

**W222CD  
MINOR MODIFICATION  
MATTOON WAIVER**

**Request for waiver of § 74.1233(a)(1):**

This application requests a Mattoon Waiver to serve as a fill-in AM translator for WAKY(AM) in Louisville, KY (facility ID # 30798) in accordance with the waiver granted for the move of W263AQ (DA-11-1495). The proposed W222CD facility is mutually exclusive with the licensed W222CD facility because the proposed 40 dBu (50:10) interfering contour overlaps the licensed 60 dBu (50:50) contour as demonstrated in exhibit E1AA.

Dismissal of CP BPFT-20151221CIU upon grant of this application is requested.

**Allocation discussion:**

All exhibits utilize the Globe 30 second terrain database which is the Commission's default database.

E1	Channel study
E1AA	Mattoon overlap
W1AB	NEW 223 application interference plot
E1A	WFPK analysis
E1B	Aerial view of interference area
E1C	DA tabulation
E2	60 dBu and 2 mV/m contours plot
E3	ASR

A channel study is included demonstrating compliance with §74.1204. Analysis of 2nd adjacent channel station WFPK on 220B is provided as E1A. A plot of the proposed 60 dBu is provided as E2 showing that it is entirely contained within the WAKY(AM) 25 mile circle.

**WFPK analysis:**

The proposed W222CD facility will be located inside the protected contour of 2nd adjacent channel station WFPK on channel 220B. Therefore, an interference analysis has been conducted based on the U/D ratio of +40 dB at the proposed site. The WFPK (50,50) contour at the proposed site is 80.47 dBu and the (50,10) interference contour is 120.47 dBu. Exhibit E1A demonstrates that this

interfering contour is at least 20.5 meters above ground.

A careful examination of the interference area's aerial photograph (see E1C) from Google Earth and Google Street View demonstrates that the tallest buildings within the contour is two stories. Therefore, there is ample clearance from the interference contour.

Clearly, these interference contours will not reach any populated area or major highways. Based on this showing a waiver of Section 74.1204 is requested in accordance with *Living Way Ministries, Inc.* (FCC 08-242).

**RF Exposure Calculation:**

The proposed facility will be located at an existing tower (ASR#1000439) using a single bay PSI FML-1 circularly polarized antenna mounted at 74 meters AGL. The RF contribution of the proposed translator was calculated to be 3.22  $\mu\text{Watts}/\text{cm}^2$  using the formula included below and a worst case vertical factor of 1.0. This is 1.6% of the maximum permissible 200 microwatts/cm<sup>2</sup> exposure for general population/uncontrolled exposure, and well below 5% of that limit which requires consideration.

$$S \text{ (RF in } \mu\text{Watts}/\text{cm}^2) = \frac{33.4 (F^2 \text{ Vertical Factor}) X (H \text{ ERP} + V \text{ ERP in Watts})}{R^2 \text{ (distance to radiation center in meters} - 2 \text{ m)}}$$

The proposed translator facility complies with Commission RF radiation limits.

  
Charles M. Anderson 4-16-2018

## E1 CHANNEL STUDY

REFERENCE CH# 222D - 92.3 MHz, Pwr= 0.25 kW DA, HAAT= 56.9 M, COR= 213 M DISPLAY DATES  
 38 15 27.0 N. Average Protected F(50-50)= 9.92 km DATA 04-16-18  
 85 43 23.0 W. Standard Directional SEARCH 04-16-18

CH CITY	CALL	TYPE STATE	ANT STATE	AZI <--	DI ST FILE #	LAT LNG	PWR(kW) HAAT(M)	INT(km) COR(M)	PRO(km) LICENSEE	*IN* (Over lap in km)	*OUT*
222D W222CD Fairdale	CP DC_ KY	176.4 356.4	16.74 BPFT20151221CIU	38 06 26.0 85 42 40.0	0.250	16.74 305	16.74 Washington County Cbc, Inc	64.5R	-47.8M		
220B WFPK Louisville	LIC_CN KY	319.6 139.6	15.73 BLED19981005KC	38 21 55.0 85 50 24.0	6.800 236	4.3 426	45.7 Kentucky Public Radio, Inc	7.4	-30.1*		

See E1A and E1B for disproof of WFPK interference per *Living Way*.

