

Non-Interference Compliance

Regarding Facility id 150396

Channel 286

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.

Page 7 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 8 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 Quadrangle and the aerial photo show the presence of buildings within the zone of predicted interference, the tallest of which is approximately 30ft tall. This application provides 22.5m (73.8ft) of ground clearance which is more than adequate to provide the necessary clearance to the affected buildings, 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
604346	BLH20020607AAB	KKFC	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 **361.9 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 **22.5 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 Quadrangle and the aerial photo show the presence of buildings within the zone of predicted interference, the tallest of which is approximately 30ft tall. This application provides 22.5m (73.8ft) of ground clearance which is more than adequate to provide the necessary clearance to the affected buildings, 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:	NIC
Antenna Model:	BKG77-2(.5)
CORAGL:	124 m
Maximum ERP:	0.075 kW
Interfering Contour:	104.5 dBμ
Max Int. Contour Distance:	361.9 m
Min Ground Clearance:	22.5 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	.973	71.0	352.1	350.7	93.3
10	.933	65.3	337.6	332.5	65.4
15	.855	54.8	309.4	298.8	43.9
20	.777	45.3	281.2	264.2	27.8
25	.664	33.1	240.3	217.8	22.5
30	.560	23.5	202.6	175.5	22.7
35	.456	15.6	165.0	135.2	29.4
40	.365	10.0	132.1	101.2	39.1
45	.292	6.4	105.7	74.7	49.3
50	.227	3.9	82.1	52.8	61.1
55	.172	2.2	62.2	35.7	73.0
60	.126	1.2	45.6	22.8	84.5
65	.096	0.7	34.7	14.7	92.5
70	.072	0.4	26.1	8.9	99.5
75	.056	0.2	20.3	5.2	104.4
80	.046	0.2	16.6	2.9	107.6
85	.039	0.1	14.1	1.2	109.9
90	.035	0.1	12.7	0.0	111.3
Minimum Clearance above TGL:					22.5 m

Adjacent Channel Study **For Station K284BN, Facility_id: 150396**

Co-channel through third adjacent:

Application_id	Facility_id	Prefix	ARN	Call	Licensee	Class	City	State	Status	ERP	RCAMSL	Channel	Adj	Dist	Overlap
604346	82533	BLH	20020607AAB	KKFC	WOODSTONE BROADCASTING, INC.	C3	COALGATE	OK	LIC	20	336	288	2	28.8	0.4475
259129	77278	BLH	19971211KC	KSLE	ONE TEN BROADCASTING GROUP, INC.	A	WEWOKA	OK	LIC	1.7	427	284	2	39	0
633828	142074	BNPFT	20030312AQB	NEW	THE LOVE STATION, INC.	D	SHAWNEE	OK	APP	0.17	427	286	0	74.8	0
633215	141589	BNPFT	20030311AJN	NEW	THE UNIVERSITY OF OKLAHOMA	D	SHAWNEE	OK	APP	0.17	427	286	0	74.8	0
223546	60727	BLH	19960415KL	KBLP	SO. CENTRAL OKLA. B/C & ADVERTISING	A	LINDSAY	OK	LIC	2	495	286	0	81.2	0
631717	140397	BNPFT	20030313BJD	NEW	EDUCATIONAL MEDIA FOUNDATION	D	HALL PARK	OK	APP	0.028	390	283	3	86.2	0
285224	67592	BLH	19990517KA	KTMC-FM	BOTTOM LINE BROADCASTING, INC.	A	MCALESTER	OK	LIC	1.6	357	286	0	93.6	0
98653	6770	BLFT	19870306TE	K288CT	BRIAN DODGE	D	DEL CITY	OK	LIC	0.32	404	288	2	95.7	0
630142	139287	BNPFT	20030311ASH	NEW	FRED R AND EVELYN K MORTON	D	OKLAHOMA CITY	TX	APP	0.092	541	283	3	101.6	0
1186132	171235	BNPH	20070515AEM	NEW	KATHERINE PYEATT	A	ANTLERS	OK	APP	6	308	284	2	107.3	0
650828	157419	BNPFT	20030317KYI	NEW	JOHN JASON BENNETT	D	BRISTOW	OK	APP	0.25	312	289	3	112.7	0
223192	5218	BLH	19960405KC	KREK	BIG CHIEF B/CSTING CO OF BRISTOW INC	A	BRISTOW	OK	LIC	5	371	285	1	115.6	0
198397	6750	BLH	19940418KG	KWCO-FM	TYLER ENTERPRISES, L.L.C.	A	CHICKASHA	OK	LIC	3.3	481	288	2	116.4	0
187927	69175	BLED	19930708KA	KROU	THE UNIVERSITY OF OKLAHOMA	A	SPENCER	OK	LIC	4	446	289	3	116.6	0
262629	6509	BLH	19980219KB	KKWD	CARIBOU COMMUNICATIONS COMPANY	A	BETHANY	OK	LIC	6	475	285	1	117.3	0
1185057	15854	BMLH	20070514AFY	KZMP-FM	LIBERMAN BROADCASTING OF DALLAS LICENSE	C1	PILOT POINT	TX	LIC	20.15	757	285	1	136.1	0
1168380	170113	BNPH	20070119ACB	NEW	KATHERINE PYEATT	A	HUGO	OK	APP	6	244	286	0	136.4	0
227673	35015	BLH	19960606KD	KJMM	KJMM, INC.	C2	BIXBY	OK	LIC	10	465	287	1	148	0

TX station: TV Mondiale

Site name: Monte Alto

Frequency: 100.00 MHz

Vertical diagram at an azimuth of 0° degrees

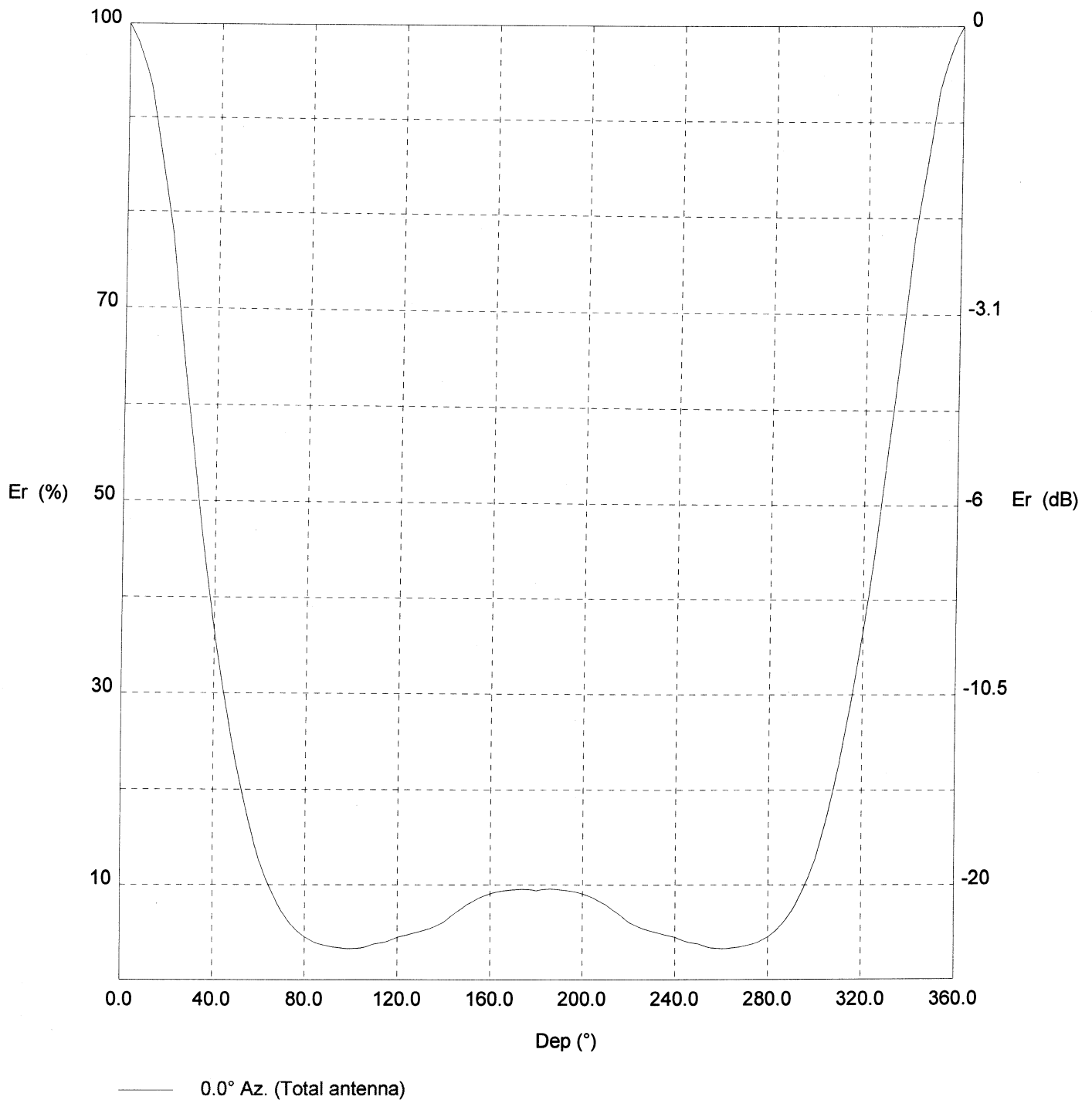
Dep (°)	Er (%)	ERP (KW)	Dep (°)	Er (%)	ERP (KW)	Dep (°)	Er (%)	ERP (KW)
0.0	100.0	8.73	120.0	4.5	0.02	240.0	4.5	0.02
2.0	99.1	8.57	122.0	4.6	0.02	242.0	4.3	0.02
4.0	98.0	8.38	124.0	4.7	0.02	244.0	4.1	0.01
6.0	96.6	8.15	126.0	4.9	0.02	246.0	3.9	0.01
8.0	95.1	7.89	128.0	5.0	0.02	248.0	3.8	0.01
10.0	93.3	7.60	130.0	5.1	0.02	250.0	3.7	0.01
12.0	90.3	7.11	132.0	5.3	0.02	252.0	3.6	0.01
14.0	87.1	6.62	134.0	5.4	0.03	254.0	3.4	0.01
16.0	83.9	6.15	136.0	5.6	0.03	256.0	3.3	0.01
18.0	80.9	5.71	138.0	5.8	0.03	258.0	3.3	0.01
20.0	77.7	5.28	140.0	6.1	0.03	260.0	3.3	0.01
22.0	73.1	4.67	142.0	6.5	0.04	262.0	3.3	0.01
24.0	68.6	4.10	144.0	6.8	0.04	264.0	3.3	0.01
26.0	64.2	3.60	146.0	7.2	0.05	266.0	3.4	0.01
28.0	60.0	3.15	148.0	7.6	0.05	268.0	3.4	0.01
30.0	56.0	2.73	150.0	7.9	0.05	270.0	3.5	0.01
32.0	51.7	2.33	152.0	8.2	0.06	272.0	3.6	0.01
34.0	47.5	1.97	154.0	8.4	0.06	274.0	3.8	0.01
36.0	43.6	1.66	156.0	8.7	0.07	276.0	4.0	0.01
38.0	40.0	1.40	158.0	8.9	0.07	278.0	4.2	0.02
40.0	36.5	1.17	160.0	9.1	0.07	280.0	4.6	0.02
42.0	33.5	0.98	162.0	9.2	0.07	282.0	4.9	0.02
44.0	30.5	0.81	164.0	9.3	0.08	284.0	5.3	0.02
46.0	27.8	0.67	166.0	9.4	0.08	286.0	5.9	0.03
48.0	25.1	0.55	168.0	9.5	0.08	288.0	6.5	0.04
50.0	22.7	0.45	170.0	9.5	0.08	290.0	7.2	0.05
52.0	20.3	0.36	172.0	9.5	0.08	292.0	8.1	0.06
54.0	18.2	0.29	174.0	9.5	0.08	294.0	9.1	0.07
56.0	16.2	0.23	176.0	9.5	0.08	296.0	10.1	0.09
58.0	14.3	0.18	178.0	9.5	0.08	298.0	11.3	0.11
60.0	12.6	0.14	180.0	9.4	0.08	300.0	12.6	0.14
62.0	11.3	0.11	182.0	9.5	0.08	302.0	14.3	0.18
64.0	10.1	0.09	184.0	9.5	0.08	304.0	16.2	0.23
66.0	9.1	0.07	186.0	9.6	0.08	306.0	18.2	0.29
68.0	8.1	0.06	188.0	9.5	0.08	308.0	20.3	0.36
70.0	7.2	0.05	190.0	9.5	0.08	310.0	22.7	0.45
72.0	6.5	0.04	192.0	9.5	0.08	312.0	25.1	0.55
74.0	5.9	0.03	194.0	9.4	0.08	314.0	27.8	0.67
76.0	5.3	0.02	196.0	9.3	0.08	316.0	30.5	0.81
78.0	4.9	0.02	198.0	9.2	0.07	318.0	33.5	0.98
80.0	4.6	0.02	200.0	9.1	0.07	320.0	36.5	1.17
82.0	4.2	0.02	202.0	8.9	0.07	322.0	40.0	1.40
84.0	4.0	0.01	204.0	8.7	0.07	324.0	43.6	1.66
86.0	3.8	0.01	206.0	8.4	0.06	326.0	47.5	1.97
88.0	3.6	0.01	208.0	8.2	0.06	328.0	51.7	2.33
90.0	3.5	0.01	210.0	7.9	0.05	330.0	56.0	2.73
92.0	3.4	0.01	212.0	7.6	0.05	332.0	60.0	3.15
94.0	3.4	0.01	214.0	7.2	0.05	334.0	64.2	3.60
96.0	3.3	0.01	216.0	6.8	0.04	336.0	68.6	4.10
98.0	3.3	0.01	218.0	6.5	0.04	338.0	73.1	4.67
100.0	3.3	0.01	220.0	6.1	0.03	340.0	77.7	5.28
102.0	3.3	0.01	222.0	5.8	0.03	342.0	80.9	5.71
104.0	3.3	0.01	224.0	5.6	0.03	344.0	83.9	6.15
106.0	3.4	0.01	226.0	5.4	0.03	346.0	87.1	6.62
108.0	3.6	0.01	228.0	5.3	0.02	348.0	90.3	7.11
110.0	3.7	0.01	230.0	5.1	0.02	350.0	93.3	7.60
112.0	3.8	0.01	232.0	5.0	0.02	352.0	95.1	7.89
114.0	3.9	0.01	234.0	4.9	0.02	354.0	96.6	8.15
116.0	4.1	0.01	236.0	4.7	0.02	356.0	98.0	8.38
118.0	4.3	0.02	238.0	4.6	0.02	358.0	99.1	8.57

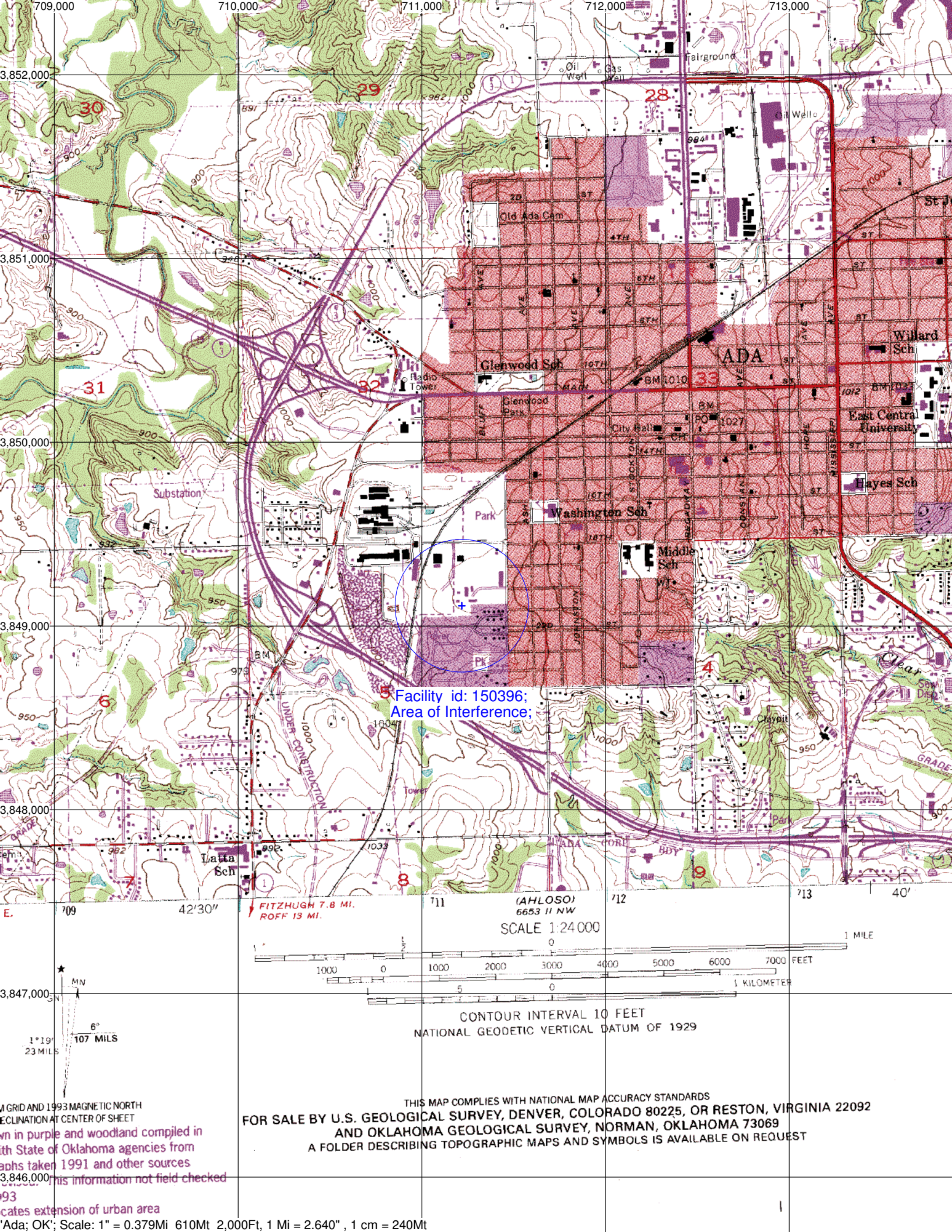
TX station: TV Mondiale

Site name: Monte Alto

Frequency: 100.00 MHz

Vertical diagram

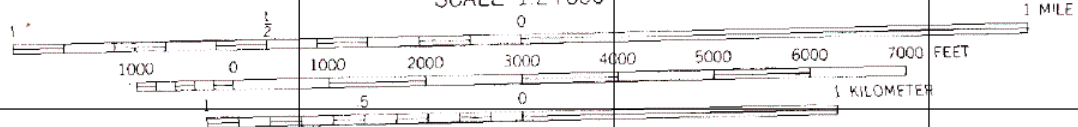




Facility id: 150396;
Area of Interference;

FITZHUGH 7.8 MI.
ROFF 13 MI.

(AHLOSO)
6653 II NW
SCALE 1:24 000



CONTOUR INTERVAL 10 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
FOR SALE BY U.S. GEOLOGICAL SURVEY, DENVER, COLORADO 80225, OR RESTON, VIRGINIA 22092
AND OKLAHOMA GEOLOGICAL SURVEY, NORMAN, OKLAHOMA 73069
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

M GRID AND 1993 MAGNETIC NORTH
DECLINATION AT CENTER OF SHEET
shown in purple and woodland compiled in
with State of Oklahoma agencies from
aerophotographs taken 1991 and other sources
this information not field checked
1993
indicates extension of urban area
'Ada; OK'; Scale: 1" = 0.379Mi 610Mt 2,000Ft, 1 Mi = 2.640", 1 cm = 240Mt



98.6925

34.7642

34.7642