

Non-Interference Compliance

Regarding Facility id 151393

Channel 281

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.

Pages 4 through 6 include 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 an aerial photo of the vicinity surrounding the proposed translator's tower site.

Note: The tallest structure within the zone of predicted interference is 15ft (4.6m) in height. This proposal provides 6.2m (20.3ft) 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
1538041	BMLH20130124ABI	WOKV-FM	82.9	82.9
Minimum F(50,50) Contour of Adjacent Station within Proposed Translator's Standard Interfering Contour				82.9

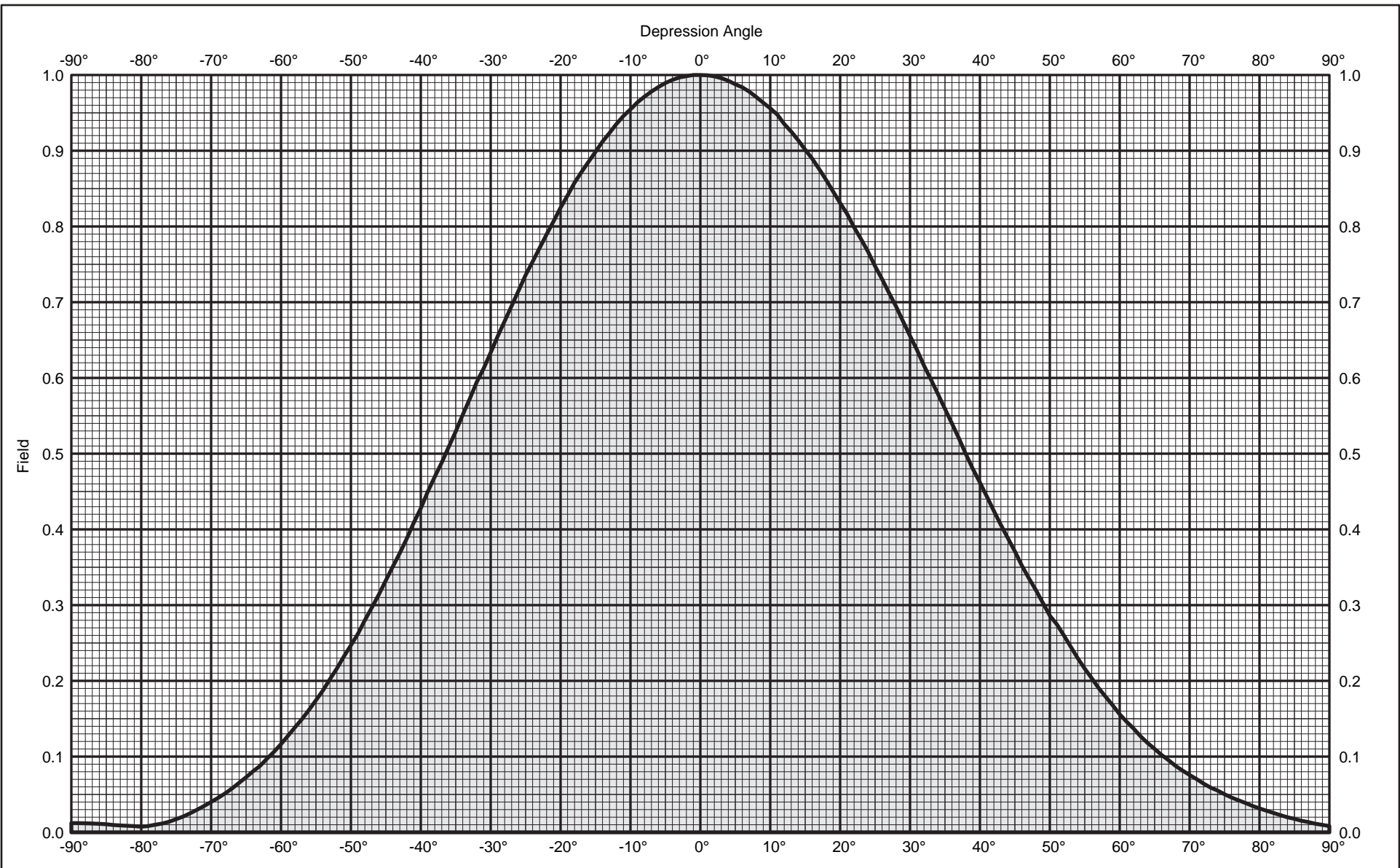
FCC 02-244 at Section II.A.5 states that "when demonstrating that 'no actual interference will occur due to . . . other factors,' pursuant to Section 74.1204(d), an applicant may use the undesired-to-desired signal ratio method." The undesired-to-desired ratio for second and third adjacent stations required by § 74.1204(a) is 40 dB. Since the minimum protected contour strength within the proposed translator's standard interference contour is **82.9 dBμ**, this makes the proposed translator's worst-case interfering contour **122.9 dBμ**. By the free-space equation, this contour is calculated to extend a maximum of **79.4 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 **6.2 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.