222B WTTT Bloomington	LIC_CN IN	344.1 163.8	133.04 BMLH19880426KB	39 24 27.0 86 08 52.0	37.000 332	149.2 574	76.8 Sarkes Tarzian, Inc.	-24.2*	27.5
222B WTTT Bloomington	LIC_CX IN	344.1 163.8	133.04 BMLH20160429ABG	39 24 27.0 86 08 52.0	37.000 332	149.2 574	76.8 Sarkes Tarzian, Inc.	-24.2*	27.5
222B WTTT Trafalgar	APP_CX IN	344.1 163.8	133.04 BPH20180320ABU	39 24 27.0 86 08 52.0	37.000 332	149.2 574	76.8 Sarkes Tarzian, Inc.	-24.2*	27.5
222D W222CD Elizabethtown	LIC_V_ KY	179.3 359.3	42.06 BLFT20151221CIK	37 52 45.0 85 43 03.0	0.250	42.06 300	42.06 Washington County Cbc, Inc	64.5R	-22.4M
223D NEW-223 Louisville	APP_C_ KY	326.6 146.5	9.36 BNPFT20180130AHC	38 19 40.0 85 46 56.0	0.010	6.1 198	4.3 New Albany Broadcasting Co	0.2	0.6
276C2 WONU Lyndon	LIC_NCX KY	63.7 243.8	16.86 BLH20080714ADM	38 19 28.0 85 33 00.0	23.000 169	0.0 359	0.0 Sm-wqnu, Lic	14.5R	2.4M
223C WBKR Owensboro	LIC_CY KY	238.7 57.9	137.25 BLH19870121KD	37 36 29.0 87 03 15.0	100.000 320	106.9 453	73.7 Townsquare Media Of Evansv	18.6	46.5

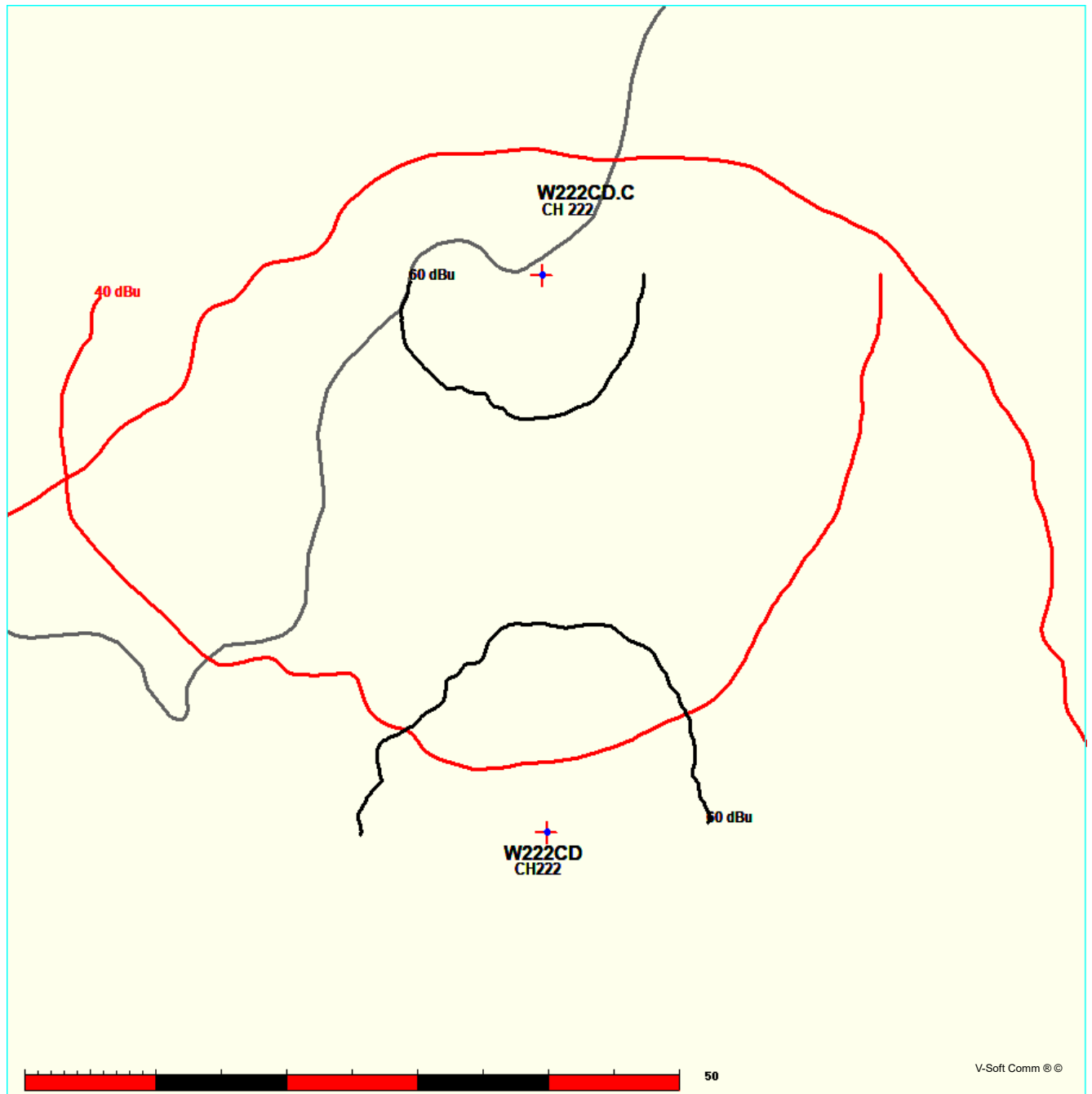
Terrain database is GLOBE 30 Sec , R= 73.215 qualifying spacings or FCC minimum Spacings in KM, M= Margin in KM  
 In & Out distances between contours are shown at closest points. Reference zone= East Zone, Co to 3rd adjacent.  
 All separation margins (if shown) include rounding.  
 Ant Column: (D= 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.

