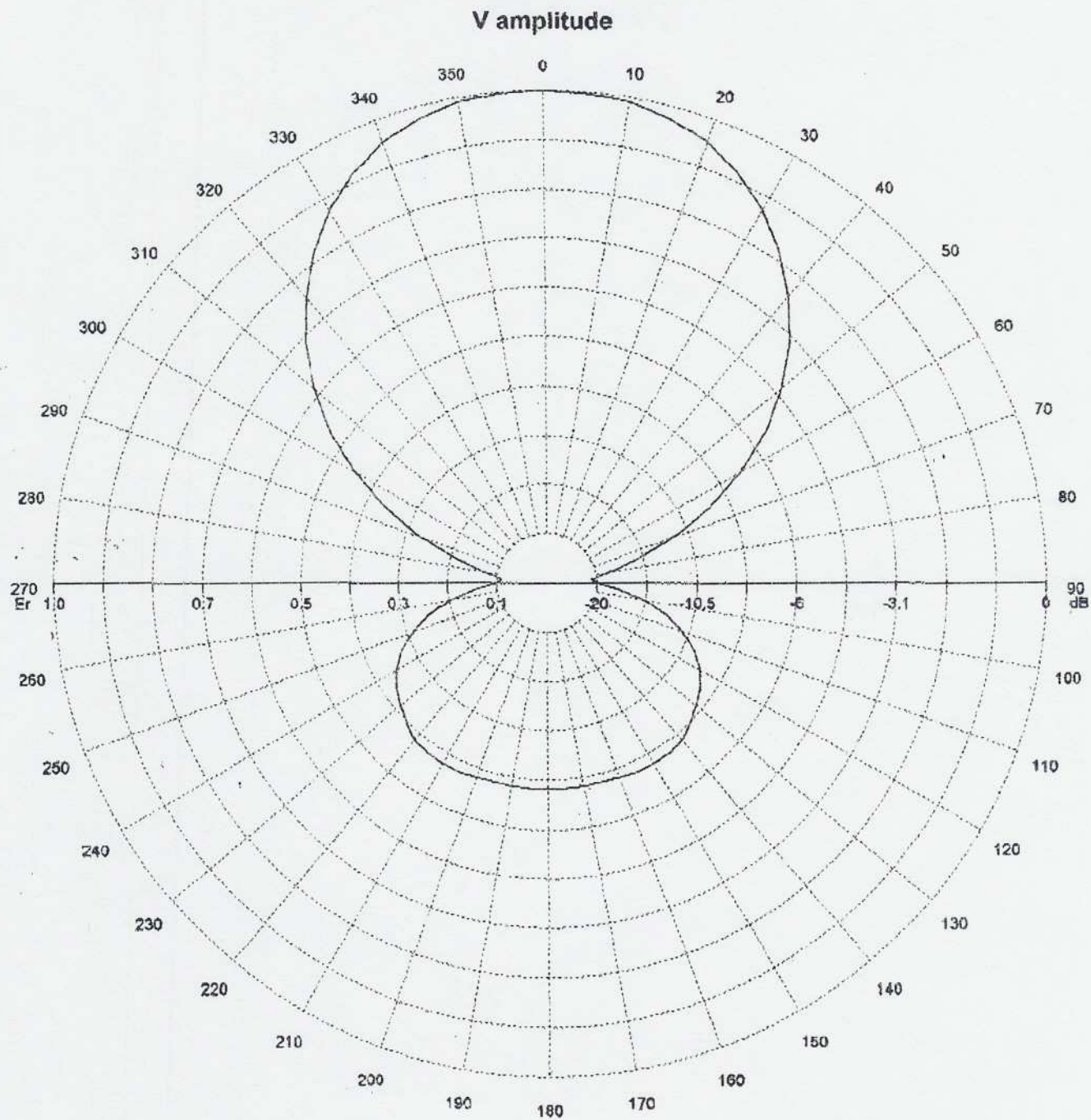
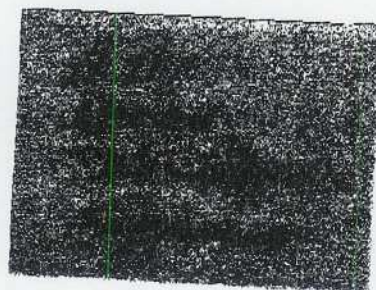
Antenna Manufacturer:	NIC
Antenna Model:	BKG88
CORAGL:	117 m
Maximum ERP:	0.013 kW
Interfering Contour:	102.1 dBμ
Max Int. Contour Distance:	198.6 m
Min Ground Clearance:	20.2 m

