

[Exhibit 12]

Non-Interference Compliance

Regarding Facility id 150872

Channel 278

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.

Page 4 includes a plot and 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.

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 dB μ 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
1044478	BLH20050208ABO	WNPT-FM	65.5	65.4
Minimum F(50,50) Contour of Adjacent Station within Proposed Translator's Standard Interfering Contour				65.4

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 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 **65.4 dB μ** , this makes the proposed translator's worst-case interfering contour **105.4 dB μ** . By the free-space equation, this contour is calculated to extend a maximum of **135.8 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 **30.7 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. 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: BKG77
CORAGL: 91 m
Maximum ERP: 0.013 kW
Interfering Contour: 105.4 dB μ
Max Int. Contour Distance: 135.8 m
Min Ground Clearance: 30.7 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	.999	13.0	135.7	135.2	79.2
10	.982	12.5	133.4	131.4	67.8
15	.954	11.8	129.6	125.2	57.5
20	.918	11.0	124.7	117.2	48.4
25	.871	9.9	118.3	107.2	41.0
30	.818	8.7	111.1	96.2	35.4
35	.758	7.5	103.0	84.3	31.9
40	.691	6.2	93.9	71.9	30.7
45	.616	4.9	83.7	59.2	31.8
50	.538	3.8	73.1	47.0	35.0
55	.465	2.8	63.2	36.2	39.3
60	.391	2.0	53.1	26.6	45.0
65	.313	1.3	42.5	18.0	52.5
70	.239	0.7	32.5	11.1	60.5
75	.176	0.4	23.9	6.2	67.9
80	.128	0.2	17.4	3.0	73.9
85	.103	0.1	14.0	1.2	77.1
90	.105	0.1	14.3	0.0	76.7
Minimum Clearance above TGL:					30.7 m



BKO77

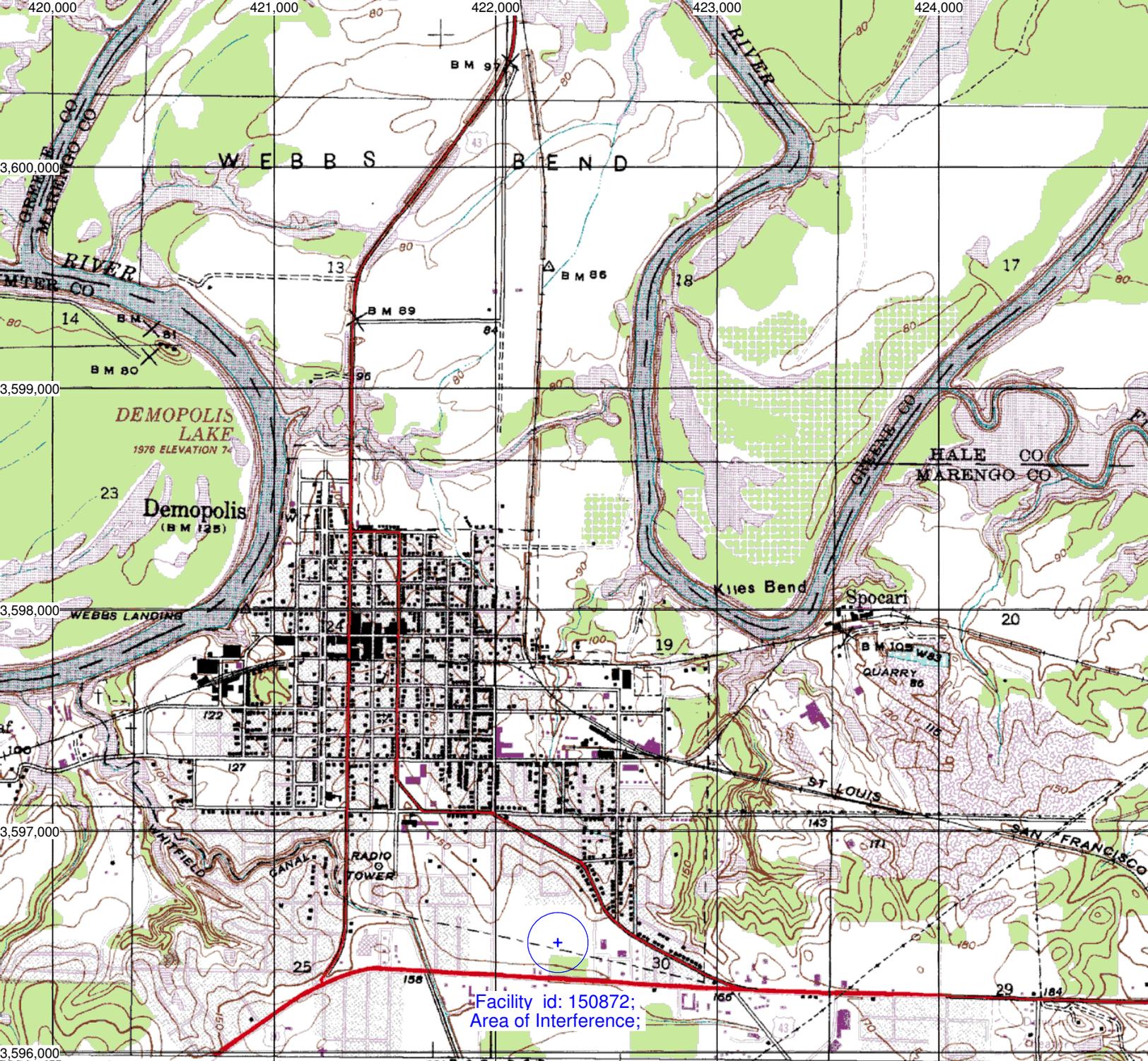
Vertical Values					
	-66	0.297	54	0.479	174 0.468
	-63	0.345	57	0.436	177 0.479
	-60	0.391	60	0.391	
	-57	0.436	63	0.345	
	-54	0.479	66	0.297	
	-51	0.523	69	0.253	
	-48	0.568	72	0.211	
	-45	0.616	75	0.176	
	-42	0.661	78	0.145	
	-39	0.706	81	0.120	
	-36	0.745	84	0.105	
	-33	0.783	87	0.100	
	-30	0.818	90	0.105	
	-27	0.852	93	0.118	
	-24	0.881	96	0.134	
	-21	0.910	99	0.151	
	-18	0.934	102	0.168	
	-15	0.954	105	0.185	
	-12	0.972	108	0.202	
	-9	0.987	111	0.219	
	-6	0.999	114	0.236	
	-3	0.999	117	0.252	
	0	1.000	120	0.265	
	3	0.999	123	0.278	
	6	0.999	126	0.290	
	9	0.987	129	0.304	
	12	0.972	132	0.314	
	15	0.954	135	0.327	
	18	0.934	138	0.338	
	21	0.910	141	0.350	
	24	0.881	144	0.360	
	27	0.852	147	0.370	
	30	0.818	150	0.386	
	33	0.783	153	0.403	
	36	0.745	156	0.420	
	39	0.706	159	0.430	
	42	0.661	162	0.440	
	45	0.616	165	0.448	
	48	0.568	168	0.455	
	51	0.523	171	0.461	

