

Non-Interference Compliance

Regarding Facility id 150858

Channel 280

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 5 include 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 an aerial photo of the vicinity surrounding the proposed translator's tower site.

Note: The tallest building within the zone of predicted interference is less than 20ft (6.1m) in height. This application provides 118.5m (388.8ft) of 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
1174983	BMLH20070402ACJ	WMXS	105.5	103.6
250992	BLH19970731KB	WHLW	70.5	70.5
Minimum F(50,50) Contour of Adjacent Station within Proposed Translator's Standard Interfering Contour				70.5

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 **70.5 dBμ**, this makes the proposed translator's worst-case interfering contour **110.5 dBμ**. By the free-space equation, this contour is calculated to extend a maximum of **331.1 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 7 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 **118.5 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.

Note: The tallest building within the zone of predicted interference is less than 20ft (6.1m) in height. This application provides 118.5m (388.8ft) of 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:	DIE
Antenna Model:	DCR-M2E5
CORAGL:	218 m
Maximum ERP:	0.25 kW
Interfering Contour:	110.5 dBμ
Max Int. Contour Distance:	331.1 m
Min Ground Clearance:	118.5 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	.986	243.0	326.5	325.2	189.5
10	.946	223.7	313.2	308.5	163.6
15	.883	194.9	292.4	282.4	142.3
20	.800	160.0	264.9	248.9	127.4
25	.704	123.9	233.1	211.3	119.5
30	.601	90.3	199.0	172.3	118.5
35	.496	61.5	164.2	134.5	123.8
40	.395	39.0	130.8	100.2	133.9
45	.302	22.8	100.0	70.7	147.3
50	.221	12.2	73.2	47.0	161.9
55	.153	5.9	50.7	29.1	176.5
60	.100	2.5	33.1	16.6	189.3
65	.060	0.9	19.9	8.4	200.0
70	.032	0.3	10.6	3.6	208.0
75	.015	0.1	5.0	1.3	213.2
80	.005	0.0	1.7	0.3	216.4
85	.001	0.0	0.3	0.0	217.7
90	.000	0.0	0.0	0.0	218.0
Minimum Clearance above TGL:					118.5 m



Proposal Number

Revision

Date

04 Jun 2009

Call Letters

Channel

210

Location

Customer

Antenna Type

DCR-L2E

ELEVATION PATTERN

RMS Gain at Main Lobe

0.7 (-1.55 dB)

Beam Tilt

0.00 Degrees

RMS Gain at Horizontal

0.7 (-1.55 dB)

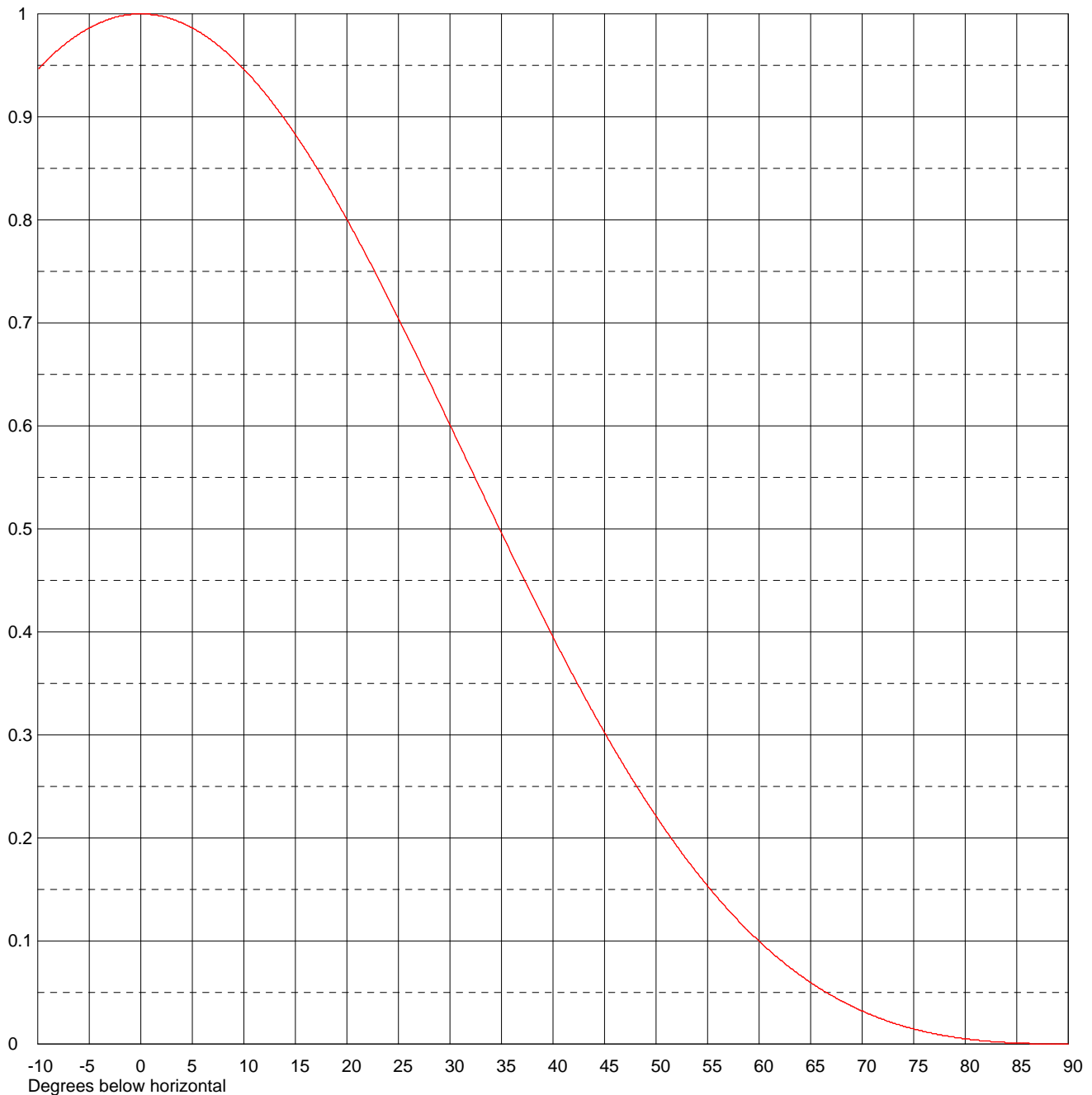
Frequency

89.90 MHz

Calculated / Measured

Calculated

Drawing #

FE02L5000013000-90

Remarks:



Proposal Number

Revision

Date

04 Jun 2009

Call Letters

Channel

210

Location

Customer

Antenna Type

DCR-L2E

TABULATION OF ELEVATION PATTERN

Elevation Pattern Drawing #

FE02L5000013000-90

Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
-10.0	0.946	2.4	0.997	10.6	0.940	30.5	0.590	51.0	0.206	71.5	0.026
-9.5	0.951	2.6	0.996	10.8	0.938	31.0	0.580	51.5	0.199	72.0	0.024
-9.0	0.956	2.8	0.996	11.0	0.935	31.5	0.569	52.0	0.192	72.5	0.022
-8.5	0.961	3.0	0.995	11.5	0.930	32.0	0.559	52.5	0.185	73.0	0.020
-8.0	0.965	3.2	0.994	12.0	0.924	32.5	0.548	53.0	0.179	73.5	0.019
-7.5	0.969	3.4	0.994	12.5	0.917	33.0	0.538	53.5	0.172	74.0	0.017
-7.0	0.973	3.6	0.993	13.0	0.911	33.5	0.527	54.0	0.166	74.5	0.016
-6.5	0.977	3.8	0.992	13.5	0.904	34.0	0.517	54.5	0.160	75.0	0.015
-6.0	0.980	4.0	0.991	14.0	0.897	34.5	0.506	55.0	0.153	75.5	0.013
-5.5	0.983	4.2	0.990	14.5	0.890	35.0	0.496	55.5	0.147	76.0	0.012
-5.0	0.986	4.4	0.989	15.0	0.883	35.5	0.486	56.0	0.142	76.5	0.011
-4.5	0.989	4.6	0.988	15.5	0.875	36.0	0.475	56.5	0.136	77.0	0.010
-4.0	0.991	4.8	0.987	16.0	0.868	36.5	0.465	57.0	0.130	77.5	0.009
-3.5	0.993	5.0	0.986	16.5	0.860	37.0	0.455	57.5	0.125	78.0	0.008
-3.0	0.995	5.2	0.985	17.0	0.852	37.5	0.445	58.0	0.119	78.5	0.007
-2.8	0.996	5.4	0.984	17.5	0.844	38.0	0.435	58.5	0.114	79.0	0.006
-2.6	0.996	5.6	0.983	18.0	0.835	38.5	0.425	59.0	0.109	79.5	0.006
-2.4	0.997	5.8	0.982	18.5	0.827	39.0	0.415	59.5	0.104	80.0	0.005
-2.2	0.997	6.0	0.980	19.0	0.818	39.5	0.405	60.0	0.100	80.5	0.004
-2.0	0.998	6.2	0.979	19.5	0.809	40.0	0.395	60.5	0.095	81.0	0.004
-1.8	0.998	6.4	0.978	20.0	0.800	40.5	0.385	61.0	0.091	81.5	0.003
-1.6	0.999	6.6	0.976	20.5	0.791	41.0	0.376	61.5	0.086	82.0	0.003
-1.4	0.999	6.8	0.975	21.0	0.782	41.5	0.366	62.0	0.082	82.5	0.002
-1.2	0.999	7.0	0.973	21.5	0.773	42.0	0.357	62.5	0.078	83.0	0.002
-1.0	0.999	7.2	0.972	22.0	0.763	42.5	0.347	63.0	0.074	83.5	0.002
-0.8	1.000	7.4	0.970	22.5	0.754	43.0	0.338	63.5	0.070	84.0	0.001
-0.6	1.000	7.6	0.969	23.0	0.744	43.5	0.329	64.0	0.067	84.5	0.001
-0.4	1.000	7.8	0.967	23.5	0.734	44.0	0.320	64.5	0.063	85.0	0.001
-0.2	1.000	8.0	0.965	24.0	0.724	44.5	0.311	65.0	0.060	85.5	0.001
0.0	1.000	8.2	0.964	24.5	0.714	45.0	0.302	65.5	0.056	86.0	0.001
0.2	1.000	8.4	0.962	25.0	0.704	45.5	0.294	66.0	0.053	86.5	0.000
0.4	1.000	8.6	0.960	25.5	0.694	46.0	0.285	66.5	0.050	87.0	0.000
0.6	1.000	8.8	0.958	26.0	0.684	46.5	0.277	67.0	0.047	87.5	0.000
0.8	1.000	9.0	0.956	26.5	0.674	47.0	0.268	67.5	0.044	88.0	0.000
1.0	0.999	9.2	0.954	27.0	0.664	47.5	0.260	68.0	0.042	88.5	0.000
1.2	0.999	9.4	0.952	27.5	0.653	48.0	0.252	68.5	0.039	89.0	0.000
1.4	0.999	9.6	0.950	28.0	0.643	48.5	0.244	69.0	0.037	89.5	0.000
1.6	0.999	9.8	0.948	28.5	0.632	49.0	0.236	69.5	0.034	90.0	0.000
1.8	0.998	10.0	0.946	29.0	0.622	49.5	0.229	70.0	0.032		
2.0	0.998	10.2	0.944	29.5	0.611	50.0	0.221	70.5	0.030		
2.2	0.997	10.4	0.942	30.0	0.601	50.5	0.214	71.0	0.028		

Remarks:

Adjacent Channel Study **For Station NEW, Facility_id: 150858**

Co-channel through third adjacent:

Application_id	Facility_id	Prefix	ARN	Call	Licensee	Class	City	State	Status	ERP	RCAMSL	Channel	Adj	Dist	Overlap
295054	12322	Null	Null	WMXS	CUMULUS LICENSING LLC	C	MONTGOMERY	AL	USE	0	0	277	3	7.2	1.4918
1174983	12322	BMLH	20070402ACJ	WMXS	CUMULUS LICENSING LLC	C	MONTGOMERY	AL	LIC	100	397	277	3	7.3	1.4918
292213	6655	Null	Null	WHLW	CAPSTAR TX LLC	C1	LUVERNE	AL	USE	0	0	282	2	41.8	1.4918
250992	6655	BLH	19970731KB	WHLW	CAPSTAR TX LLC	C1	LUVERNE	AL	LIC	13.5	684	282	2	44.8	1.4918
1537120	0	RM	inv-50	Null		A	ANDALUSIA	AL	DEL	0	0	279	1	115.8	0
145053	13502	BMLH	19900212KF	WAAO-FM	THREE NOTCH COMMUNICATIONS, LLC	A	ANDALUSIA	AL	LIC	3	186	279	1	115.8	0
611802	13502	Null	Null	WAAO-FM	THREE NOTCH COMMUNICATIONS, LLC	C3	ANDALUSIA	AL	RSV	0	0	279	1	117.1	0
1307899	63945	BLH	20090414AEA	WLDA	SOUTHEAST ALABAMA BROADCASTERS, LLC	C3	FORT RUCKER	AL	LIC	25	179	280	0	122.4	0
708979	0	RM	10871	Null		C3	FORT RUCKER	AL	USE	0	0	280	0	123.4	0
1353963	85767	Null	Null	WTID	GREAT SOUTH WIRELESS, LLC	C3	THOMASTON	AL	USE	0	0	280	0	129.4	0
1301700	85767	BLH	20090317ACL	WTID	GREAT SOUTH WIRELESS, LLC	A	THOMASTON	AL	LIC	0.5	74	280	0	129.4	0
1243820	60372	BLH	20080429ABC	WLTC	PMB BROADCASTING, LLC	C3	CUSSETA	GA	LIC	4.8	337	279	1	129.6	0
1485929	85767	BMPH	20120130AMS	WTID	GREAT SOUTH WIRELESS, LLC	C3	THOMASTON	AL	CP MOD	7	152.2	280	0	131.4	0
1537537	63945	Null	Null	WLDA	SOUTHEAST ALABAMA BROADCASTERS, LLC	C2	FORT RUCKER	AL	RSV	0	0	280	0	132.9	0
532137	0	RM	10053	Null		C1	TRUSSVILLE	AL	USE	0	0	279	1	132.9	0
1073083	22997	BLH	20050715ABB	WQEN	CAPSTAR TX LLC	C1	TRUSSVILLE	AL	LIC	100	466	279	1	132.9	0
1537398	63945	BPH	20121119ANF	WLDA	SOUTHEAST ALABAMA BROADCASTERS, LLC	C2	FORT RUCKER	AL	APP	26	286.1	280	0	132.9	0
1462931	20921	BLFT	20111114BEC	W281AB	RICHARDSON BROADCASTING CORP.	D	MOUNTAIN BROOK	AL	LIC	0.25	539	281	1	134.2	0

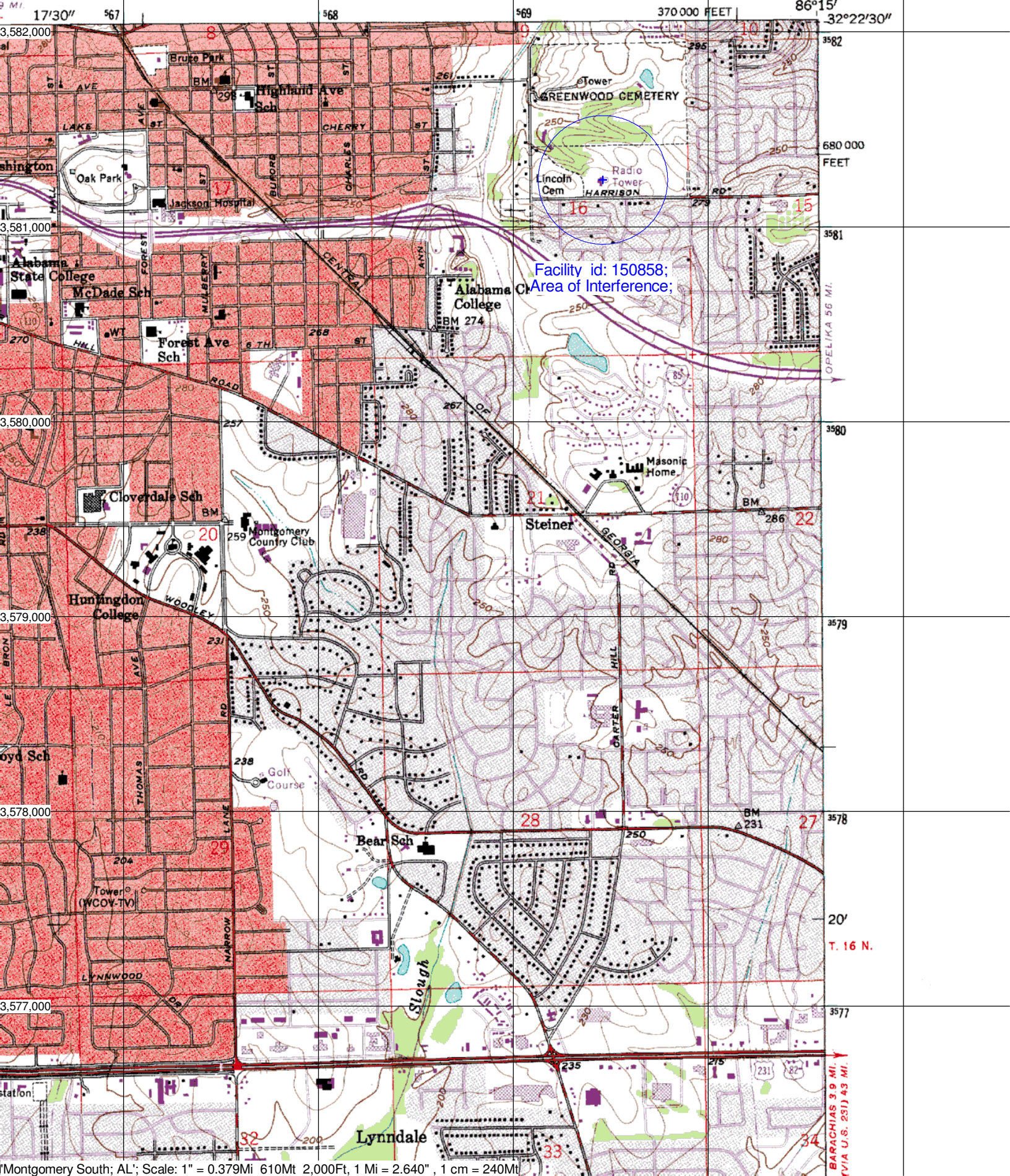
Intermediate Frequencies (53 and 54 channels difference):

Application_id	Facility_id	Prefix	ARN	Call	Licensee	Class	City	State	Status	ERP	RCAMSL	Channel	Adj	Dist	Clr
689535	0	RM	11170	Null		A	COOSADA	AL	USE	0	0	226	54	14.9	4.9
1512454	189524	BLH	20120815ABC	WACV	LIBERTY ACQUISTIONS 825, LLC	A	COOSADA	AL	LIC	3.1	220	226	54	18.4	8.4

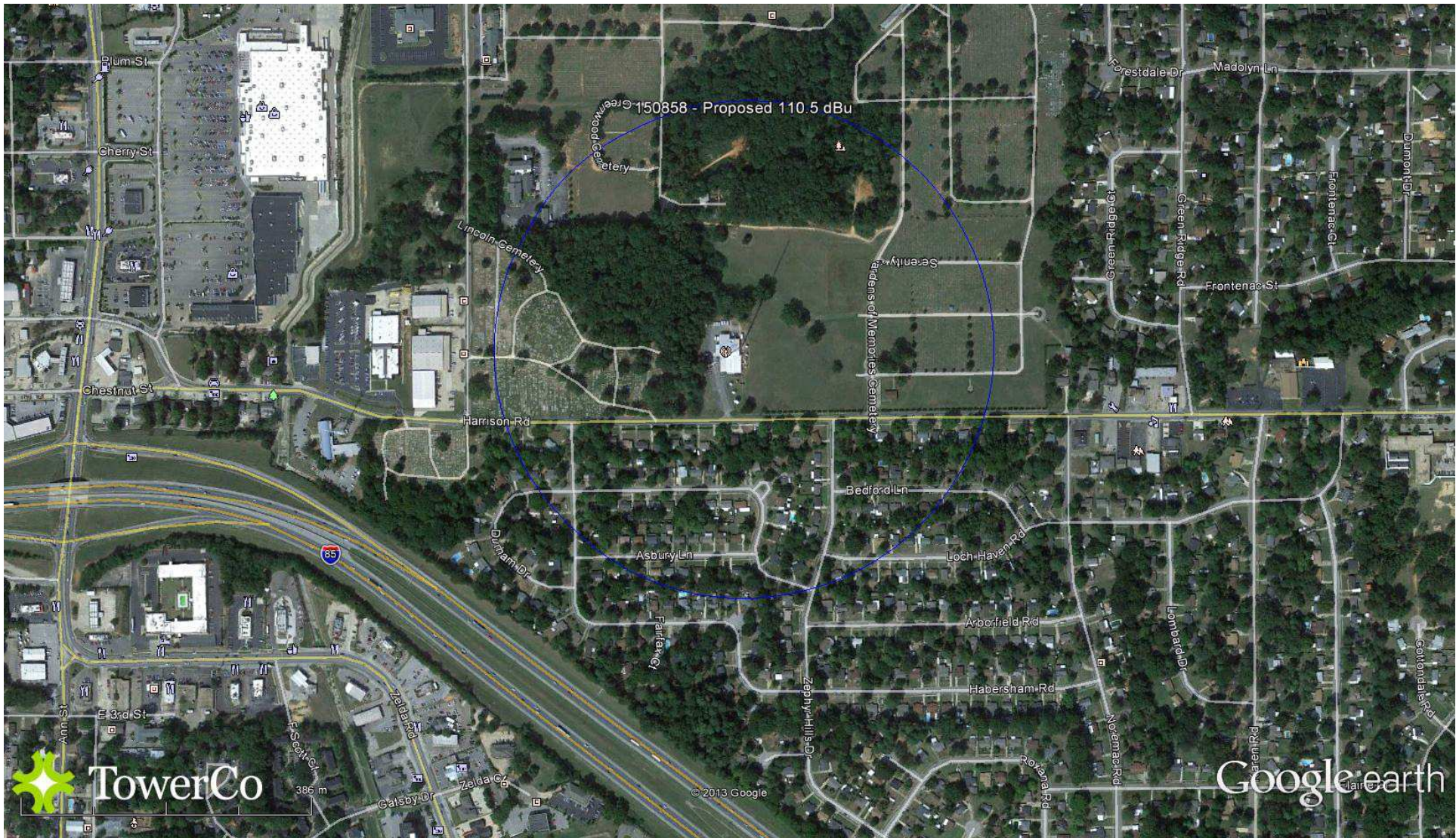
MONTGOMERY SOUTH QUADRANGLE
ALABAMA—MONTGOMERY CO.
7.5 MINUTE SERIES (TOPOGRAPHIC)

SE/4 MONTGOMERY 15' QUADRANGLE

3781
1:62,500
MOUNT MEIGS



Facility id: 150858;
Area of Interference;



Google earth

feet
km