Depression Angle Below Horizontal	Antenna Relative Field	ERP (watts)	Distance to Interfering Contour from Antenna (m)	Horizontal Distance of Interfering Contour from Tower (m)	Vertical Clearance of Interfering Contour above TGL (m)
35	.817	8.7	162.3	132.9	23.9
75	.191	0.5	37.9	9.8	80.4
70	.272	1.0	54.0	18.5	66.2
5	.997	12.9	198.0	197.2	99.7
60	.443	2.6	88.0	44.0	40.8
50	.615	4.9	122.1	78.5	23.4
90	.100	0.1	19.9	0.0	97.1
80	.127	0.2	25.2	4.4	92.2
40	.756	7.4	150.1	115.0	20.5
65	.360	1.7	71.5	30.2	52.2
30	.873	9.9	173.4	150.1	30.3
25	.917	10.9	182.1	165.1	40.0
20	.953	11.8	189.3	177.8	52.3
15	.975	12.4	193.6	187.0	66.9
10	.992	12.8	197.0	194.0	82.8
85	.090	0.1	17.9	1.6	99.2
45	.689	6.2	136.8	96.8	20.2
55	.536	3.7	106.4	61.1	29.8
Minimum Clearance above TGL:					20.2 m

Manufacturer: NICOM LLC

Antenna model: BKG88

Frequency: 98 MHz

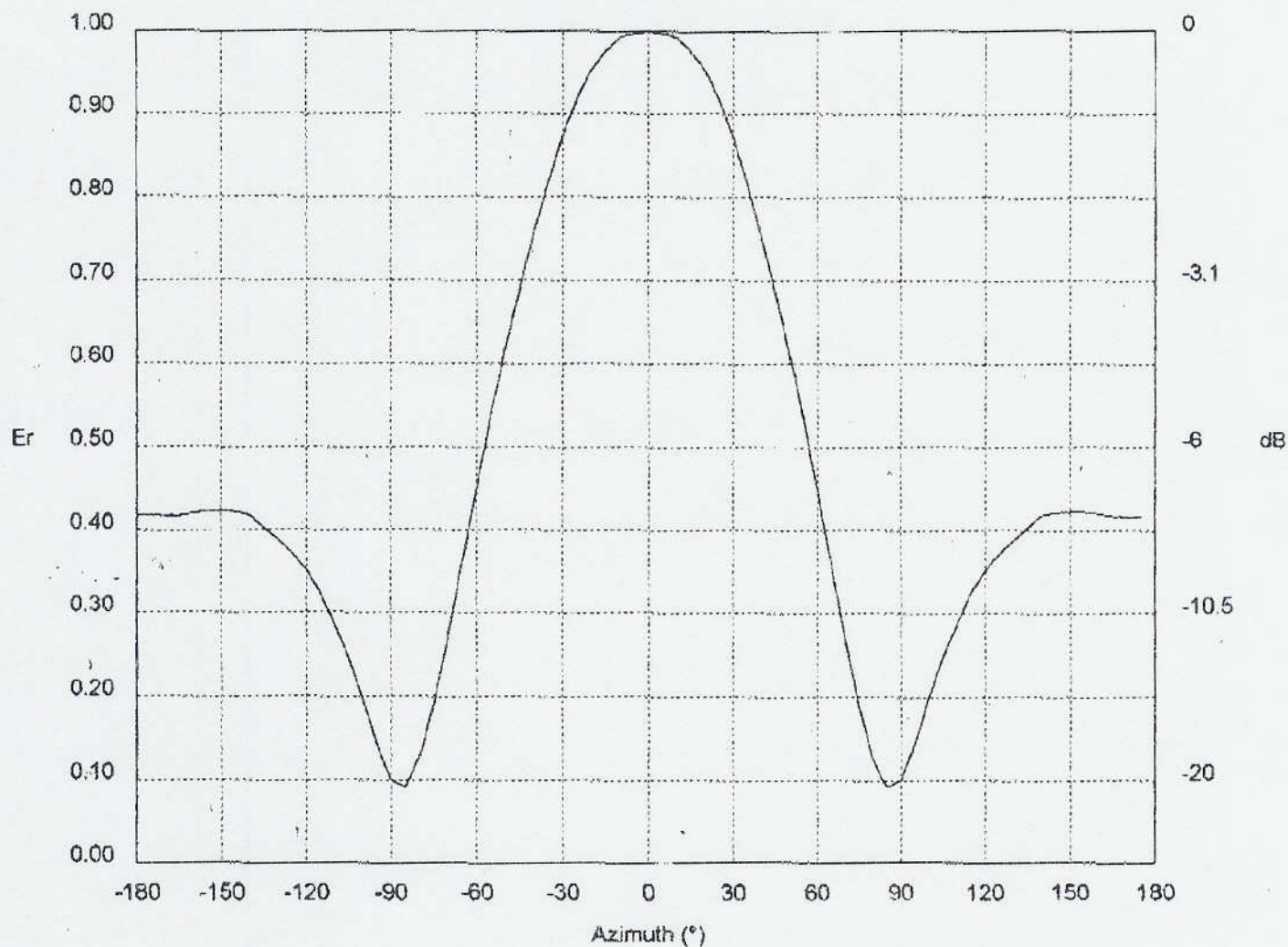


Manufacturer: NICOM LLC

Antenna model: BKG88

Frequency: 98 MHz

V amplitude



Gain (dB): -1.5

North E.C. (cm):

East E.C. (cm):

Return loss (dB): R.C. phase (°):

BKC 8Y



National City,

-180 0.417
 -175 0.418
 -170 0.418
 -165 0.418
 -160 0.421
 -155 0.423
 -150 0.423
 -145 0.422
 -140 0.418
 -135 0.402
 -130 0.388
 -125 0.371
 -120 0.351
 -115 0.324
 -110 0.286
 -105 0.247
 -100 0.197
 -95 0.143
 -90 0.100
 -85 0.090
 -80 0.127
 -75 0.191
 -70 0.272
 -65 0.360
 -60 0.448
 -55 0.536
 -50 0.615
 -45 0.689
 -40 0.756
 -35 0.817
 -30 0.873
 -25 0.917

-20 0.953
 -15 0.975
 -10 0.992
 -5 0.997
 0 1.000
 5 0.997
 10 0.992
