

Brevard, North Carolina
Application for Minor Modification of FM Translator W267BS
On Channel 268
by
Western North Carolina Public Radio, Inc.

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 Western North Carolina Public Radio, Inc., 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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18 January 2016

Narrative

This Exhibit supports an amendment to a minor modification application for FM translator W267BS, on Channel 268 in Brevard, North Carolina. Allocation details are provided in this exhibit. This proposal complies fully with the requirements of 74 C.F.R. §74.1204(a). 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 authorized 60 dBu F(50,50) coverage area, and the proposed 60 dBu F(50,50) coverage area. As shown on Figure 1, the proposed modification is a minor modification of the authorized facilities.

The changes are a new site, a change of channel to a first adjacent channel, a new directional antenna, an increase of height, and a reduction in power.

Allocations

This application proposes service to Brevard, North Carolina, on channel 268. 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. The allocations table was prepared using the NED 03 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 are three (3) facility for which additional detail is provided.

Table and Figure	Call Sign	Location	Channel, class and relationship
3	WGOG	Walhalla, South Carolina	269A, first adjacent
4	W268BS	Tryon, North Carolina	268D, co-channel
5	WROQ	Anderson, South Carolina	266 C1, second adjacent

Table 1: Allocations

Allocation Study Western North Carolina Public Radio, Inc.												
CH# 268D - 101.5 MHz, Pwr= 0.01 kW DA, HAAT= 408.5 M, COR= 1170 M DISPLAY DATES												
35 10 34.0 N. DATA 01-18-16												
82 40 55.0 W. Average Protected F(50-50)= 11.7 km SEARCH 01-18-16												
Standard Directional												
CH CITY	CALL	TYPE	ANT STATE	AZI. <--	DIST FILE #	LAT. LNG.	Pwr(kw) HAAT(M)	INT(km) COR(M)	PRO(km) LICENSEE	*IN* (Overlap in km)	*OUT*	
268C Johnson City	WQUT	LIC	CY TN	14.2 194.4	125.11 BMLH19980904KD	36 16 07.0 82 20 21.0	100.000 457	182.6 1069	79.4 Radio License Holding	-69.3*	3.7	Cbc,
269A Walhalla	WGOG	LIC	CX SC	224.3 44.1	49.15 BLH20150803AAE	34 51 33.0 83 03 30.0	6.000 92	51.9 497	32.6 Appalachian Broadcasting C	-13.2*	0.3	
267D Hendersonville	W267BS!	CP	DC NC	20.2 200.2	11.73 BNPFT20130830AMA	35 16 31.0 82 38 14.0	0.180 -72	4.5 703	3.2 western North Carolina Pub	-5.0	-11.1	
Facility being modified.												
268D Tryon	W268BS	CP	DC NC	75.7 256.0	41.22 BMPFT20150923AMK	35 16 00.0 82 14 34.0	0.010	41.7 994	11.4 western North Carolina Pub	-10.0*	0.2	
271D Brevard	W271CL	LIC	DC NC	27.9 208.0	13.76 BLFT20151013AHD	35 17 08.0 82 36 39.0	0.250	1.1 840	7.1 western North Carolina Pub	0.6	3.3	
266C1 Anderson	WROQ	LIC	DCX SC	147.3 327.6	69.67 BLH20080225ABJ	34 38 51.0 82 16 13.0	100.000 296	9.3 540	69.0 Entercom License, Llc	51.2	0.7	
269D Hendersonville	W269CW	LIC	DC NC	34.7 214.9	30.10 BLFT20151106EQT	35 23 55.0 82 29 33.0	0.019	10.4 781	7.0 Bible Broadcasting Network	7.8	5.3	
268L1 Greenville	WBWT-LP	LIC	SC	136.2 316.3	42.36 BLL20160106AAL	34 54 03.1 82 21 36.4	0.041 47	353	19.4 Quality Radio Partners, In		5.4	
271D Greenville	W271BS	LIC	DC SC	136.7 316.8	35.92 BLFT20151013AEG	34 56 27.0 82 24 41.0	0.990	0.7 642	17.7 Ted A McCall	26.6	16.3	
267D Franklin	W267AD	CP	DC NC	286.0 105.6	61.82 BMPFT20151125BQT	35 19 38.0 83 20 09.0	0.019	23.9 1540	14.9 Tugart Properties, Llc	26.2	30.2	
268C0 Marietta	WKHX-FM	LIC	CX GA	225.4 44.5	215.02 BLH20050228ADF	33 48 26.0 84 20 22.0	100.000 329	175.1 612	74.1 Radio License Holdings Llc	29.2	107.0	
266D Candler	W266CP	CP	DV NC	23.2 203.3	42.45 BNPFT20150519AAA	35 31 39.0 82 29 49.0	0.250	0.0 1067	3.0 Clear Channel Broadcasting	30.2	33.1	
271D Asheville	W271CB	CP	DC NC	14.1 194.2	47.93 BNPFT20130829ACW	35 35 42.0 82 33 09.0	0.005 42	0.0 748	1.7 Isothermal Community Colle	35.8	45.9	
265D Franklin	W265AZ	CP	DC NC	286.0 105.6	61.82 BPFT20150512ACF	35 19 38.1 83 20 09.1	0.119	0.5 1535	24.9 Toccoa Falls College	49.5	36.1	
271C1 Sevierville	WWST	LIC	CN TN	308.6 128.0	113.96 BLH19860519KF	35 48 41.0 83 40 08.0	15.000 603	6.9 981	69.6 Scripps Broadcasting Holdi	95.6	43.2	
271D Seneca	W271AJ	LIC	C SC	208.5 28.3	59.00 BLFT20070308AGA	34 42 31.0 82 59 24.0	0.027 68	0.4 327	6.2 Ted A McCall	48.8	52.3	
267D Bryson City	W267AD	LIC	C NC	292.7 112.2	73.26 BLFT20050919AGG	35 25 38.0 83 25 37.0	0.080 -174	7.5 654	5.3 Tugart Properties, Llc	54.2	51.3	
270C0 Gastonia	WBAV-FM	LIC	CY NC	86.8 267.6	128.14 BLH19880129KD	35 13 57.0 81 16 35.0	100.000 301	10.0 552	71.9 Wkis License Limited Partn	109.1	55.9	

Terrain database is NED 03 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.

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 Elevation Dataset (NED) 03 terrain database. The NED 03 database is derived from the USGS National Elevation Dataset 30 meter terrain database. The USGS National Elevation Dataset has been developed by merging the highest-resolution, best-quality elevation data available across the United States into a seamless raster format. NED is the result of the maturation of the USGS effort to provide 1:24,000-scale Digital Elevation Model (DEM) data for the conterminous US and 1:63,360-scale DEM data for Alaska. 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 WGOG

01-18-2016 Terrain Data: NED 03 SEC FMOVer Analysis

WGOG BLH20150803AAE

W267BS.C

Channel = 269A
 Max ERP = 6 kw
 RCAMSL = 497 m
 N. Lat. 34 51 33.0
 W. Lng. 83 03 30.0
 Protected
 60 dBu

Channel = 268D
 Max ERP = 0.01 kw
 RCAMSL = 1170 m
 N. Lat. 35 10 34.0
 W. Lng. 82 40 55.0
 Interfering
 54 dBu

