

**BNPFT-20180129AGL**

**Brevard, North Carolina**

**Long Form Application**

**For New FM Translator**

**On Channel 247**

**by**

**Gonuts Media, LLC**

**Exhibit 13**

**Interference Analysis**

**April 2018**

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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 Gonuts Media, 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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30 April 2018

### Narrative

This Exhibit supports a long form application for FM translator BNPFT-20180129AGL, on Channel 247 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 proposed 60 dBu F(50,50) coverage area. Figure 1 shows fill-in status confirmation.

This is a long form application in response to a Media Bureau Public Notice announcing an FM Translator filing window for long-form applications<sup>1</sup>. The short form application, File Number BNPFT-20180129AGL, application reference number 1777441, is listed in Attachment A of that Notice.

The changes from the Tech Box parameters are an increase in elevation and a change in directional antenna pattern. This application complies with the requirement that it propose facilities which do not change in ways which are not permissible for a minor modification.

### Allocations

This application proposes service to Brevard, North Carolina, on channel 247. An updated Table 1: Allocations is included in this exhibit with a list of the stations, construction

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<sup>1</sup> See *Public Notice: MEDIA BUREAU ANNOUNCES AUCTION 100 FM TRANSLATOR FILING WINDOW FOR LONG-FORM APPLICATIONS*, DA 18-256, released March 15, 2018.

permits, allocations, and applications studied. All are protected under §74.1204(a) contour protection by this application. The allocations table was prepared using the GLOBE 30 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) facilities for which additional detail is provided.

Table and Figure	Call Sign	Location	Channel, class and relationship
3	W247BV	Asheville, North Carolina	247D, co-channel
4	WZVZ-LP	Six Mile, South Carolina	247L, co-channel
5	W247AB	Greenville, North Carolina	247D, co-channel

Table 1: Allocations

Allocation Study Gonuts Media											
REFERENCE		CH# 247D - 97.3 MHz, Pwr= 0.1 kW DA, HAAT= 393.7 M, COR= 1160 M								DISPLAY DATES	
35 10 35.0 N.		Average Protected F(50-50)= 20.5 km								DATA 04-30-18	
82 40 54.0 W.		Standard Directional								SEARCH 04-30-18	
CH CITY	CALL	TYPE STATE	ANT STATE	AZI. <--	DIST FILE #	LAT. LNG.	Pwr(kw) HAAT(M)	INT(km) COR(M)	PRO(km) LICENSEE	*IN* (Overlap in km)	*OUT*
247D Asheville	W247BV	LIC DV NC		3.3 183.3	47.32 BLFT20180116AAY	35 36 05.0 82 39 06.0	0.250	69.1 1023	20.1 Saga Communications	-33.8*	0.6 Of Nor
247D Brevard	1777441!	APP DC NC		0.0 0.0	0.00 BNPFT20180129AGL	35 10 35.0 82 40 54.0	0.100	1155	---Reference--- Gonuts Media		
Short Form application for which this is the Long Form application.											
247C North Wilkesboro	WKBC-FM	LIC DE NC		54.1 235.0	172.34 BLH19970711KA	36 04 34.0 81 07 43.0	100.000 403	170.6 803	70.8 Wilkes Broadcasting Compan	-7.0	71.1
247L1 Six Mile	WZVZ-LP	LIC SC		196.2 16.1	39.77 BMLL20150724AIF	34 49 58.0 82 48 12.0	0.002 215	494	Battle of Central Sc Comit	11.6	1.3
247D Greenville	W247AB	LIC CN SC		144.5 324.7	44.26 BLFT19930907TD	34 51 07.0 82 24 00.0	0.019 78	16.1 367	4.8 Isothermal Community Colle	16.7	2.6
Translator For WNCW, Spindale, NC											
248C Knoxville	WJXB-FM	LIC CY TN		309.7 129.0	146.21 BLH19890928KC	36 00 36.0 83 55 57.0	100.000 395	120.9 706	81.5 Midwest Communications, In	5.5	35.9
249D Lake Toxaway	W249CY	LIC DH NC		259.9 79.7	27.86 BLFT20160802ACE	35 07 55.0 82 59 00.0	0.009 539	0.0 1465	3.6 Charisma Radio Corp.	6.7	22.9
248D Waynesville	W248CM	LIC DV NC		321.4 141.3	44.57 BLFT20160303ABP	35 29 22.0 82 59 19.0	0.250	10.1 849	7.1 Saga Communications Of Nor	14.2	7.3
246L1 Hendersonville	WICE-LP	LIC NC		66.5 246.7	27.96 BLL20090805ACL	35 16 35.0 82 23 57.0	0.100 30	689	Ebenezer Pentecostal Radio	10.2	9.5
245D Travelers Rest	W245CH	LIC DC SC		136.7 316.8	35.88 BLFT20141219ABG	34 56 29.0 82 24 41.0	0.250	1.1 725	25.7 Salem Communications Holdi	22.3	10.0
246C Gainesville	WSRV	LIC CY GA		223.0 42.3	158.87 BLH19980825KB	34 07 32.0 83 51 32.0	100.000 483	128.1 797	86.0 Cox Radio, Inc.	11.9	46.9
249D Greenville	W249DL	LIC DC SC		136.7 316.9	36.85 BLFT20170123AAC	34 56 05.0 82 24 16.0	0.250	0.4 627	13.8 Ted A McCall	23.8	22.6
250D Hendersonville	1776928	APP DV NC		75.3 255.5	42.08 BNPFT20180125AES	35 16 18.6 82 13 59.6	0.103	0.4 1008	16.7 The Power Foundation	31.1	23.1
250D Hendersonville	1783313	APP DV NC		75.3 255.5	42.08 BNPFT20180418ACK	35 16 18.6 82 13 59.6	0.103	0.4 1008	16.7 The Power Foundation	31.1	23.1
247D Anderson	W247BR	LIC DC SC		177.8 357.8	74.36 BLFT20150910ABT	34 30 29.0 82 39 01.0	0.080	23.2 289	6.7 Bible Broadcasting Network	39.5	25.2
249D Asheville	W249AR	LIC C NC		0.9 180.9	45.95 BLFT20000811AAU	35 35 23.0 82 40 26.0	0.100 358	0.7 1089	18.3 Entercom License, Llc	32.6	27.1
244C3 Westminster	WVGC	CP ZCX SC		207.3 27.1	61.09 BMPH20170313ABJ	34 41 15.0 82 59 16.0	18.500 106	2.8 356	29.4 Georgia-carolina Radiocast	41.9	31.3
246D Spartanburg	W246CV	LIC DC SC		108.7 289.1	66.89 BLFT20170123AAD	34 58 51.6 81 59 10.6	0.250	17.6 391	11.5 Tower Above Media Llc	36.3	33.7

Terrain database is GLOBE 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. Call signs with exclamation marks need not be protected.  
 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 GLOBE 30 arcsecond terrain database, formatted by V-Soft Communications to work with its allocation and mapping programs.

Table 3: FM Over Output for Protection of W247BV

04-30-2018 Terrain Data: GLOBE 30 Sec FMOver Analysis

W247BV BLFT20180116AAY

1777441

Channel = 247D  
 Max ERP = 0.25 kW  
 RCAMSL = 1023 m  
 N. Lat. 35 36 05.0  
 W. Lng. 82 39 06.0  
 Protected  
 60 dBu

Channel = 247D  
 Max ERP = 0.1 kW  
 RCAMSL = 1160 m  
 N. Lat. 35 10 35.0  
 W. Lng. 82 40 54.0  
 Interfering  
 40 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
123.0	000.2500	0351.0	024.3	034.2	000.0007	0420.5	041.1	28.25	
124.0	000.2500	0348.5	024.2	034.1	000.0007	0420.8	040.7	28.41	
125.0	000.2500	0349.1	024.3	034.1	000.0007	0420.7	040.3	28.60	
126.0	000.2500	0350.8	024.3	034.2	000.0007	0420.6	039.8	28.80	
127.0	000.2500	0353.1	024.4	034.3	000.0007	0420.4	039.4	29.01	
128.0	000.2500	0356.4	024.5	034.4	000.0007	0420.2	039.0	29.24	
129.0	000.2500	0360.8	024.6	034.6	000.0007	0419.9	038.6	29.48	
130.0	000.2500	0365.1	024.8	034.7	000.0007	0419.5	038.1	29.71	
131.0	000.2500	0368.3	024.9	034.8	000.0007	0419.3	037.7	29.94	
132.0	000.2500	0370.2	024.9	034.8	000.0007	0419.3	037.2	30.14	
133.0	000.2500	0370.9	025.0	034.7	000.0007	0419.4	036.8	30.32	
134.0	000.2500	0370.5	024.9	034.6	000.0007	0419.7	036.4	30.49	
135.0	000.2500	0369.4	024.9	034.5	000.0007	0420.1	035.9	30.64	
136.0	000.2500	0368.1	024.9	034.3	000.0007	0420.4	035.5	30.78	
137.0	000.2500	0367.2	024.8	034.1	000.0007	0420.9	035.1	30.92	
138.0	000.2500	0366.8	024.8	033.9	000.0007	0421.5	034.7	31.07	
139.0	000.2500	0366.3	024.8	033.7	000.0007	0422.0	034.3	31.22	
140.0	000.2500	0365.5	024.8	033.4	000.0006	0422.8	033.9	31.35	
141.0	000.2352	0364.6	024.4	032.6	000.0006	0426.3	033.6	31.29	
142.0	000.2209	0363.8	024.0	031.7	000.0006	0431.7	033.3	31.24	
143.0	000.2070	0363.7	023.6	030.8	000.0005	0439.1	033.1	31.22	
144.0	000.1936	0364.5	023.3	030.0	000.0005	0447.5	032.8	31.22	
145.0	000.1806	0365.8	022.9	029.1	000.0005	0455.0	032.6	31.79	
146.0	000.1681	0366.9	022.6	028.2	000.0006	0460.3	032.4	32.29	
147.0	000.1560	0366.5	022.1	027.3	000.0006	0462.5	032.3	32.73	
148.0	000.1444	0364.6	021.7	026.2	000.0007	0462.2	032.2	33.11	
149.0	000.1332	0362.9	021.2	025.1	000.0007	0459.8	032.1	33.43	
150.0	000.1225	0362.7	020.8	024.1	000.0008	0455.1	032.1	33.67	
151.0	000.1225	0363.6	020.8	023.8	000.0008	0452.7	031.8	33.88	
152.0	000.1225	0364.5	020.8	023.4	000.0008	0449.8	031.5	34.08	
153.0	000.1225	0364.3	020.8	023.0	000.0008	0445.8	031.2	34.27	
154.0	000.1225	0362.9	020.8	022.5	000.0009	0440.6	030.9	34.43	
155.0	000.1225	0360.4	020.7	021.9	000.0009	0434.3	030.7	34.56	
156.0	000.1225	0356.2	020.6	021.3	000.0009	0427.0	030.5	34.66	
157.0	000.1225	0349.8	020.4	020.6	000.0010	0420.0	030.4	34.76	
158.0	000.1225	0342.6	020.2	019.9	000.0010	0415.2	030.3	34.87	
159.0	000.1225	0337.7	020.1	019.2	000.0010	0413.4	030.2	35.00	
160.0	000.1225	0335.5	020.0	018.6	000.0010	0414.0	030.0	35.19	
161.0	000.1332	0333.3	020.4	018.5	000.0011	0414.3	029.5	35.49	
162.0	000.1444	0329.6	020.7	018.3	000.0011	0414.7	029.0	35.80	
163.0	000.1560	0323.7	020.9	017.9	000.0011	0415.6	028.7	36.10	
164.0	000.1681	0316.7	021.1	017.5	000.0011	0416.4	028.3	36.38	
165.0	000.1806	0308.9	021.2	017.0	000.0011	0416.8	028.0	36.64	
166.0	000.1936	0302.7	021.3	016.5	000.0011	0417.1	027.7	36.92	
167.0	000.2070	0299.2	021.5	016.1	000.0011	0417.2	027.3	37.22	
168.0	000.2209	0295.2	021.7	015.6	000.0012	0416.8	027.0	37.50	
169.0	000.2352	0290.2	021.9	015.0	000.0012	0416.1	026.7	37.76	
170.0	000.2500	0286.9	022.1	014.4	000.0012	0416.3	026.3	38.07	
171.0	000.2500	0285.0	022.0	013.6	000.0012	0418.3	026.3	38.29	
172.0	000.2500	0283.2	021.9	012.7	000.0013	0421.2	026.2	38.52	
173.0	000.2500	0282.0	021.9	011.9	000.0013	0424.4	026.1	38.76	
174.0	000.2500	0283.4	021.9	011.2	000.0013	0427.3	025.9	39.04	
175.0	000.2500	0288.0	022.1	010.4	000.0014	0428.5	025.6	39.34	
176.0	000.2500	0289.3	022.2	009.6	000.0014	0429.1	025.5	39.51	
177.0	000.2500	0289.7	022.2	008.8	000.0014	0429.7	025.4	39.61	
178.0	000.2500	0285.3	022.0	007.9	000.0014	0429.1	025.5	39.55	
179.0	000.2500	0277.4	021.7	006.9	000.0014	0429.7	025.7	39.42	
180.0	000.2500	0269.6	021.4	006.0	000.0014	0429.6	026.0	39.27	



181.0	000.2500	0261.0	021.1	005.1	000.0014	0429.6	026.3	39.09
182.0	000.2500	0250.2	020.7	004.3	000.0014	0430.0	026.7	38.84
183.0	000.2500	0238.9	020.2	003.5	000.0014	0428.0	027.1	38.52
184.0	000.2500	0230.8	019.9	002.8	000.0014	0425.8	027.5	38.26
185.0	000.2500	0238.1	020.2	002.0	000.0014	0423.0	027.2	38.39
186.0	000.2500	0247.2	020.6	001.2	000.0014	0420.1	026.8	38.55
187.0	000.2500	0257.0	020.9	000.4	000.0014	0418.3	026.5	38.75
188.0	000.2500	0266.3	021.3	359.5	000.0014	0417.5	026.2	38.95
189.0	000.2500	0275.3	021.6	358.5	000.0014	0416.7	025.9	39.12
190.0	000.2500	0279.5	021.8	357.6	000.0014	0416.4	025.8	39.17
191.0	000.2500	0277.8	021.7	356.8	000.0014	0419.3	025.9	39.15
192.0	000.2500	0276.1	021.7	356.1	000.0014	0421.6	026.1	39.10
193.0	000.2500	0274.8	021.6	355.3	000.0014	0424.0	026.3	39.06
194.0	000.2500	0274.7	021.6	354.5	000.0014	0426.0	026.4	39.03
195.0	000.2500	0273.0	021.6	353.8	000.0014	0425.4	026.6	38.90
196.0	000.2500	0274.3	021.6	353.0	000.0014	0422.8	026.7	38.78
197.0	000.2500	0275.9	021.7	352.2	000.0014	0419.9	026.8	38.65
198.0	000.2500	0279.2	021.8	351.4	000.0014	0414.8	026.8	38.50
199.0	000.2500	0286.5	022.1	350.4	000.0014	0406.7	026.8	38.34
200.0	000.2500	0297.5	022.5	349.2	000.0015	0401.0	026.6	38.46
201.0	000.2500	0307.1	022.8	348.1	000.0016	0398.7	026.5	38.68
202.0	000.2500	0310.8	022.9	347.2	000.0016	0398.1	026.6	38.76
203.0	000.2500	0311.5	023.0	346.5	000.0017	0398.8	026.8	38.78
204.0	000.2500	0311.4	023.0	345.8	000.0017	0399.5	027.1	38.76
205.0	000.2500	0310.6	022.9	345.2	000.0018	0399.7	027.4	38.70
206.0	000.2500	0308.9	022.9	344.7	000.0018	0400.4	027.7	38.63
207.0	000.2500	0310.2	022.9	344.0	000.0019	0402.9	027.9	38.67
208.0	000.2500	0313.6	023.1	343.2	000.0019	0407.9	028.1	38.81
209.0	000.2500	0316.0	023.1	342.5	000.0020	0414.5	028.3	38.96
210.0	000.2500	0314.6	023.1	342.1	000.0020	0419.7	028.6	38.97
211.0	000.2500	0308.6	022.9	341.9	000.0020	0421.9	029.1	38.79
212.0	000.2500	0299.5	022.5	341.8	000.0020	0422.0	029.6	38.50
213.0	000.2500	0289.5	022.2	341.9	000.0020	0421.3	030.1	38.17
214.0	000.2500	0281.5	021.9	341.9	000.0020	0421.4	030.6	37.91
215.0	000.2500	0275.9	021.7	341.8	000.0020	0422.7	031.1	37.74
216.0	000.2500	0274.4	021.6	341.5	000.0021	0426.0	031.4	37.69
217.0	000.2500	0277.3	021.7	340.9	000.0021	0431.5	031.6	37.79
218.0	000.2500	0282.1	021.9	340.3	000.0022	0436.9	031.9	37.91
219.0	000.2500	0284.6	022.0	339.8	000.0024	0439.8	032.1	38.28
220.0	000.2500	0283.5	022.0	339.5	000.0027	0440.8	032.5	38.59
221.0	000.2352	0279.7	021.5	339.8	000.0023	0439.4	033.0	37.69
222.0	000.2209	0273.7	021.0	340.4	000.0022	0436.0	033.6	37.02
223.0	000.2070	0265.6	020.3	341.0	000.0021	0430.4	034.2	36.50
224.0	000.1936	0255.6	019.6	341.8	000.0020	0422.8	034.9	35.89
225.0	000.1806	0244.8	018.9	342.6	000.0020	0413.9	035.5	35.23
226.0	000.1681	0234.5	018.1	343.4	000.0019	0406.6	036.2	34.61
227.0	000.1560	0228.8	017.6	344.0	000.0019	0402.9	036.7	34.16
228.0	000.1444	0229.0	017.2	344.3	000.0019	0401.6	037.1	33.88
229.0	000.1332	0232.6	017.0	344.4	000.0018	0401.1	037.5	33.68
230.0	000.1225	0235.7	016.7	344.6	000.0018	0400.7	037.9	33.47
231.0	000.1225	0236.4	016.7	344.3	000.0018	0401.3	038.1	33.41
232.0	000.1225	0234.5	016.7	344.3	000.0019	0401.6	038.4	33.30
233.0	000.1225	0231.2	016.5	344.3	000.0018	0401.5	038.7	33.15
234.0	000.1225	0228.9	016.4	344.3	000.0019	0401.7	039.0	33.03
235.0	000.1225	0227.3	016.4	344.2	000.0019	0401.9	039.3	32.91
236.0	000.1225	0225.9	016.3	344.1	000.0019	0402.1	039.6	32.80
237.0	000.1225	0222.9	016.2	344.2	000.0019	0402.0	039.9	32.66
238.0	000.1225	0215.5	015.9	344.5	000.0018	0400.9	040.3	32.42
239.0	000.1225	0204.3	015.5	345.0	000.0018	0399.9	040.7	32.14
240.0	000.1225	0189.9	014.9	345.6	000.0018	0399.6	041.1	31.84
241.0	000.1332	0172.2	014.5	346.0	000.0017	0399.4	041.4	31.61
242.0	000.1444	0151.9	013.9	346.9	000.0017	0398.4	041.8	31.25

Table 4: FM Over Output for Protection of WZVZ-LP

04-30-2018 Terrain Data: GLOBE 30 Sec FMOver Analysis

WZVZ-LP BMLL20150724AIF

1777441

Channel = 247L1  
 Max ERP = 0.002 kw  
 RCAMSL = 494 m  
 N. Lat. 34 49 58.0  
 W. Lng. 82 48 12.0  
 Protected  
 60 dBu

Channel = 247D  
 Max ERP = 0.1 kw  
 RCAMSL = 1160 m  
 N. Lat. 35 10 35.0  
 W. Lng. 82 40 54.0  
 Interfering  
 40 dBu

Azimuth (degrees)	ERP (kw)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kw)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
316.0	000.0020	0218.3	005.5	203.5	000.0149	0276.7	037.3	39.28	
317.0	000.0020	0218.9	005.5	203.5	000.0148	0277.0	037.3	39.31	
318.0	000.0020	0218.8	005.5	203.4	000.0147	0277.4	037.2	39.32	
319.0	000.0020	0218.9	005.5	203.4	000.0145	0277.7	037.1	39.34	
320.0	000.0020	0219.3	005.5	203.3	000.0144	0278.1	037.0	39.35	
321.0	000.0020	0219.0	005.5	203.2	000.0143	0278.6	036.9	39.36	
322.0	000.0020	0215.8	005.5	203.1	000.0140	0279.4	036.8	39.35	
323.0	000.0020	0210.7	005.4	203.0	000.0137	0280.4	036.8	39.31	
324.0	000.0020	0207.3	005.4	202.8	000.0135	0281.3	036.7	39.29	
325.0	000.0020	0206.6	005.4	202.8	000.0133	0281.8	036.6	39.28	
326.0	000.0020	0206.2	005.4	202.7	000.0131	0282.4	036.6	39.28	
327.0	000.0020	0204.3	005.3	202.6	000.0129	0283.1	036.5	39.26	
328.0	000.0020	0201.7	005.3	202.4	000.0127	0283.9	036.4	39.23	
329.0	000.0020	0199.9	005.3	202.3	000.0125	0284.6	036.4	39.21	
330.0	000.0020	0199.8	005.3	202.2	000.0123	0285.2	036.3	39.20	
331.0	000.0020	0199.9	005.3	202.2	000.0121	0285.7	036.2	39.20	
332.0	000.0020	0198.4	005.3	202.0	000.0119	0286.3	036.2	39.17	
333.0	000.0020	0195.5	005.2	201.9	000.0117	0287.0	036.1	39.12	
334.0	000.0020	0192.3	005.2	201.8	000.0114	0287.7	036.1	39.06	
335.0	000.0020	0189.0	005.2	201.6	000.0112	0288.3	036.0	39.01	
336.0	000.0020	0185.2	005.1	201.5	000.0109	0288.9	036.0	38.94	
337.0	000.0020	0180.4	005.1	201.3	000.0106	0289.4	036.0	38.85	
338.0	000.0020	0175.6	005.0	201.2	000.0103	0290.0	036.0	38.76	
339.0	000.0020	0171.2	005.0	201.0	000.0100	0290.6	035.9	38.66	
340.0	000.0020	0168.2	004.9	200.8	000.0098	0291.2	035.9	38.58	
341.0	000.0020	0167.9	004.9	200.7	000.0096	0291.6	035.9	38.54	
342.0	000.0020	0170.9	005.0	200.7	000.0095	0291.8	035.8	38.54	
343.0	000.0020	0174.9	005.0	200.6	000.0094	0292.0	035.7	38.54	
344.0	000.0020	0177.1	005.0	200.5	000.0093	0292.4	035.6	38.52	
345.0	000.0020	0177.2	005.0	200.4	000.0091	0292.8	035.6	38.47	
346.0	000.0020	0176.6	005.0	200.3	000.0089	0293.3	035.5	38.41	
347.0	000.0020	0174.0	005.0	200.1	000.0086	0293.9	035.5	38.33	
348.0	000.0020	0170.8	005.0	200.0	000.0084	0294.7	035.5	38.24	
349.0	000.0020	0167.4	004.9	199.8	000.0084	0295.5	035.5	38.25	
350.0	000.0020	0163.7	004.9	199.7	000.0084	0296.3	035.5	38.26	
351.0	000.0020	0160.1	004.8	199.5	000.0083	0297.2	035.5	38.27	
352.0	000.0020	0153.9	004.7	199.3	000.0083	0298.3	035.5	38.26	
353.0	000.0020	0144.9	004.6	199.1	000.0083	0299.6	035.6	38.23	
354.0	000.0020	0134.5	004.4	198.9	000.0082	0300.9	035.8	38.19	
355.0	000.0020	0128.0	004.3	198.7	000.0082	0301.9	035.8	38.18	
356.0	000.0020	0123.4	004.2	198.5	000.0082	0302.8	035.8	38.18	
357.0	000.0020	0123.5	004.2	198.4	000.0081	0303.5	035.8	38.20	
358.0	000.0020	0121.1	004.2	198.3	000.0081	0304.4	035.8	38.21	
359.0	000.0020	0118.9	004.2	198.2	000.0081	0305.3	035.8	38.22	
000.0	000.0020	0118.7	004.2	198.1	000.0081	0306.1	035.8	38.25	
001.0	000.0020	0120.6	004.2	198.0	000.0081	0306.8	035.8	38.28	
002.0	000.0020	0122.5	004.2	197.9	000.0080	0307.5	035.7	38.31	
003.0	000.0020	0124.4	004.2	197.8	000.0080	0308.2	035.7	38.35	
004.0	000.0020	0124.1	004.2	197.6	000.0080	0309.1	035.7	38.37	
005.0	000.0020	0123.4	004.2	197.5	000.0080	0310.1	035.6	38.39	
006.0	000.0020	0122.2	004.2	197.4	000.0080	0311.0	035.6	38.40	
007.0	000.0020	0124.0	004.2	197.3	000.0079	0311.8	035.6	38.44	
008.0	000.0020	0125.8	004.3	197.2	000.0079	0312.7	035.6	38.47	
009.0	000.0020	0128.9	004.3	197.1	000.0079	0313.5	035.5	38.51	
010.0	000.0020	0130.1	004.3	197.0	000.0079	0314.4	035.5	38.54	
011.0	000.0020	0129.8	004.3	196.8	000.0079	0315.2	035.5	38.55	
012.0	000.0020	0128.4	004.3	196.7	000.0078	0316.1	035.5	38.56	
013.0	000.0020	0127.9	004.3	196.6	000.0078	0316.9	035.5	38.57	

014.0	000.0020	0128.1	004.3	196.5	000.0078	0317.7	035.5	38.59
015.0	000.0020	0132.9	004.4	196.4	000.0078	0318.5	035.4	38.63
016.0	000.0020	0139.3	004.5	196.2	000.0078	0319.2	035.3	38.69
017.0	000.0020	0145.4	004.6	196.1	000.0077	0319.9	035.2	38.75
018.0	000.0020	0149.7	004.6	196.0	000.0077	0320.6	035.1	38.79
019.0	000.0020	0153.3	004.7	195.8	000.0077	0321.3	035.1	38.82
020.0	000.0020	0155.9	004.7	195.7	000.0077	0321.9	035.1	38.84
021.0	000.0020	0157.0	004.8	195.6	000.0077	0322.3	035.0	38.85
022.0	000.0020	0156.8	004.7	195.4	000.0076	0322.7	035.1	38.84
023.0	000.0020	0155.4	004.7	195.3	000.0076	0323.1	035.1	38.82
024.0	000.0020	0153.1	004.7	195.2	000.0076	0323.5	035.1	38.80
025.0	000.0020	0149.8	004.6	195.0	000.0076	0323.8	035.2	38.77
026.0	000.0020	0147.4	004.6	194.9	000.0076	0324.2	035.3	38.74
027.0	000.0020	0147.8	004.6	194.8	000.0075	0324.6	035.3	38.73
028.0	000.0020	0150.2	004.6	194.7	000.0075	0325.0	035.2	38.74
029.0	000.0020	0152.9	004.7	194.5	000.0075	0325.4	035.2	38.75
030.0	000.0020	0156.0	004.7	194.4	000.0075	0325.8	035.2	38.76
031.0	000.0020	0159.7	004.8	194.2	000.0074	0326.2	035.2	38.77
032.0	000.0020	0163.9	004.9	194.0	000.0074	0326.7	035.1	38.79
033.0	000.0020	0166.7	004.9	193.9	000.0074	0327.2	035.1	38.79
034.0	000.0020	0168.6	004.9	193.7	000.0074	0327.8	035.1	38.79
035.0	000.0020	0171.2	005.0	193.6	000.0073	0328.4	035.1	38.80
036.0	000.0020	0174.2	005.0	193.4	000.0073	0329.2	035.1	38.81
037.0	000.0020	0177.3	005.0	193.3	000.0073	0330.2	035.1	38.82
038.0	000.0020	0179.7	005.1	193.1	000.0073	0331.5	035.1	38.84
039.0	000.0020	0181.7	005.1	193.0	000.0072	0333.1	035.1	38.86
040.0	000.0020	0183.0	005.1	192.8	000.0072	0334.8	035.2	38.89
041.0	000.0020	0183.5	005.1	192.7	000.0072	0336.6	035.2	38.91
042.0	000.0020	0182.2	005.1	192.6	000.0072	0338.2	035.3	38.92
043.0	000.0020	0178.7	005.1	192.5	000.0072	0339.5	035.3	38.91
044.0	000.0020	0173.9	005.0	192.4	000.0071	0340.6	035.4	38.88
045.0	000.0020	0169.7	004.9	192.4	000.0071	0341.6	035.5	38.86
046.0	000.0020	0167.4	004.9	192.3	000.0071	0342.8	035.6	38.85
047.0	000.0020	0166.7	004.9	192.2	000.0071	0344.4	035.7	38.86
048.0	000.0020	0167.0	004.9	192.1	000.0071	0346.0	035.7	38.87
049.0	000.0020	0167.9	004.9	191.9	000.0071	0347.7	035.7	38.89
050.0	000.0020	0169.5	004.9	191.8	000.0070	0349.4	035.8	38.91
051.0	000.0020	0171.9	005.0	191.7	000.0070	0351.1	035.8	38.93
052.0	000.0020	0174.3	005.0	191.5	000.0070	0352.7	035.8	38.94
053.0	000.0020	0176.2	005.0	191.4	000.0070	0354.0	035.9	38.95
054.0	000.0020	0177.3	005.0	191.3	000.0070	0355.0	035.9	38.94
055.0	000.0020	0177.6	005.0	191.2	000.0069	0355.9	036.0	38.93
056.0	000.0020	0177.5	005.0	191.1	000.0069	0356.5	036.1	38.91
057.0	000.0020	0177.2	005.0	191.0	000.0069	0357.0	036.1	38.88
058.0	000.0020	0176.3	005.0	190.9	000.0069	0357.4	036.2	38.85
059.0	000.0020	0174.3	005.0	190.8	000.0069	0357.6	036.3	38.81
060.0	000.0020	0170.6	005.0	190.8	000.0069	0357.7	036.4	38.77
061.0	000.0020	0165.5	004.9	190.8	000.0069	0357.7	036.5	38.71
062.0	000.0020	0161.2	004.8	190.8	000.0069	0357.7	036.6	38.67
063.0	000.0020	0159.1	004.8	190.7	000.0069	0357.8	036.7	38.62
064.0	000.0020	0161.0	004.8	190.6	000.0069	0358.0	036.7	38.60
065.0	000.0020	0165.3	004.9	190.5	000.0068	0358.1	036.8	38.57
066.0	000.0020	0171.3	005.0	190.3	000.0068	0358.1	036.8	38.54
067.0	000.0020	0177.9	005.0	190.1	000.0068	0357.9	036.8	38.50
068.0	000.0020	0183.9	005.1	189.9	000.0068	0357.5	036.8	38.48
069.0	000.0020	0187.8	005.2	189.8	000.0068	0357.3	036.9	38.47
070.0	000.0020	0188.6	005.2	189.7	000.0068	0357.1	037.0	38.45
071.0	000.0020	0186.5	005.1	189.7	000.0069	0357.0	037.1	38.41
072.0	000.0020	0183.8	005.1	189.7	000.0069	0357.0	037.1	38.37
073.0	000.0020	0181.4	005.1	189.6	000.0069	0356.9	037.2	38.34
074.0	000.0020	0179.8	005.1	189.6	000.0069	0356.8	037.3	38.30
075.0	000.0020	0179.1	005.1	189.6	000.0069	0356.7	037.4	38.27

Table 5: FM Over Output for Protection of W247AB

04-30-2018 Terrain Data: GLOBE 30 Sec FMOVER Analysis

W247AB BLFT19930907TD

1777441

Channel = 247D  
 Max ERP = 0.019 kw  
 RCAMSL = 367 m  
 N. Lat. 34 51 07.0  
 W. Lng. 82 24 00.0  
 Protected  
 60 dBu

Channel = 247D  
 Max ERP = 0.1 kw  
 RCAMSL = 1160 m  
 N. Lat. 35 10 35.0  
 W. Lng. 82 40 54.0  
 Interfering  
 40 dBu

Azimuth (degrees)	ERP (kw)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kw)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
265.0	000.0190	0073.3	005.8	151.4	000.0057	0488.3	041.6	38.76	
266.0	000.0190	0072.9	005.8	151.4	000.0057	0487.4	041.5	38.76	
267.0	000.0190	0072.3	005.8	151.3	000.0056	0486.4	041.5	38.76	
268.0	000.0190	0072.7	005.8	151.2	000.0056	0485.9	041.4	38.78	
269.0	000.0190	0072.6	005.8	151.2	000.0056	0485.1	041.3	38.78	
270.0	000.0190	0072.4	005.8	151.1	000.0056	0484.3	041.2	38.78	
271.0	000.0190	0072.4	005.8	151.0	000.0056	0483.5	041.1	38.79	
272.0	000.0190	0071.9	005.8	150.9	000.0055	0482.5	041.0	38.78	
273.0	000.0190	0071.8	005.8	150.8	000.0055	0481.7	040.9	38.78	
274.0	000.0190	0071.8	005.8	150.8	000.0055	0480.9	040.8	38.78	
275.0	000.0190	0071.2	005.7	150.7	000.0055	0479.7	040.8	38.76	
276.0	000.0190	0069.7	005.7	150.5	000.0054	0478.1	040.7	38.72	
277.0	000.0190	0067.5	005.6	150.3	000.0054	0476.1	040.7	38.65	
278.0	000.0190	0065.1	005.5	150.2	000.0053	0474.1	040.7	38.57	
279.0	000.0190	0063.3	005.4	150.0	000.0053	0472.4	040.6	38.52	
280.0	000.0190	0062.2	005.4	149.9	000.0053	0470.9	040.6	38.52	
281.0	000.0190	0061.6	005.4	149.8	000.0053	0469.7	040.5	38.53	
282.0	000.0190	0060.7	005.3	149.6	000.0053	0468.2	040.5	38.53	
283.0	000.0190	0059.4	005.3	149.5	000.0054	0466.5	040.5	38.53	
284.0	000.0190	0057.8	005.2	149.3	000.0054	0464.8	040.4	38.52	
285.0	000.0190	0056.3	005.2	149.2	000.0054	0463.1	040.4	38.50	
286.0	000.0190	0055.6	005.1	149.0	000.0054	0461.7	040.4	38.50	
287.0	000.0190	0055.2	005.1	148.9	000.0054	0460.4	040.3	38.51	
288.0	000.0190	0054.5	005.1	148.8	000.0054	0459.0	040.3	38.50	
289.0	000.0190	0053.4	005.0	148.7	000.0055	0457.2	040.3	38.49	
290.0	000.0190	0053.1	005.0	148.6	000.0055	0456.0	040.2	38.49	
291.0	000.0190	0054.2	005.1	148.5	000.0055	0455.5	040.2	38.53	
292.0	000.0190	0056.5	005.2	148.5	000.0055	0455.5	040.0	38.59	
293.0	000.0190	0058.8	005.3	148.5	000.0055	0455.3	039.9	38.65	
294.0	000.0190	0060.0	005.3	148.4	000.0055	0454.6	039.8	38.68	
295.0	000.0190	0059.7	005.3	148.3	000.0055	0453.4	039.7	38.69	
296.0	000.0190	0059.0	005.3	148.2	000.0055	0452.1	039.7	38.68	
297.0	000.0190	0058.9	005.3	148.0	000.0055	0451.0	039.7	38.69	
298.0	000.0190	0060.0	005.3	148.0	000.0056	0450.3	039.6	38.72	
299.0	000.0190	0062.0	005.4	147.9	000.0056	0449.7	039.5	38.76	
300.0	000.0190	0063.4	005.4	147.8	000.0056	0448.9	039.4	38.80	
301.0	000.0190	0063.9	005.5	147.7	000.0056	0447.9	039.3	38.81	
302.0	000.0190	0063.5	005.4	147.6	000.0056	0446.7	039.3	38.81	
303.0	000.0190	0062.8	005.4	147.4	000.0056	0445.5	039.3	38.81	
304.0	000.0190	0062.2	005.4	147.3	000.0056	0444.4	039.3	38.80	
305.0	000.0190	0061.6	005.4	147.1	000.0057	0443.2	039.2	38.80	
306.0	000.0190	0061.3	005.4	147.0	000.0057	0442.2	039.2	38.80	
307.0	000.0190	0061.6	005.4	146.9	000.0057	0441.3	039.2	38.81	
308.0	000.0190	0062.4	005.4	146.8	000.0057	0440.4	039.1	38.83	
309.0	000.0190	0063.1	005.4	146.7	000.0057	0439.5	039.1	38.84	
310.0	000.0190	0063.1	005.4	146.5	000.0057	0438.5	039.0	38.85	
311.0	000.0190	0062.1	005.4	146.4	000.0058	0437.4	039.0	38.83	
312.0	000.0190	0060.2	005.3	146.2	000.0058	0436.3	039.1	38.81	
313.0	000.0190	0057.9	005.2	146.1	000.0058	0435.3	039.2	38.77	
314.0	000.0190	0055.9	005.1	145.9	000.0058	0434.4	039.2	38.73	
315.0	000.0190	0054.7	005.1	145.8	000.0059	0433.7	039.3	38.71	
316.0	000.0190	0054.3	005.1	145.6	000.0059	0433.1	039.3	38.71	
317.0	000.0190	0054.1	005.0	145.5	000.0059	0432.6	039.3	38.72	
318.0	000.0190	0053.6	005.0	145.4	000.0059	0432.2	039.3	38.71	
319.0	000.0190	0053.0	005.0	145.2	000.0059	0431.7	039.3	38.71	
320.0	000.0190	0052.0	004.9	145.1	000.0059	0431.4	039.3	38.69	
321.0	000.0190	0050.4	004.9	145.0	000.0060	0431.0	039.4	38.66	

322.0	000.0190	0048.9	004.8	144.8	000.0060	0430.8	039.5	38.64
323.0	000.0190	0048.4	004.8	144.7	000.0060	0430.7	039.5	38.64
324.0	000.0190	0048.8	004.8	144.6	000.0060	0430.7	039.5	38.66
325.0	000.0190	0049.5	004.8	144.5	000.0060	0430.6	039.4	38.69
326.0	000.0190	0049.8	004.8	144.3	000.0060	0430.6	039.4	38.71
327.0	000.0190	0049.0	004.8	144.2	000.0061	0430.6	039.5	38.70
328.0	000.0190	0047.1	004.7	144.1	000.0061	0430.6	039.6	38.66
329.0	000.0190	0045.0	004.6	144.0	000.0061	0430.6	039.7	38.61
330.0	000.0190	0043.3	004.5	143.9	000.0061	0430.8	039.8	38.58
331.0	000.0190	0042.2	004.4	143.8	000.0061	0431.0	039.9	38.56
332.0	000.0190	0042.1	004.4	143.7	000.0061	0431.3	039.9	38.58
333.0	000.0190	0043.2	004.4	143.6	000.0061	0431.7	039.9	38.62
334.0	000.0190	0045.0	004.5	143.4	000.0062	0432.1	039.8	38.68
335.0	000.0190	0046.2	004.6	143.3	000.0062	0432.5	039.7	38.72
336.0	000.0190	0046.0	004.6	143.2	000.0062	0432.8	039.7	38.73
337.0	000.0190	0045.1	004.6	143.1	000.0062	0433.1	039.8	38.72
338.0	000.0190	0044.0	004.5	143.0	000.0062	0433.4	039.9	38.69
339.0	000.0190	0042.9	004.4	142.9	000.0062	0433.6	040.0	38.67
340.0	000.0190	0041.7	004.4	142.9	000.0063	0433.9	040.1	38.65
341.0	000.0190	0040.3	004.3	142.8	000.0063	0434.1	040.2	38.62
342.0	000.0190	0038.8	004.2	142.7	000.0063	0434.3	040.3	38.58
343.0	000.0190	0037.3	004.1	142.7	000.0063	0434.5	040.4	38.54
344.0	000.0190	0035.9	004.0	142.6	000.0063	0434.7	040.5	38.51
345.0	000.0190	0034.9	004.0	142.6	000.0063	0434.9	040.6	38.49
346.0	000.0190	0033.7	003.9	142.5	000.0063	0435.1	040.7	38.46
347.0	000.0190	0032.5	003.8	142.5	000.0063	0435.4	040.7	38.43
348.0	000.0190	0031.1	003.8	142.4	000.0063	0435.5	040.8	38.40
349.0	000.0190	0029.3	003.7	142.4	000.0063	0435.7	040.9	38.37
350.0	000.0190	0026.1	003.7	142.3	000.0063	0436.1	041.0	38.37
351.0	000.0190	0022.8	003.7	142.2	000.0063	0436.5	041.0	38.38
352.0	000.0190	0019.5	003.7	142.1	000.0064	0436.9	041.0	38.38
353.0	000.0190	0015.5	003.7	142.1	000.0064	0437.3	041.0	38.39
354.0	000.0190	0012.0	003.7	142.0	000.0064	0437.8	041.1	38.39
355.0	000.0190	0009.2	003.7	141.9	000.0064	0438.3	041.1	38.39
356.0	000.0190	0005.3	003.7	141.8	000.0064	0438.8	041.1	38.40
357.0	000.0190	0000.8	003.7	141.8	000.0064	0439.2	041.2	38.40
358.0	000.0190	-0002.8	003.7	141.7	000.0064	0439.7	041.2	38.40
359.0	000.0190	-0004.1	003.7	141.6	000.0064	0440.1	041.3	38.40
000.0	000.0190	-0005.2	003.7	141.5	000.0064	0440.6	041.3	38.40
001.0	000.0190	-0006.3	003.7	141.5	000.0064	0441.1	041.3	38.40
002.0	000.0190	-0007.2	003.7	141.4	000.0065	0441.6	041.4	38.40
003.0	000.0190	-0007.6	003.7	141.3	000.0065	0442.1	041.4	38.40
004.0	000.0190	-0004.7	003.7	141.3	000.0065	0442.6	041.5	38.40
005.0	000.0190	-0001.8	003.7	141.2	000.0065	0443.0	041.5	38.40
006.0	000.0190	0001.1	003.7	141.1	000.0065	0443.5	041.6	38.40
007.0	000.0190	0003.7	003.7	141.1	000.0065	0443.9	041.6	38.39
008.0	000.0190	0006.4	003.7	141.0	000.0065	0444.4	041.7	38.39
009.0	000.0190	0009.2	003.7	141.0	000.0065	0444.8	041.7	38.38
010.0	000.0190	0011.6	003.7	140.9	000.0065	0445.2	041.7	38.38
011.0	000.0190	0014.1	003.7	140.8	000.0065	0445.6	041.8	38.37
012.0	000.0190	0017.0	003.7	140.8	000.0065	0446.0	041.8	38.36
013.0	000.0190	0020.1	003.7	140.7	000.0066	0446.4	041.9	38.36
014.0	000.0190	0023.7	003.7	140.7	000.0066	0446.7	041.9	38.35
015.0	000.0190	0027.2	003.7	140.6	000.0066	0447.1	042.0	38.34
016.0	000.0190	0030.1	003.7	140.6	000.0066	0447.6	042.0	38.34
017.0	000.0190	0032.4	003.8	140.4	000.0066	0449.0	042.0	38.39
018.0	000.0190	0035.0	004.0	140.2	000.0066	0450.5	042.0	38.46
019.0	000.0190	0037.5	004.1	139.9	000.0067	0452.2	042.0	38.53
020.0	000.0190	0039.5	004.2	139.7	000.0067	0453.5	042.0	38.60
021.0	000.0190	0040.6	004.3	139.6	000.0068	0454.2	042.0	38.62
022.0	000.0190	0041.4	004.3	139.5	000.0068	0454.7	042.1	38.64
023.0	000.0190	0041.7	004.4	139.5	000.0068	0455.0	042.1	38.63
024.0	000.0190	0042.2	004.4	139.4	000.0069	0455.4	042.2	38.63

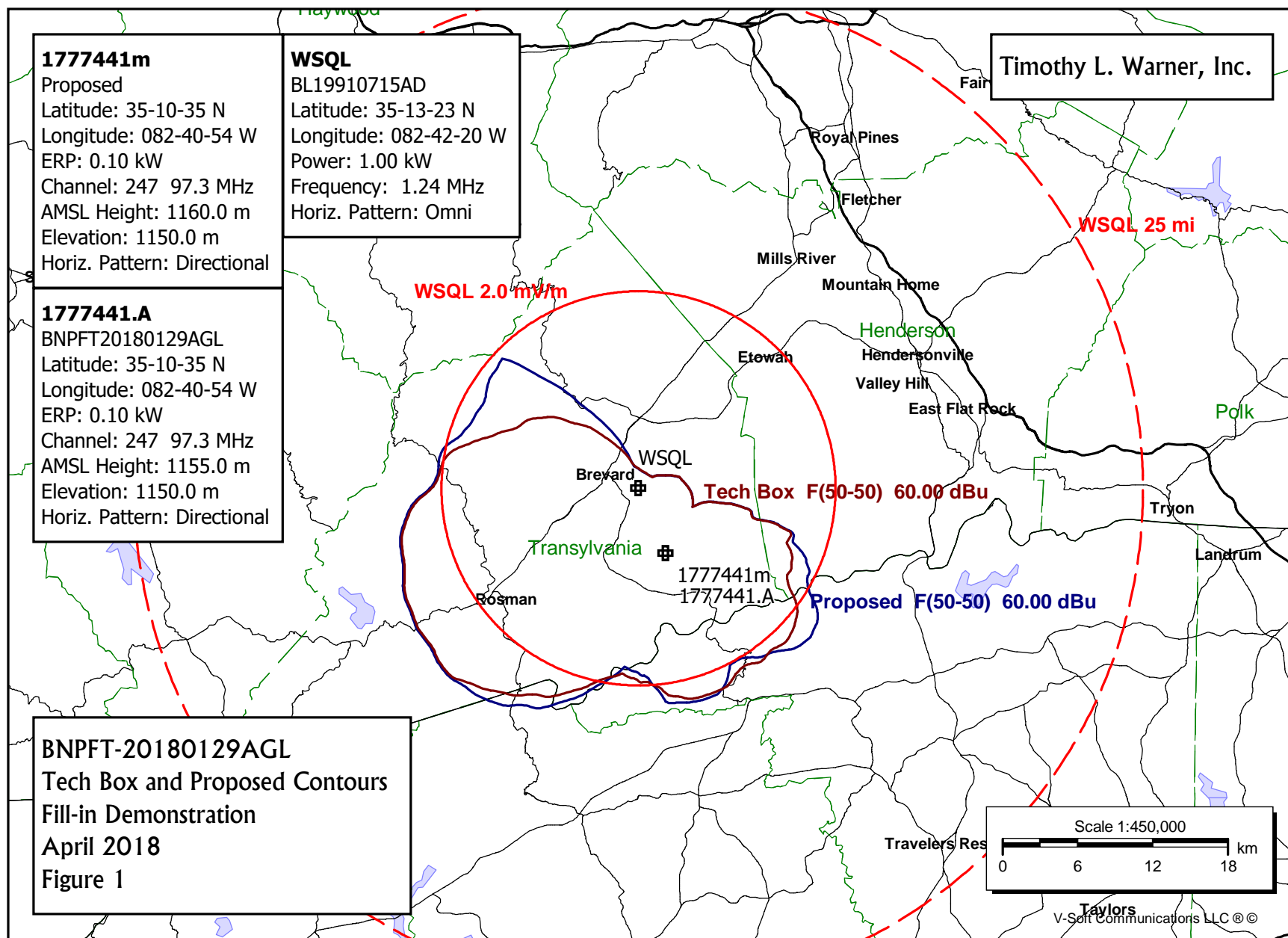


Figure 2: Directional Pattern  
Pre-Rotation Antenna Pattern....

Azimuth (deg)	Relative Field
0.0	0.119
10.0	0.117
20.0	0.1
30.0	0.07
40.0	0.1
50.0	0.12
60.0	0.15
70.0	0.2
80.0	0.3
90.0	0.35
100.0	0.4
110.0	0.4
120.0	0.375
130.0	0.32
140.0	0.258
150.0	0.23
160.0	0.29
170.0	0.3
180.0	0.32
190.0	0.26
200.0	0.29
210.0	0.56
220.0	0.8
230.0	1.0
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	0.44
340.0	0.148
350.0	0.12

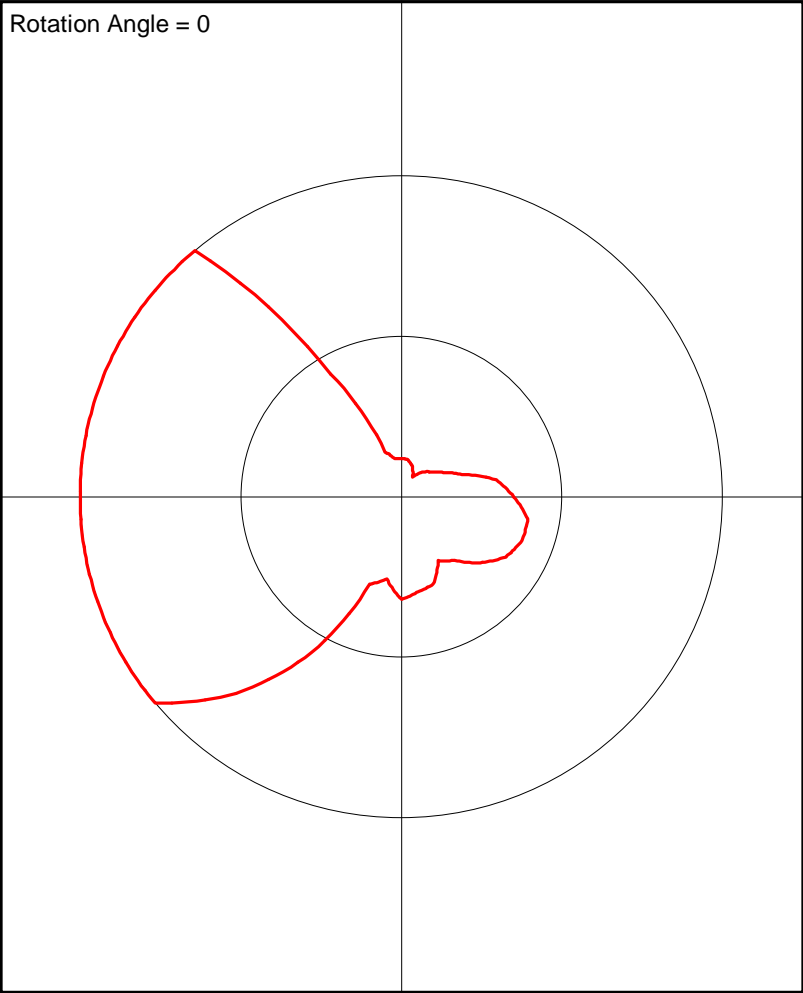


Figure 3: Allocation Study: W247BV  
Gonuts Media

FMCommander Single Allocation Study - 04-30-2018 - GLOBE 30 Sec  
1777441's Overlaps (In= -33.79 km, Out= 0.57 km)

1777441 CH 247 D DA  
Lat= 35 10 35.0, Lng= 82 40 54.0  
0.1 kW 393.7 m HAAT, 1160 m COR  
Prot.= 60 dBu, Intef.= 40 dBu

W247BV CH 247 D DA BLFT20180116AAAY  
Lat= 35 36 05.0, Lng= 82 39 06.0  
0.25 kW 0 m HAAT, 1023 m COR  
Prot.= 60 dBu, Intef.= 40 dBu

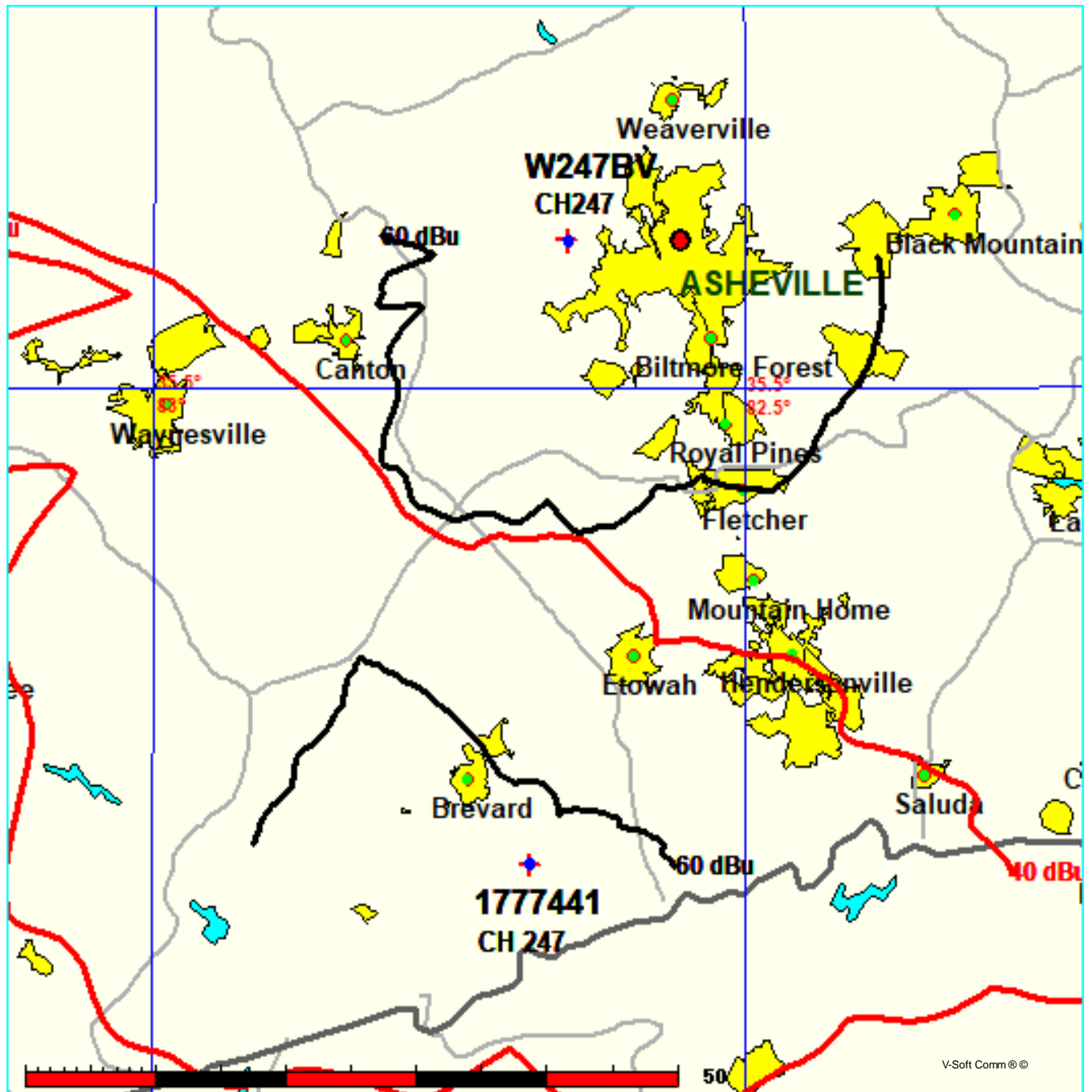




Figure 3A: Allocation Study: W247BV Detail  
Gonuts Media

FMCommander Single Allocation Study - 04-30-2018 - GLOBE 30 Sec  
1777441's Overlaps (In= -33.79 km, Out= 0.57 km)

1777441 CH 247 D DA  
Lat= 35 10 35.0, Lng= 82 40 54.0  
0.1 kW 393.7 m HAAT, 1160 m COR  
Prot.= 60 dBu, Intef.= 40 dBu

W247BV CH 247 D DA BLFT20180116AAY  
Lat= 35 36 05.0, Lng= 82 39 06.0  
0.25 kW 0 m HAAT, 1023 m COR  
Prot.= 60 dBu, Intef.= 40 dBu

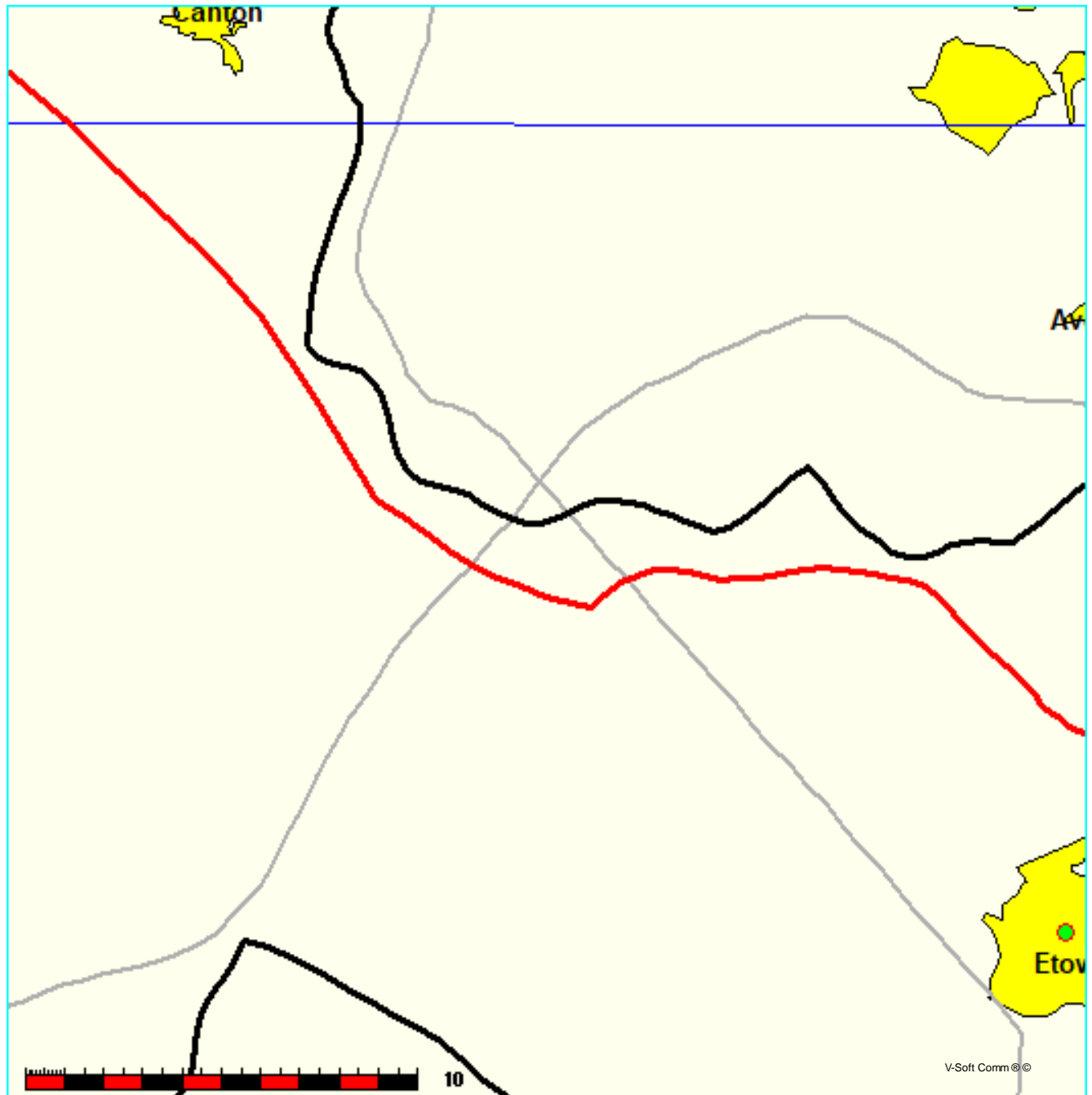


Figure 4: Allocation Study: WZVZ-LP  
Gonuts Media

FMCommander Single Allocation Study - 04-30-2018 - GLOBE 30 Sec  
1777441's Overlaps (In= 11.57 km, Out= 1.34 km)

1777441 CH 247 D DA  
Lat= 35 10 35.0, Lng= 82 40 54.0  
0.1 kW 393.7 m HAAT, 1160 m COR  
Prot.= 60 dBu, Intef.= 40 dBu

WZVZ-LP CH 247 L1 BMLL20150724AIF  
Lat= 34 49 58.0, Lng= 82 48 12.0  
0.002 kW 214.9391 m HAAT, 494 m COR  
Prot.= 60 dBu, Intef.= 40 dBu

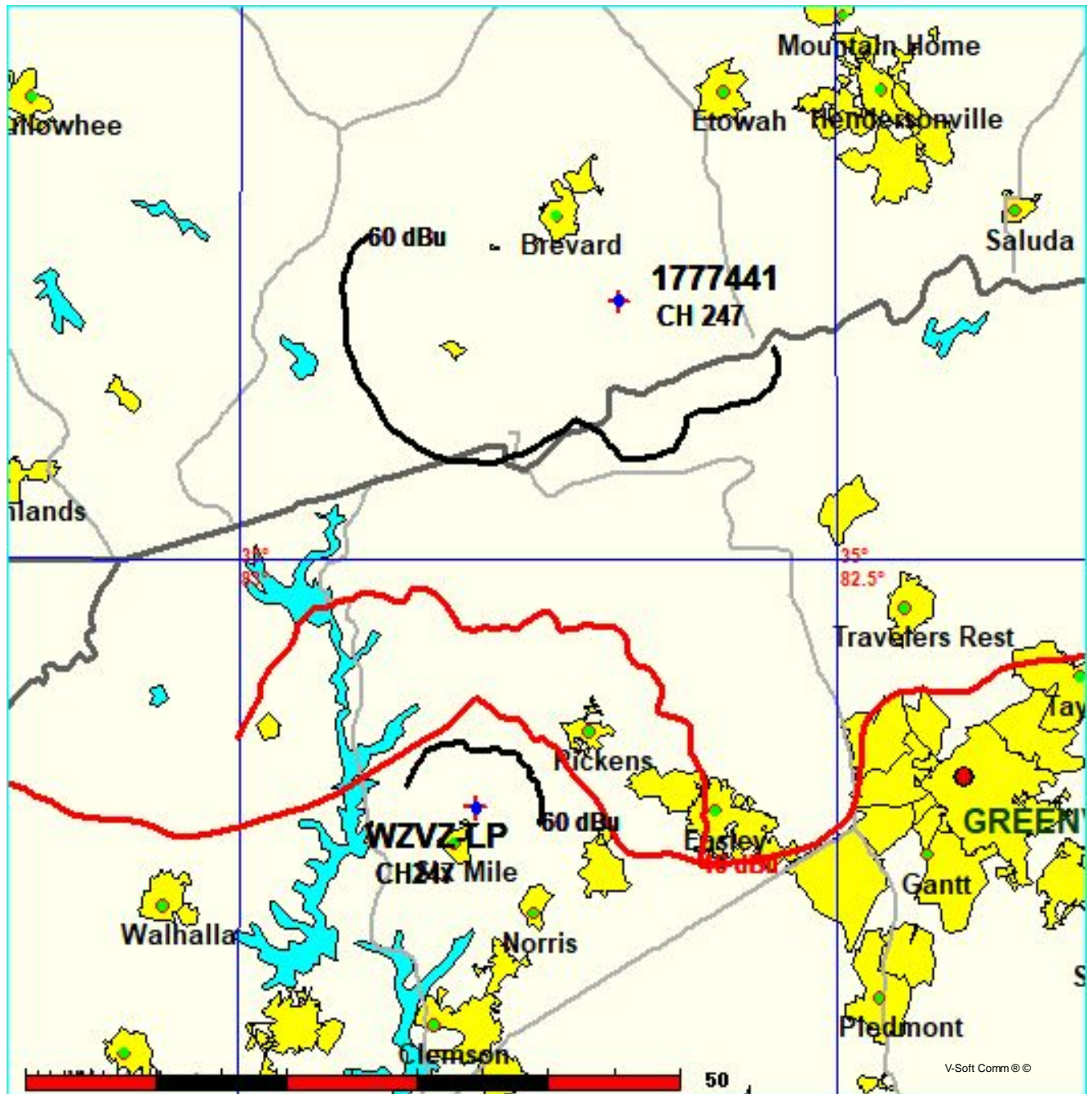


Figure 5: Allocation Study: W247AB  
Gonuts Media

FMCommander Single Allocation Study - 04-30-2018 - GLOBE 30 Sec  
1777441's Overlaps (In= 16.74 km, Out= 2.56 km)

1777441 CH 247 D DA  
Lat= 35 10 35.0, Lng= 82 40 54.0  
0.1 kW 393.7 m HAAT, 1160 m COR  
Prot.= 60 dBu, Intef.= 40 dBu

W247AB CH 247 D BLFT19930907TD  
Lat= 34 51 07.0, Lng= 82 24 00.0  
0.019 kW 78 m HAAT, 367 m COR  
Prot.= 60 dBu, Intef.= 40 dBu