 15 0.975
 20 0.953
 25 0.917
 30 0.873
 35 0.817
 40 0.756
 45 0.689
 50 0.615
 55 0.536
 60 0.448
 65 0.360
 70 0.272
 75 0.191
 80 0.127
 85 0.090
 90 0.100
 95 0.143
 100 0.197
 105 0.247
 110 0.286
 115 0.324
 120 0.351
 125 0.371
 130 0.388
 135 0.402
 140 0.418
 145 0.422
 150 0.423
 155 0.423
 160 0.421
 165 0.418
 170 0.418
 175 0.418

Adjacent Channel Study **For Station NEW, Facility_id: 151781**

Co-channel through third adjacent:

Application_id	Facility_id	Prefix	ARN	Call	Licensee	Class	City	State	Status	ERP	RCAMSL	Channel	Adj	Dist	Overlap
249041	1245	BLH	19970624KA	WKGR	CLEAR CHANNEL BROADCASTING LICENSES, INC	C1	FORT PIERCE	FL	LIC	100	299	254	2	67.4	0.0776
681931	151777	BNPFT	20030826ACQ	W252BC	RADIO ASSIST MINISTRY, INC.	D	PORT ST. LUCIE	FL	CP	0.01	149	252	0	37.8	0
680301	142447	BNPFT	20030829ATQ	W252BV	CENTRAL FLORIDA EDUCATIONAL FOUNDATION,	D	MELBOURNE	FL	CP	0.17	38	252	0	62.8	0
500756	79318	BLFT	20000602AFQ	W253AG	CENTRAL EDUCATIONAL BROADCASTING, INC.	D	COCOA	FL	LIC	0.17	35	253	1	84	0
249076	20436	BLH	19970625KA	WRMF	JAMES CRYSTAL LICENSES, L.L.C.	C	PALM BEACH	FL	LIC	100	132	250	2	96.9	0
971191	20436	BXPH	20030923AAE	WRMF	PBB LICENSES, LLC	C	PALM BEACH	FL	CP	100	267.7	250	2	114	0
80803	20436	BLH	19850806KQ	WRMF	JAMES CRYSTAL LICENSES, L.L.C.	C	PALM BEACH	FL	LIC	100	412	250	2	114.9	0

OSLO QUADRANGLE

FLORIDA

7.5 MINUTE SERIES (TOPOGRAPHIC)

4839 III NE
(ROMAR)

25' 558 VERO BEACH (JUNC. FLA. 60) 0.9 MI. VERO BEACH (JUNC. FLA. 60) 1 MI. 560 700 000 FEET 561 80°22'30" 27°37'30"

