

Non-Interference Compliance

Regarding Facility id 195423

Channel 266

Description of Exhibit 11 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. § 73.807.

Let it be noted that should any actual real world interference occur, the applicant acknowledges that it will promptly suspend operation of this LP-FM in accordance with 47 C.F.R. § 73.807(e)(1)(ii).

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. § 73.807(e)(1), 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 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 LP-FM. 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 LP-FM. 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 LP-FM's tower site.

Note: The tallest building within the zone of predicted interference is 20ft (6.1m). This application provides 6.7 m (22ft) 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. § 73.807(e)(1).

Compliance with 47 C.F.R. § 73.807(e)(1)

All authorized second adjacent stations with which the proposed LP-FM has contour overlap are tabulated below. Column four show the station's signal level at the proposed LP-FM's tower site, and column five gives the minimum value within the entire standard interfering contour of the proposed LP-FM (100 dBμ for most classes, 94 for class B, 97 for class B1). The minimum second adjacent F(50,50) contour within the proposed LP-FM's standard interfering contour was used to calculate the proposed LP-FM's actual "worst-case" interfering contour.

Application_id	File Number	Callsign	Contour at Tower	Min. Contour
130752	BLH19890711KC	WUSY	89.9	89.8
1563096	BPFT20130709ACF	W268AA	61.4	61.4
Minimum F(50,50) Contour of Adjacent Station within Proposed Translator's Standard Interfering Contour				61.4

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 73.807(e)(1) an applicant may use the undesired-to-desired signal ratio methodology...." The undesired-to-desired ratio for second adjacent stations required by § 73.807 is 40 dBμ. Since the minimum protected contour strength within the proposed translator's standard interference contour is **61.4 dBμ**, this makes the proposed LP-FM's worst-case interfering contour **101.4 dBμ**. By the free-space equation, this contour is calculated to extend a maximum of **59.7 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 LP-FM'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 LP-FM's interference contour has been tabulated. As shown on the following page, the area of interference clears the tower ground level (TGL) by **6.7 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 20ft (6.1m). This application provides 6.7 m (22ft) 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. § 73.807(e)(1).

Antenna Manufacturer:	PSI
Antenna Model:	FML-2(.75)
CORAGL:	20 m
Maximum ERP:	0.001 kW
Interfering Contour:	101.4 dBμ
Max Int. Contour Distance:	59.7 m
Min Ground Clearance:	6.7 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	.975	1.0	58.2	58.0	14.9
10	.903	0.8	53.9	53.1	10.6
15	.792	0.6	47.3	45.7	7.8
20	.650	0.4	38.8	36.5	6.7
25	.493	0.2	29.4	26.7	7.6
30	.331	0.1	19.8	17.1	10.1
35	.178	0.0	10.6	8.7	13.9
40	.043	0.0	2.6	2.0	18.3
45	.068	0.0	4.1	2.9	17.1
50	.149	0.0	8.9	5.7	13.2
55	.202	0.0	12.1	6.9	10.1
60	.227	0.1	13.6	6.8	8.3
65	.226	0.1	13.5	5.7	7.8
70	.205	0.0	12.2	4.2	8.5
75	.168	0.0	10.0	2.6	10.3
80	.118	0.0	7.0	1.2	13.1
85	.061	0.0	3.6	0.3	16.4
90	.001	0.0	0.1	0.0	19.9
Minimum Clearance above TGL:					6.7 m

Propagation Systems Inc.

Elevation Pattern Tabulation

Antenna: PSIFML-2 Special

Bay spacing: 3/4 wave

Angle	Field	dB	Angle	Field	dB	Angle	Field	dB
-90.00	0.001	-60.000	-50.00	0.149	-16.513	-10.00	0.903	-0.883
-89.00	0.012	-38.221	-49.00	0.135	-17.364	-9.00	0.921	-0.713
-88.00	0.025	-32.201	-48.00	0.120	-18.405	-8.00	0.937	-0.561
-87.00	0.037	-28.679	-47.00	0.104	-19.677	-7.00	0.952	-0.429
-86.00	0.049	-26.207	-46.00	0.086	-21.289	-6.00	0.964	-0.315
-85.00	0.061	-24.285	-45.00	0.068	-23.404	-5.00	0.975	-0.219
-84.00	0.073	-22.748	-44.00	0.048	-26.425	-4.00	0.984	-0.139
-83.00	0.085	-21.443	-43.00	0.027	-31.481	-3.00	0.991	-0.079
-82.00	0.096	-20.349	-42.00	0.005	-46.848	-2.00	0.996	-0.036
-81.00	0.107	-19.378	-41.00	0.018	-34.664	-1.00	0.999	-0.009
-80.00	0.118	-18.538	-40.00	0.043	-27.417	0.00	1.000	0.000
-79.00	0.129	-17.792	-39.00	0.068	-23.365	1.00	0.999	-0.009
-78.00	0.139	-17.125	-38.00	0.094	-20.529	2.00	0.996	-0.036
-77.00	0.149	-16.522	-37.00	0.121	-18.329	3.00	0.991	-0.079
-76.00	0.159	-15.984	-36.00	0.149	-16.531	4.00	0.984	-0.139
-75.00	0.168	-15.508	-35.00	0.178	-14.998	5.00	0.975	-0.219
-74.00	0.176	-15.072	-34.00	0.207	-13.669	6.00	0.964	-0.315
-73.00	0.184	-14.685	-33.00	0.237	-12.489	7.00	0.952	-0.429
-72.00	0.192	-14.335	-32.00	0.268	-11.431	8.00	0.937	-0.561
-71.00	0.199	-14.026	-31.00	0.299	-10.475	9.00	0.921	-0.713
-70.00	0.205	-13.752	-30.00	0.331	-9.602	10.00	0.903	-0.882
-69.00	0.211	-13.518	-29.00	0.363	-8.801	11.00	0.884	-1.072
-68.00	0.216	-13.315	-28.00	0.395	-8.061	12.00	0.863	-1.279
-67.00	0.220	-13.146	-27.00	0.428	-7.377	13.00	0.841	-1.508
-66.00	0.224	-13.009	-26.00	0.460	-6.742	14.00	0.817	-1.757
-65.00	0.226	-12.904	-25.00	0.493	-6.151	15.00	0.792	-2.029
-64.00	0.228	-12.834	-24.00	0.525	-5.599	16.00	0.765	-2.322
-63.00	0.229	-12.800	-23.00	0.557	-5.083	17.00	0.738	-2.639
-62.00	0.229	-12.794	-22.00	0.589	-4.603	18.00	0.710	-2.979
-61.00	0.228	-12.829	-21.00	0.620	-4.154	19.00	0.680	-3.344
-60.00	0.227	-12.898	-20.00	0.650	-3.736	20.00	0.650	-3.736
-59.00	0.224	-13.009	-19.00	0.680	-3.344	21.00	0.620	-4.154
-58.00	0.220	-13.158	-18.00	0.710	-2.979	22.00	0.589	-4.603
-57.00	0.215	-13.351	-17.00	0.738	-2.639	23.00	0.557	-5.083
-56.00	0.209	-13.600	-16.00	0.765	-2.323	24.00	0.525	-5.599
-55.00	0.202	-13.894	-15.00	0.792	-2.029	25.00	0.493	-6.151
-54.00	0.194	-14.260	-14.00	0.817	-1.759	26.00	0.460	-6.742
-53.00	0.184	-14.685	-13.00	0.840	-1.510	27.00	0.428	-7.377
-52.00	0.174	-15.192	-12.00	0.863	-1.281	28.00	0.395	-8.061
-51.00	0.162	-15.795	-11.00	0.884	-1.072	29.00	0.363	-8.801
						30.00	0.331	-9.602

Adjacent Channel Study
For Station Proposed, Facility_id: 195423

Co-channel through third adjacent:

App_id	Fac_id	File_Number	Call	Licensee	Class	City	State	Status	ERP	RCAMSL	Chan	Adj	Dist	Overlap
130752	12315	BLH-19890711KC	WUSY	CAPSTAR TX LLC	C0	CLEVELAND	TN	LIC	100	764	264	2	22.5	7206.5
1563096	58442	BPFT-20130709ACF	W268AA	EDGEWATER BROADCASTING INC.	D	FALLING WATER	TN	APP	0.25	644	268	2	22.8	431.942
1417920	58442	BPFT-20110214AEV	W268AA	EDGEWATER BROADCASTING INC.	D	FALLING WATER	TN	CP	0.008	644	268	2	22.8	0
215958	58442	BLFT-19951102TW	W268AA	EDGEWATER BROADCASTING INC.	D	FALLING WATER	TN	LIC	0.008	652	268	2	22.8	0
1491910	140992	BLFT-20120315ADU	W267BI	HARTLINE, LLC	D	CLEVELAND	TN	LIC	0.25	368	267	1	48.9	0
1057135	33780	BLH-20050408ACH	WMXN-FM	KEA RADIO, INC.	A	STEVENSON	AL	LIC	2.3	563	269	3	55.3	0
1264793	145732	BLFT-20080902AEG	W269CC	CHEROKEE BROADCASTING COMPANY	D	ADAIRSVILLE	GA	LIC	0.163	311	269	3	73.5	0
1444694	36892	BLH-20110926AGV	WLJA-FM	TRI-STATE COMMUNICATIONS, INC.	C3	ELLIJAY	GA	LIC	19	586	266	0	82.4	0
1553755	52436	BPH-20130521AFC	WFTZ	PHASE TWO COMMUNICATIONS, INC.	A	MANCHESTER	TN	CP	5.7	417	268	2	84.6	0
178990	52436	BLH-19921123KC	WFTZ	PHASE TWO COMMUNICATIONS, INC.	A	MANCHESTER	TN	LIC	3	409	268	2	84.6	0
163893	29951	BLH-19910813KB	WJSQ	RANDALL W. SLIGER	C3	ATHENS	TN	LIC	7.5	466	269	3	98.5	0

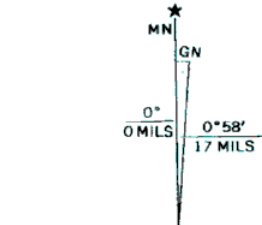
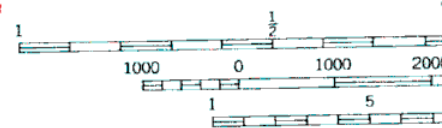


Facility id: 195423;
Area of Interference;

and edited by Tennessee Valley Authority
by the Geological Survey
by NOS/NOAA, USGS, CE, and TVA
by TVA in 1968 by photogrammetric methods using
photographs taken 1968 and by reference to TVA-USGS
single dated 1958. Map field checked by TVA, 1969
c projection. 1927 North American datum
root grid based on Tennessee rectangular
te system
etre Universal Transverse Mercator Grid ticks,
, shown in blue
dashed lines indicate selected fence and field lines
n aerial photographs. This information is unchecked
indicates areas in which only landmark buildings are shown

LOOKOUT MTN. TENN. 1.0 MI.
17 MI. TO GEORGIA 143

LOOKOUT MTN. GA. 2.7 MI.
18 MI. TO GEORGIA 143



UTM GRID AND 1976 MAGNETIC NORTH
DECLINATION AT CENTER OF SHEET

Revisions shown in purple and recompilation of woodland
areas compiled by the Tennessee Valley Authority from aerial
photographs taken 1976 This information not field checked

Purple tint indicates extension of urban areas

CONT
DASHED LINES RE
NATIONAL GEO
THIS MAP COMPLIES W
FOR SALE BY U.S. GEOLO
TENNESSEE DIVISION
U.S. TENNESSEE VALLEY AUTHORITY, C
A FOLDER DESCRIBING TOPOGRA

