

**Asheville, North Carolina**  
**Minor Modification Application for**  
**FM Translator W271CB Construction Permit**  
**File Number BNPFT-20130829ACW**  
**On Channel 271**  
**by**  
**Isothermal Community College**

**Exhibit 13**  
**Interference Analysis**

**December 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 Isothermal Community College, 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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14 December 2016

### Narrative

This Exhibit supports a modification application for W271CB, for FM translator Construction Permit file number BNPFT-20130829ACW, on Channel 271 in Asheville, North Carolina. Allocation details are provided in this exhibit. The changes are the location, antenna model and directional pattern, an increase in elevation, and an increase in effective radiated power. This proposal creates no new mutual exclusivities with any Auction 83 Tech Box filings or any other facility.

Figure 1 shows the proposed 60 dBu F(50,50) contour and the authorized contour. As Figure 1 shows, this is a minor modification of the authorized facilities.

### Allocations

This application proposes service to Asheville, North Carolina, on channel 271. 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 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. 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	WQUT	Johnson City, Tennessee	268C, third adjacent

Table 1: Allocations

Allocation Study											
Isothermal Community College											
REFERENCE		CH# 271D - 102.1 MHz, Pwr= 0.01 kW DA, HAAT= 351.3 M, COR= 1080 M								DISPLAY DATES	
35 35 23.0 N.		Average Protected F(50-50)= 10.9 km								DATA 12-14-16	
82 40 26.0 W.		Standard Directional								SEARCH 12-14-16	
CH CITY	CALL	TYPE	ANT STATE	AZI. <--	DIST FILE #	LAT. LNG.	Pwr(kW) HAAT(M)	INT(km) COR(M)	PRO(km) LICENSEE	*IN* (Overlap in km)	*OUT*
271C1 Sevierville	WWST	LIC	CN TN	285.6 105.1	93.35 BLH19860519KF	35 48 41.0 83 40 08.0	15.000 603	161.6 981	73.7 Scripps Broadcasting	-69.2*	14.5 Holdi
271D Asheville	W271CB!	CP	DC NC	86.9 267.0	11.01 BNPFT20130829ACW	35 35 42.0 82 33 09.0	0.005 42	1.6 748	0.2 Isothermal Community College	-2.3	-31.1
Facility being modified											
273C1 Hendersonville	WMYI	LIC	NC NC	173.3 353.3	50.50 BLH20110929AKK	35 08 15.6 82 36 30.6	44.000 416	8.8 1079	68.5 Capstar Tx, LLC	37.3	-18.0*
Protected by U/D ratio, see text and figures.											
268C Johnson City	WQUT	LIC	CY TN	21.7 201.9	81.15 BMLH19980904KD	36 16 07.0 82 20 21.0	100.000 457	11.6 1069	78.4 Radio License Holding	62.8	2.8 Cbc,
271D Greenville	W271BS	LIC	DC SC	161.6 341.8	75.84 BLFT20151013AEG	34 56 27.0 82 24 41.0	0.990	62.1 642	18.9 Ted A McCall	7.6	38.1
271D Brevard	W271CL	LIC	DC NC	170.4 350.4	34.22 BLFT20151013AHD	35 17 08.0 82 36 39.0	0.250	19.4 840	6.0 Gonuts Media, LLC	11.1	25.4
270C0 Gastonia	WBAV-FM	LIC	CY NC	107.0 287.8	132.97 BLH19880129KD	35 13 57.0 81 16 35.0	100.000 301	104.3 552	71.9 Wkis License Limited Partn	17.1	44.6
269D Hendersonville	W269CW	LIC	DC NC	142.3 322.4	26.84 BLFT20151106EQT	35 23 55.0 82 29 33.0	0.019	0.3 781	7.3 Bible Broadcasting Network	18.2	19.4
268D Brevard	W268CL	LIC	DC NC	180.9 0.9	45.86 BLFT20160915ABC	35 10 35.0 82 40 54.0	0.010	0.2 1170	12.0 Western North Carolina Pub	41.4	33.8
268D Tryon	W268BS	CP	DC NC	132.5 312.7	53.07 BMPFT20150923AMK	35 16 00.0 82 14 34.0	0.010	0.2 994	10.4 Western North Carolina Pub	43.1	42.1
269A Walhalla	WGOG	LIC	CX SC	203.4 23.2	88.28 BLH20150803AAE	34 51 33.0 83 03 30.0	6.000 92	3.1 497	31.4 Appalachian Broadcasting C	83.2	56.1
272A Beech Mountain	WWMY	LIC	ZCX NC	47.0 227.5	97.41 BLH20080422AAO	36 11 03.0 81 52 48.0	0.150 597	25.5 1665	17.2 High Country Adventures, L	62.6	68.9
274C3 Weber City	AL5363	RSV-A	VA	4.3 184.3	104.25 RM11280	36 31 36.0 82 35 13.0	25.000 100	3.2 547	32.5	96.1	64.4
274C3 Weber City	WVEK-FM	LIC	C VA	4.3 184.3	104.25 BLH20080821ABX	36 31 36.0 82 35 13.0	1.750 376	2.6 835	38.4 Holston Valley Broadcastin	96.7	64.9
271C0 Reidsville	WJMH	LIC	C NC	72.0 253.6	258.14 BMLH20010731ACA	36 16 33.0 79 56 26.0	100.000 367	178.5 600	76.4 Entercom License, LLC	68.3	146.8
272D Hickory	W237CL	CP	DC NC	85.9 266.6	115.04 BPFT20160921ABW	35 39 28.0 81 24 24.0	0.250	28.7 588	19.4 Long Communications, LLC	74.4	78.3

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. 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.

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

Facility	WMYI Hendersonville, North Carolina
Relationship	273C1, second adjacent
Distance (km)	50.5
Bearing (degrees)	173.3
ERP (kW, on azimuth)	44.0
HAAT (m, on azimuth)	361.2
Ratio	40
Signal Strength (dBu)	68.1
Translator Signal Strength	108.1
Translator distance (km)	.088

**Undesired to Desired Method**

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 WMYI field strength calculated at ground level at the proposed W271CB site is 68.1 dBu, using the FM Curves calculator on the FCC web site. For the translator interference contour, free space calculations are used. The corresponding 108.1 dBu field strength distance is .088 kilometers in the horizontal plane. The proposed antenna location is 6 meters above ground.

Figure 4 is a topographic map of the transmitter site, showing the terrain, with the site on a mountain top. Figure 5 is an aerial photograph of the site, showing the absence structures in the area of interest. The 108.1 dBu signal in the horizontal plane is plotted on the aerial photograph.

The proposed antenna is a Kathrein Scala CLFM single level directional antenna. Figure 2 is a plot of the antenna horizontal plane pattern. The only structures that are in part of the interference contour are the transmitter buildings on the mountain top.

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 and edited to match the database in use at the Federal Communications Commission.

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 WQUT**

12-14-2016 Terrain Data: FCC NGDC 30 Sec FMOver Analysis

WQUT BMLH19980904KD

W271CB.C

Channel = 268C  
 Max ERP = 100 kW  
 RCAMSL = 1069 m  
 N. Lat. 36 16 07.0  
 W. Lng. 82 20 21.0  
 Protected  
 60 dBu

Channel = 271D  
 Max ERP = 0.01 kW  
 RCAMSL = 1080 m  
 N. Lat. 35 35 23.0  
 W. Lng. 82 40 26.0  
 Interfering  
 100 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
142.0	100.0000	0279.2	070.7	074.8	000.0078	0353.5	076.5	23.77	
143.0	100.0000	0280.3	070.8	075.3	000.0079	0355.6	075.4	24.27	
144.0	100.0000	0281.0	070.8	075.7	000.0080	0358.4	074.3	24.82	
145.0	100.0000	0283.2	071.0	076.2	000.0081	0362.2	073.2	25.38	
146.0	100.0000	0286.1	071.3	076.7	000.0082	0366.4	072.2	25.97	
147.0	100.0000	0287.0	071.3	077.1	000.0083	0370.0	071.0	26.53	
148.0	100.0000	0285.0	071.2	077.3	000.0084	0372.0	069.8	27.06	
149.0	100.0000	0281.0	070.8	077.4	000.0084	0372.6	068.5	27.54	
150.0	100.0000	0275.9	070.4	077.4	000.0084	0372.5	067.2	28.00	
151.0	100.0000	0270.8	070.0	077.3	000.0084	0372.0	065.9	28.44	
152.0	100.0000	0265.9	069.6	077.3	000.0084	0371.6	064.6	28.88	
153.0	100.0000	0261.3	069.2	077.2	000.0083	0371.1	063.3	29.31	
154.0	100.0000	0256.2	068.8	077.1	000.0083	0370.0	062.1	29.73	
155.0	100.0000	0251.1	068.3	076.9	000.0083	0368.7	060.8	30.13	
156.0	100.0000	0246.9	068.0	076.8	000.0083	0367.9	059.6	30.55	
157.0	100.0000	0244.8	067.8	076.9	000.0083	0368.4	058.4	31.02	
158.0	100.0000	0244.0	067.7	077.0	000.0083	0369.5	057.2	31.51	
159.0	100.0000	0241.7	067.6	077.0	000.0083	0369.5	056.0	31.95	
160.0	100.0000	0238.6	067.3	076.9	000.0083	0368.5	054.8	32.37	
161.0	100.0000	0236.1	067.1	076.8	000.0083	0367.8	053.6	32.78	
162.0	100.0000	0233.9	066.9	076.8	000.0082	0367.1	052.4	33.20	
163.0	100.0000	0231.7	066.7	076.7	000.0082	0366.2	051.2	33.61	
164.0	100.0000	0230.9	066.6	076.6	000.0082	0366.2	050.1	34.05	
165.0	100.0000	0233.7	066.9	077.0	000.0083	0369.1	048.9	34.62	
166.0	100.0000	0237.8	067.2	077.5	000.0084	0373.3	047.7	35.24	
167.0	100.0000	0246.3	067.9	078.3	000.0086	0379.9	046.6	35.98	
168.0	100.0000	0257.4	068.9	079.5	000.0089	0385.5	045.4	36.74	
169.0	100.0000	0268.9	069.8	080.8	000.0091	0390.5	044.2	37.44	
170.0	100.0000	0279.4	070.7	082.0	000.0092	0395.0	043.0	38.11	
171.0	100.0000	0288.0	071.4	083.1	000.0093	0400.3	041.8	38.80	
172.0	100.0000	0296.2	072.1	084.1	000.0094	0404.9	040.6	39.49	
173.0	100.0000	0304.3	072.7	085.0	000.0095	0409.5	039.4	40.20	
174.0	100.0000	0313.6	073.4	086.1	000.0096	0414.5	038.1	40.93	
175.0	100.0000	0319.5	073.8	086.9	000.0097	0417.4	036.8	41.61	
176.0	100.0000	0322.6	074.1	087.3	000.0097	0419.0	035.5	42.26	
177.0	100.0000	0325.3	074.3	087.7	000.0098	0420.4	034.3	42.91	
178.0	100.0000	0329.2	074.6	088.2	000.0098	0422.0	033.0	43.59	
179.0	100.0000	0334.1	074.9	088.9	000.0099	0423.6	031.7	44.30	
180.0	100.0000	0339.3	075.3	089.6	000.0100	0424.9	030.3	45.05	
181.0	100.0000	0345.3	075.7	090.4	000.0100	0425.9	029.0	45.82	
182.0	100.0000	0356.8	076.6	092.1	000.0098	0427.8	027.7	46.60	
183.0	100.0000	0367.9	077.4	093.9	000.0096	0431.3	026.3	47.46	
184.0	100.0000	0375.6	078.0	095.2	000.0095	0434.5	025.0	48.38	
185.0	100.0000	0378.9	078.2	095.8	000.0094	0436.1	023.6	49.35	
186.0	100.0000	0379.4	078.2	096.0	000.0094	0436.4	022.3	50.36	
187.0	100.0000	0379.7	078.3	096.0	000.0094	0436.5	020.9	51.40	
188.0	100.0000	0380.1	078.3	096.0	000.0094	0436.5	019.5	52.46	
189.0	100.0000	0381.5	078.4	096.1	000.0094	0436.7	018.2	53.56	
190.0	100.0000	0383.3	078.5	096.3	000.0094	0436.9	016.8	54.67	
191.0	100.0000	0383.5	078.5	096.0	000.0094	0436.5	015.4	55.81	
192.0	100.0000	0385.4	078.7	096.1	000.0094	0436.6	014.0	57.10	
193.0	100.0000	0392.4	079.2	097.8	000.0092	0436.3	012.6	58.85	
194.0	100.0000	0399.0	079.7	099.6	000.0091	0435.2	011.2	60.70	
195.0	100.0000	0401.9	079.9	100.1	000.0090	0435.5	009.8	62.67	
196.0	100.0000	0400.8	079.8	098.7	000.0091	0435.5	008.4	64.74	
197.0	100.0000	0399.3	079.7	096.3	000.0094	0436.9	007.0	66.87	
198.0	100.0000	0396.7	079.5	091.7	000.0098	0427.4	005.7	69.50	
199.0	100.0000	0393.0	079.2	083.3	000.0093	0401.4	004.5	71.87	



200.0	100.0000	0389.1	079.0	069.1	000.0065	0383.8	003.5	72.89
201.0	100.0000	0385.5	078.7	046.2	000.0015	0410.3	002.9	68.70
202.0	100.0000	0381.4	078.4	017.9	000.0000	0460.0	002.9	42.01
203.0	100.0000	0375.6	078.0	356.7	000.0000	0451.0	003.7	34.67
204.0	100.0000	0367.2	077.3	345.7	000.0000	0433.4	004.9	31.49
205.0	100.0000	0357.3	076.6	340.4	000.0000	0427.9	006.3	28.24
206.0	100.0000	0347.1	075.9	337.3	000.0000	0425.7	007.8	26.93
207.0	100.0000	0336.2	075.1	335.7	000.0000	0418.9	009.3	25.22
208.0	100.0000	0323.4	074.1	335.3	000.0000	0417.1	010.9	22.99
209.0	100.0000	0308.9	073.1	335.7	000.0000	0419.0	012.6	20.55
210.0	100.0000	0294.8	072.0	336.2	000.0000	0421.3	014.3	18.29
211.0	100.0000	0283.4	071.0	336.3	000.0000	0421.7	015.8	16.88
212.0	100.0000	0277.6	070.6	335.3	000.0000	0416.6	017.1	16.06
213.0	100.0000	0279.9	070.7	332.6	000.0000	0409.1	018.1	15.99
214.0	100.0000	0289.3	071.5	328.7	000.0000	0387.7	018.8	16.39
215.0	100.0000	0302.2	072.6	324.4	000.0000	0378.2	019.6	17.54
216.0	100.0000	0316.6	073.6	320.4	000.0000	0355.4	020.5	17.80
217.0	100.0000	0332.4	074.8	316.6	000.0000	0344.1	021.5	17.87
218.0	100.0000	0349.0	076.0	313.0	000.0000	0335.6	022.7	17.72
219.0	100.0000	0364.3	077.1	310.1	000.0000	0348.2	024.0	17.81
220.0	100.0000	0377.3	078.1	307.9	000.0000	0337.7	025.3	16.80
221.0	100.0000	0388.7	078.9	306.2	000.0000	0323.4	026.8	15.61
222.0	100.0000	0399.8	079.7	304.8	000.0000	0314.5	028.2	14.56
223.0	100.0000	0411.2	080.6	303.5	000.0000	0305.9	029.7	13.53
224.0	100.0000	0422.2	081.4	302.5	000.0000	0295.9	031.3	12.48
225.0	100.0000	0432.2	082.1	301.8	000.0000	0287.2	032.8	11.50
226.0	100.0000	0440.9	082.8	301.3	000.0000	0281.7	034.4	10.61
227.0	100.0000	0447.3	083.2	301.2	000.0000	0280.4	035.9	09.85
228.0	100.0000	0449.4	083.4	301.6	000.0000	0285.1	037.3	09.27
229.0	100.0000	0446.9	083.2	302.4	000.0000	0295.3	038.7	08.88
230.0	100.0000	0441.8	082.8	303.6	000.0000	0306.1	040.0	08.51
231.0	100.0000	0437.1	082.5	304.6	000.0000	0313.2	041.3	08.05
232.0	100.0000	0434.4	082.3	305.4	000.0000	0318.0	042.6	07.54
233.0	100.0000	0434.2	082.3	306.0	000.0000	0321.7	043.9	07.02
234.0	100.0000	0435.9	082.4	306.4	000.0000	0324.5	045.4	06.48
235.0	100.0000	0438.2	082.6	306.7	000.0000	0327.4	046.8	05.96
236.0	100.0000	0440.4	082.7	307.1	000.0000	0330.4	048.2	05.45
237.0	100.0000	0443.5	083.0	307.4	000.0000	0333.2	049.6	04.95
238.0	100.0000	0447.3	083.2	307.6	000.0000	0335.6	051.1	04.44
239.0	100.0000	0451.6	083.5	307.9	000.0000	0337.7	052.6	03.91
240.0	100.0000	0456.0	083.9	308.1	000.0000	0339.8	054.0	03.39
241.0	100.0000	0459.9	084.1	308.4	000.0000	0342.2	055.5	02.88
242.0	100.0000	0464.3	084.4	308.7	000.0000	0344.1	057.0	02.35
243.0	100.0000	0469.8	084.8	309.0	000.0000	0345.5	058.5	01.81
244.0	100.0000	0476.1	085.2	309.2	000.0000	0346.6	060.0	01.25
245.0	100.0000	0481.8	085.6	309.5	000.0000	0347.5	061.5	00.70
246.0	100.0000	0486.3	085.9	309.8	000.0000	0348.1	063.0	00.15
247.0	100.0000	0489.6	086.1	310.3	000.0000	0348.0	064.4	-00.45
248.0	100.0000	0491.8	086.2	310.8	000.0000	0347.0	065.8	-01.11
249.0	100.0000	0493.8	086.3	311.3	000.0000	0344.9	067.2	-01.80
250.0	100.0000	0495.8	086.5	311.8	000.0000	0342.3	068.6	-02.51
251.0	100.0000	0497.6	086.6	312.3	000.0000	0339.3	070.0	-03.23
252.0	100.0000	0499.2	086.7	312.8	000.0000	0336.6	071.4	-03.94
253.0	100.0000	0501.0	086.8	313.3	000.0000	0334.6	072.7	-04.63
254.0	100.0000	0502.6	086.9	313.8	000.0000	0333.7	074.1	-05.27
255.0	100.0000	0505.4	087.0	314.3	000.0000	0333.9	075.5	-05.87
256.0	100.0000	0509.2	087.3	314.7	000.0000	0335.0	076.9	-06.44
257.0	100.0000	0513.1	087.5	315.2	000.0000	0336.7	078.3	-06.98
258.0	100.0000	0517.1	087.7	315.6	000.0000	0338.9	079.7	-07.51
259.0	100.0000	0519.9	087.9	316.1	000.0000	0341.5	081.1	-08.02
260.0	100.0000	0522.5	088.1	316.6	000.0000	0344.2	082.5	-08.52
261.0	100.0000	0524.7	088.2	317.1	000.0000	0346.7	083.8	-09.03

**W271CBm**

Proposed

Latitude: 35-35-23 N

Longitude: 082-40-26 W

ERP: 0.01 kW

Channel: 271 102.1 MHz

AMSL Height: 1080.0 m

Elevation: 1074.0 m

Horiz. Pattern: Directional

**W271CB.C**

BNPFT20130829ACW

Latitude: 35-35-42 N

Longitude: 082-33-09 W

ERP: 0.005 kW

Channel: 271 102.1 MHz

AMSL Height: 748.0 m

Elevation: 674.0 m

Horiz. Pattern: Directional

**W271CB**

Authorized and Proposed Contours

December 2016

Figure 1

Timothy L. Warner, Inc.

WNCW

Weaverville

Woodfin

Buncombe

Asheville

W271CBm

W271CB.C

Authorized F(50-50) 60.00 dBu

Montreat

Black Mountain

Swannanoa

Proposed F(50-50) 60.00 dBu

Biltmore Forest

Canton

Fairview

Royal Pines

Avery Creek

Fletcher

Scale 1:250,000

0 3 6 9 km

V-Soft Communications LLC ©

Figure 2: Proposed Antenna Pattern

Pre-Rotation Antenna Pattern....

Azimuth (deg)	Relative Field
0.0	1.0
10.0	0.96
20.0	0.84
30.0	0.665
40.0	0.463
50.0	0.269
60.0	0.118
70.0	0.024
80.0	0.015
90.0	0.012
100.0	0.016
110.0	0.039
120.0	0.042
130.0	0.05
140.0	0.093
150.0	0.138
160.0	0.175
170.0	0.173
180.0	0.174
190.0	0.168
200.0	0.159
210.0	0.139
220.0	0.106
230.0	0.064
240.0	0.039
250.0	0.034
260.0	0.023
270.0	0.01
280.0	0.012
290.0	0.032
300.0	0.105
310.0	0.24
320.0	0.433
330.0	0.645
340.0	0.83
350.0	0.954

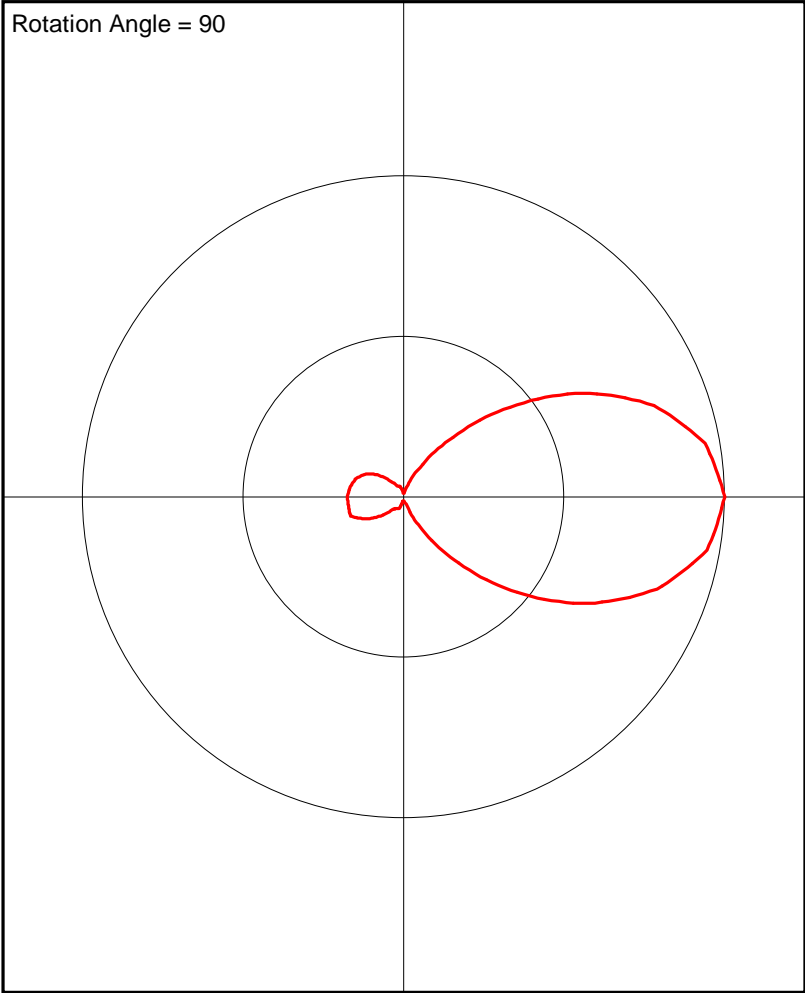


Figure 3: Allocation Study: WQUT  
Isothermal Community College

FMCommander Single Allocation Study - 12-14-2016 - FCC NGDC 30 Sec  
W271CB.C's Overlaps (In= 62.79 km, Out= 2.77 km)

W271CB.C CH 271 D DA  
Lat= 35 35 23.0, Lng= 82 40 26.0  
0.01 kW 351.3 m HAAT, 1080 m COR  
Prot.= 60 dBu, Intef.= 100 dBu

WQUT CH 268 C BMLH19980904KD  
Lat= 36 16 07.0, Lng= 82 20 21.0  
100.0 kW 457 m HAAT, 1069 m COR  
Prot.= 60 dBu, Intef.= 100 dBu

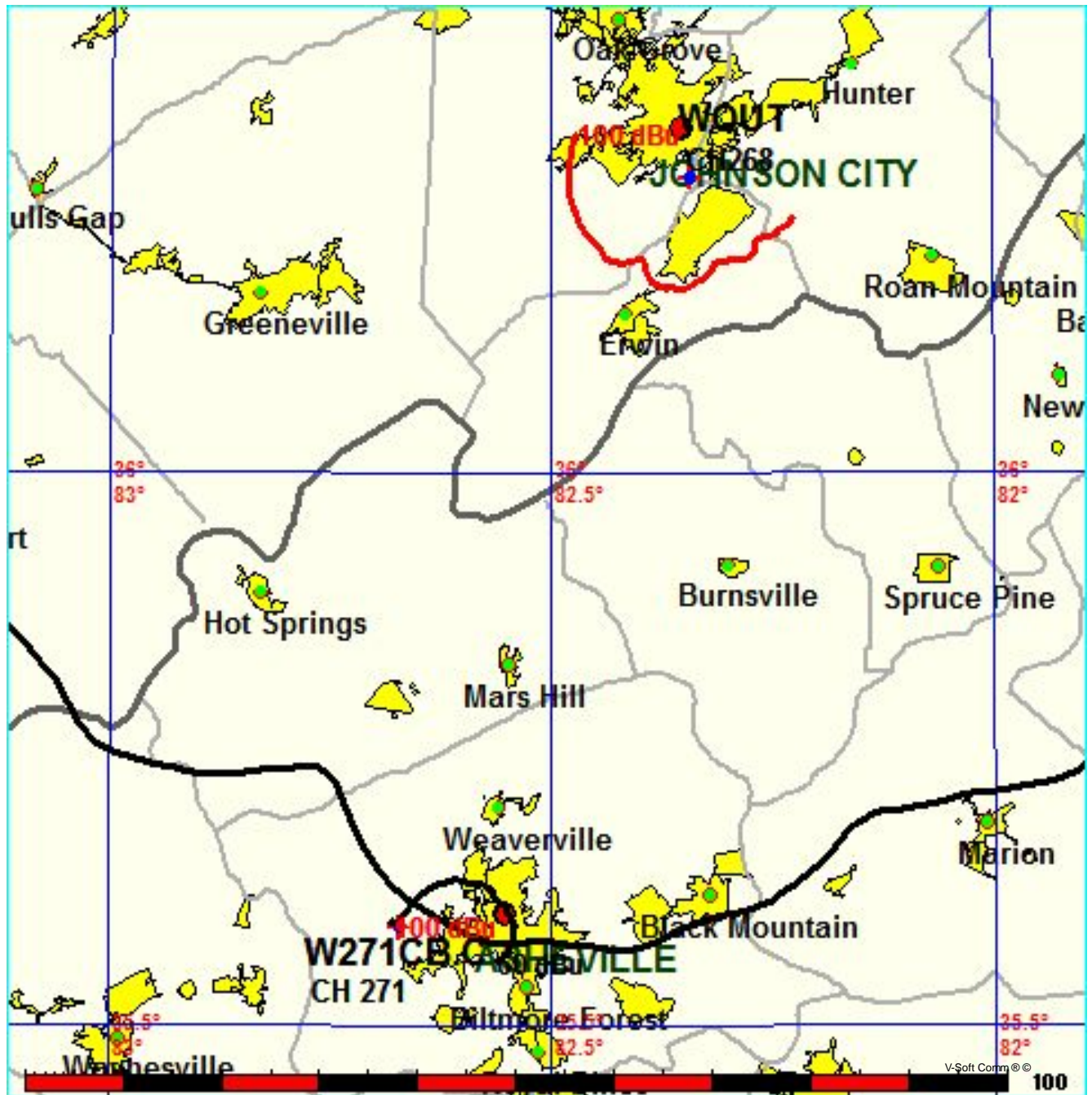
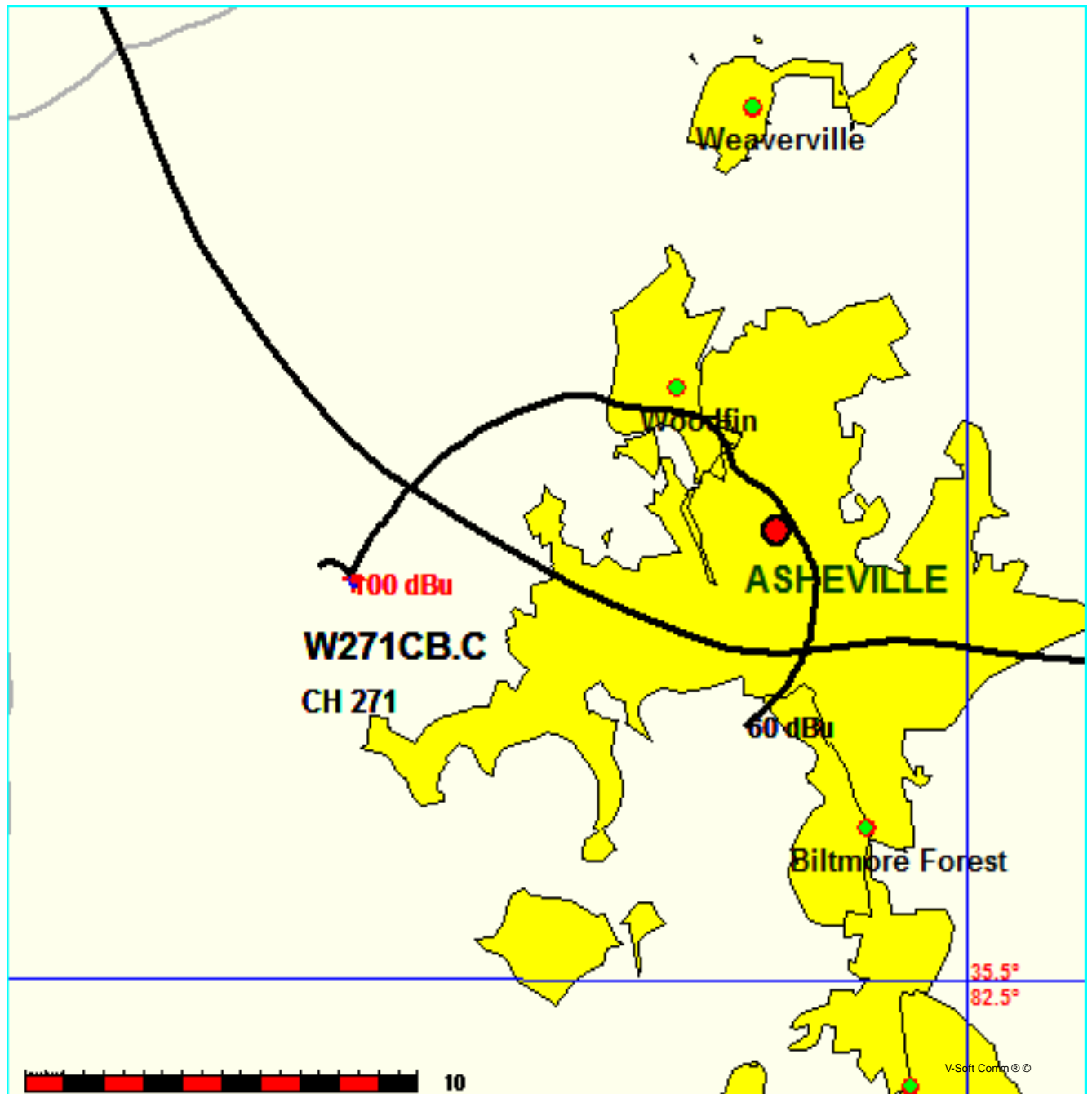


Figure 3A: Allocation Study: WQUT Detail  
Isothermal Community College

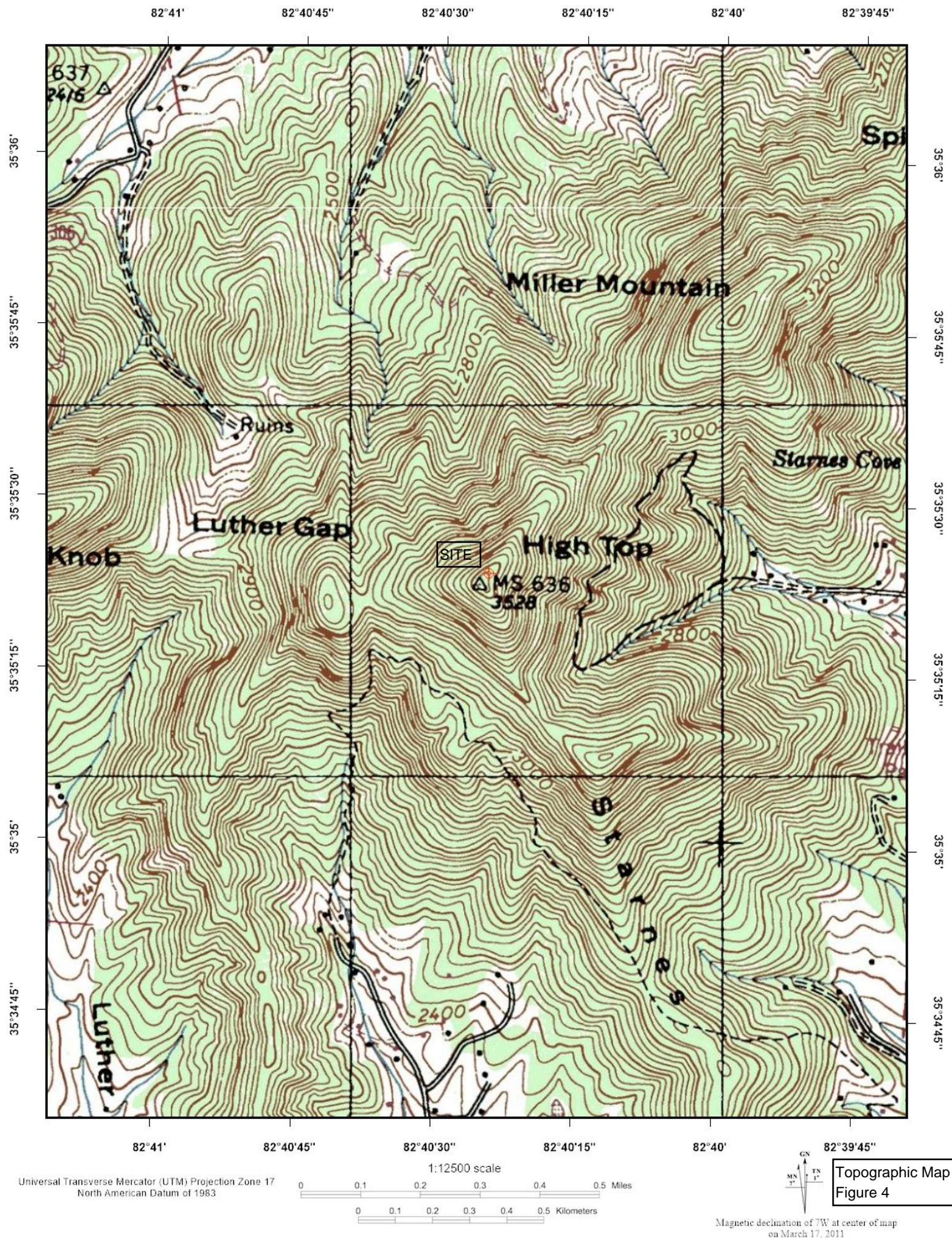
FMCommander Single Allocation Study - 12-14-2016 - FCC NGDC 30 Sec  
W271CB.C's Overlaps (In= 62.79 km, Out= 2.77 km)

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WQUT CH 268 C BMLH19980904KD  
Lat= 36 16 07.0, Lng= 82 20 21.0  
100.0 kW 457 m HAAT, 1069 m COR  
Prot.= 60 dBu, Intef.= 100 dBu









Topographic Map  
Figure 4



# W271CB

Aerial Photograph with Interference Contour  
December 2016  
Figure 5

## Legend

-  W271CBm (271)
-  W271CBm (271) - 50 10 Field Strength: 108.1 dBu FCC [FCC 30 US]

