

Figure 1

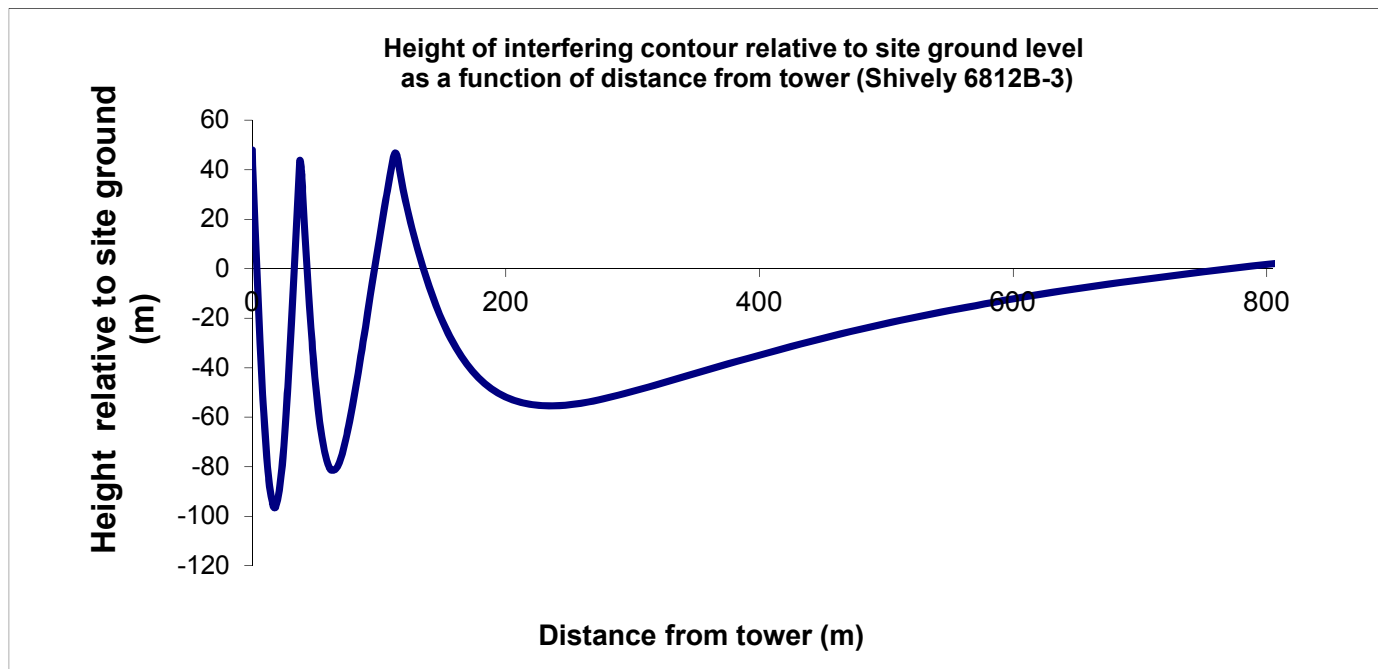
W299CF - MINOR CHANGE TO LICENSED FACILITY

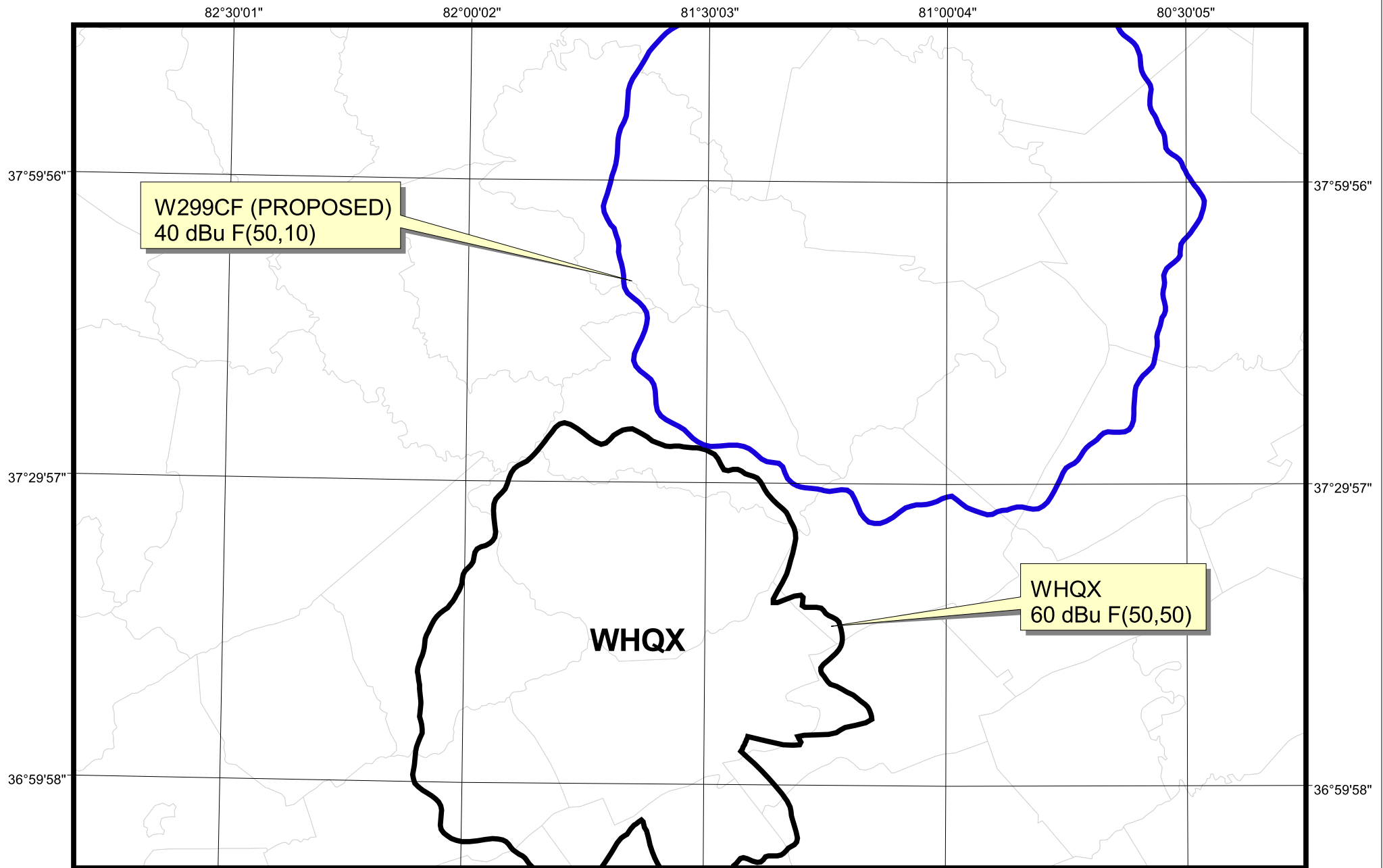
Demonstration of 60 dBu contour within the 'greater' of 2 mV or 25-mile radius of WRRL-AM

Table 1**W299CF - MINOR CHANGE TO LICENSED FACILITY****Channel Study**

Chan	Class	Call Letters	Type	Status	City	State	Country	Owner	Distance (km)	Bearing TO (deg)	Req. Dist. (km)	Clearance (km)	Field Strength (dBu)	
297	B	WKAZ-FM	FM	LIC	MIAMI	WV	US	WEST VIRGINIA RADIO CORPORAT	61.9	308.6	66.6	-4.7	55.7	(See Note)
298	D	W298BQ	FX	LIC	COVINGTON	VA	US	WVJT, LLC	92.5	99.0	43.2	49.3		
299	D	W299CF	FX	CP	FAYETTEVILLE	WV	US	ZACK MEDIA, LLC	2.3	59.4	40.8	-38.4		(Same as applicant)
299	D	W299CF	FX	LIC	FAYETTEVILLE	WV	US	ZACK MEDIA, LLC	14.2	66.0	49.2	-35.0		(Same as applicant)
299	C3	WHQX	FM	LIC	GARY	WV	US	ALPHA MEDIA LICENSEE LLC	104.0	212.2	99.0	5.0		
299	A	WVRW	FM	APP	GLENVILLE	WV	US	DELLA JANE WOOFER	109.4	6.3	80.1	29.3		
299	A	WVRW	FM	LIC	GLENVILLE	WV	US	DELLA JANE WOOFER	109.5	6.3	79.9	29.6		
300	B	WEMM-FM	FM	LIC	HUNTINGTON	WV	US	MORTENSON BROADCASTING CO.	128.1	298.9	111.2	16.8		

NOTE: (No interference CAUSED to WKAZ-FM) 2nd adjacent WKAZ-FM has a field strength of 55.7 dBu F(50,50) at the proposed site. Therefore the proposed translator's interfering contour is the 95.7 dBu F(50,10) contour. At 99 watts ERP, the proposed translator's 95.7 dBu F(50,10) extends 803 meters (worst case) horizontally from the antenna. However, using a three bay SHIVELY 6812B antenna mounted at 48 meters AGL (1061 m AMS), the antenna's vertical elevation pattern is such that the interfering contour does not reach any occupied structures or population. Therefore this proposal is compliant with the allowance of Rule 74.1204(d). (See Figures 4-6)

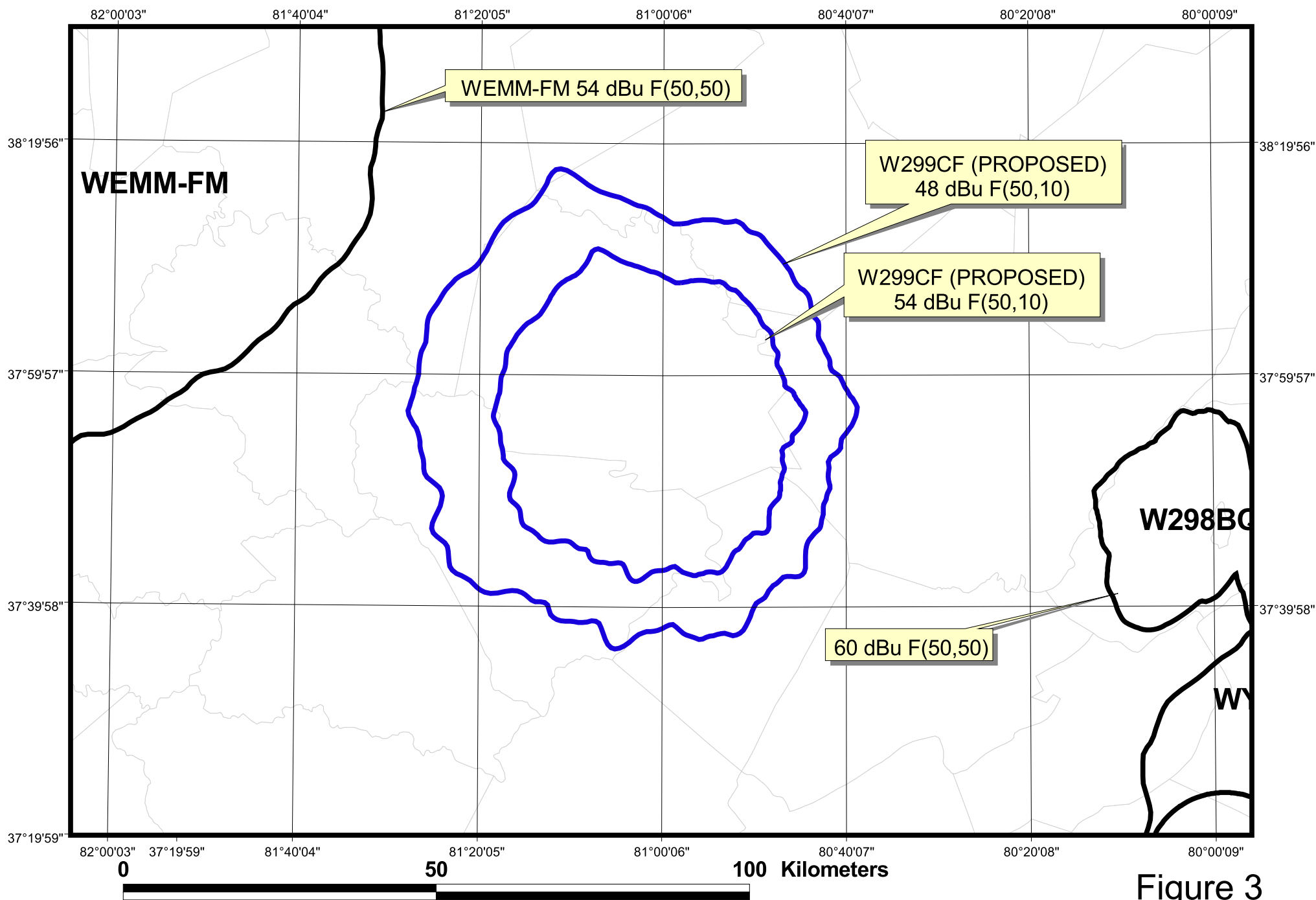




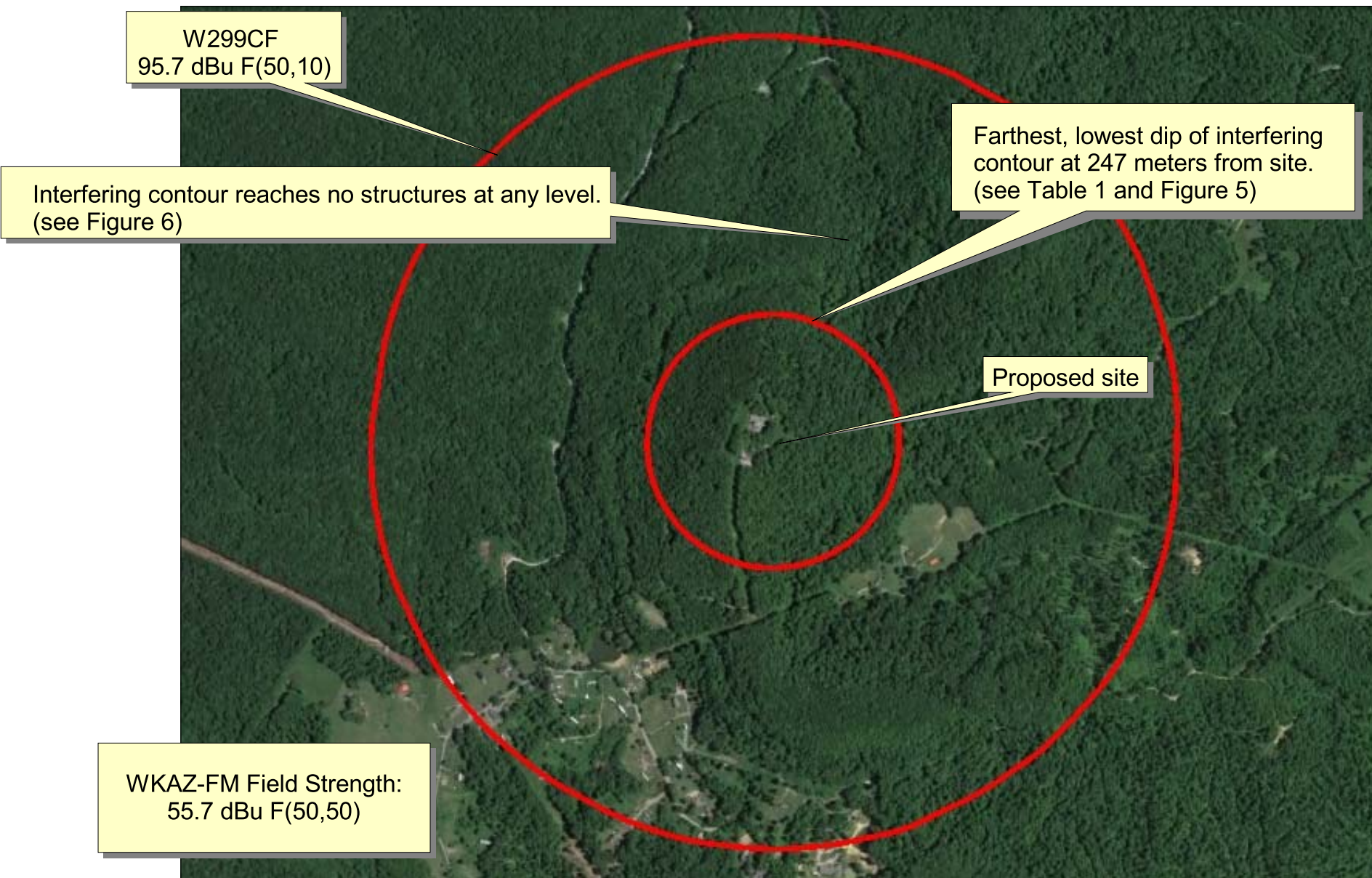
0 10 20 Kilometers

W299CF - MINOR CHANGE TO LICENSED FACILITY
Co-channel study

Figure 2

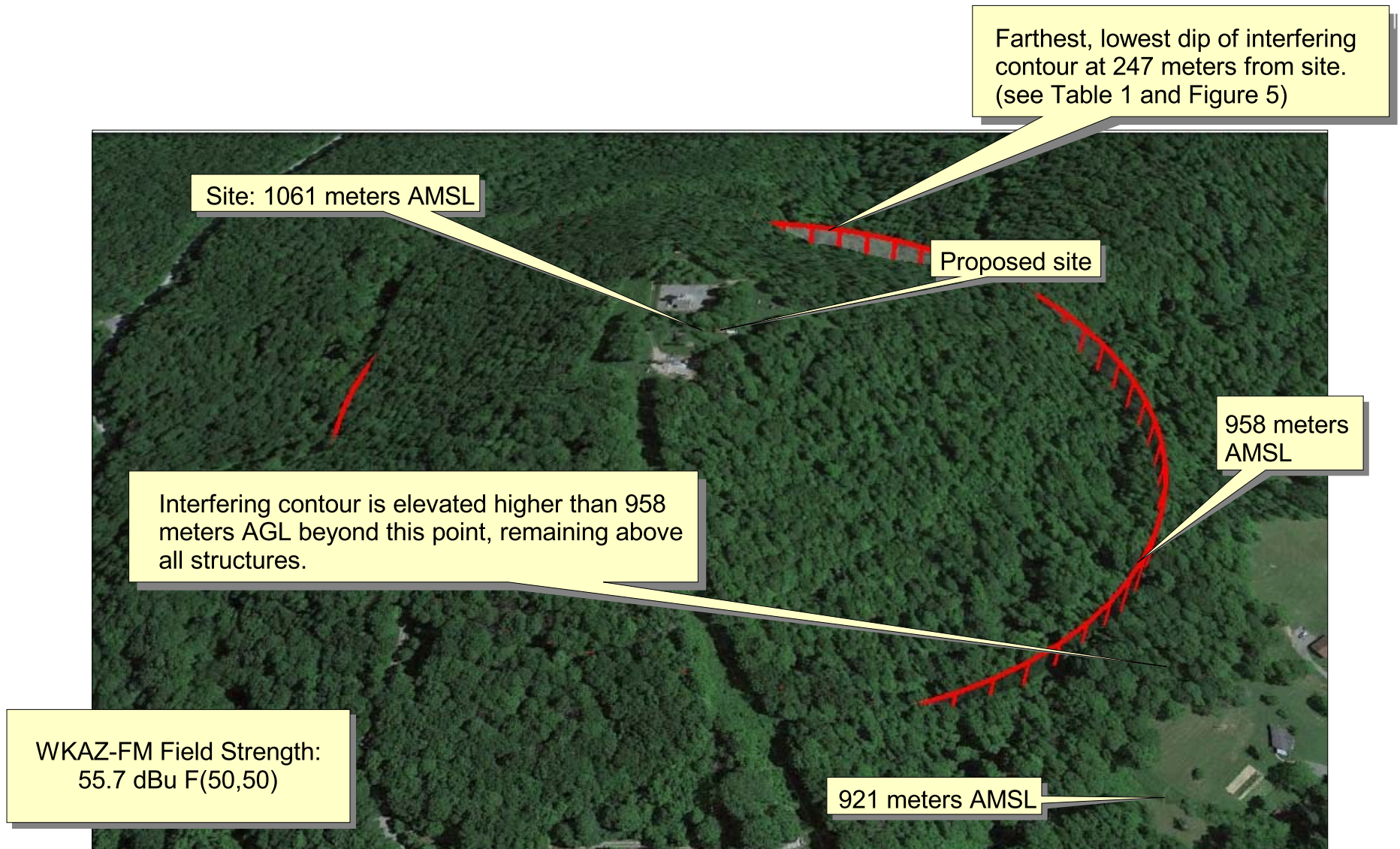


W299CF - MINOR CHANGE TO LICENSED FACILITY
1st adjacent channel study



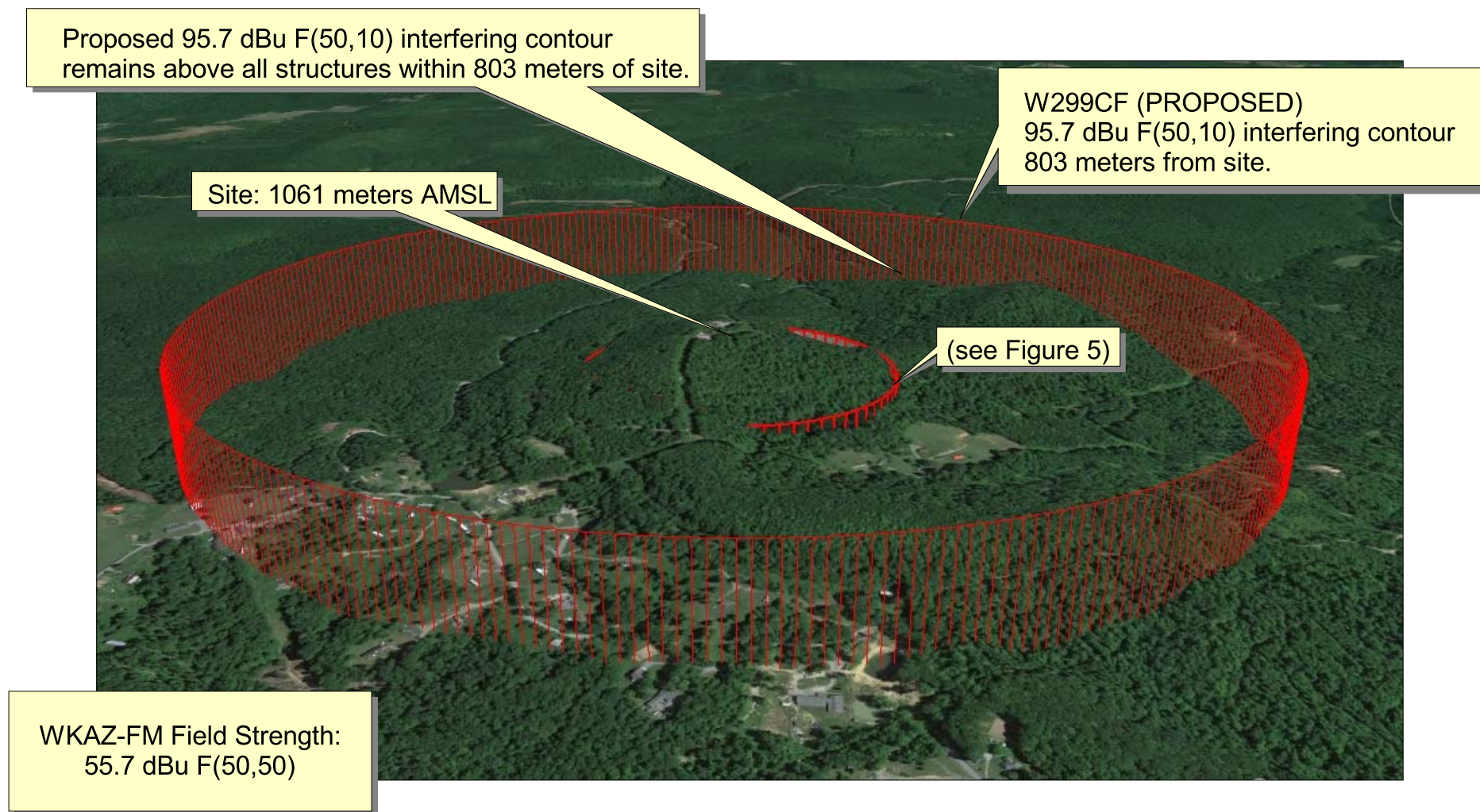
W299CF - MINOR CHANGE TO LICENSED FACILITY
2nd adjacent channel study with respect to WKAZ-FM

Figure 4



W299CF - MINOR CHANGE TO LICENSED FACILITY
2nd adjacent channel study with respect to WKAZ-FM

Figure 5



W299CF - MINOR CHANGE TO LICENSED FACILITY
2nd adjacent channel study with respect to WKAZ-FM

Figure 6

Radiofrequency Electromagnetic Exposure Analysis

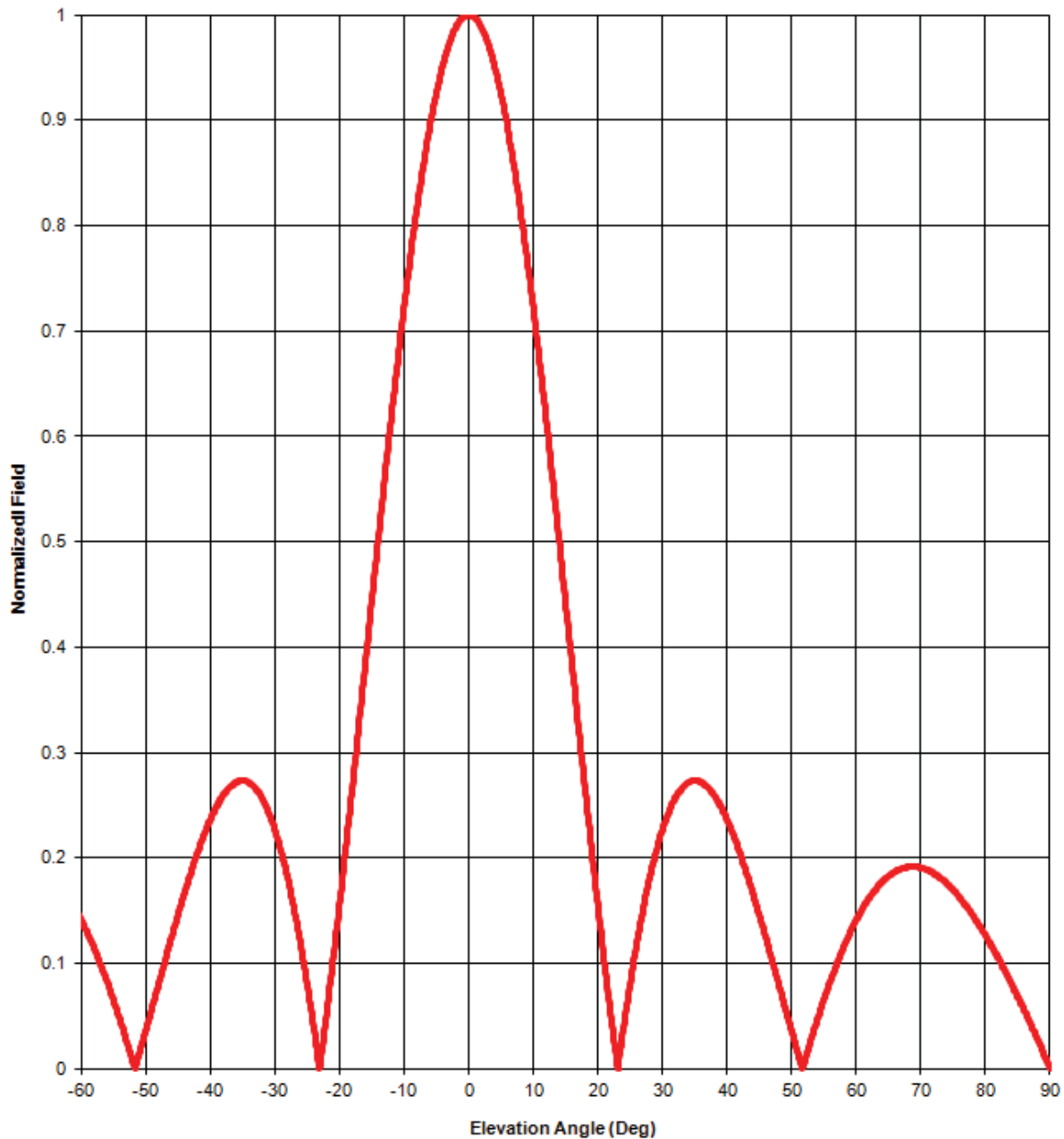
Source	Height AGL(m)	Antenna type	Bays	Horizontal ERP (kw)	Vertical ERP (kw)	Power Density $\mu\text{W}/\text{cm}^2$ at 2 meters AGL				
						within 10 meters distance	% controlled environment limit (1000 $\mu\text{W}/\text{cm}^2$)	Max. PD beyond 10 m	% uncontrolled environment limit (200 $\mu\text{W}/\text{cm}^2$)	Distance to maximum PD (m)
W299CF	48	SHI-6812B-3	3	0.099	0.099	0.07	0.01%	0.15	0.1%	24.2
WVBD	54	(Dipole EPA assumed)	2	0.48	0.48	7.0	0.70%	7.1	3.6%	13.0
W268AZ	42	(Dipole EPA assumed)	1	0.25	0.25	6.3	0.63%	6.3	3.2%	10.8
W221CO (PROPOSED)	42	(Dipole EPA assumed)	1	0.25	0.25	6.3	0.63%	6.3	3.2%	10.8
						7.0	1.97%	7.1	9.9%	24.2

The proposed facility is excluded from environmental processing under 47. C.F.R. Section 1.1306 (i.e., The facility will not have a significant environmental impact and complies with the maximum permissible radiofrequency electromagnetic exposure limits for controlled and uncontrolled environments).

Calculations made using FCC FMModel

In the absence of specific antenna data, the EPA-dipole, single bay model is used.

Elevation pattern



Antenna model: 6812b, 3-bay full-wave-spaced

Test frequency: 98.1 MHz

Gain (maximum):

Power	dB
1.55	1.91 dB

Document No. 6812b 3-bay fw (130701)

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Degrees	Rel. Field	Degrees	Rel. Field	Degrees	Rel. Field	Degrees	Rel. Field	Degrees	Rel. Field
1	0.997	19	0.210	37	0.267	55	0.066	73	0.181
2	0.988	20	0.155	38	0.260	56	0.083	74	0.176
3	0.973	21	0.102	39	0.249	57	0.100	75	0.170
4	0.952	22	0.052	40	0.236	58	0.115	76	0.163
5	0.926	23	0.004	41	0.221	59	0.129	77	0.155
6	0.894	24	0.040	42	0.205	60	0.141	78	0.146
7	0.858	25	0.081	43	0.186	61	0.153	79	0.137
8	0.816	26	0.118	44	0.167	62	0.162	80	0.127
9	0.771	27	0.151	45	0.146	63	0.171	81	0.116
10	0.723	28	0.181	46	0.124	64	0.177	82	0.105
11	0.671	29	0.206	47	0.103	65	0.183	83	0.093
12	0.616	30	0.227	48	0.080	66	0.187	84	0.081
13	0.560	31	0.244	49	0.058	67	0.190	85	0.069
14	0.502	32	0.257	50	0.036	68	0.191	86	0.056
15	0.443	33	0.266	51	0.014	69	0.192	87	0.042
16	0.384	34	0.272	52	0.007	70	0.191	88	0.029
17	0.325	35	0.274	53	0.028	71	0.189	89	0.015
18	0.267	36	0.272	54	0.047	72	0.185	90	0.000

Elevation Pattern Tabulation

Antenna model: 6812b, 3-bay full-wave-spaced

Relative Field at 0° Depression = 1.000