Azimuth (degrees)	ERP (kw)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kw)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
344.0	006.0000	-0089.5	015.8	242.6	000.0100	0367.8	043.6	37.51	
345.0	006.0000	-0090.6	015.8	242.5	000.0100	0368.1	043.3	37.63	
346.0	006.0000	-0081.9	015.8	242.4	000.0100	0368.6	043.0	37.75	
347.0	006.0000	-0080.6	015.8	242.4	000.0100	0369.1	042.8	37.88	
348.0	006.0000	-0080.6	015.8	242.3	000.0100	0369.8	042.5	38.01	
349.0	006.0000	-0089.3	015.8	242.2	000.0100	0370.4	042.2	38.14	
350.0	006.0000	-0093.8	015.8	242.0	000.0100	0371.0	042.0	38.27	
351.0	006.0000	-0093.8	015.8	241.9	000.0100	0371.4	041.7	38.39	
352.0	006.0000	-0092.7	015.8	241.8	000.0100	0371.4	041.4	38.50	
353.0	006.0000	-0085.2	015.8	241.7	000.0100	0371.5	041.2	38.61	
354.0	006.0000	-0070.3	015.8	241.5	000.0100	0371.9	040.9	38.73	
355.0	006.0000	-0057.4	015.8	241.4	000.0100	0372.6	040.7	38.86	
356.0	006.0000	-0053.3	015.8	241.2	000.0100	0373.1	040.4	38.99	
357.0	006.0000	-0046.6	015.8	241.0	000.0100	0373.0	040.2	39.09	
358.0	006.0000	-0035.4	015.8	240.8	000.0100	0371.8	039.9	39.17	
359.0	006.0000	-0028.5	015.8	240.7	000.0100	0369.9	039.7	39.22	
000.0	006.0000	-0018.7	015.8	240.5	000.0100	0367.3	039.4	39.26	
001.0	006.0000	-0007.8	015.8	240.3	000.0100	0364.4	039.2	39.28	
002.0	006.0000	-0008.7	015.8	240.1	000.0100	0361.0	039.0	39.29	
003.0	006.0000	-0007.9	015.8	239.8	000.0100	0357.6	038.7	39.30	
004.0	006.0000	0000.6	015.8	239.6	000.0100	0354.1	038.5	39.30	
005.0	006.0000	0010.0	015.8	239.4	000.0100	0351.4	038.3	39.32	
006.0	006.0000	0016.4	015.8	239.1	000.0100	0349.6	038.1	39.36	
007.0	006.0000	0014.6	015.8	238.9	000.0099	0348.8	037.8	39.43	
008.0	006.0000	0024.5	015.8	238.6	000.0099	0348.1	037.6	39.50	
009.0	006.0000	0040.6	018.4	241.6	000.0100	0371.7	035.7	41.06	
010.0	006.0000	0049.6	020.5	244.0	000.0100	0380.1	034.2	42.00	
011.0	006.0000	0058.1	022.1	245.9	000.0100	0390.2	033.0	42.86	
012.0	006.0000	0064.2	023.1	246.8	000.0100	0390.1	032.1	43.29	
013.0	006.0000	0071.0	024.1	247.9	000.0100	0391.6	031.2	43.79	
014.0	006.0000	0076.0	024.9	248.6	000.0100	0393.1	030.4	44.25	
015.0	006.0000	0082.6	025.8	249.6	000.0100	0390.9	029.4	44.71	
016.0	006.0000	0092.0	027.2	251.3	000.0100	0387.2	028.3	45.31	
017.0	006.0000	0096.2	027.8	251.7	000.0100	0388.6	027.6	45.79	
018.0	006.0000	0103.5	028.8	252.8	000.0100	0396.5	026.6	46.62	
019.0	006.0000	0107.3	029.2	253.0	000.0100	0397.5	025.9	47.11	
020.0	006.0000	0107.7	029.3	252.4	000.0100	0393.2	025.5	47.30	
021.0	006.0000	0114.8	030.1	253.2	000.0100	0398.4	024.5	48.08	
022.0	006.0000	0121.7	030.9	253.8	000.0100	0400.6	023.6	48.77	
023.0	006.0000	0121.5	030.9	253.0	000.0100	0397.4	023.2	48.99	
024.0	006.0000	0118.1	030.5	251.4	000.0100	0387.4	023.1	48.85	
025.0	006.0000	0127.3	031.5	252.3	000.0100	0392.5	022.0	49.78	
026.0	006.0000	0130.5	031.9	252.0	000.0100	0390.4	021.4	50.22	
027.0	006.0000	0131.0	031.9	251.0	000.0100	0386.8	020.9	50.47	
028.0	006.0000	0123.6	031.1	248.4	000.0100	0393.0	021.1	50.44	
029.0	006.0000	0118.2	030.5	246.3	000.0100	0390.1	021.3	50.28	
030.0	006.0000	0117.3	030.4	245.0	000.0100	0388.9	021.0	50.43	
031.0	006.0000	0119.0	030.6	244.0	000.0100	0381.0	020.6	50.59	
032.0	006.0000	0123.1	031.1	243.4	000.0100	0374.7	019.9	50.95	
033.0	006.0000	0130.9	031.9	243.3	000.0100	0373.2	018.9	51.72	
034.0	006.0000	0131.2	031.9	241.9	000.0100	0371.4	018.6	51.92	
035.0	006.0000	0136.2	032.5	241.1	000.0100	0373.2	017.8	52.58	
036.0	006.0000	0137.2	032.6	239.6	000.0100	0353.5	017.5	52.36	
037.0	006.0000	0142.7	033.3	238.6	000.0099	0348.0	016.7	52.87	
038.0	006.0000	0145.2	033.5	237.0	000.0098	0340.4	016.2	53.03	
039.0	006.0000	0149.7	034.1	235.5	000.0098	0336.2	015.5	53.45	
040.0	006.0000	0154.1	034.6	233.8	000.0097	0322.4	014.9	53.62	
041.0	006.0000	0151.5	034.3	231.4	000.0095	0314.6	015.1	53.21	
042.0	006.0000	0149.5	034.0	229.0	000.0094	0311.2	015.2	52.96	

043.0	006.0000	0144.4	033.5	226.6	000.0093	0306.2	015.7	52.34
044.0	006.0000	0137.7	032.7	224.5	000.0093	0311.5	016.5	51.82
045.0	006.0000	0142.2	033.2	222.4	000.0092	0309.4	016.0	52.15
046.0	006.0000	0152.9	034.4	219.9	000.0091	0314.7	014.8	53.26
047.0	006.0000	0156.2	034.8	217.3	000.0088	0302.3	014.5	53.12
048.0	006.0000	0156.6	034.8	215.0	000.0086	0302.5	014.6	52.91
049.0	006.0000	0159.4	035.1	212.3	000.0083	0287.3	014.5	52.47
050.0	006.0000	0164.6	035.7	209.3	000.0079	0276.6	014.1	52.35
051.0	006.0000	0167.2	036.0	206.5	000.0075	0279.8	014.1	52.24
052.0	006.0000	0170.6	036.3	203.6	000.0071	0299.1	014.1	52.65
053.0	006.0000	0170.1	036.3	201.5	000.0068	0315.0	014.4	52.47
054.0	006.0000	0168.2	036.1	199.8	000.0066	0326.6	014.9	52.06
055.0	006.0000	0167.6	036.0	198.0	000.0064	0334.2	015.4	51.73
056.0	006.0000	0169.2	036.2	195.8	000.0061	0336.5	015.6	51.37
057.0	006.0000	0173.7	036.6	193.0	000.0058	0381.5	015.7	52.15
058.0	006.0000	0177.2	036.9	190.6	000.0055	0361.7	016.0	51.27
059.0	006.0000	0179.1	037.1	188.6	000.0053	0382.3	016.3	51.31
060.0	006.0000	0182.1	037.4	186.5	000.0052	0396.8	016.7	51.23
061.0	006.0000	0187.8	037.8	183.9	000.0050	0418.1	017.0	51.34
062.0	006.0000	0190.2	038.0	182.2	000.0048	0443.0	017.4	51.39
063.0	006.0000	0185.8	037.7	182.2	000.0048	0443.4	018.2	50.79
064.0	006.0000	0179.0	037.1	182.8	000.0049	0435.2	019.0	49.98
065.0	006.0000	0179.6	037.2	181.7	000.0048	0447.7	019.6	49.73
066.0	006.0000	0182.9	037.4	180.2	000.0047	0462.0	020.0	49.51
067.0	006.0000	0187.9	037.9	178.4	000.0045	0461.6	020.5	49.04
068.0	006.0000	0192.2	038.2	176.9	000.0044	0477.5	021.0	48.80
069.0	006.0000	0193.3	038.3	176.1	000.0044	0487.9	021.6	48.44
070.0	006.0000	0197.7	038.6	174.7	000.0043	0498.3	022.1	48.10
071.0	006.0000	0199.1	038.8	174.1	000.0042	0501.7	022.8	47.64
072.0	006.0000	0199.6	038.8	173.6	000.0042	0503.6	023.4	47.17
073.0	006.0000	0197.5	038.6	173.7	000.0042	0503.2	024.1	46.67
074.0	006.0000	0200.5	038.9	172.9	000.0041	0510.0	024.7	46.29
075.0	006.0000	0198.4	038.7	173.0	000.0042	0508.1	025.4	45.80
076.0	006.0000	0196.9	038.6	173.1	000.0042	0507.3	026.1	45.34
077.0	006.0000	0195.7	038.5	173.2	000.0042	0506.9	026.8	44.90
078.0	006.0000	0195.3	038.5	173.1	000.0042	0507.7	027.5	44.49
079.0	006.0000	0196.0	038.5	172.9	000.0041	0510.3	028.1	44.11
080.0	006.0000	0197.8	038.7	172.5	000.0041	0514.0	028.8	43.76
081.0	006.0000	0201.7	039.0	171.9	000.0041	0520.2	029.5	43.45
082.0	006.0000	0204.7	039.2	171.4	000.0040	0523.2	030.1	43.10
083.0	006.0000	0207.8	039.4	171.0	000.0040	0525.1	030.8	42.74
084.0	006.0000	0210.5	039.6	170.7	000.0040	0526.0	031.5	42.39
085.0	006.0000	0210.7	039.6	170.8	000.0040	0525.8	032.2	42.06
086.0	006.0000	0211.4	039.7	170.8	000.0040	0525.7	032.9	41.74
087.0	006.0000	0212.3	039.8	170.8	000.0040	0525.7	033.6	41.42
088.0	006.0000	0210.7	039.6	171.1	000.0040	0524.8	034.3	41.13
089.0	006.0000	0213.2	039.8	171.0	000.0040	0525.2	035.0	40.81
090.0	006.0000	0213.4	039.8	171.1	000.0040	0524.8	035.7	40.50
091.0	006.0000	0213.6	039.9	171.3	000.0040	0524.1	036.4	40.20
092.0	006.0000	0213.3	039.8	171.5	000.0040	0522.6	037.0	39.89
093.0	006.0000	0215.5	040.0	171.5	000.0040	0522.8	037.8	39.59
094.0	006.0000	0218.1	040.2	171.4	000.0040	0523.2	038.5	39.28
095.0	006.0000	0216.4	040.1	171.8	000.0041	0520.5	039.1	38.98
096.0	006.0000	0216.6	040.1	172.1	000.0041	0518.8	039.8	38.68
097.0	006.0000	0218.2	040.2	172.2	000.0041	0518.0	040.5	38.38
098.0	006.0000	0219.1	040.3	172.3	000.0041	0516.0	041.2	38.07
099.0	006.0000	0217.1	040.1	172.8	000.0041	0511.2	041.8	37.75
100.0	006.0000	0217.4	040.1	173.0	000.0042	0508.2	042.5	37.43
101.0	006.0000	0220.1	040.3	173.1	000.0042	0507.8	043.2	37.14
102.0	006.0000	0220.5	040.4	173.3	000.0042	0505.4	043.9	36.84
103.0	006.0000	0223.4	040.6	173.4	000.0042	0505.0	044.7	36.55