Better than SWR

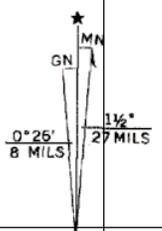
**Adjacent Channel Study
For Station W278AQ, Facility_id: 150872**

Co-channel through third adjacent:

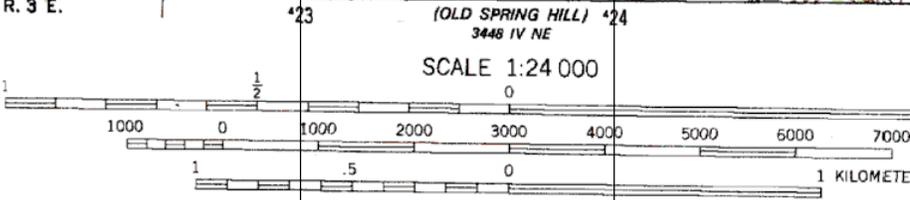
Application_id	Facility_id	Prefix	ARN	Call	Licensee	Class	City	State	Status	ERP	RCAMSL	Channel	Adj	Dist	Overlap
1044478	37721	BLH	20050208ABO	WNPT-FM	JOHN SISTY ENTERPRISES, INC.	C2	MARION	AL	LIC	29	277	275	3	44	0.0776
683848	150813	BNPFT	20030825APA	W278AY	EDGEWATER BROADCASTING, INC.	D	ALICEVILLE	AL	CP	0.004	231	278	0	70.6	0
681941	150869	BNPFT	20030826ACF	W280DI	EDGEWATER BROADCASTING, INC.	D	SELMA	AL	CP	0.013	151	280	2	77	0
978497	135463	BNPL	20010615AQU	WTCC-LP	TUSCALOOSA CHINESE MINISTRY ASSOCIATION	L1	TUSCALOOSA	AL	CP	0	161	277	1	78.5	0
1122062	134739	BLL	20060327AJW	WTUS-LP	CITY OF TUSCALOOSA TRAVEL AND CONVENTIC	L1	TUSCALOOSA	AL	LIC	0	121	277	1	78.5	0
709496	133695	BNPL	20010613ADZ	WUAC-LP	CRUCIFEST MINISTRIES	L1	TUSCALOOSA	AL	CP	0	149	277	1	78.5	0
400650	17357	BLH	19990921AAT	WZKS	BROADCASTERS AND PUBLISHERS, INC.	C2	UNION	MS	LIC	19	286	281	3	99.6	0
566642	76435	BLH	20010531ABG	WZKR	RAINEY BROADCASTING, INC	C3	DECATUR	MS	LIC	4.8	294	277	1	103.1	0
148010	54535	BLH	19900507KA	WMBC	RADIO COLUMBUS, INC.	C2	COLUMBUS	MS	LIC	22	299	276	2	114.9	0
1073083	22997	BLH	20050715ABB	WQEN	CAPSTAR TX LIMITED PARTNERSHIP	C1	TRUSSVILLE	AL	LIC	100	466	279	1	136.8	0
127871	12322	BLH	19890419KB	WMXS	CUMULUS LICENSING CORP.	C	MONTGOMERY	AL	LIC	100	397	277	1	153.4	0



Facility id: 150872;
Area of Interference;



UTM GRID AND 1979 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET



FOR SALE BY U. S. GEOLOGICAL SURVEY, RESTON, VIRGINIA 22092
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST