

Dunn, North Carolina  
Application for Minor Modification of FM Translator W263CC  
On Channel 249  
by  
Eastern Airwaves, LLC

Exhibit 13  
Interference Analysis

January 2016

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Declaration

I declare, under penalty of perjury, that I am a technical consultant to broadcasting and other communications systems, that I have over twenty-five years of experience in the engineering of broadcast and other communications systems, that I am familiar with the Federal Communications Commission's Rules found in the Code of Federal Regulations Title 47, that I am a Professional Engineer registered in North Carolina, that I have prepared or supervised the preparation of the attached Exhibit 13, Interference Analysis, for Eastern Airwaves, LLC, and that all of the facts therein, except for facts of which the Federal Communications Commission may take official notice, are true to the best of my knowledge and belief.



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27 January 2016

### Narrative

This Exhibit supports an amendment to a minor modification application for FM translator W263CC, on Channel 249 in Dunn, North Carolina. Allocation details are provided in this exhibit. This proposal complies fully with the requirements of 74 C.F.R. §74.1204(a), with the exception of facilities protected under 47 C.F.R. §74.1204(d) by the Undesired to Desired (U/D) method described below. The proposed modified facilities create no mutual exclusivities with any licensed facilities, construction permits, or applications as shown in the allocation table in this exhibit.

Figure 1 shows the proposed 60 dBu F(50,50) coverage area. Figure 1 shows fill-in status confirmation.

The changes are a new primary station, a new site, a new antenna, a change of channel, a change of height, and an increase in power.

### AM Translator Window Filing

This application is being filed in response to a filing window for currently authorized translators to rebroadcast AM radio stations, under specific definitions for minor modification.<sup>1</sup> This application complies with the conditions for consideration as a minor modification. Specifically, W263CC is authorized on a non-reserved channel; the proposed primary station is AM station WCKB; the primary station is authorized as a Class D station; and the distance from the authorized W263CC location to the proposed location is 109.81

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<sup>1</sup> See *Revitalization of the AM Service*, First Report and Order, Further Notice of Proposed Rule Making, and Notice of Inquiry, FCC 15-142, para 15 (rel. October 23, 2015) (*AMR Order*).

miles, calculated from the authorized W263CC site to the translator site proposed in this application.

### Allocations

This application proposes service to Dunn, North Carolina, on channel 249. An updated Table 1: Allocations is included in this exhibit with a list of the stations, construction permits, allocations, and applications studied. All are protected under §74.1204(a) contour protection by this application, with the exception of facilities protected by the Undesired to Desired (U/D) method. Facilities protected by the U/D method are listed in Table 2. The allocations table was prepared using the NGDC 30 arcsecond terrain database which is described below. Where the outgoing protection is provided by interference contours with a separation of less than 3.2 kilometers (2 miles), the lack of overlap is plotted in figures in this exhibit, and the output of the FM Over program is provided. For this application, there is one (1) facility for which additional detail is provided.

Table and Figure	Call Sign	Location	Channel, class and relationship
3	WZKT	Walnut Creek, North Carolina	249A, co-channel

Table 1: Allocations

Allocation Study Eastern Airwaves, LLC												
REFERENCE		CH# 249D - 97.7 MHz, Pwr= 0.25 kw, HAAT= 92.4 M, COR= 140 M								DISPLAY DATES		
35 17 00.0 N.		Average Protected F(50-50)= 12.4 km								DATA 01-27-16		
78 35 49.0 W.		Omni-directional								SEARCH 01-27-16		
CH CITY	CALL	TYPE	ANT STATE	AZI. <--	DIST FILE #	LAT. LNG.	Pwr(kw) HAAT(M)	INT(km) COR(M)	PRO(km) LICENSEE	*IN* (Overlap	*OUT* in km)	
251C1 Fayetteville	WQSM	LIC	CN NC	233.5 53.3	38.04 BLH19871125KA	35 04 46.0 78 55 58.0	100.000 253	9.7 307	70.3 Cumulus Licensing Llc	14.9	-33.4*	
Protected by U/D ratio, see text and figures.												
249A Walnut Creek	WZKT	LIC	CX NC	89.1 269.5	70.35 BLH20080501AAS	35 17 28.0 77 49 25.0	2.650 153	83.6 182	28.9 New Age Communications, In	-25.0*	0.9	
248C2 Carrboro	WQOK	LIC	CX NC	345.7 165.5	79.53 BLH20090911AAE	35 58 39.0 78 48 58.0	50.000 146	75.6 248	49.9 Radio One Licenses, Llc	-7.6	12.8	
249D Southern Pines	W249BX	LIC	C NC	263.2 82.8	66.53 BLFT20070917AAG	35 12 37.0 79 19 21.0	0.013 100	23.8 210	7.1 Educational Media Foundati	29.4	13.7	
249C1 Garden City	WXXM	LIC	CX SC	192.7 12.4	191.82 BLH20020405AAA	33 35 45.0 79 03 11.0	100.000 219	163.8 221	65.5 Amfm Radio Licenses, L.L.c	14.2	79.5	
247D Hope Mills	W247BS	CP	DC NC	233.5 53.3	38.04 BMPFT20150701AAI	35 04 46.0 78 55 58.0	0.250	1.1 248	18.8 Educational Media Foundati	23.5	18.1	
252D Goldsboro	W252CL	LIC	C NC	79.1 259.4	54.13 BLFT20140122ABG	35 22 27.0 78 00 43.0	0.250 76	1.1 110	11.7 Eastern Airwaves Llc	41.1	41.2	
250D Chapel Hill	W250BP	LIC	DC NC	322.2 141.9	82.87 BLFT20120815ABB	35 52 16.0 79 09 40.0	0.250 331	25.9 472	16.4 Rudd Media, Llc	46.4	44.3	
250D Chapel Hill	W250BP	APP	DC NC	322.2 141.9	82.87 BPFT20160107AAW	35 52 16.0 79 09 40.0	0.250	24.9 472	16.7 Rudd Media, Llc	46.1	44.3	
250D Spring Hope	W250AZ	CP	DH NC	29.2 209.5	80.11 BPFT20150902ABM	35 54 44.0 78 09 45.0	0.210	12.1 163	8.6 Pmc Broadcasting, Llc	56.5	54.2	
247D Southern Pines	W247CE	APP	DC NC	262.8 82.3	74.88 BMPFT20160126AFG	35 11 46.0 79 24 46.0	0.250	1.0 220	13.2 Friends Of Public Radio, I	60.5	59.7	
246C0 Greensboro	WQMG	LIC	DCX NC	303.1 122.4	136.15 BLH20031112AID	35 56 42.0 79 51 45.0	100.000 327	10.7 565	75.0 Entercom License, Llc	112.6	59.8	
251D Rolesville	W251CA	CP	DC NC	8.3 188.3	73.66 BMPFT20150724ABS	35 56 25.0 78 28 45.0	0.250	0.4 249	10.6 Eastern Airwaves, Llc	62.0	61.8	
247D Southern Pines	W247CE	CP	C NC	259.8 79.3	81.52 BNPFT20131025ADW	35 09 04.0 79 28 40.0	0.013 114	0.3 238	6.6 Friends Of Public Radio, I	67.9	73.7	
250D Rocky Mount	W250AZ	LIC	DH NC	39.9 220.2	91.39 BLFT20150206AAI	35 54 46.0 77 56 47.0	0.250	5.2 71	3.6 Pmc Broadcasting, Llc	74.5	68.8	
247C1 Wilmington	WMNX	LIC	CX NC	160.9 341.2	144.53 BLH20090109AVP	34 03 06.0 78 04 57.0	100.000 269	9.5 276	69.6 Cumulus Licensing Llc	121.8	73.9	
250D Winterville	W250CJ	LIC	C NC	70.3 250.9	108.60 BLFT20150716AAK	35 36 25.0 77 28 05.0	0.155	16.8 119	11.5 Inner Banks Media, Llc	80.0	79.9	
250C2 Bayboro	WNBB	LIC	ZCX NC	100.6 281.6	163.80 BLH20071005AAC	35 00 02.0 76 49 58.0	50.000 132	68.6 135	45.0 Coastal Carolina Radio, Ll	83.7	99.2	

Terrain database is FCC NGDC 30 Sec,

R= 73.215 qualifying spacings or FCC minimum spacings in KM, M= Margin in KM

In & out distances between contours are shown at closest points. Reference Zone= East Zone, Co to 3rd adj.

All separation margins (if shown) include rounding.

Ant Column: (D= DA Standard, Z= DA 73.215, N= Not DA 73.215, \_= Omni), Polarization (C,H,V,E), Beamtilt(Y,N,X)

"\*"affixed to 'IN' or 'OUT' values = site inside restricted contour.

Reference station has protected zone issue: AM tower: WCKB

**Table 2: Facilities Protected by U/D Method**

Facility	WQSM Fayetteville, North Carolina
Relationship	251C1, second adjacent
Distance (km)	38.04
Bearing (degrees)	233.5
ERP (kW, on azimuth)	100.0
HAAT (m, on azimuth)	274.4
Ratio	40
Signal Strength (dBu)	75.4
Translator Signal Strength	115.4
Translator distance (km)	.189

**Undesired to Desired Method under §74.1204(d)**

Protection to some facilities is provided through the use of Undesired to Desired Signal Strength Ratio (U/D) calculations. Table 2 lists the parameters studied. The proposed antenna is a Shively 6812B-2 two level omnidirectional antenna. The 6812B antennas have a 0.9 wavelength spacing between bays. The elevation pattern is shown in Figure 2. The elevation of the 115.4 dBu contour is shown in Figure 4.

The WQSM field strength calculated at ground level at the proposed W263CC site is 75.4 dBu, using the FM Curves calculator on the FCC web site. For the translator interference contour, free space calculations are used. The corresponding 115.4 dBu field strength distance is .189 kilometers in the horizontal plane. The proposed antenna location is 82 meters above ground. As Figure 4 shows, the 115.4 dBu signal level does not reach ground level.

Figure 5 is a topographic map of the transmitter site, showing that the site is on a gently rolling terrain. Figure 6 is a Google Earth aerial photograph with a 115.4 field strength line plotted. As shown, much of the area within the contour is in the tower field. There are no tall buildings within the contour. There is no population within the predicted interference area and therefore this facility is permitted under §74.1204(d).

The applicant recognizes that the U/D method is only a tool for predicting likely interference. Should any actual interference be experienced, the applicant will cooperate fully in correcting the interference. Corrective steps may require changes in the transmitting antenna or other steps which would require Commission authorization, may require that the translator cease operation except for brief equipment tests, or may require filtering at the receivers which report interference.

### Source of Data

Transmitter location, effective radiated power, directional antenna pattern, and elevation data are extracted from the Commission's CDBS. All contours for existing and proposed facilities are calculated using height above average terrain calculated at one degree horizontal increments.

The contours were evaluated using terrain extracted from the National Geophysical Data Center's (NGDC) 30 arcsecond terrain database, formatted by V-Soft Communications. This is the same database in use at the Federal Communications Commission. The terrain data is formatted by V-Soft Communications® for use with its FMCommander allocations and Probe™ mapping programs.

All population data is from 2010 U.S. Census PL data files. Population is counted by considering the location of the centroid of each census block. The data for each block is counted if it falls within the area being counted.



**Table 3: FM Over Output for Protection of WZKT**

01-27-2016 Terrain Data: FCC NGDC 30 Sec FMOver Analysis

WZKT BLH20080501AAS

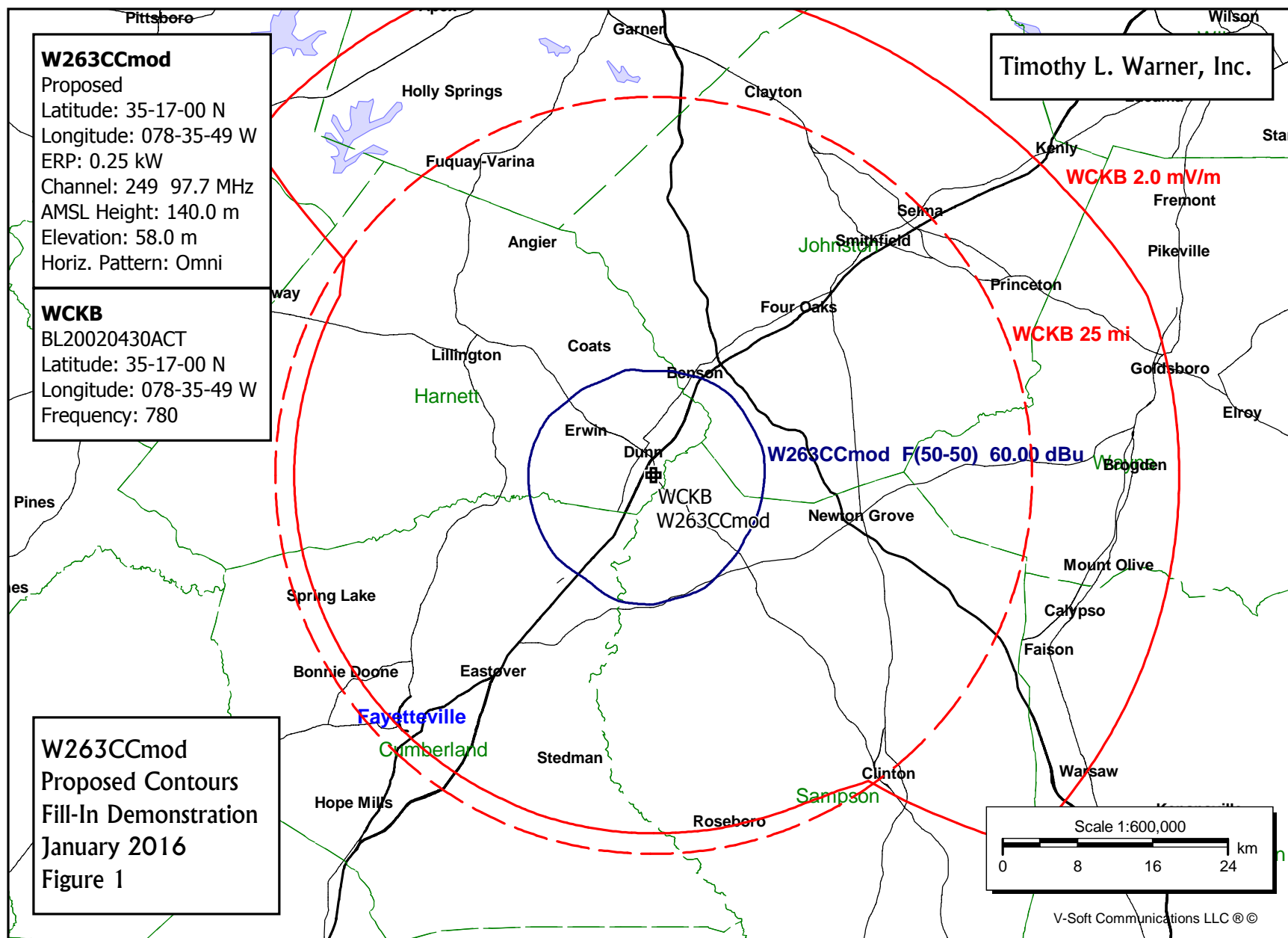
W263CC

Channel = 249A  
 Max ERP = 2.65 kw  
 RCAMSL = 181.7 m  
 N. Lat. 35 17 28.0  
 W. Lng. 77 49 25.0  
 Protected  
 60 dBu

Channel = 249D  
 Max ERP = 0.25 kw  
 RCAMSL = 140 m  
 N. Lat. 35 17 00.0  
 W. Lng. 78 35 49.0  
 Interfering  
 40 dBu

Azimuth (degrees)	ERP (kw)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kw)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
210.0	002.6500	0156.9	028.7	113.0	000.2500	0083.1	061.0	32.57	
211.0	002.6500	0156.4	028.6	112.9	000.2500	0083.1	060.5	32.73	
212.0	002.6500	0155.9	028.6	112.8	000.2500	0083.1	060.0	32.89	
213.0	002.6500	0155.4	028.5	112.7	000.2500	0083.0	059.5	33.05	
214.0	002.6500	0155.1	028.5	112.6	000.2500	0083.0	059.0	33.22	
215.0	002.6500	0154.9	028.5	112.5	000.2500	0083.0	058.6	33.38	
216.0	002.6500	0154.6	028.5	112.3	000.2500	0083.0	058.1	33.55	
217.0	002.6500	0154.3	028.4	112.2	000.2500	0083.0	057.6	33.71	
218.0	002.6500	0153.9	028.4	112.0	000.2500	0083.0	057.1	33.87	
219.0	002.6500	0153.3	028.4	111.8	000.2500	0083.0	056.7	34.04	
220.0	002.6500	0152.8	028.3	111.7	000.2500	0083.0	056.2	34.20	
221.0	002.6500	0152.3	028.3	111.4	000.2500	0083.0	055.7	34.36	
222.0	002.6500	0151.8	028.2	111.2	000.2500	0083.0	055.3	34.52	
223.0	002.6500	0151.4	028.2	111.0	000.2500	0083.0	054.8	34.68	
224.0	002.6500	0150.9	028.2	110.8	000.2500	0083.0	054.4	34.83	
225.0	002.6500	0150.4	028.1	110.5	000.2500	0083.0	054.0	34.99	
226.0	002.6500	0149.9	028.1	110.3	000.2500	0083.0	053.5	35.14	
227.0	002.6500	0149.4	028.0	110.0	000.2500	0083.0	053.1	35.29	
228.0	002.6500	0149.1	028.0	109.7	000.2500	0083.0	052.7	35.44	
229.0	002.6500	0149.0	028.0	109.5	000.2500	0082.9	052.3	35.59	
230.0	002.6500	0148.9	028.0	109.2	000.2500	0082.9	051.9	35.74	
231.0	002.6500	0149.0	028.0	108.9	000.2500	0082.9	051.4	35.89	
232.0	002.6500	0149.2	028.0	108.7	000.2500	0082.9	051.0	36.04	
233.0	002.6500	0149.5	028.0	108.4	000.2500	0082.9	050.6	36.19	
234.0	002.6500	0149.8	028.1	108.1	000.2500	0082.8	050.2	36.34	
235.0	002.6500	0150.1	028.1	107.8	000.2500	0082.8	049.8	36.48	
236.0	002.6500	0150.4	028.1	107.4	000.2500	0082.8	049.4	36.63	
237.0	002.6500	0150.7	028.1	107.1	000.2500	0082.8	049.0	36.77	
238.0	002.6500	0151.0	028.2	106.8	000.2500	0082.8	048.6	36.90	
239.0	002.6500	0151.1	028.2	106.4	000.2500	0082.7	048.2	37.03	
240.0	002.6500	0151.3	028.2	106.0	000.2500	0082.7	047.8	37.16	
241.0	002.6500	0151.7	028.2	105.6	000.2500	0082.7	047.4	37.29	
242.0	002.6500	0152.2	028.3	105.2	000.2500	0082.7	047.1	37.42	
243.0	002.6500	0153.0	028.3	104.8	000.2500	0082.6	046.7	37.55	
244.0	002.6500	0153.7	028.4	104.4	000.2500	0082.6	046.3	37.69	
245.0	002.6500	0154.5	028.5	104.0	000.2500	0082.6	045.9	37.82	
246.0	002.6500	0155.2	028.5	103.6	000.2500	0082.5	045.6	37.95	
247.0	002.6500	0156.0	028.6	103.1	000.2500	0082.5	045.2	38.08	
248.0	002.6500	0156.7	028.6	102.6	000.2500	0082.5	044.9	38.20	
249.0	002.6500	0157.1	028.7	102.1	000.2500	0082.5	044.6	38.32	
250.0	002.6500	0157.4	028.7	101.6	000.2500	0082.4	044.3	38.42	
251.0	002.6500	0157.6	028.7	101.1	000.2500	0082.4	044.0	38.53	
252.0	002.6500	0157.9	028.8	100.5	000.2500	0082.4	043.7	38.63	
253.0	002.6500	0158.2	028.8	099.9	000.2500	0082.4	043.5	38.72	
254.0	002.6500	0158.4	028.8	099.4	000.2500	0082.3	043.2	38.81	
255.0	002.6500	0158.5	028.8	098.8	000.2500	0082.3	043.0	38.89	
256.0	002.6500	0158.5	028.8	098.1	000.2500	0082.2	042.8	38.96	
257.0	002.6500	0158.6	028.8	097.5	000.2500	0082.2	042.6	39.04	
258.0	002.6500	0158.8	028.8	096.9	000.2500	0082.2	042.4	39.11	
259.0	002.6500	0159.0	028.8	096.2	000.2500	0082.2	042.3	39.18	
260.0	002.6500	0159.1	028.9	095.6	000.2500	0082.3	042.1	39.25	
261.0	002.6500	0159.2	028.9	094.9	000.2500	0082.4	042.0	39.32	
262.0	002.6500	0159.2	028.9	094.3	000.2500	0082.5	041.8	39.37	
263.0	002.6500	0159.2	028.9	093.6	000.2500	0082.6	041.7	39.42	
264.0	002.6500	0159.0	028.8	092.9	000.2500	0082.7	041.7	39.46	
265.0	002.6500	0158.9	028.8	092.2	000.2500	0082.8	041.6	39.50	
266.0	002.6500	0158.8	028.8	091.5	000.2500	0082.9	041.5	39.53	
267.0	002.6500	0159.1	028.9	090.8	000.2500	0083.1	041.5	39.57	

268.0	002.6500	0159.4	028.9	090.1	000.2500	0083.2	041.4	39.60
269.0	002.6500	0159.7	028.9	089.4	000.2500	0083.3	041.4	39.63
270.0	002.6500	0159.9	028.9	088.7	000.2500	0083.3	041.4	39.64
271.0	002.6500	0160.1	028.9	088.0	000.2500	0083.4	041.4	39.65
272.0	002.6500	0160.3	029.0	087.3	000.2500	0083.5	041.4	39.65
273.0	002.6500	0160.4	029.0	086.6	000.2500	0083.5	041.4	39.64
274.0	002.6500	0160.6	029.0	085.9	000.2500	0083.5	041.5	39.62
275.0	002.6500	0160.5	029.0	085.2	000.2500	0083.5	041.5	39.59
276.0	002.6500	0160.3	029.0	084.6	000.2500	0083.7	041.6	39.57
277.0	002.6500	0160.3	029.0	083.9	000.2500	0083.8	041.7	39.54
278.0	002.6500	0160.2	028.9	083.2	000.2500	0083.9	041.9	39.50
279.0	002.6500	0160.0	028.9	082.5	000.2500	0084.2	042.0	39.46
280.0	002.6500	0159.7	028.9	081.9	000.2500	0084.5	042.2	39.43
281.0	002.6500	0159.6	028.9	081.2	000.2500	0084.7	042.4	39.38
282.0	002.6500	0159.2	028.9	080.6	000.2500	0084.8	042.6	39.31
283.0	002.6500	0158.8	028.8	080.0	000.2500	0084.8	042.8	39.23
284.0	002.6500	0158.3	028.8	079.4	000.2500	0084.9	043.0	39.14
285.0	002.6500	0157.7	028.7	078.8	000.2500	0084.9	043.3	39.04
286.0	002.6500	0157.0	028.7	078.3	000.2500	0084.9	043.6	38.94
287.0	002.6500	0156.4	028.6	077.7	000.2500	0084.9	043.8	38.83
288.0	002.6500	0155.8	028.6	077.2	000.2500	0084.9	044.1	38.72
289.0	002.6500	0155.3	028.5	076.7	000.2500	0084.9	044.4	38.60
290.0	002.6500	0154.9	028.5	076.2	000.2500	0084.8	044.7	38.49
291.0	002.6500	0154.6	028.5	075.6	000.2500	0084.8	045.0	38.37
292.0	002.6500	0154.2	028.4	075.2	000.2500	0084.7	045.3	38.24
293.0	002.6500	0153.4	028.4	074.7	000.2500	0084.5	045.7	38.10
294.0	002.6500	0152.5	028.3	074.3	000.2500	0084.3	046.1	37.94
295.0	002.6500	0151.4	028.2	073.9	000.2500	0084.1	046.4	37.78
296.0	002.6500	0150.5	028.1	073.5	000.2500	0083.9	046.8	37.62
297.0	002.6500	0150.0	028.1	073.1	000.2500	0083.6	047.2	37.47
298.0	002.6500	0149.6	028.1	072.7	000.2500	0083.4	047.6	37.31
299.0	002.6500	0149.3	028.0	072.3	000.2500	0083.1	047.9	37.16
300.0	002.6500	0148.8	028.0	071.9	000.2500	0082.9	048.3	37.00
301.0	002.6500	0148.2	027.9	071.6	000.2500	0082.7	048.7	36.85
302.0	002.6500	0147.5	027.9	071.3	000.2500	0082.6	049.1	36.69
303.0	002.6500	0147.0	027.8	071.0	000.2500	0082.4	049.5	36.54
304.0	002.6500	0146.6	027.8	070.7	000.2500	0082.3	049.9	36.38
305.0	002.6500	0146.3	027.8	070.4	000.2500	0082.2	050.3	36.23
306.0	002.6500	0146.0	027.8	070.1	000.2500	0082.2	050.7	36.08
307.0	002.6500	0145.9	027.7	069.8	000.2500	0082.1	051.1	35.93
308.0	002.6500	0145.9	027.7	069.5	000.2500	0082.0	051.5	35.78
309.0	002.6500	0146.1	027.8	069.2	000.2500	0082.0	052.0	35.63
310.0	002.6500	0146.1	027.8	068.9	000.2500	0082.0	052.4	35.47
311.0	002.6500	0146.1	027.8	068.7	000.2500	0081.9	052.8	35.32
312.0	002.6500	0145.9	027.7	068.4	000.2500	0081.9	053.2	35.16
313.0	002.6500	0145.7	027.7	068.2	000.2500	0081.9	053.7	35.00
314.0	002.6500	0145.5	027.7	068.0	000.2500	0081.9	054.1	34.84
315.0	002.6500	0145.3	027.7	067.8	000.2500	0081.9	054.6	34.68
316.0	002.6500	0145.1	027.7	067.6	000.2500	0081.9	055.0	34.52
317.0	002.6500	0145.0	027.7	067.5	000.2500	0081.9	055.5	34.36
318.0	002.6500	0144.9	027.7	067.3	000.2500	0081.9	055.9	34.20
319.0	002.6500	0144.9	027.7	067.1	000.2500	0081.9	056.4	34.04
320.0	002.6500	0145.0	027.7	067.0	000.2500	0081.9	056.8	33.88
321.0	002.6500	0145.0	027.7	066.8	000.2500	0081.9	057.3	33.72
322.0	002.6500	0144.8	027.6	066.7	000.2500	0081.8	057.8	33.55
323.0	002.6500	0144.5	027.6	066.6	000.2500	0081.8	058.3	33.39
324.0	002.6500	0144.4	027.6	066.5	000.2500	0081.8	058.7	33.23
325.0	002.6500	0144.4	027.6	066.4	000.2500	0081.8	059.2	33.07
326.0	002.6500	0144.4	027.6	066.3	000.2500	0081.8	059.7	32.91
327.0	002.6500	0144.6	027.6	066.2	000.2500	0081.8	060.1	32.76
328.0	002.6500	0145.2	027.7	066.1	000.2500	0081.8	060.6	32.60
329.0	002.6500	0146.2	027.8	066.0	000.2500	0081.8	061.1	32.45



Antenna Mfg.: Shively  
Antenna Type: 6812B-2  
Station: W263CC  
Frequency: 97.7  
Channel #: 249  
Figure: 2

Date: 1/27/2016

Beam Tilt	0	
Gain (Max)	1.010	0.044 dB
Gain (Horizon)	1.010	0.044 dB

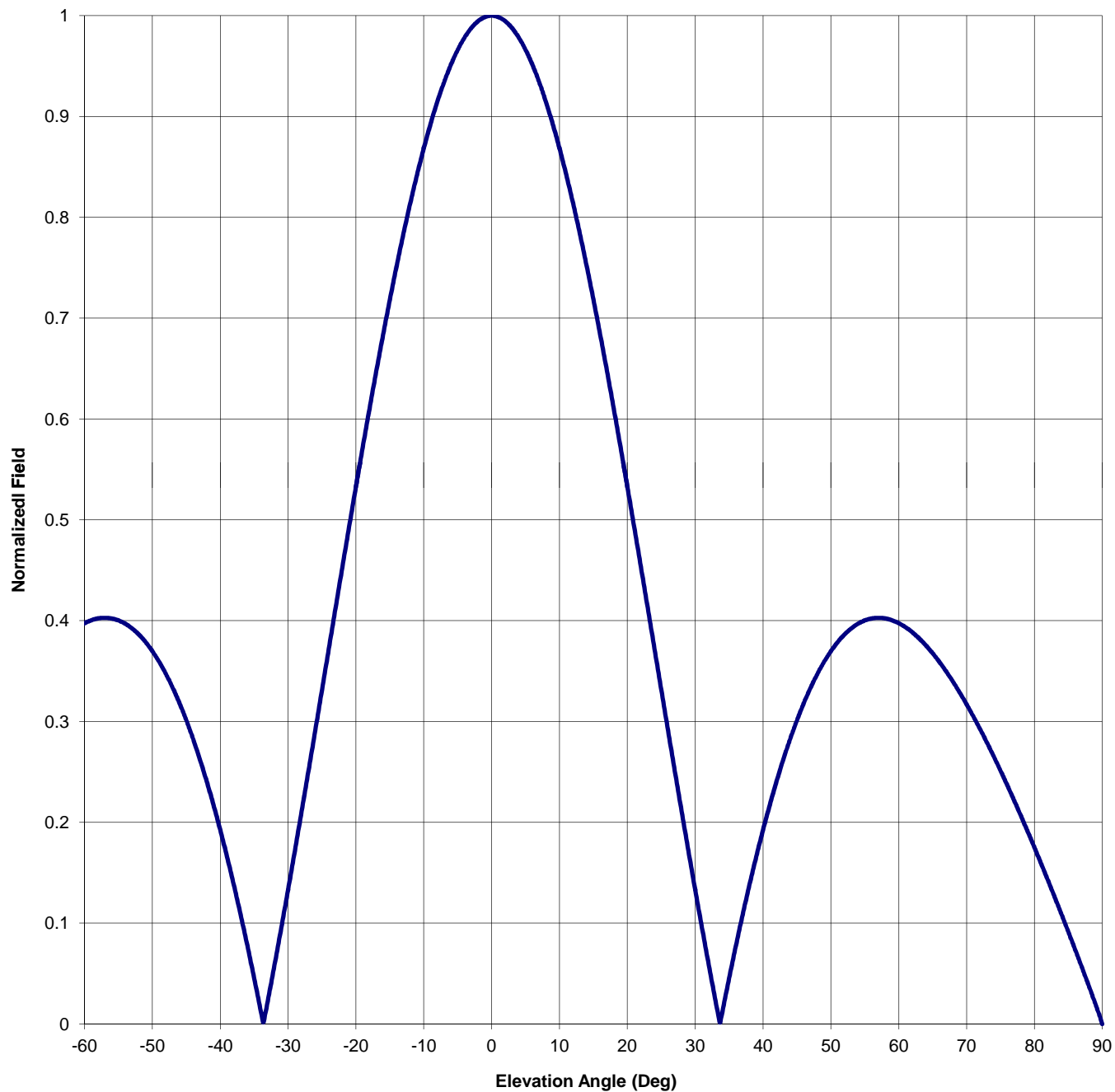


Figure 3: Allocation Study: WZKT  
Eastern Airwaves, LLC

FMCommander Single Allocation Study - 01-27-2016 - FCC NGDC 30 Sec  
W263CC's Overlaps (In= -25.04 km, Out= 0.87 km)

W263CC CH 249 D  
Lat= 35 17 00.0, Lng= 78 35 49.0  
0.25 kW 92.4 m HAAT, 140 m COR  
Prot.= 60 dBu, Intef.= 40 dBu

WZKT CH 249 A BLH20080501AAS  
Lat= 35 17 28.0, Lng= 77 49 25.0  
2.65 kW 152.8 m HAAT, 181.7 m COR  
Prot.= 60 dBu, Intef.= 40 dBu

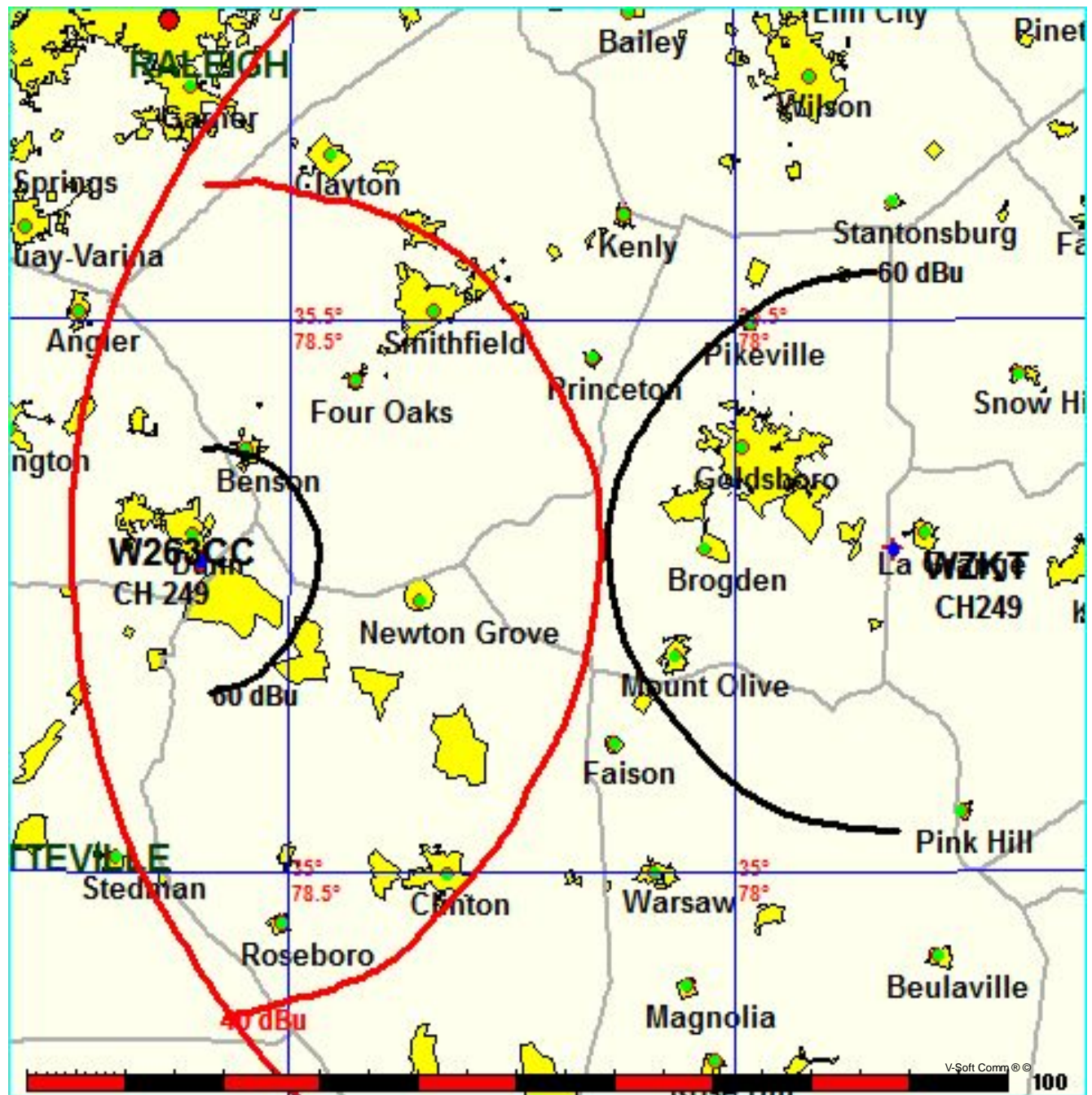
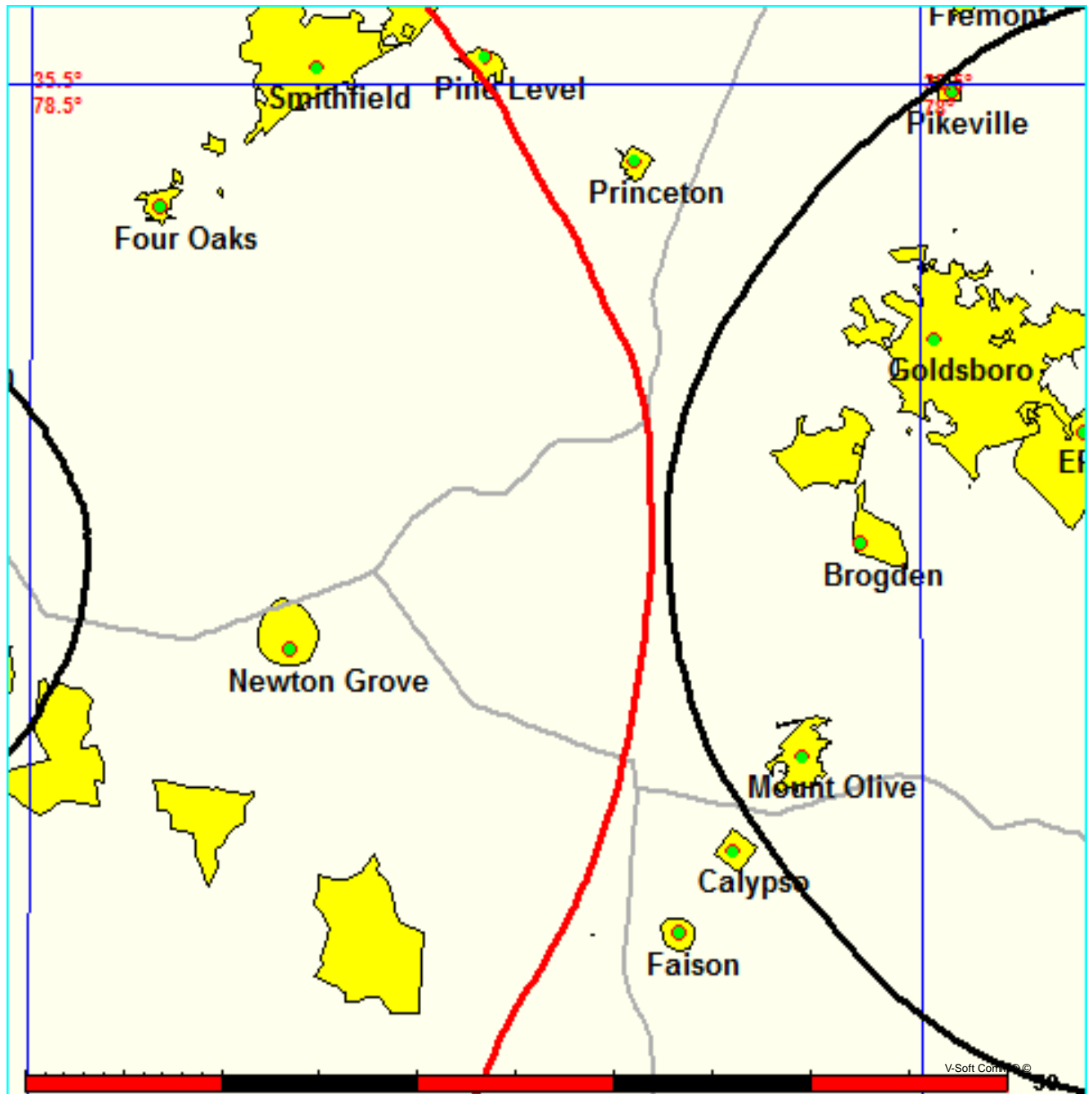


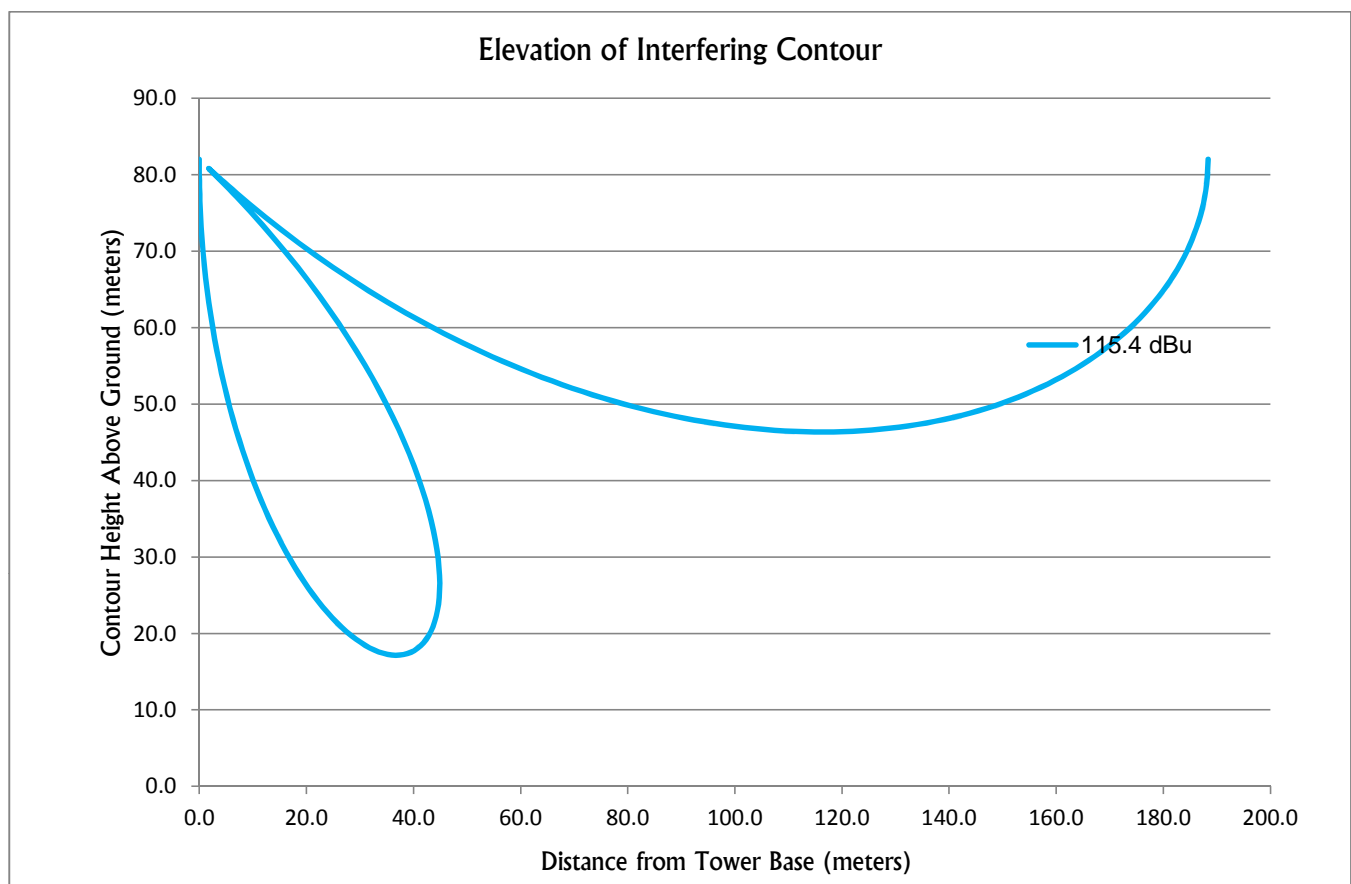
Figure 3A: Allocation Study: WZKT Detail  
Eastern Airwaves, LLC

FMCommander Single Allocation Study - 01-27-2016 - FCC NGDC 30 Sec  
W263CC's Overlaps (In= -25.04 km, Out= 0.87 km)

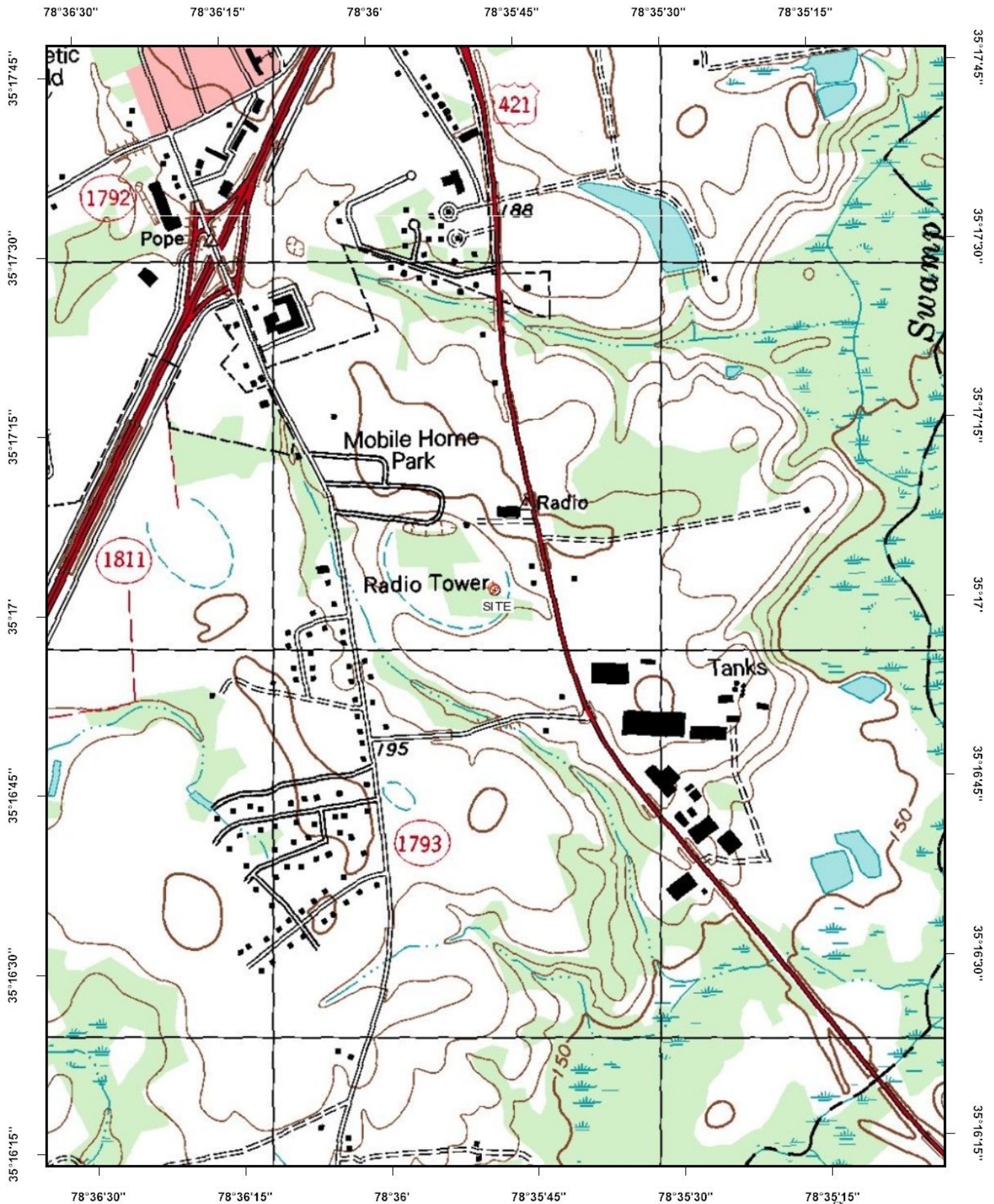
W263CC CH 249 D  
Lat= 35 17 00.0, Lng= 78 35 49.0  
0.25 kW 92.4 m HAAT, 140 m COR  
Prot.= 60 dBu, Intef.= 40 dBu

WZKT CH 249 A BLH20080501AAS  
Lat= 35 17 28.0, Lng= 77 49 25.0  
2.65 kW 152.8 m HAAT, 181.7 m COR  
Prot.= 60 dBu, Intef.= 40 dBu

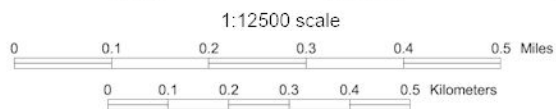








Universal Transverse Mercator (UTM) Projection Zone 17  
North American Datum of 1983



Magnetic declination of 7W at center of map  
on March 17, 2011

Topographic Map  
Figure 5



# W263CC mod

Aerial Photograph  
January 2016  
Figure 6

## Legend



W263CCmod (249) - 50 10 Field Strength: 115.4 dBu FCC [FCC 30 US]

