

## **Non-Interference Compliance**

Regarding Facility id 151474

Channel 282

### **Description of Exhibit 13 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.

Page 4 includes a tabulation 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. The column labeled "Overlap" shows the area of contour overlap in square kilometers.

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-left corner (note: "Mt" refers to meters). The area of interference was calculated using the free space equation and 120 radials.

Page 7 of this exhibit is an aerial photo of the vicinity surrounding the proposed translator's tower site.

**Note: The tallest building within the zone of predicted interference is less than 20ft (6m) in height. This application provides 65.4m (214.6ft) of ground clearance, so 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.**

### 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
1105669	BLH20051227AGO	WTYB	83.9	83.9
1418786	BPH20110302ABO	WTYB	83.9	83.9
Minimum F(50,50) Contour of Adjacent Station within Proposed Translator's Standard Interfering Contour				<b>83.9</b>

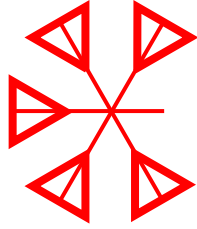
FCC 02-244 at Section II.A.5 states that "when demonstrating that 'no actual interference will occur due to . . . other factors,' pursuant to Section 74.1204(d), an applicant may use the undesired-to-desired signal ratio method." The undesired-to-desired ratio for second and third adjacent stations required by § 74.1204(a) is 40 dB. Since the minimum protected contour strength within the proposed translator's standard interference contour is **83.9 dBμ**, this makes the proposed translator's worst-case interfering contour **123.9 dBμ**. By the free-space equation, this contour is calculated to extend a maximum of **70.8 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 6 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 **65.4 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.

**Note: The tallest building within the zone of predicted interference is less than 20ft (6m) in height. This application provides 65.4m (214.6ft) of ground clearance, so 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:	TEL
Antenna Model:	ANT90D
CORAGL:	94 m
Maximum ERP:	0.25 kW
Interfering Contour:	123.9 dBμ
Max Int. Contour Distance:	70.8 m
Min Ground Clearance:	65.4 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)
5	.824	169.7	58.3	58.1	88.9
10	.813	165.2	57.6	56.7	84.0
15	.795	158.0	56.3	54.4	79.4
20	.772	149.0	54.6	51.4	75.3
25	.743	138.0	52.6	47.7	71.8
30	.708	125.3	50.1	43.4	68.9
35	.668	111.6	47.3	38.7	66.9
40	.623	97.0	44.1	33.8	65.7
45	.572	81.8	40.5	28.6	65.4
50	.517	66.8	36.6	23.5	66.0
55	.458	52.4	32.4	18.6	67.4
60	.396	39.2	28.0	14.0	69.7
65	.332	27.6	23.5	9.9	72.7
70	.266	17.7	18.8	6.4	76.3
75	.198	9.8	14.0	3.6	80.5
80	.131	4.3	9.3	1.6	84.9
85	.065	1.1	4.6	0.4	89.4
90	.000	0.0	0.0	0.0	94.0
Minimum Clearance above TGL:					<b>65.4 m</b>



# TELEWAVE, INC.



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Telewave ANT90D @ 3/8 spacing

Elevation	Relative	Elevation	Relative
Azimuth	Voltage	Azimuth	Voltage
0	0.829	185	0.610
5	0.824	190	0.600
10	0.813	195	0.584
15	0.795	200	0.564
20	0.772	205	0.539
25	0.743	210	0.511
30	0.708	215	0.481
35	0.668	220	0.450
40	0.623	225	0.417
45	0.572	230	0.382
50	0.517	235	0.346
55	0.458	240	0.307
60	0.396	245	0.265
65	0.332	250	0.220
70	0.266	255	0.171
75	0.198	260	0.117
80	0.131	265	0.061
85	0.065	270	0.000
90	0.000	275	0.064
95	0.063	280	0.130
100	0.122	285	0.198
105	0.179	290	0.267
110	0.231	295	0.335
115	0.279	300	0.403
120	0.324	305	0.468
125	0.364	310	0.530
130	0.400	315	0.588
135	0.434	320	0.640
140	0.465	325	0.687
145	0.493	330	0.727
150	0.520	335	0.761
155	0.545	340	0.788
160	0.568	345	0.808
165	0.586	350	0.822
170	0.601	355	0.829
175	0.610		
180	0.613		

# Adjacent Channel Study

## For Station W282AR, Facility\_id: 151474

### Co-channel through third adjacent:

Application_id	Facility_id	Prefix	ARN	Call	Licensee	Class	City	State	Status	ERP	RCAMSL	Channel	Adj	Dist	Overlap
1418786	14069	BPH	20110302ABO	WTYB	VOLT RADIO, LLC, AS TRUSTEE	C2	BLUFFTON	SC	CP	50	106	280	2	12.3	1.4918
1155686	14069	BXLH	20061020ACS	WTYB	VOLT RADIO, LLC, AS TRUSTEE	C2	TYBEE ISLAND	GA	LIC	15	106	280	2	12.3	1.4918
1105669	14069	BLH	20051227AGO	WTYB	VOLT RADIO, LLC, AS TRUSTEE	C2	TYBEE ISLAND	GA	LIC	50	106	280	2	12.3	1.4918
1419645	14069	Null	Null	WTYB	VOLT RADIO, LLC, AS TRUSTEE	C2	BLUFFTON	SC	USE	0	0	280	2	28.8	1.4918
289402	40705	Null	Null	WLHH	LOW COUNTRY RADIO, LLC	C3	RIDGELAND	SC	USE	0	0	285	3	47.1	1.4918
200700	40705	BLH	19940705KC	WLHH	LOW COUNTRY RADIO, LLC	C3	RIDGELAND	SC	LIC	16	128	285	3	47.1	0
298321	7816	Null	Null	WTHG	WRGO-FM RADIO LLC D/B/A SAVANNAH RADIO	C3	HINESVILLE	GA	USE	0	0	284	2	58.7	0
192875	7816	BLH	19931210KC	WTHG	WRGO-FM RADIO LLC D/B/A SAVANNAH RADIO	C3	HINESVILLE	GA	LIC	12	165	284	2	60.4	0
1180811	151458	BLFT	20070409AAA	W279AR	EDGEWATER BROADCASTING, INC.	D	JESUP	GA	LIC	0.005	41	279	3	86	0
299952	73932	Null	Null	WRBX	WILLIAM KEITH REGISTER	A	REIDSVILLE	GA	USE	0	0	281	1	89.7	0
300214	96589	Null	Null	Null		A	METTER	GA	USE	0	0	279	3	92.1	0
289461	73247	BLH	7748	WBMZ	WM. JIMMY PAGE, TR/AS RADIO METTER	A	METTER	GA	LIC	3	160	285	3	92.5	0
204164	73247	BMLH	19941118KF	WBMZ	WM. JIMMY PAGE, TR/AS RADIO METTER	A	METTER	GA	APP	6	160	279	3	92.5	0
285872	73932	BLH	19990603KI	WRBX	WILLIAM KEITH REGISTER	A	REIDSVILLE	GA	LIC	4.9	158	281	1	92.7	0
200765	472	BLH	19940706KB	WRJY	GOLDEN ISLES BROADCASTING, LLC	A	BRUNSWICK	GA	LIC	4.2	120	281	1	101.4	0
1316072	151451	BLFT	20090603AFY	W279BC	EDGEWATER BROADCASTING, INC.	D	BRUNSWICK	GA	LIC	0.08	54	279	3	101.7	0
291341	472	Null	Null	WRJY	GOLDEN ISLES BROADCASTING, LLC	A	BRUNSWICK	GA	USE	0	0	281	1	104.4	0
1410985	151451	BMPFT	20101108AAU	W279BC	EDGEWATER BROADCASTING, INC.	D	BRUNSWICK	GA	CP MOD	0.25	82	279	3	106.5	0

### Intermediate Frequencies (53 and 54 channels difference):

Application_id	Facility_id	Prefix	ARN	Call	Licensee	Class	City	State	Status	ERP	RCAMSL	Channel	Adj	Dist	Clr
1436386	153405	BLFT	20110720ADR	W228CI	MONTEREY LICENSES, LLC	D	HILTON HEAD ISLAND	SC	LIC	0.25	113	228	54	33.8	23.8
1460018	145113	BLFT	20111108ANJ	W229AJ	RADIO ASSIST MINISTRY, INC.	D	PEMBROKE	GA	LIC	0.25	37	229	53	54.8	44.8
1480261	145113	BPFT	20111214AHV	W229AJ	RADIO ASSIST MINISTRY, INC.	D	PEMBROKE	GA	CP	0.25	128	229	53	72.2	62.2
567080	0	RM	10365	Null		C3	ST. SIMONS ISLAND	GA	VAC	0	0	229	53	95.9	83.9









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