Note: The tallest structure within the zone of predicted interference is 15ft (4.6m) in height. This proposal provides 6.2m (20.3ft) 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:	SCA
Antenna Model:	YA7-Composite
CORAGL:	41 m
Maximum ERP:	0.25 kW
Interfering Contour:	122.9 dBμ
Max Int. Contour Distance:	79.4 m
Min Ground Clearance:	6.2 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)
5	.990	245.0	78.6	78.3	34.1
10	.980	240.1	77.8	76.7	27.5
15	.950	225.6	75.5	72.9	21.5
20	.920	211.6	73.1	68.7	16.0
25	.870	189.2	69.1	62.6	11.8
30	.820	168.1	65.1	56.4	8.4
35	.760	144.4	60.4	49.4	6.4
40	.610	93.0	48.5	37.1	9.9
45	.620	96.1	49.2	34.8	6.2
50	.540	72.9	42.9	27.6	8.1
55	.470	55.2	37.3	21.4	10.4
60	.390	38.0	31.0	15.5	14.2
65	.300	22.5	23.8	10.1	19.4
70	.190	9.0	15.1	5.2	26.8
75	.110	3.0	8.7	2.3	32.6
80	.050	0.6	4.0	0.7	37.1
85	.030	0.2	2.4	0.2	38.6
90	.030	0.2	2.4	0.0	38.6
Minimum Clearance above TGL:					6.2 m



Vertical radiation pattern



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YA7-FML Yagi
FM
7.0 dBd (9.15 dBi)
Vertical polarization



YA7-FML Yagi

Vertical radiation pattern

FM

7.0 dBd (9.15 dBi)

Vertical polarization

Angle	Field	Rel.dB	dBd	PwrMult	Angle	Field	Rel.dB	dBd	PwrMult
-90	0.012	-38.31	-31.31	0.00	-45	0.333	-9.56	-2.56	0.55
-89	0.012	-38.31	-31.31	0.00	-44	0.351	-9.09	-2.09	0.62
-88	0.012	-38.47	-31.47	0.00	-43	0.369	-8.67	-1.67	0.68
-87	0.012	-38.70	-31.70	0.00	-42	0.388	-8.22	-1.22	0.75
-86	0.011	-39.01	-32.01	0.00	-41	0.409	-7.77	-0.77	0.84
-85	0.011	-39.43	-32.43	0.00	-40	0.428	-7.38	-0.38	0.92
-84	0.010	-40.00	-33.00	0.00	-39	0.450	-6.94	0.06	1.01
-83	0.010	-40.00	-33.00	0.00	-38	0.470	-6.57	0.43	1.11
-82	0.010	-40.00	-33.00	0.00	-37	0.488	-6.22	0.78	1.20
-81	0.010	-40.00	-33.00	0.00	-36	0.509	-5.87	1.13	1.30
-80	0.010	-40.00	-33.00	0.00	-35	0.529	-5.53	1.47	1.40
-79	0.010	-40.00	-33.00	0.00	-34	0.551	-5.17	1.83	1.52
-78	0.010	-39.98	-32.98	0.00	-33	0.572	-4.85	2.15	1.64
-77	0.012	-38.72	-31.72	0.00	-32	0.594	-4.52	2.48	1.77
-76	0.014	-37.06	-30.06	0.00	-31	0.613	-4.26	2.74	1.88
-75	0.017	-35.20	-28.20	0.00	-30	0.633	-3.97	3.03	2.01
-74	0.021	-33.62	-26.62	0.00	-29	0.655	-3.68	3.32	2.15
-73	0.025	-31.99	-24.99	0.00	-28	0.675	-3.41	3.59	2.28
-72	0.030	-30.50	-23.50	0.00	-27	0.695	-3.16	3.84	2.42
-71	0.035	-29.16	-22.16	0.01	-26	0.716	-2.91	4.09	2.57
-70	0.040	-27.94	-20.94	0.01	-25	0.736	-2.66	4.34	2.71
-69	0.046	-26.84	-19.84	0.01	-24	0.754	-2.46	4.54	2.85
-68	0.051	-25.78	-18.78	0.01	-23	0.772	-2.25	4.75	2.98
-67	0.058	-24.74	-17.74	0.02	-22	0.790	-2.05	4.95	3.12
-66	0.065	-23.70	-16.70	0.02	-21	0.807	-1.86	5.14	3.26
-65	0.073	-22.77	-15.77	0.03	-20	0.825	-1.67	5.33	3.41
-64	0.081	-21.87	-14.87	0.03	-19	0.841	-1.50	5.50	3.54
-63	0.088	-21.14	-14.14	0.04	-18	0.858	-1.33	5.67	3.69
-62	0.097	-20.24	-13.24	0.05	-17	0.872	-1.19	5.81	3.81
-61	0.106	-19.46	-12.46	0.06	-16	0.885	-1.06	5.94	3.93
-60	0.117	-18.67	-11.67	0.07	-15	0.899	-0.93	6.07	4.05
-59	0.127	-17.89	-10.89	0.08	-14	0.912	-0.80	6.20	4.17
-58	0.139	-17.16	-10.16	0.10	-13	0.923	-0.69	6.31	4.27
-57	0.150	-16.51	-9.51	0.11	-12	0.935	-0.58	6.42	4.39
-56	0.162	-15.83	-8.83	0.13	-11	0.946	-0.48	6.52	4.48
-55	0.174	-15.17	-8.17	0.15	-10	0.955	-0.40	6.60	4.57
-54	0.187	-14.55	-7.55	0.18	-9	0.964	-0.32	6.68	4.66
-53	0.202	-13.88	-6.88	0.21	-8	0.971	-0.25	6.75	4.73
-52	0.216	-13.29	-6.29	0.23	-7	0.978	-0.19	6.81	4.79
-51	0.232	-12.68	-5.68	0.27	-6	0.984	-0.14	6.86	4.85
-50	0.247	-12.15	-5.15	0.31	-5	0.989	-0.09	6.91	4.91
-49	0.262	-11.63	-4.63	0.34	-4	0.994	-0.06	6.94	4.95
-48	0.280	-11.05	-4.05	0.39	-3	0.997	-0.03	6.97	4.98
-47	0.297	-10.55	-3.55	0.44	-2	0.998	-0.01	6.99	5.00
-46	0.314	-10.06	-3.06	0.49	-1	1.000	0.00	7.00	5.01
					0	1.000	-0.00	7.00	5.01



YA7-FML Yagi

Vertical radiation pattern

FM

7.0 dBd (9.15 dBi)

Vertical polarization

Angle	Field	Rel.dB	dBd	PwrMult	Angle	Field	Rel.dB	dBd	PwrMult
0	1.000	-0.00	7.00	5.01	45	0.371	-8.61	-1.61	0.69
1	1.000	-0.00	7.00	5.01	46	0.352	-9.06	-2.06	0.62
2	0.998	-0.02	6.98	4.99	47	0.336	-9.48	-2.48	0.56
3	0.996	-0.04	6.96	4.97	48	0.320	-9.90	-2.90	0.51
4	0.992	-0.07	6.93	4.94	49	0.303	-10.37	-3.37	0.46
5	0.988	-0.11	6.89	4.89	50	0.286	-10.87	-3.87	0.41
6	0.984	-0.14	6.86	4.85	51	0.275	-11.22	-4.22	0.38
7	0.978	-0.19	6.81	4.79	52	0.260	-11.69	-4.69	0.34
8	0.971	-0.26	6.74	4.72	53	0.245	-12.22	-5.22	0.30
9	0.963	-0.32	6.68	4.65	54	0.230	-12.77	-5.77	0.26
10	0.956	-0.39	6.61	4.58	55	0.216	-13.31	-6.31	0.23
11	0.948	-0.47	6.53	4.50	56	0.203	-13.83	-6.83	0.21
12	0.935	-0.58	6.42	4.38	57	0.190	-14.41	-7.41	0.18
13	0.925	-0.67	6.33	4.29	58	0.179	-14.95	-7.95	0.16
14	0.914	-0.78	6.22	4.19	59	0.168	-15.51	-8.51	0.14
15	0.901	-0.90	6.10	4.07	60	0.156	-16.15	-9.15	0.12
16	0.890	-1.02	5.98	3.97	61	0.146	-16.72	-9.72	0.11
17	0.876	-1.15	5.85	3.84	62	0.137	-17.27	-10.27	0.09
18	0.861	-1.30	5.70	3.72	63	0.127	-17.95	-10.95	0.08
19	0.846	-1.45	5.55	3.59	64	0.118	-18.57	-11.57	0.07
20	0.831	-1.61	5.39	3.46	65	0.110	-19.16	-12.16	0.06
21	0.817	-1.76	5.24	3.34	66	0.102	-19.82	-12.82	0.05
22	0.799	-1.95	5.05	3.20	67	0.095	-20.43	-13.43	0.05
23	0.783	-2.12	4.88	3.07	68	0.088	-21.15	-14.15	0.04
24	0.767	-2.31	4.69	2.94	69	0.082	-21.78	-14.78	0.03
25	0.747	-2.53	4.47	2.80	70	0.076	-22.42	-15.42	0.03
26	0.730	-2.73	4.27	2.67	71	0.070	-23.06	-16.06	0.02
27	0.712	-2.95	4.05	2.54	72	0.064	-23.83	-16.83	0.02
28	0.694	-3.17	3.83	2.42	73	0.059	-24.57	-17.57	0.02
29	0.675	-3.42	3.58	2.28	74	0.055	-25.17	-18.17	0.02
30	0.656	-3.67	3.33	2.15	75	0.050	-25.97	-18.97	0.01
31	0.637	-3.92	3.08	2.03	76	0.046	-26.76	-19.76	0.01
32	0.616	-4.21	2.79	1.90	77	0.042	-27.47	-20.47	0.01
33	0.598	-4.47	2.53	1.79	78	0.039	-28.25	-21.25	0.01