Table 4: FM Over Output for Protection of W268BS

01-18-2016 Terrain Data: NED 03 SEC FMOver Analysis

W268BS BMPFT20150923AMK

W267BS.C

Channel = 268D
 Max ERP = 0.01 kw
 RCAMSL = 994 m
 N. Lat. 35 16 00.0
 W. Lng. 82 14 34.0
 Protected
 60 dBu

Channel = 268D
 Max ERP = 0.01 kw
 RCAMSL = 1170 m
 N. Lat. 35 10 34.0
 W. Lng. 82 40 55.0
 Interfering
 40 dBu

Azimuth (degrees)	ERP (kw)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kw)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
196.0	000.0097	0580.5	013.3	094.2	000.0038	0334.8	036.4	35.47	
197.0	000.0097	0569.4	013.2	093.9	000.0038	0338.0	036.2	35.66	
198.0	000.0097	0557.0	013.0	093.6	000.0038	0342.5	036.1	35.89	
199.0	000.0097	0538.8	012.8	093.2	000.0038	0347.6	035.9	36.14	
200.0	000.0097	0525.4	012.7	092.8	000.0038	0350.8	035.7	36.33	
201.0	000.0097	0505.7	012.5	092.5	000.0038	0353.1	035.6	36.48	
202.0	000.0097	0482.6	012.3	092.1	000.0039	0352.3	035.4	36.54	
203.0	000.0097	0463.7	012.2	091.7	000.0039	0349.1	035.3	36.54	
204.0	000.0097	0446.8	012.0	091.4	000.0039	0343.9	035.1	36.48	
205.0	000.0097	0423.6	011.7	090.8	000.0039	0336.4	035.0	36.34	
206.0	000.0097	0403.5	011.5	090.3	000.0039	0332.8	035.0	36.30	
207.0	000.0097	0383.5	011.3	089.8	000.0040	0332.1	034.9	36.34	
208.0	000.0097	0372.7	011.1	089.5	000.0040	0333.8	034.8	36.46	
209.0	000.0097	0366.3	011.0	089.2	000.0040	0334.4	034.6	36.56	
210.0	000.0097	0357.7	010.9	088.9	000.0040	0334.0	034.5	36.62	
211.0	000.0097	0347.7	010.8	088.5	000.0040	0334.3	034.4	36.70	
212.0	000.0097	0359.2	010.9	088.6	000.0040	0334.0	034.2	36.80	
213.0	000.0097	0364.4	011.0	088.5	000.0040	0334.4	034.0	36.92	
214.0	000.0097	0362.5	011.0	088.3	000.0041	0335.1	033.9	37.02	
215.0	000.0097	0360.8	011.0	088.1	000.0041	0334.1	033.7	37.08	
216.0	000.0097	0363.4	011.0	087.9	000.0041	0333.4	033.5	37.15	
217.0	000.0097	0368.7	011.1	087.8	000.0041	0332.7	033.3	37.23	
218.0	000.0097	0369.6	011.1	087.6	000.0041	0331.2	033.2	37.28	
219.0	000.0097	0368.9	011.1	087.4	000.0041	0329.5	033.0	37.31	
220.0	000.0097	0383.8	011.3	087.4	000.0041	0329.6	032.8	37.44	
221.0	000.0097	0397.7	011.4	087.4	000.0041	0329.4	032.5	37.57	
222.0	000.0097	0404.1	011.5	087.2	000.0041	0328.4	032.3	37.64	
223.0	000.0097	0403.2	011.5	086.9	000.0041	0326.1	032.2	37.66	
224.0	000.0097	0409.3	011.6	086.8	000.0041	0324.6	032.0	37.73	
225.0	000.0097	0403.3	011.5	086.4	000.0042	0321.5	031.9	37.70	
226.0	000.0097	0393.3	011.4	086.0	000.0042	0318.3	031.9	37.66	
227.0	000.0097	0396.2	011.4	085.8	000.0042	0316.7	031.7	37.71	
228.0	000.0097	0384.3	011.3	085.3	000.0042	0313.6	031.7	37.66	
229.0	000.0097	0370.0	011.1	084.9	000.0043	0308.6	031.7	37.54	
230.0	000.0097	0364.6	011.0	084.5	000.0043	0302.0	031.7	37.40	
231.0	000.0097	0360.7	011.0	084.2	000.0043	0298.5	031.6	37.35	
232.0	000.0097	0363.4	011.0	083.9	000.0043	0298.0	031.5	37.43	
233.0	000.0097	0371.0	011.1	083.7	000.0043	0298.5	031.3	37.56	
234.0	000.0097	0381.4	011.2	083.5	000.0043	0299.8	031.1	37.72	
235.0	000.0097	0384.8	011.3	083.2	000.0044	0303.1	030.9	37.91	
236.0	000.0097	0383.1	011.3	082.9	000.0044	0307.5	030.9	38.09	
237.0	000.0097	0370.1	011.1	082.4	000.0044	0311.0	030.9	38.19	
238.0	000.0097	0373.1	011.2	082.1	000.0044	0311.0	030.8	38.27	
239.0	000.0098	0383.0	011.3	081.9	000.0044	0310.8	030.6	38.38	
240.0	000.0098	0383.4	011.3	081.6	000.0045	0311.6	030.5	38.47	
241.0	000.0098	0377.1	011.2	081.2	000.0045	0316.0	030.5	38.62	
242.0	000.0098	0367.4	011.1	080.7	000.0045	0321.6	030.6	38.78	
243.0	000.0098	0359.3	011.0	080.3	000.0045	0328.6	030.6	38.98	
244.0	000.0098	0354.6	010.9	080.0	000.0046	0332.3	030.6	39.10	
245.0	000.0098	0353.3	010.9	079.6	000.0046	0335.4	030.6	39.23	
246.0	000.0098	0349.0	010.8	079.2	000.0046	0338.4	030.6	39.33	
247.0	000.0098	0348.9	010.8	078.9	000.0047	0339.4	030.6	39.41	
248.0	000.0098	0349.5	010.8	078.5	000.0047	0337.2	030.5	39.40	
249.0	000.0098	0345.7	010.8	078.2	000.0047	0332.7	030.5	39.28	
250.0	000.0098	0347.6	010.8	077.8	000.0047	0328.6	030.5	39.22	
251.0	000.0098	0352.0	010.9	077.5	000.0048	0325.6	030.4	39.21	
252.0	000.0098	0357.6	011.0	077.1	000.0048	0324.0	030.3	39.24	
253.0	000.0098	0366.2	011.1	076.8	000.0048	0322.7	030.1	39.31	
254.0	000.0098	0373.8	011.2	076.4	000.0048	0322.0	030.0	39.38	