## E1AA MATTOON OVERLAP

FMCommander Single Allocation Study - 04-16-2018 - GLOBE 30 Sec  
W222CD.C's Overlaps (In= -20.34 km, Out= -10.9 km)

W222CD.C CH 222 D DA  
Lat= 38 15 27.0, Lng= 85 43 23.0  
0.25 kW 56.9 m HAAT, 213 m COR  
Prot.= 60 dBu, Intef.= 40 dBu

W222CD CH 222 D BLFT20151221CIK  
Lat= 37 52 45.0, Lng= 85 43 03.0  
0.25 kW 0 m HAAT, 300 m COR  
Prot.= 60 dBu, Intef.= 40 dBu

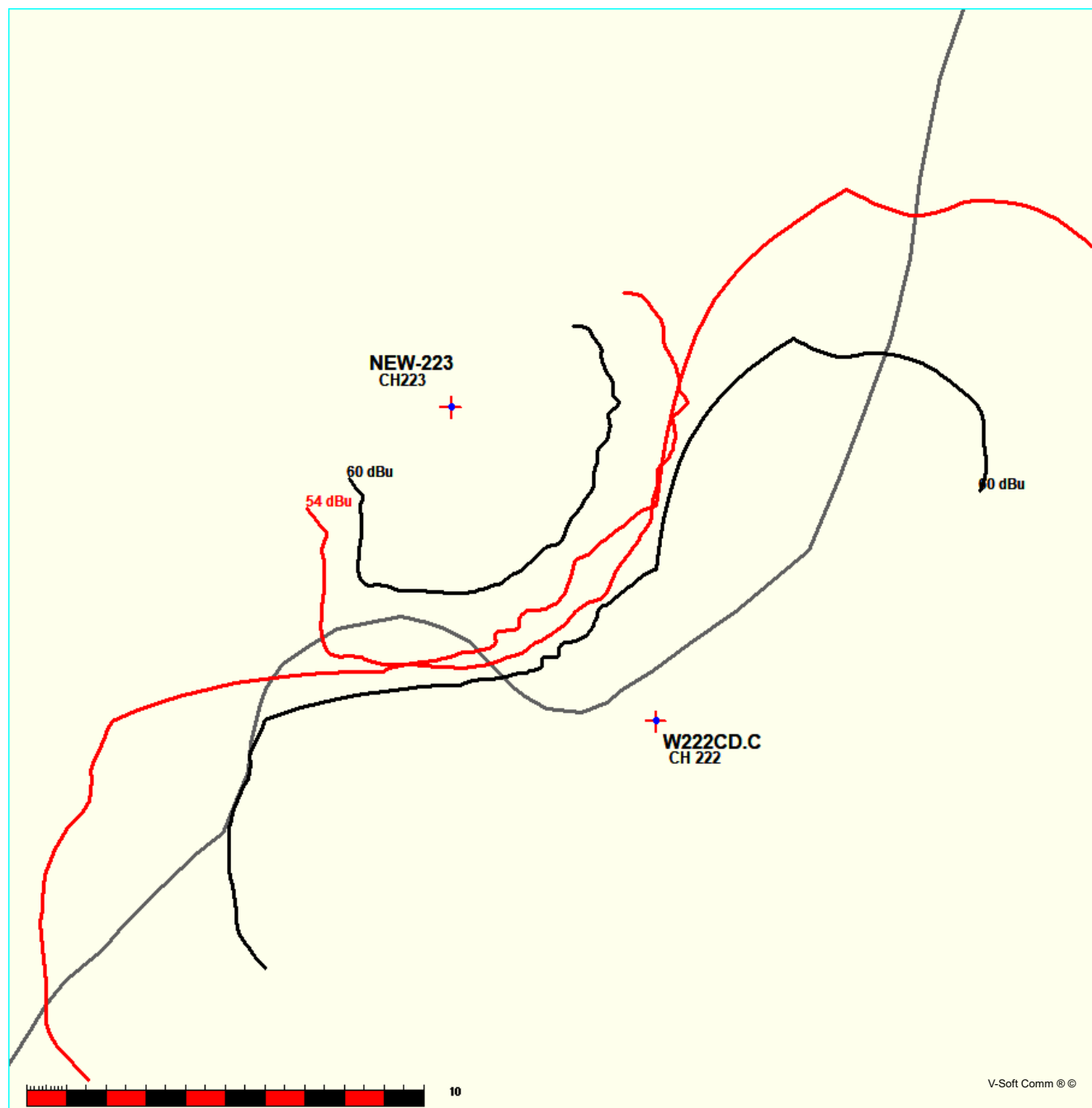


## E1AB BNPFT-20180130AHC INTERFERENCE PLOT

FMCommander Single Allocation Study - 04-16-2018 - GLOBE 30 Sec  
W222CD.C's Overlaps (In= 0.2 km, Out= 0.64 km)

W222CD.C CH 222 D DA  
Lat= 38 15 27.0, Lng= 85 43 23.0  
0.25 kW 56.9 m HAAT, 213 m COR  
Prot.= 60 dBu, Intef.= 54 dBu

NEW-223 CH 223 D BNPFT20180130AHC  
Lat= 38 19 40.0, Lng= 85 46 56.0  
0.01 kW 0 m HAAT, 198 m COR  
Prot.= 60 dBu, Intef.= 54 dBu



# E1AB FMOVER FROM BNPFT-20180130AHC

04-16-2018 Terrain Data: GLOBE 30 Sec FMOver Analysis

W222CD.C

NEW-223 BNPFT20180130AHC

Channel = 222D  
Max ERP = 0.25 kW  
RCAMSL = 213 m  
N. Lat. 38 15 27.0  
W. Lng. 85 43 23.0  
Protected  
60 dBu