34	0.579	-4.75	2.25	1.68	79	0.035	-29.15	-22.15	0.01
35	0.559	-5.05	1.95	1.57	80	0.032	-30.02	-23.02	0.00
36	0.540	-5.36	1.64	1.46	81	0.029	-30.90	-23.90	0.00
37	0.520	-5.68	1.32	1.36	82	0.026	-31.82	-24.82	0.00
38	0.499	-6.03	0.97	1.25	83	0.023	-32.89	-25.89	0.00
39	0.480	-6.38	0.62	1.15	84	0.020	-34.03	-27.03	0.00
40	0.462	-6.71	0.29	1.07	85	0.018	-34.97	-27.97	0.00
41	0.443	-7.07	-0.07	0.98	86	0.015	-36.31	-29.31	0.00
42	0.424	-7.45	-0.45	0.90	87	0.013	-37.40	-30.40	0.00
43	0.406	-7.83	-0.83	0.83	88	0.011	-38.91	-31.91	0.00
44	0.388	-8.21	-1.21	0.76	89	0.010	-40.00	-33.00	0.00
					90	0.010	-40.00	-33.00	0.00

Adjacent Channel Study **For Station W278BD, Facility_id: 151393**

Co-channel through third adjacent:

App_id	Fac_id	File_Number	Call	Licensee	Class	City	State	Status	ERP	RCAMSL	Char	Adj	Dist	Overlap
1725422	194268	BNPL-20131112BDZ	NEW	SOUTH JACKSONVILLE COMMUN	L1	JACKSONVILLE	FL	CP	0	98	281	0	30	27.0171
1538041	72081	BMLH-20130124ABI	WOKV-FM	COX RADIO, INC.	C	ATLANTIC BEACH	FL	LIC	98.8	315	283	2	27	0.4552
1739083	194536	BNPL-20131112BHO	NEW	NORTH JACKSONVILLE COMMUN	L1	JACKSONVILLE	FL	APP	0	72	281	0	16.9	0
1432304	76224	BLFT-20110622AAG	W279AG	NEW COVENANT MINISTRIES, IN	D	ATLANTIC BEACH	FL	LIC	0.25	284	279	2	26.4	0
1675757	194071	BMPL-20150424AAZ	WSFY-LP	FIRST COAST CATHOLIC RADIO,	L1	FERNANDINA BEACH	FL	CP MOD	0	16.7	280	1	46.1	0
1724886	151917	BLFT-20160413AEE	W280EY	WSOS RADIO LLC	D	ST. AUGUSTINE	FL	LIC	0.24	125	280	1	61.9	0
81156	66575	BLH-19850820KL	WRUF-FM	THE UNIVERSITY OF FLORIDA	C1	GAINESVILLE	FL	LIC	100	275	279	2	85.8	0
1715106	66575	BSTA-20160104AMQ	WRUF-FM	THE UNIVERSITY OF FLORIDA	C1	GAINESVILLE	FL	APP	0.523	140.2	279	2	93.1	0

Intermediate Frequencies (53 and 54 channels difference):

App_id	Fac_id	File_Number	Call	Licensee	Class	City	State	Status	ERP	RCAMSL	Channel	Adj	Dist	Clr
1503682	51975	BLH-20120611ABK	WJBT	CLEAR CHANNEL BROADCASTING	C1	CALLAHAN	FL	LIC	98	308	227	54	26.4	4.4