255.0	000.0098	0381.4	011.3	076.1	000.0049	0323.7	029.9	39.52
256.0	000.0098	0387.8	011.4	075.7	000.0049	0325.0	029.8	39.62
257.0	000.0098	0389.4	011.4	075.3	000.0049	0326.0	029.8	39.68
258.0	000.0098	0390.5	011.4	074.9	000.0049	0326.9	029.8	39.74
259.0	000.0098	0394.2	011.4	074.5	000.0050	0326.4	029.8	39.77
260.0	000.0098	0397.1	011.5	074.1	000.0050	0324.6	029.8	39.76
261.0	000.0099	0403.8	011.6	073.7	000.0050	0322.9	029.7	39.79
262.0	000.0099	0410.9	011.7	073.3	000.0051	0321.7	029.6	39.82
263.0	000.0099	0417.8	011.7	072.9	000.0051	0320.9	029.6	39.86
264.0	000.0099	0428.7	011.9	072.5	000.0052	0318.6	029.5	39.88
265.0	000.0099	0436.7	012.0	072.0	000.0052	0317.4	029.4	39.90
266.0	000.0099	0437.1	012.0	071.6	000.0052	0315.9	029.5	39.86
267.0	000.0100	0437.7	012.0	071.2	000.0052	0315.0	029.5	39.84
268.0	000.0100	0440.0	012.0	070.8	000.0053	0314.2	029.5	39.82
269.0	000.0100	0444.9	012.1	070.4	000.0053	0312.0	029.5	39.79
270.0	000.0100	0452.0	012.2	070.0	000.0053	0308.2	029.5	39.72
271.0	000.0100	0459.1	012.2	069.5	000.0054	0305.1	029.6	39.66
272.0	000.0100	0460.4	012.2	069.1	000.0054	0302.0	029.6	39.56
273.0	000.0099	0460.0	012.2	068.8	000.0055	0298.8	029.7	39.44
274.0	000.0099	0456.6	012.2	068.4	000.0055	0295.4	029.8	39.29
275.0	000.0099	0452.0	012.1	068.1	000.0055	0292.9	030.0	39.16
276.0	000.0099	0450.6	012.1	067.8	000.0056	0291.5	030.1	39.08
277.0	000.0099	0444.1	012.0	067.5	000.0056	0291.6	030.3	39.02
278.0	000.0099	0444.8	012.0	067.1	000.0056	0292.6	030.4	39.02
279.0	000.0098	0440.6	012.0	066.8	000.0057	0292.6	030.5	38.95
280.0	000.0098	0432.3	011.9	066.6	000.0057	0293.1	030.7	38.87
281.0	000.0098	0428.2	011.8	066.4	000.0057	0294.0	030.9	38.82
282.0	000.0097	0424.3	011.8	066.1	000.0057	0293.9	031.1	38.74
283.0	000.0097	0420.4	011.7	065.9	000.0057	0293.4	031.2	38.66
284.0	000.0096	0417.8	011.7	065.6	000.0058	0293.7	031.4	38.60
285.0	000.0095	0418.6	011.6	065.4	000.0058	0293.8	031.5	38.55
286.0	000.0095	0414.6	011.6	065.2	000.0058	0294.5	031.7	38.50
287.0	000.0094	0411.8	011.5	064.9	000.0058	0296.3	031.9	38.48
288.0	000.0094	0405.6	011.4	064.8	000.0059	0298.2	032.1	38.44
289.0	000.0093	0401.3	011.4	064.6	000.0059	0300.4	032.3	38.43
290.0	000.0093	0395.1	011.3	064.5	000.0059	0301.8	032.5	38.38
291.0	000.0092	0393.4	011.2	064.3	000.0059	0302.7	032.6	38.33
292.0	000.0091	0391.6	011.2	064.1	000.0059	0303.4	032.8	38.28
293.0	000.0090	0389.8	011.1	064.0	000.0059	0305.4	033.0	38.26
294.0	000.0090	0389.3	011.1	063.8	000.0060	0309.6	033.2	38.31
295.0	000.0089	0394.1	011.1	063.5	000.0060	0317.8	033.3	38.50
296.0	000.0088	0393.3	011.1	063.4	000.0060	0322.7	033.5	38.57
297.0	000.0087	0390.3	011.0	063.2	000.0060	0325.8	033.7	38.57
298.0	000.0087	0390.3	011.0	063.1	000.0060	0329.9	033.8	38.62
299.0	000.0086	0390.8	011.0	062.9	000.0060	0334.0	034.0	38.66
300.0	000.0085	0393.3	011.0	062.7	000.0061	0339.0	034.2	38.74
301.0	000.0084	0399.7	011.0	062.5	000.0061	0345.0	034.3	38.86
302.0	000.0083	0403.2	011.0	062.4	000.0061	0349.3	034.5	38.91
303.0	000.0082	0409.2	011.1	062.2	000.0061	0353.9	034.6	38.98
304.0	000.0081	0410.4	011.0	062.0	000.0061	0356.2	034.8	38.97
305.0	000.0080	0409.2	011.0	062.0	000.0061	0357.6	035.0	38.92
306.0	000.0079	0399.0	010.8	062.1	000.0061	0355.8	035.2	38.75
307.0	000.0077	0399.3	010.8	062.0	000.0061	0357.4	035.4	38.71
308.0	000.0076	0399.8	010.8	061.9	000.0062	0358.8	035.6	38.67
309.0	000.0075	0395.3	010.7	061.9	000.0062	0358.6	035.8	38.56
310.0	000.0074	0386.7	010.5	062.0	000.0061	0356.9	036.0	38.41
311.0	000.0073	0378.5	010.4	062.1	000.0061	0355.2	036.3	38.25
312.0	000.0072	0373.6	010.3	062.1	000.0061	0354.3	036.5	38.13
313.0	000.0071	0374.1	010.3	062.1	000.0061	0355.1	036.6	38.07
314.0	000.0070	0374.7	010.2	062.1	000.0061	0355.8	036.8	38.01
315.0	000.0069	0365.1	010.1	062.2	000.0061	0352.7	037.0	37.81

Table 5: FM Over Output for Protection of WROQ

01-18-2016 Terrain Data: NED 03 SEC FMOver Analysis

WROQ BLH20080225ABJ

W267BS.C

Channel = 266C1
 Max ERP = 100 kw
 RCAMSL = 540 m
 N. Lat. 34 38 51.0
 W. Lng. 82 16 13.0
 Protected
 60 dBu

Channel = 268D
 Max ERP = 0.01 kw
 RCAMSL = 1170 m
 N. Lat. 35 10 34.0
 W. Lng. 82 40 55.0
 Interfering
 100 dBu

Azimuth (degrees)	ERP (kw)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kw)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
268.0	084.6400	0299.9	070.7	208.2	000.0078	0275.7	069.7	23.56	
269.0	082.8100	0299.3	070.4	208.5	000.0078	0275.6	068.5	24.00	
270.0	081.0000	0297.7	070.1	208.8	000.0079	0275.9	067.2	24.47	
271.0	078.8544	0295.7	069.6	209.0	000.0079	0276.0	066.0	24.93	
272.0	076.7376	0294.2	069.2	209.2	000.0079	0276.4	064.7	25.41	
273.0	074.6496	0293.7	068.9	209.4	000.0080	0277.0	063.5	25.88	
274.0	072.5904	0295.2	068.8	209.8	000.0080	0277.9	062.3	26.36	
275.0	070.5600	0295.8	068.5	210.0	000.0080	0279.3	061.2	26.87	
276.0	068.5584	0296.3	068.3	210.3	000.0081	0280.5	060.0	27.38	
277.0	066.5856	0296.9	068.0	210.5	000.0081	0280.0	058.8	27.83	
278.0	064.6416	0295.5	067.6	210.6	000.0081	0279.6	057.5	28.31	
279.0	062.7264	0294.6	067.3	210.7	000.0081	0279.2	056.3	28.78	
280.0	060.8400	0294.4	066.9	210.9	000.0081	0278.7	055.1	29.26	
281.0	060.3729	0295.0	066.9	211.3	000.0082	0279.1	054.0	29.73	
282.0	059.9076	0293.8	066.7	211.5	000.0082	0280.6	052.9	30.25	
283.0	059.4441	0293.8	066.7	211.9	000.0082	0283.4	051.7	30.81	
284.0	058.9824	0293.7	066.6	212.2	000.0083	0286.2	050.6	31.37	
285.0	058.5225	0294.7	066.6	212.6	000.0083	0289.3	049.5	31.93	
286.0	058.0644	0295.2	066.5	213.0	000.0084	0291.1	048.4	32.45	
287.0	057.6081	0295.2	066.4	213.3	000.0084	0291.7	047.3	32.93	
288.0	057.1536	0294.5	066.3	213.5	000.0084	0292.0	046.1	33.42	
289.0	056.7009	0294.2	066.2	213.8	000.0084	0292.6	045.0	33.92	
290.0	056.2500	0293.7	066.1	214.0	000.0084	0293.8	043.8	34.46	
291.0	057.1536	0293.0	066.2	214.5	000.0085	0299.0	042.7	35.11	
292.0	058.0644	0292.5	066.3	215.1	000.0086	0302.8	041.6	35.73	
293.0	058.9824	0292.1	066.4	215.6	000.0086	0303.3	040.5	36.26	
294.0	059.9076	0291.5	066.5	216.1	000.0087	0306.7	039.4	36.89	
295.0	060.8400	0290.4	066.6	216.6	000.0087	0308.8	038.3	37.49	
296.0	061.7796	0290.0	066.7	217.1	000.0088	0303.7	037.2	37.88	
297.0	062.7264	0289.6	066.9	217.6	000.0088	0303.8	036.1	38.44	
298.0	063.6804	0289.4	067.0	218.2	000.0089	0305.8	035.0	39.06	
299.0	064.6416	0289.5	067.2	218.8	000.0089	0308.1	033.8	39.70	
300.0	065.6100	0290.2	067.4	219.5	000.0090	0312.3	032.7	40.41	
301.0	066.2596	0290.9	067.5	220.1	000.0091	0316.4	031.6	41.12	
302.0	066.9124	0290.9	067.6	220.7	000.0091	0317.1	030.4	41.77	
303.0	067.5684	0291.6	067.8	221.3	000.0091	0314.7	029.3	42.37	
304.0	068.2276	0291.4	067.8	221.8	000.0091	0313.4	028.1	43.05	
305.0	068.8900	0291.4	067.9	222.3	000.0092	0310.4	027.0	43.72	
306.0	069.5556	0290.5	068.0	222.7	000.0092	0306.9	025.8	44.42	
307.0	070.2244	0290.3	068.0	223.2	000.0092	0306.3	024.6	45.24	
308.0	070.8964	0290.2	068.1	223.7	000.0092	0310.4	023.5	46.21	
309.0	071.5716	0290.0	068.2	224.2	000.0092	0312.4	022.3	47.16	
310.0	072.2500	0290.0	068.3	224.7	000.0093	0311.5	021.1	48.05	
311.0	072.7609	0291.0	068.5	225.4	000.0093	0311.0	019.9	48.98	
312.0	073.2736	0291.2	068.5	225.9	000.0093	0308.2	018.8	49.88	
313.0	073.7881	0290.4	068.6	226.2	000.0093	0306.4	017.6	50.81	
314.0	074.3044	0288.6	068.5	226.2	000.0093	0306.6	016.4	51.82	
315.0	074.8225	0287.3	068.4	226.2	000.0093	0306.7	015.2	52.83	
316.0	075.3424	0287.2	068.5	226.5	000.0093	0305.7	014.0	54.15	
317.0	075.8641	0287.4	068.6	226.9	000.0093	0307.1	012.8	55.81	
318.0	076.3876	0287.4	068.7	227.2	000.0094	0306.6	011.6	57.57	
319.0	076.9129	0287.3	068.7	227.5	000.0094	0306.5	010.4	59.47	
320.0	077.4400	0287.5	068.8	227.8	000.0094	0305.9	009.2	61.47	
321.0	076.9129	0287.4	068.7	226.8	000.0093	0306.9	008.0	63.57	
322.0	076.3876	0286.4	068.6	224.8	000.0093	0311.7	006.8	65.84	
323.0	075.8641	0285.6	068.4	221.9	000.0092	0313.3	005.6	68.26	
324.0	075.3424	0286.7	068.5	219.1	000.0090	0308.5	004.5	70.86	
325.0	074.8225	0289.5	068.6	216.3	000.0087	0308.0	003.3	74.24	
326.0	074.3044	0292.3	068.8	209.7	000.0080	0277.5	002.1	78.52	

327.0	073.7881	0295.5	069.0	188.0	000.0053	0390.7	001.0	83.97
328.0	073.2736	0298.0	069.1	107.7	000.0033	0406.5	000.8	83.61
329.0	072.7609	0300.1	069.2	075.6	000.0049	0325.0	001.8	77.79
330.0	072.2500	0301.8	069.2	068.2	000.0055	0293.3	003.0	73.06
331.0	070.5600	0304.1	069.2	066.8	000.0057	0292.7	004.2	69.34
332.0	068.8900	0304.6	069.0	067.7	000.0056	0291.4	005.4	66.23
333.0	067.2400	0302.2	068.5	070.3	000.0053	0311.6	006.7	63.65
334.0	065.6100	0299.5	068.1	072.6	000.0051	0318.8	007.9	61.29
335.0	064.0000	0296.0	067.6	074.7	000.0050	0326.6	009.2	59.16
336.0	062.4100	0293.4	067.1	076.1	000.0049	0323.5	010.4	56.96
337.0	060.8400	0290.7	066.6	077.4	000.0048	0325.1	011.7	54.99
338.0	059.2900	0288.0	066.2	078.5	000.0047	0337.4	012.9	53.46
339.0	057.7600	0286.9	065.8	079.1	000.0046	0339.1	014.1	51.88
340.0	056.2500	0285.9	065.5	079.6	000.0046	0335.0	015.3	50.37
341.0	055.0564	0284.7	065.2	080.1	000.0046	0331.5	016.5	49.27
342.0	053.8756	0283.7	064.9	080.4	000.0045	0326.7	017.6	48.15
343.0	052.7076	0282.6	064.6	080.9	000.0045	0319.7	018.8	46.99
344.0	051.5524	0281.1	064.2	081.4	000.0045	0313.1	020.0	45.84
345.0	050.4100	0280.8	064.0	081.7	000.0045	0311.0	021.1	44.87
346.0	049.2804	0280.3	063.7	082.0	000.0044	0310.8	022.2	43.96
347.0	048.1636	0280.0	063.5	082.4	000.0044	0311.2	023.4	43.10
348.0	047.0596	0279.5	063.2	082.8	000.0044	0308.8	024.5	42.18
349.0	045.9684	0280.4	063.0	082.9	000.0044	0307.0	025.6	41.34
350.0	044.8900	0281.0	062.9	083.2	000.0044	0303.7	026.7	40.47
351.0	045.0241	0281.1	062.9	083.0	000.0044	0306.4	027.8	39.85
352.0	045.1584	0280.7	062.9	082.9	000.0044	0307.1	028.9	39.19
353.0	045.2929	0280.8	062.9	082.8	000.0044	0308.2	030.0	38.58
354.0	045.4276	0280.6	062.9	082.8	000.0044	0308.2	031.1	37.97
355.0	045.5625	0281.3	063.0	082.7	000.0044	0309.1	032.2	37.43
356.0	045.6976	0282.5	063.1	082.6	000.0044	0310.0	033.3	36.92
357.0	045.8329	0283.5	063.3	082.5	000.0044	0310.4	034.5	36.39
358.0	045.9684	0283.0	063.2	082.7	000.0044	0309.3	035.6	35.82
359.0	046.1041	0283.2	063.3	082.8	000.0044	0308.4	036.7	35.27
000.0	046.2400	0283.5	063.3	082.9	000.0044	0307.3	037.8	34.71
001.0	048.5809	0283.4	063.8	082.4	000.0044	0311.0	038.9	34.31
002.0	050.9796	0282.5	064.2	082.1	000.0044	0310.9	040.1	33.79
003.0	053.4361	0282.1	064.7	081.8	000.0045	0310.9	041.3	33.29
004.0	055.9504	0281.0	065.0	081.6	000.0045	0311.4	042.5	32.80
005.0	058.5225	0279.2	065.3	081.5	000.0045	0312.0	043.7	32.31
006.0	061.1524	0279.2	065.8	081.3	000.0045	0314.1	044.9	31.88
007.0	063.8401	0279.7	066.2	081.1	000.0045	0316.4	046.1	31.45
008.0	066.5856	0280.1	066.7	081.0	000.0045	0318.1	047.4	31.01
009.0	069.3889	0281.4	067.2	080.8	000.0045	0320.3	048.6	30.59
010.0	072.2500	0282.6	067.7	080.7	000.0045	0322.1	049.9	30.16
011.0	074.8225	0283.3	068.1	080.7	000.0045	0321.9	051.2	29.66
012.0	077.4400	0284.4	068.6	080.7	000.0045	0321.7	052.4	29.16
013.0	080.1025	0285.1	069.0	080.8	000.0045	0320.5	053.7	28.62
014.0	082.8100	0286.2	069.4	080.9	000.0045	0319.6	055.0	28.09
015.0	085.5625	0287.8	069.8	080.9	000.0045	0318.7	056.3	27.55
016.0	088.3600	0288.5	070.2	081.1	000.0045	0316.8	057.6	26.99
017.0	091.2025	0287.4	070.4	081.4	000.0045	0313.1	058.8	26.38
018.0	094.0900	0287.2	070.7	081.7	000.0045	0311.1	060.0	25.82
019.0	097.0225	0287.0	071.0	081.9	000.0044	0310.8	061.2	25.33
020.0	100.0000	0286.9	071.3	082.2	000.0044	0311.2	062.5	24.86
021.0	098.4064	0287.7	071.2	082.8	000.0044	0308.2	063.6	24.34
022.0	096.8256	0288.2	071.1	083.4	000.0044	0300.4	064.6	23.66
023.0	095.2576	0287.8	070.9	084.1	000.0043	0298.3	065.6	23.19
024.0	093.7024	0286.4	070.6	084.9	000.0043	0308.5	066.5	23.14
025.0	092.1600	0285.9	070.4	085.5	000.0042	0315.0	067.5	22.97
026.0	090.6304	0286.0	070.3	086.1	000.0042	0319.3	068.5	22.72
027.0	089.1136	0285.7	070.1	086.8	000.0041	0324.8	069.5	22.52

W267BSmod

Proposed
Latitude: 35-10-35 N
Longitude: 082-40-54 W
ERP: 0.01 kW
Channel: 268 101.5 MHz
AMSL Height: 1170.0 m
Elevation: 1150.0 m
Horiz. Pattern: Directional

WCQS

BLED19931012KA
Latitude: 35-35-23 N
Longitude: 082-40-26 W
ERP: 1.60 kW
Channel: 201 88.1 MHz
AMSL Height: 1100.0 m
Elevation: 1074.0 m
Horiz. Pattern: Directional

W267BS.C

BNPFT20130830AMA
Latitude: 35-16-31 N
Longitude: 082-38-14 W
ERP: 0.18 kW
Channel: 267 101.3 MHz
AMSL Height: 703.0 m
Elevation: 684.0 m
Horiz. Pattern: Directional

W26BS

Authorized and Proposed Contours
Figure 1
January 2016

Timothy L. Warner, Inc.

Mountain Home

Balfour
Henderson

Hendersonville

Valley Hill

East Fl

WCQS F(50-50) 60.00 dBu

Authorized F(50-50) 60.00 dBu

Proposed F(50-50) 60.00 dBu

W267BS.C

Brevard

Transylvania

W267BSmod

Scale 1:250,000

0 3 6 9 km

V-Soft Communications LLC ©

Figure 2: Proposed W267BSmod Antenna Pattern
Pre-Rotation Antenna Pattern....

Azimuth (deg)	Relative Field
0.0	1.0
10.0	1.0
20.0	1.0
30.0	0.963
40.0	0.923
50.0	0.862
60.0	0.797
70.0	0.731
80.0	0.676
90.0	0.628
100.0	0.594
110.0	0.571
120.0	0.558
130.0	0.553
140.0	0.558
150.0	0.571
160.0	0.594
170.0	0.628
180.0	0.682
190.0	0.738
200.0	0.815
210.0	0.897
220.0	0.953
230.0	0.973
240.0	1.0
250.0	1.0
260.0	1.0
270.0	1.0
280.0	1.0
290.0	1.0
300.0	1.0
310.0	1.0
320.0	1.0
330.0	1.0
340.0	1.0
350.0	1.0

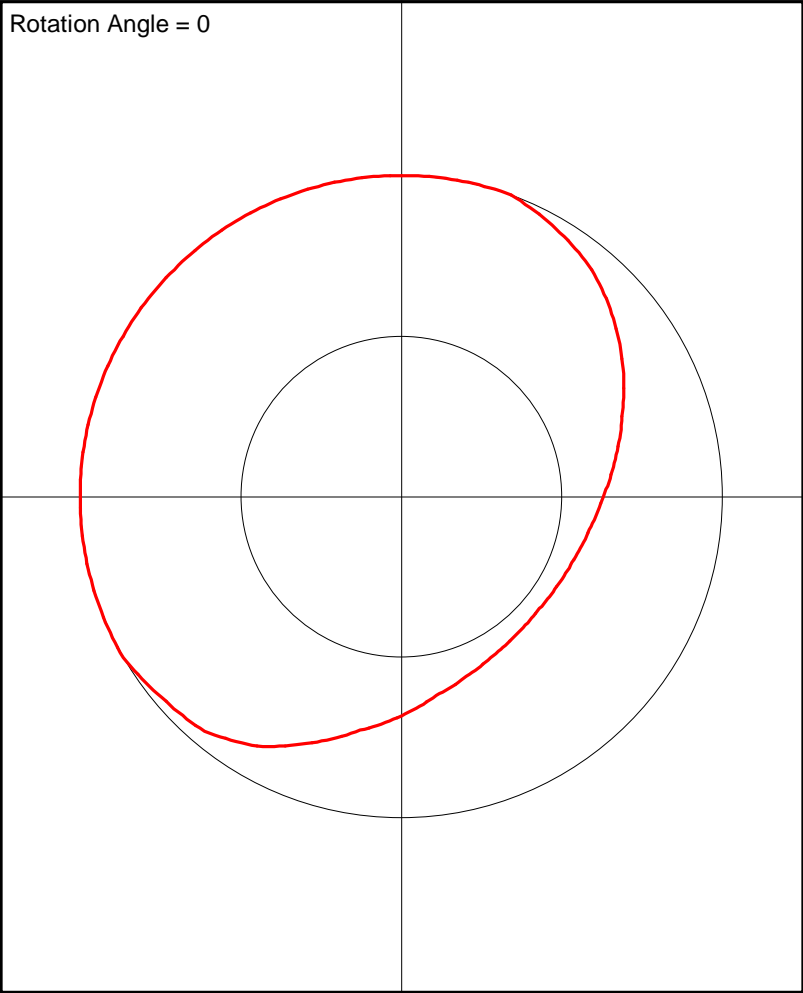


Figure 3: Allocation Study: WGOG
Western North Carolina Public Radio, Inc.

FMCommander Single Allocation Study - 01-18-2016 - NED 03 SEC
W267BS.C's Overlaps (In= -13.17 km, Out= 0.32 km)

W267BS.C CH 268 D DA
Lat= 35 10 34.0, Lng= 82 40 55.0
0.01 kW 408.5 m HAAT, 1170 m COR
Prot.= 60 dBu, Intef.= 54 dBu

WGOG CH 269 A BLH20150803AAE
Lat= 34 51 33.0, Lng= 83 03 30.0
6.0 kW 92 m HAAT, 497 m COR
Prot.= 60 dBu, Intef.= 54 dBu

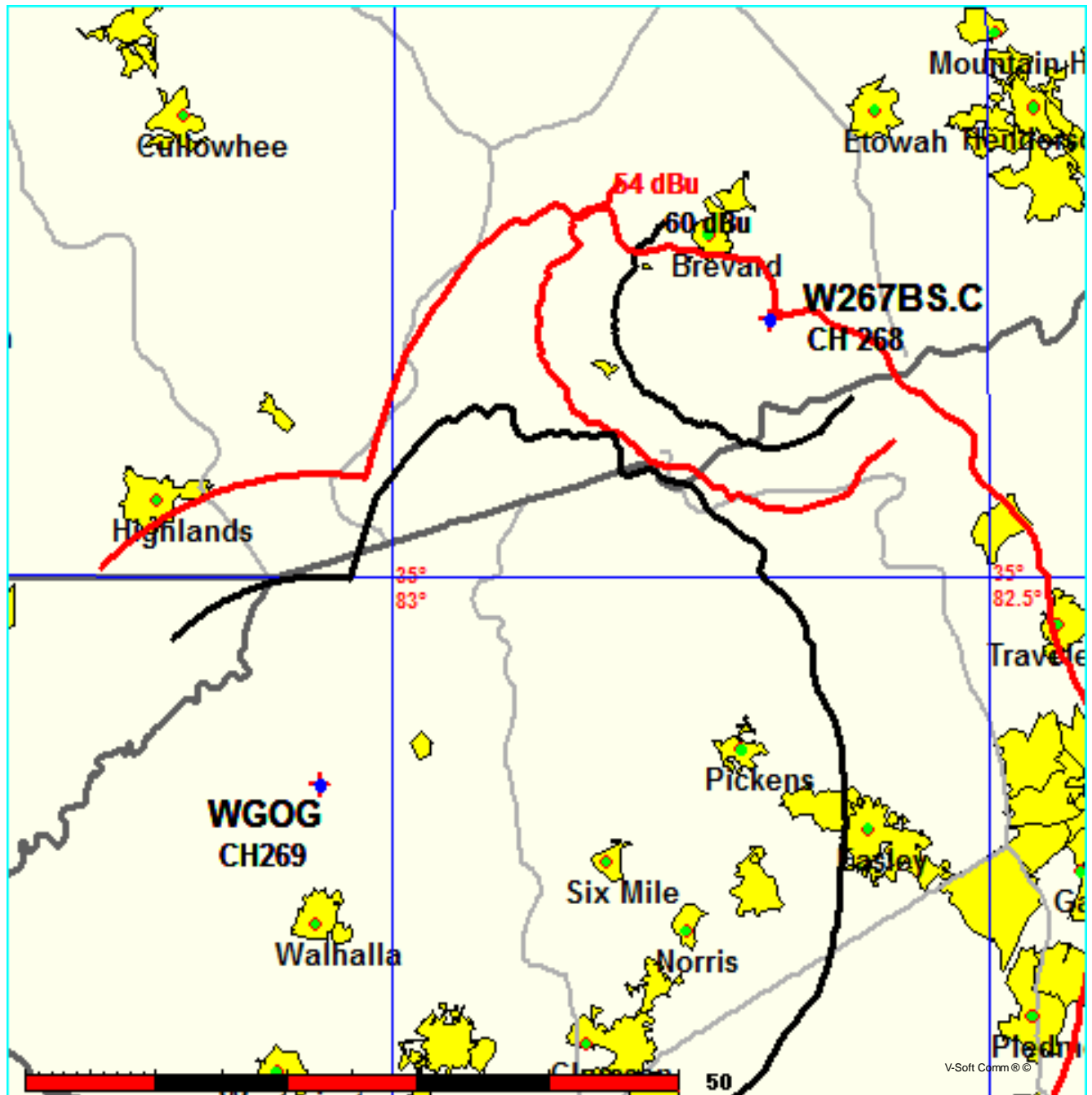


Figure 4: Allocation Study: W268BS
Western North Carolina Public Radio, Inc.

FMCommander Single Allocation Study - 01-18-2016 - NED 03 SEC
W267BS.C's Overlaps (In= -9.97 km, Out= 0.16 km)

W267BS.C CH 268 D DA
Lat= 35 10 34.0, Lng= 82 40 55.0
0.01 kW 408.5 m HAAT, 1170 m COR
Prot.= 60 dBu, Intef.= 40 dBu

W268BS CH 268 D DA BMPFT20150923AMK
Lat= 35 16 00.0, Lng= 82 14 34.0
0.01 kW 0 m HAAT, 994 m COR
Prot.= 60 dBu, Intef.= 40 dBu

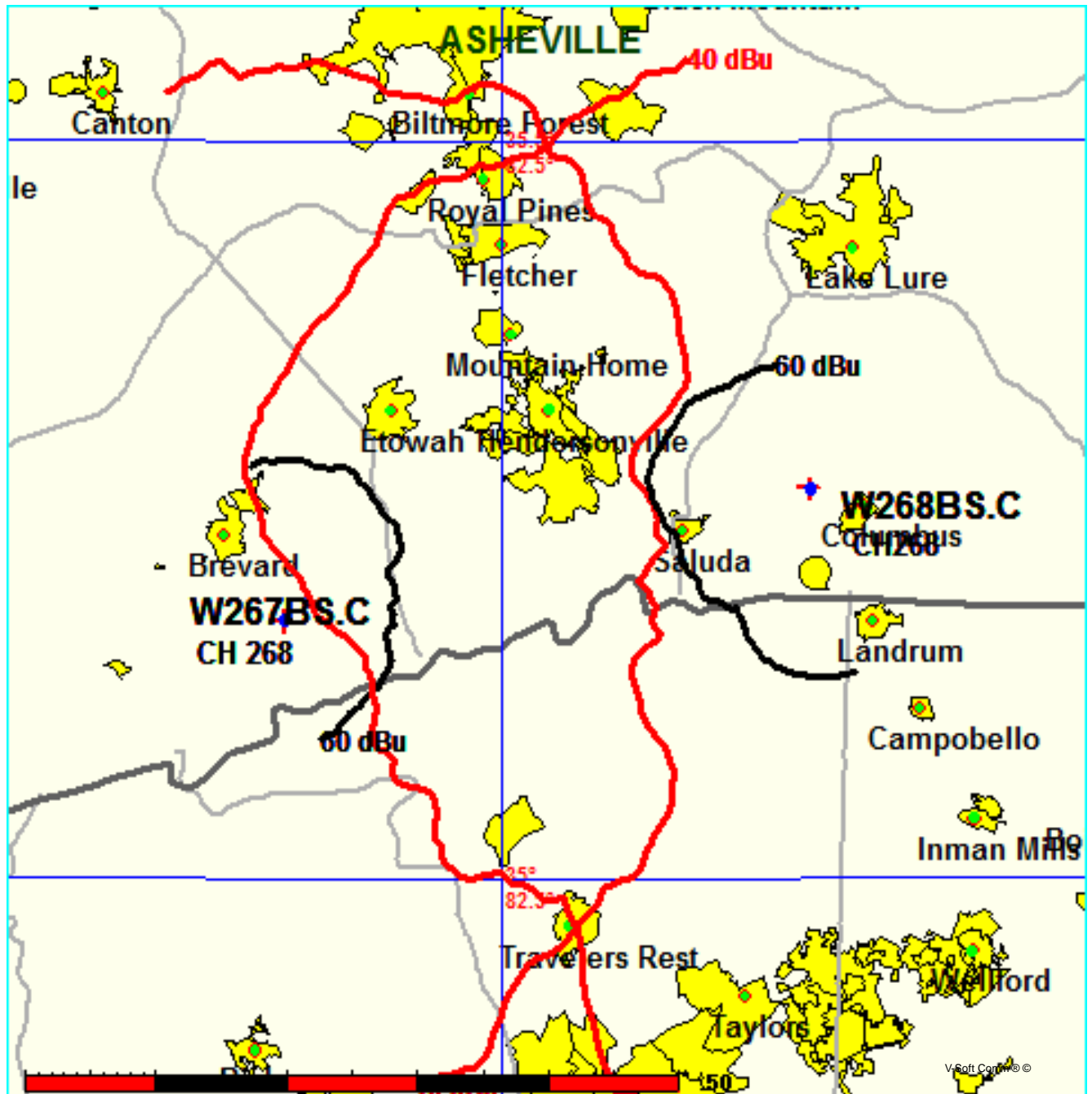


Figure 4A: Allocation Study: W268BS Detail
Western North Carolina Public Radio, Inc.