Channel = 223D  
Max ERP = 0.01 kW  
RCAMSL = 198 m  
N. Lat. 38 19 40.0  
W. Lng. 85 46 56.0  
Interfering  
54 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
280.0	000.0225	0049.5	005.0	178.2	000.0100	0064.0	006.9	52.84	
281.0	000.0203	0049.9	004.9	177.2	000.0100	0064.0	006.9	53.01	
282.0	000.0182	0048.6	004.7	175.3	000.0100	0064.0	006.9	53.08	
283.0	000.0163	0047.0	004.5	173.3	000.0100	0063.8	006.9	53.06	
284.0	000.0144	0045.7	004.3	171.6	000.0100	0063.3	006.9	53.01	
285.0	000.0127	0044.7	004.1	169.9	000.0100	0062.9	006.9	52.92	
286.0	000.0110	0044.5	003.9	168.5	000.0100	0062.3	006.9	52.83	
287.0	000.0095	0045.1	003.8	167.4	000.0100	0061.9	006.9	52.80	
288.0	000.0081	0046.5	003.8	166.5	000.0100	0061.8	006.8	52.83	
289.0	000.0068	0048.0	003.7	165.5	000.0100	0061.8	006.8	52.83	
290.0	000.0056	0047.9	003.5	164.0	000.0100	0061.4	006.9	52.65	
291.0	000.0055	0046.9	003.4	163.3	000.0100	0061.0	006.9	52.64	
292.0	000.0053	0045.4	003.3	162.5	000.0100	0060.4	006.9	52.54	
293.0	000.0052	0044.0	003.3	161.7	000.0100	0059.7	006.9	52.43	
294.0	000.0050	0043.3	003.2	161.0	000.0100	0059.3	006.9	52.38	
295.0	000.0049	0043.3	003.2	160.6	000.0100	0059.0	006.9	52.40	
296.0	000.0048	0044.3	003.2	160.4	000.0100	0058.8	006.8	52.52	
297.0	000.0046	0045.7	003.2	160.2	000.0100	0058.8	006.7	52.67	
298.0	000.0045	0047.0	003.3	160.0	000.0100	0058.7	006.7	52.81	
299.0	000.0044	0047.0	003.2	159.5	000.0100	0058.5	006.7	52.84	
300.0	000.0042	0045.7	003.2	158.7	000.0100	0058.3	006.7	52.75	
301.0	000.0042	0043.7	003.1	157.9	000.0100	0058.2	006.7	52.63	
302.0	000.0041	0042.0	003.0	157.1	000.0100	0058.1	006.8	52.52	
303.0	000.0040	0041.2	003.0	156.6	000.0100	0057.9	006.8	52.50	
304.0	000.0040	0041.7	003.0	156.2	000.0100	0057.8	006.7	52.57	
305.0	000.0039	0043.1	003.0	156.0	000.0100	0057.8	006.7	52.71	
306.0	000.0038	0044.6	003.0	155.8	000.0100	0057.7	006.6	52.87	
307.0	000.0038	0045.1	003.0	155.5	000.0100	0057.5	006.6	52.93	
308.0	000.0037	0045.1	003.0	155.0	000.0100	0057.2	006.6	52.92	
309.0	000.0037	0045.0	003.0	154.5	000.0100	0056.9	006.6	52.90	
310.0	000.0036	0044.8	003.0	154.0	000.0100	0056.5	006.6	52.85	
311.0	000.0035	0044.2	003.0	153.5	000.0100	0056.3	006.6	52.76	
312.0	000.0034	0043.5	002.9	152.9	000.0100	0056.1	006.6	52.68	
313.0	000.0032	0042.9	002.9	152.4	000.0100	0056.0	006.6	52.61	
314.0	000.0031	0042.5	002.8	151.9	000.0100	0055.9	006.6	52.55	
315.0	000.0030	0042.4	002.8	151.4	000.0100	0055.7	006.6	52.49	
316.0	000.0029	0042.7	002.8	151.0	000.0100	0055.5	006.6	52.46	
317.0	000.0028	0043.1	002.8	150.5	000.0100	0055.2	006.6	52.41	
318.0	000.0027	0043.3	002.8	150.1	000.0100	0054.8	006.6	52.34	
319.0	000.0026	0043.5	002.8	149.7	000.0100	0054.4	006.6	52.26	
320.0	000.0025	0044.2	002.8	149.2	000.0100	0054.1	006.6	52.23	
321.0	000.0025	0045.2	002.8	148.9	000.0100	0053.9	006.6	52.25	
322.0	000.0024	0046.0	002.8	148.4	000.0100	0053.7	006.6	52.26	
323.0	000.0024	0046.7	002.8	148.0	000.0100	0053.5	006.6	52.26	
324.0	000.0023	0047.5	002.8	147.6	000.0100	0053.4	006.6	52.28	
325.0	000.0023	0048.9	002.8	147.2	000.0100	0053.3	006.5	52.34	
326.0	000.0022	0050.5	002.9	146.8	000.0100	0053.3	006.5	52.42	
327.0	000.0022	0052.1	002.9	146.3	000.0100	0053.2	006.5	52.50	
328.0	000.0021	0053.7	002.9	145.9	000.0100	0053.3	006.5	52.57	
329.0	000.0021	0055.8	002.9	145.4	000.0100	0053.3	006.4	52.66	
330.0	000.0020	0058.5	003.0	144.9	000.0100	0053.5	006.4	52.79	
331.0	000.0020	0061.9	003.1	144.4	000.0100	0053.7	006.3	53.02	
332.0	000.0020	0064.7	003.1	143.8	000.0100	0054.1	006.3	53.22	
333.0	000.0020	0066.1	003.1	143.3	000.0100	0054.4	006.3	53.35	
334.0	000.0020	0066.3	003.1	142.8	000.0100	0054.8	006.3	53.39	
335.0	000.0020	0066.0	003.1	142.3	000.0100	0055.1	006.3	53.39	

