

Non-Interference Compliance

Regarding Facility id 150964

Channel 293

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 5 include a plot and a tabulation of the vertical radiation pattern for the proposed antenna provided by the antenna manufacturer.

Page 6 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.

Pages 7 through 10 of this exhibit are portions of USGS 1:24,000 scale 7.5 minute quadrangles at full scale with the calculated area of interference overlaid. The sheets include 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 11 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.

Note: The USGS Quadrangles and the aerial photo indicate the presence of a building not more than 15 ft in height located within the zone of predicted interference. This application provides for 7m (23ft) of ground clearance which is more than adequate to provide the necessary 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
1006597	BLH20040722ADV	WBPT	64.5	64.5
Minimum F(50,50) Contour of Adjacent Station within Proposed Translator's Standard Interfering Contour				64.5

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 **64.5 dBμ**, this makes the proposed translator's worst-case interfering contour **104.5 dBμ**. By the free-space equation, this contour is calculated to extend a maximum of **93.4 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 **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.

Note: The USGS Quadrangles and the aerial photo indicate the presence of a building not more than 15 ft in height located within the zone of predicted interference. This application provides for 7m (23ft) of ground clearance which is more than adequate to provide the necessary 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:	BEX
Antenna Model:	TFC2K
CORAGL:	58 m
Maximum ERP:	0.005 kW
Interfering Contour:	104.5 dBμ
Max Int. Contour Distance:	93.4 m
Min Ground Clearance:	7 m

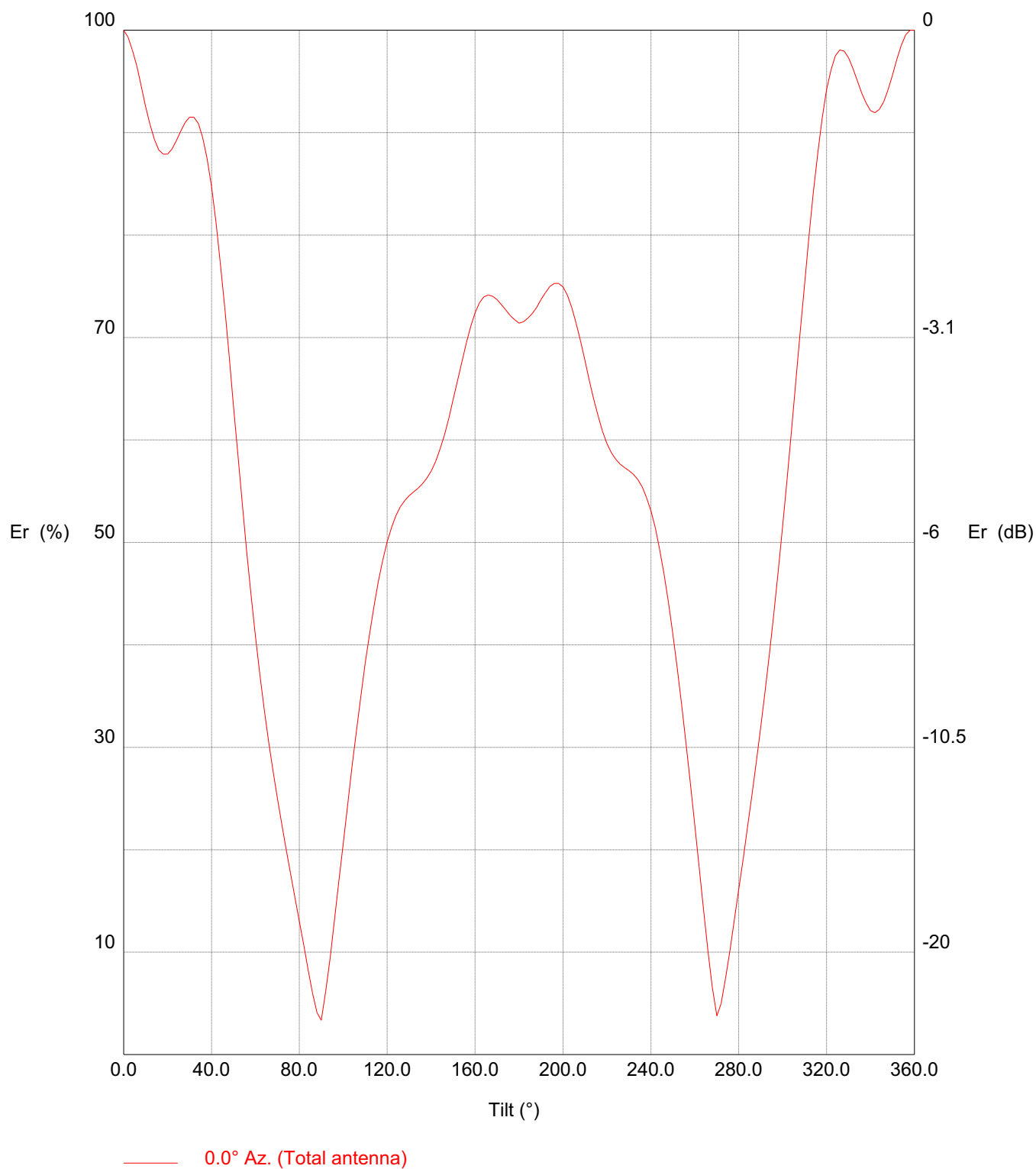
Depression Angle Below Horizontal	Antenna Relative Field	ERP (watts)	Distance to Interfering Contour from Antenna (m)	Horizontal Distance of Interfering Contour from Tower (m)	Vertical Clearance of Interfering Contour above TGL (m)
5	.970	4.7	90.6	90.3	50.1
10	.930	4.3	86.9	85.6	42.9
15	.890	4.0	83.2	80.3	36.5
20	.880	3.9	82.2	77.3	29.9
25	.900	4.1	84.1	76.2	22.5
30	.920	4.2	86.0	74.4	15.0
35	.900	4.1	84.1	68.9	9.8
40	.850	3.6	79.4	60.8	7.0
45	.750	2.8	70.1	49.5	8.5
50	.630	2.0	58.9	37.8	12.9
55	.520	1.4	48.6	27.9	18.2
60	.410	0.8	38.3	19.2	24.8
65	.320	0.5	29.9	12.6	30.9
70	.250	0.3	23.4	8.0	36.1
75	.190	0.2	17.8	4.6	40.9
80	.130	0.1	12.1	2.1	46.0
85	.070	0.0	6.5	0.6	51.5
90	.030	0.0	2.8	0.0	55.2
Minimum Clearance above TGL:					7 m

Frequency: 98.50 MHz

TFC2K



Vertical diagram



Frequency: 98.50 MHz

TFC2K



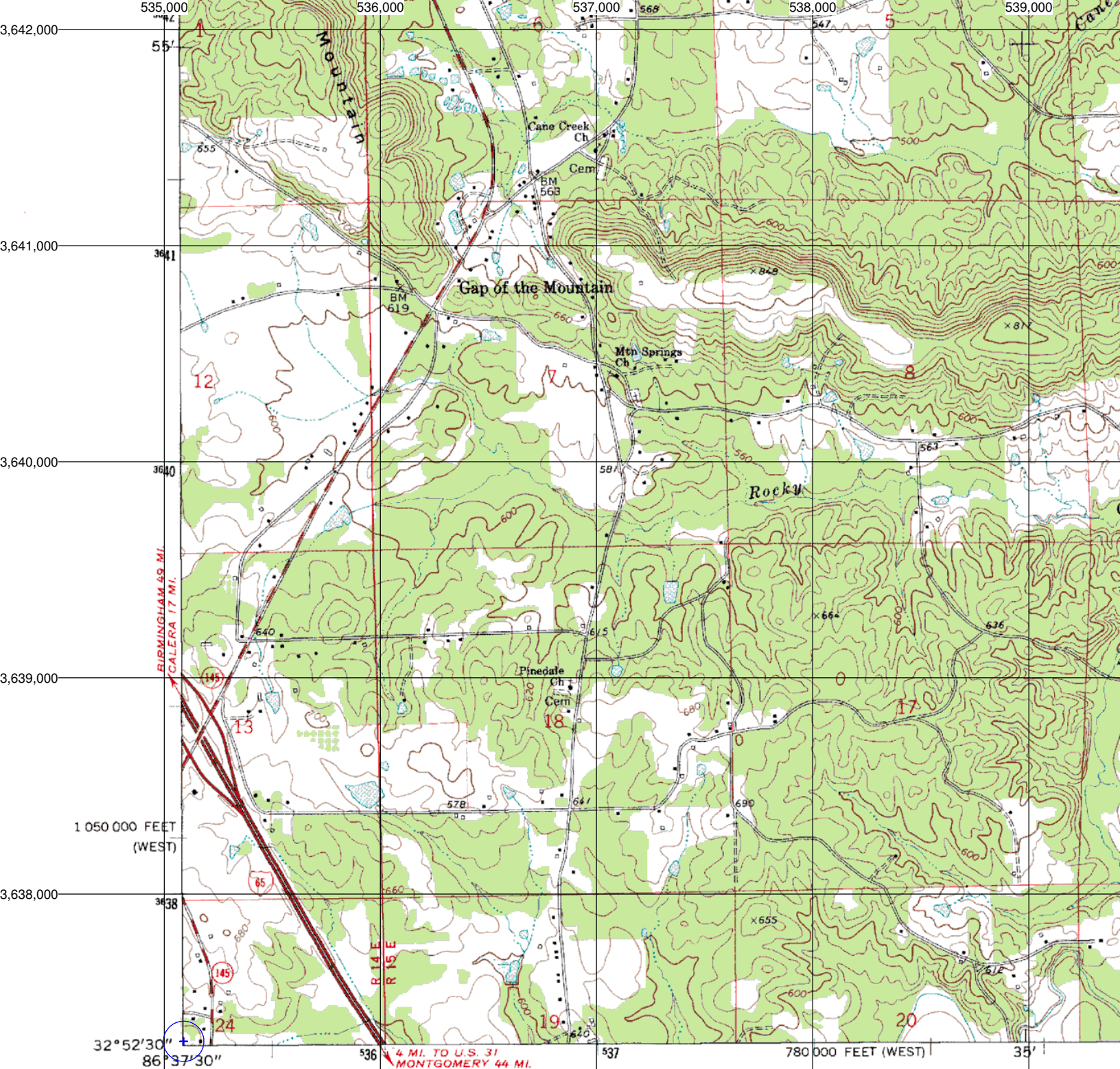
Vertical diagram at an azimuth of 0°

Dep (°)	Er (%)	ERP (W)	Dep (°)	Er (%)	ERP (W)	Dep (°)	Er (%)	ERP (W)
0.0	100.0	0.5	120.0	50.1	0.1	240.0	53.1	0.1
2.0	99.3	0.5	122.0	51.5	0.1	242.0	51.4	0.1
4.0	98.1	0.4	124.0	52.6	0.1	244.0	49.3	0.1
6.0	96.5	0.4	126.0	53.5	0.1	246.0	46.9	0.1
8.0	94.5	0.4	128.0	54.1	0.1	248.0	44.2	0.1
10.0	92.6	0.4	130.0	54.6	0.1	250.0	41.1	0.1
12.0	90.8	0.4	132.0	54.9	0.1	252.0	37.8	0.1
14.0	89.3	0.4	134.0	55.3	0.1	254.0	34.2	0.1
16.0	88.3	0.4	136.0	55.7	0.1	256.0	30.4	0.0
18.0	87.9	0.4	138.0	56.3	0.1	258.0	26.5	0.0
20.0	87.9	0.4	140.0	57.0	0.2	260.0	22.4	0.0
22.0	88.4	0.4	142.0	57.9	0.2	262.0	18.3	0.0
24.0	89.2	0.4	144.0	59.1	0.2	264.0	14.2	0.0
26.0	90.2	0.4	146.0	60.5	0.2	266.0	10.1	0.0
28.0	91.0	0.4	148.0	62.1	0.2	268.0	6.6	0.0
30.0	91.5	0.4	150.0	63.9	0.2	270.0	3.8	0.0
32.0	91.5	0.4	152.0	65.8	0.2	272.0	5.0	0.0
34.0	90.9	0.4	154.0	67.7	0.2	274.0	7.4	0.0
36.0	89.5	0.4	156.0	69.5	0.2	276.0	10.2	0.0
38.0	87.5	0.4	158.0	71.1	0.2	278.0	13.1	0.0
40.0	84.7	0.3	160.0	72.4	0.2	280.0	16.1	0.0
42.0	81.3	0.3	162.0	73.4	0.3	282.0	19.1	0.0
44.0	77.4	0.3	164.0	74.0	0.3	284.0	22.2	0.0
46.0	72.9	0.2	166.0	74.1	0.3	286.0	25.3	0.0
48.0	68.2	0.2	168.0	74.0	0.3	288.0	28.5	0.0
50.0	63.4	0.2	170.0	73.7	0.3	290.0	31.9	0.0
52.0	58.5	0.2	172.0	73.2	0.2	292.0	35.4	0.1
54.0	53.8	0.1	174.0	72.7	0.2	294.0	39.1	0.1
56.0	49.2	0.1	176.0	72.1	0.2	296.0	43.1	0.1
58.0	44.8	0.1	178.0	71.7	0.2	298.0	47.2	0.1
60.0	40.8	0.1	180.0	71.4	0.2	300.0	51.6	0.1
62.0	37.1	0.1	182.0	71.5	0.2	302.0	56.1	0.1
64.0	33.7	0.1	184.0	71.9	0.2	304.0	60.8	0.2
66.0	30.5	0.0	186.0	72.3	0.2	306.0	65.7	0.2
68.0	27.7	0.0	188.0	72.9	0.2	308.0	70.6	0.2
70.0	25.0	0.0	190.0	73.7	0.3	310.0	75.3	0.3
72.0	22.5	0.0	192.0	74.4	0.3	312.0	79.9	0.3
74.0	20.0	0.0	194.0	75.0	0.3	314.0	84.2	0.3
76.0	17.7	0.0	196.0	75.3	0.3	316.0	88.1	0.4
78.0	15.3	0.0	198.0	75.3	0.3	318.0	91.4	0.4
80.0	13.0	0.0	200.0	74.9	0.3	320.0	94.2	0.4
82.0	10.7	0.0	202.0	74.2	0.3	322.0	96.2	0.4
84.0	8.3	0.0	204.0	73.0	0.2	324.0	97.5	0.4
86.0	6.0	0.0	206.0	71.4	0.2	326.0	98.1	0.4
88.0	4.1	0.0	208.0	69.7	0.2	328.0	97.9	0.4
90.0	3.3	0.0	210.0	67.8	0.2	330.0	97.3	0.4
92.0	6.2	0.0	212.0	65.8	0.2	332.0	96.3	0.4
94.0	9.5	0.0	214.0	64.0	0.2	334.0	95.1	0.4
96.0	13.1	0.0	216.0	62.3	0.2	336.0	93.9	0.4
98.0	16.9	0.0	218.0	60.9	0.2	338.0	92.9	0.4
100.0	20.7	0.0	220.0	59.7	0.2	340.0	92.2	0.4
102.0	24.5	0.0	222.0	58.7	0.2	342.0	91.9	0.4
104.0	28.1	0.0	224.0	58.1	0.2	344.0	92.3	0.4
106.0	31.7	0.0	226.0	57.6	0.2	346.0	93.0	0.4
108.0	35.0	0.1	228.0	57.3	0.2	348.0	94.2	0.4
110.0	38.2	0.1	230.0	57.0	0.2	350.0	95.6	0.4
112.0	41.1	0.1	232.0	56.7	0.1	352.0	97.2	0.4
114.0	43.8	0.1	234.0	56.1	0.1	354.0	98.5	0.5
116.0	46.2	0.1	236.0	55.4	0.1	356.0	99.5	0.5
118.0	48.3	0.1	238.0	54.4	0.1	358.0	100.0	0.5

Adjacent Channel Study
For Station W293AP, Facility_id: 150964

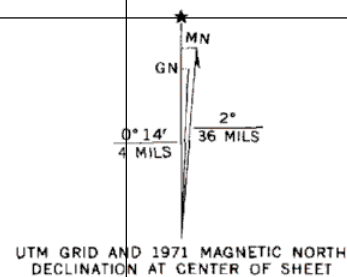
Co-channel through third adjacent:

Application_id	Facility_id	Prefix	ARN	Call	Licensee	Class	City	State	Status	ERP	RCAMSL	Channel	Adj	Dist	Overlap
1006597	5355	BLH	20040722ADV	WBPT	CXR HOLDINGS, L.L.C.	C0	HOMEWOOD	AL	LIC	97	597	295	2	69.8	0.0298
678166	151107	BNPFT	20030821AHC	W293AQ	RADIO ASSIST MINISTRY, INC.	D	SYLACAUGA	AL	CP	0.001	348	293	0	49.6	0
633149	141538	BNPFT	20030317HAC	NEW	MARK M. SNOW	D	PELHAM	AL	APP	0.01	222	292	1	52.1	0
1081141	150877	BMPFT	20050823ACK	W293BG	RADIO ASSIST MINISTRY INC.	D	ALEXANDER CITY	AL	CP MOD	0.01	335	293	0	66.7	0
643999	150930	BNPFT	20030317EUA	NEW	RADIO ASSIST MINISTRY, INC.	D	BIRMINGHAM	AL	APP	0.01	601	293	0	69.7	0
649660	156380	BNPFT	20030317IQC	NEW	EDUCATIONAL MEDIA FOUNDATION	D	GRAYSVILLE	AL	APP	0.01	394	293	0	69.8	0
644106	151035	BNPFT	20030317EWE	NEW	RADIO ASSIST MINISTRY, INC.	D	LEEDS	AL	APP	0.01	340.7	293	0	71.7	0
644008	150939	BNPFT	20030317EUE	NEW	RADIO ASSIST MINISTRY, INC.	D	BIRMINGHAM	AL	APP	0.038	220.2	292	1	72.8	0
1081778	48645	BLH	20050829ACW	WRTR	CAPSTAR TX LIMITED PARTNERSHIP	C3	BROOKWOOD	AL	LIC	25	178	290	3	89.7	0
208028	60763	BLH	19950410KB	WSTH-FM	SOLAR BROADCASTING COMPANY, INC.	C1	ALEXANDER CITY	AL	LIC	86	544	291	2	108.5	0



Facility id: 150964;
 Area of Interference: 5GS and USC&GS

Topography by photogrammetric methods from aerial
 photographs taken 1967 and 1969. Field checked 1971
 Projection: Alabama coordinate system, west zone
 (transverse Mercator)
 10,000-foot grid ticks based on Alabama coordinate system,
 west and east zones
 1000-meter Universal Transverse Mercator grid ticks,
 zone 16, shown in blue, 1927 North American datum
 Map photoinspected 1981
 No major culture or drainage changes observed



UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

86° 37' 30" W
32° 52' 30" N

1 MI. TO INT. 65
BIRMINGHAM 49 MI.
CALERA 17 MI.

537000m.E. 538

3637000m.N.

3636000
3635000
3634000

24 19 25 30 36 31

640 600 638 660 682 633 600 600 600 640 600 610

R14E R15E

Walnut Creek

Water Tank
Sewage Disposal
Cem
BM 590
Gragg Wade Field
Radio Tower
BM 568
Armory
CLANTON
AIRPORT RD
HIGGINS FERRY RD
Goose Pond Cr
Adair
Concord Ch

County Hospital and Nursing Home

CLANTON

CLANTON EAST, ALA.

Scale: 1" = 0.261Mi 421Mt 1,380Ft, 1 Mi = 3.825", 1 cm = 166Mt

86° 37' 30"	1 MI. TO INT. 65	BIRMINGHAM 49 MI. CALERA 17 MI.	537000m.E.	538
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BIRMINGHAM 49 MI.
CALERA 17 MI.

537000m.E.

538

Facility id: 150964;
Area of Interference;

3,637,000
3637000m.N.

3,636,000-
3

3,635,000-

3,634,000—

'Clanton East; AL'; Scale: 1" = 0.261Mi 421Mt 1,380Ft, 1 Mi = 3.825" , 1 cm = 166Mt

535.000

ADDRANGLE

ON CO.

OPOGRAPHIC)

3649 / NE
(LAY DAM)

86° 37' 30"

32° 52' 30"

Facility id: 150964;
Area of Interference;

24

3637

3,637,000