FMCommander Single Allocation Study - 01-18-2016 - NED 03 SEC
W267BS.C's Overlaps (In= -9.97 km, Out= 0.16 km)

W267BS.C CH 268 D DA
Lat= 35 10 34.0, Lng= 82 40 55.0
0.01 kW 408.5 m HAAT, 1170 m COR
Prot.= 60 dBu, Intef.= 40 dBu

W268BS CH 268 D DA BMPFT20150923AMK
Lat= 35 16 00.0, Lng= 82 14 34.0
0.01 kW 0 m HAAT, 994 m COR
Prot.= 60 dBu, Intef.= 40 dBu

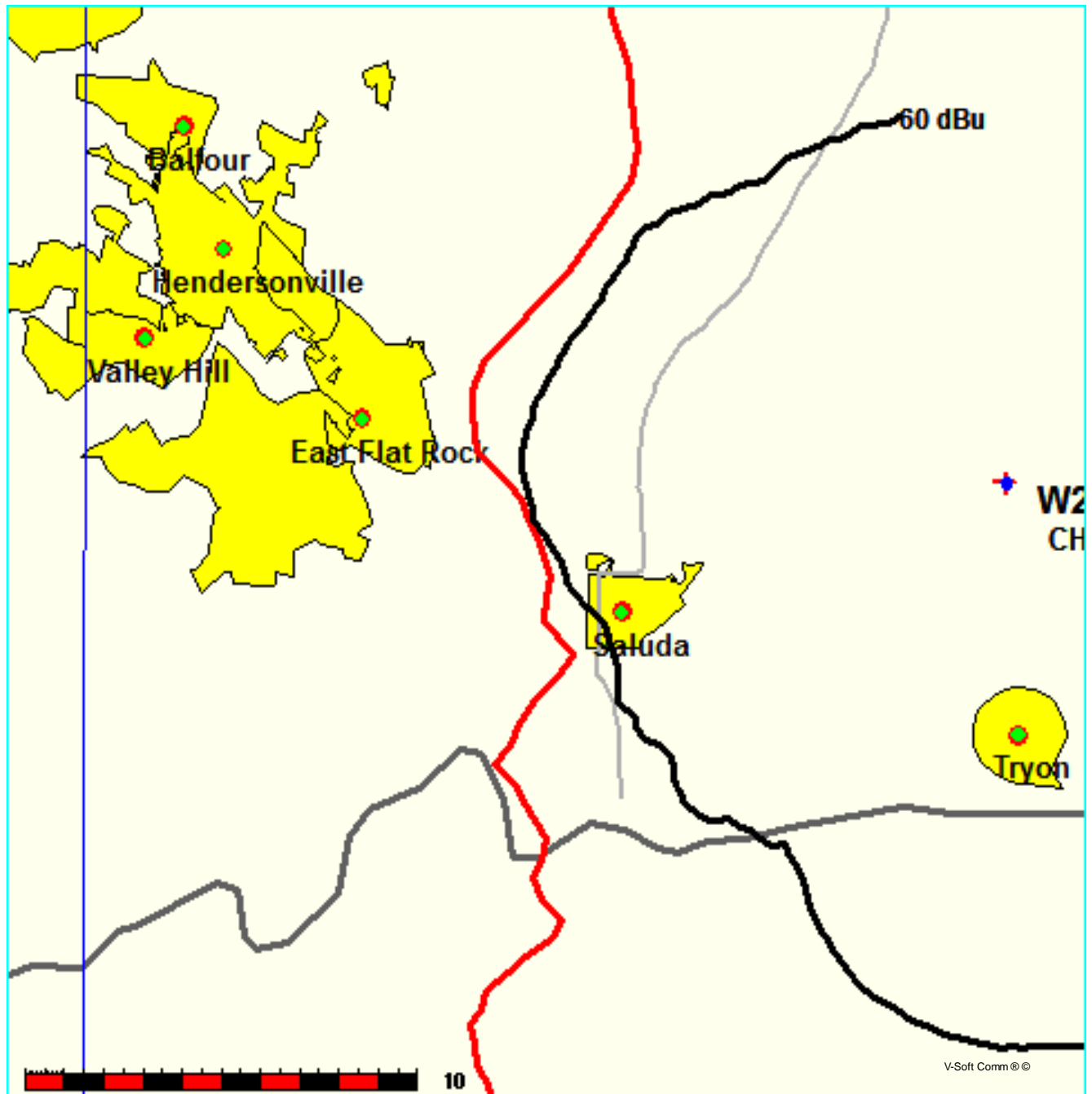


Figure 5: Allocation Study: WROQ
Western North Carolina Public Radio, Inc.

FMCommander Single Allocation Study - 01-18-2016 - NED 03 SEC
W267BS.C's Overlaps (In= 51.2 km, Out= 0.72 km)

W267BS.C CH 268 D DA
Lat= 35 10 34.0, Lng= 82 40 55.0
0.01 kW 408.5 m HAAT, 1170 m COR
Prot.= 60 dBu, Intef.= 100 dBu

WROQ CH 266 C1 DA BLH20080225ABJ
Lat= 34 38 51.0, Lng= 82 16 13.0
100.0 kW 296 m HAAT, 540 m COR
Prot.= 60 dBu, Intef.= 100 dBu

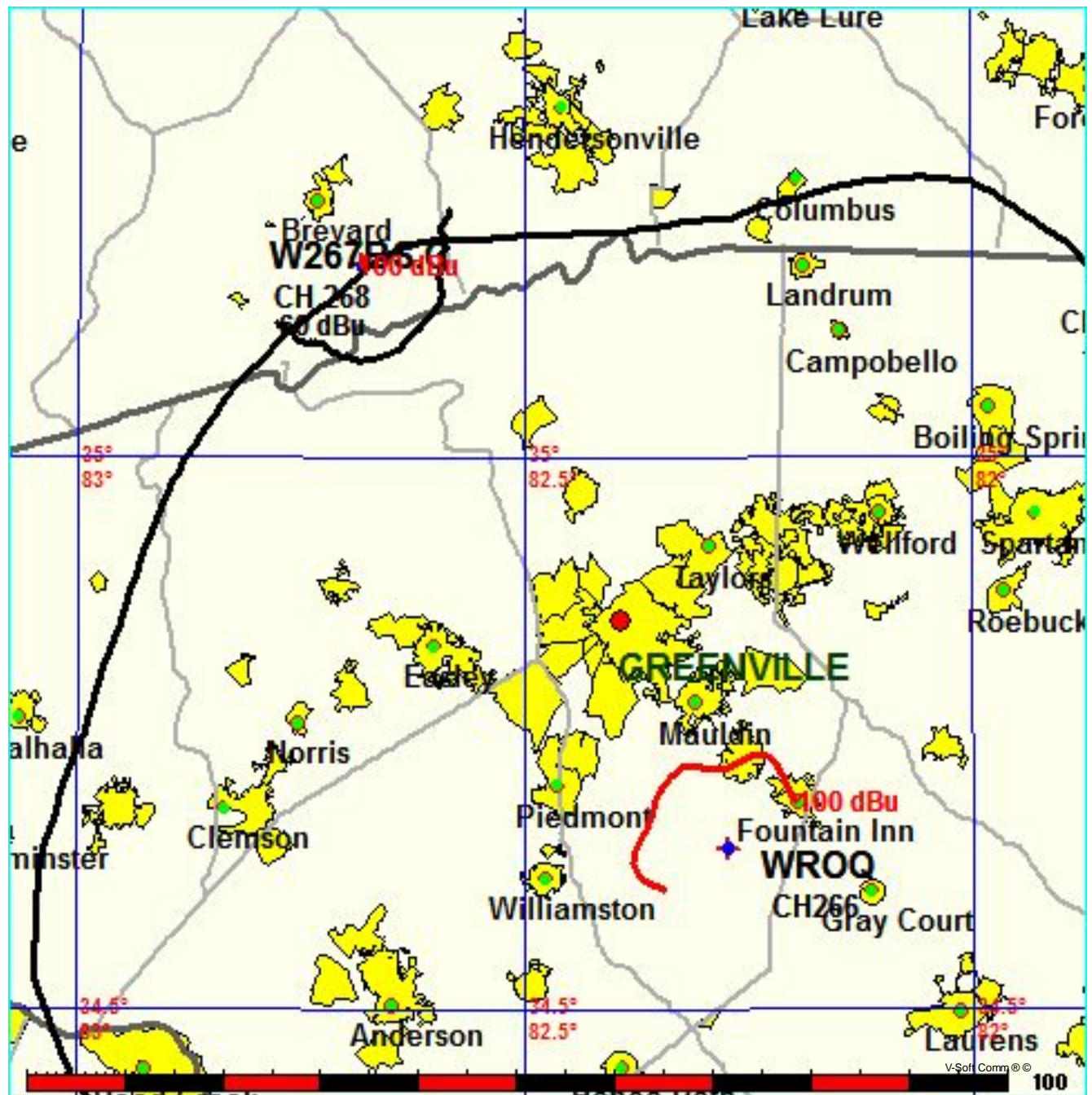


Figure 5A: Allocation Study: WROQ Detail
Western North Carolina Public Radio, Inc.

FMCommander Single Allocation Study - 01-18-2016 - NED 03 SEC
W267BS.C's Overlaps (In= 51.2 km, Out= 0.72 km)

W267BS.C CH 268 D DA
Lat= 35 10 34.0, Lng= 82 40 55.0
0.01 kW 408.5 m HAAT, 1170 m COR
Prot.= 60 dBu, Intef.= 100 dBu

WROQ CH 266 C1 DA BLH20080225ABJ
Lat= 34 38 51.0, Lng= 82 16 13.0
100.0 kW 296 m HAAT, 540 m COR
Prot.= 60 dBu, Intef.= 100 dBu