## E1AB FMOVER CONTINUED

336.0	000.0020	0065.8	003.1	141.8	000.0100	0055.3	006.3	53.38
337.0	000.0020	0065.9	003.1	141.3	000.0100	0055.5	006.3	53.38
338.0	000.0020	0066.3	003.1	140.8	000.0100	0055.5	006.3	53.36
339.0	000.0020	0067.0	003.2	140.3	000.0100	0055.4	006.3	53.33
340.0	000.0020	0067.6	003.2	139.8	000.0100	0055.1	006.3	53.26
341.0	000.0021	0068.2	003.2	139.2	000.0100	0054.6	006.3	53.21
342.0	000.0021	0068.5	003.2	138.7	000.0100	0054.0	006.3	53.12
343.0	000.0022	0068.6	003.3	138.1	000.0100	0053.4	006.3	53.01
344.0	000.0022	0068.7	003.3	137.6	000.0100	0052.9	006.3	52.90
345.0	000.0023	0068.9	003.3	137.0	000.0100	0052.4	006.3	52.80
346.0	000.0023	0069.4	003.3	136.5	000.0100	0052.0	006.3	52.71
347.0	000.0024	0070.0	003.4	135.9	000.0100	0051.6	006.3	52.62
348.0	000.0024	0070.5	003.4	135.3	000.0100	0051.2	006.3	52.54
349.0	000.0025	0070.9	003.4	134.7	000.0100	0050.8	006.3	52.44
350.0	000.0025	0071.0	003.4	134.2	000.0100	0050.6	006.4	52.34
351.0	000.0026	0071.1	003.5	133.5	000.0100	0050.4	006.4	52.28
352.0	000.0027	0071.3	003.5	132.9	000.0100	0050.2	006.4	52.24
353.0	000.0028	0071.4	003.5	132.2	000.0100	0050.2	006.4	52.21
354.0	000.0029	0071.7	003.6	131.6	000.0100	0050.2	006.4	52.18
355.0	000.0030	0071.9	003.6	130.9	000.0100	0050.1	006.4	52.14
356.0	000.0031	0071.9	003.7	130.3	000.0100	0050.1	006.4	52.08
357.0	000.0032	0071.8	003.7	129.7	000.0100	0050.1	006.5	52.00
358.0	000.0034	0071.5	003.7	129.1	000.0100	0050.0	006.5	51.91
359.0	000.0035	0070.9	003.7	128.6	000.0100	0050.0	006.5	51.80
000.0	000.0036	0070.4	003.8	128.2	000.0100	0049.9	006.6	51.68
001.0	000.0071	0069.7	004.4	122.8	000.0100	0049.5	006.2	52.54
002.0	000.0117	0068.6	005.0	117.7	000.0100	0048.5	006.0	52.94
003.0	000.0174	0067.6	005.5	113.2	000.0100	0046.2	005.9	52.82
004.0	000.0243	0067.1	005.9	108.9	000.0100	0045.2	005.9	52.71
005.0	000.0324	0067.0	006.3	104.7	000.0100	0045.7	005.9	52.77
006.0	000.0416	0066.7	006.7	100.9	000.0100	0048.1	006.0	53.05
007.0	000.0520	0065.9	007.0	097.7	000.0099	0048.2	006.1	52.72
008.0	000.0635	0064.5	007.3	095.1	000.0098	0047.4	006.2	52.11
009.0	000.0762	0063.0	007.6	092.8	000.0097	0046.4	006.4	51.45
010.0	000.0900	0061.9	007.9	090.5	000.0096	0050.9	006.5	51.78

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# E1A WFPK ANALYSIS

W222CD JEFFERSONVILLE, IN, Showing Protection to WFPK  
 74.1204(d) Study - Using FCC 30 SEC Terrain Database  
 Translator or LPFM Maximum Licensed ERP = 0.25  
 Translator or LPFM Antenna Height AG = 73 Meters  
 W222CD Antenna Model = PSI FML-1

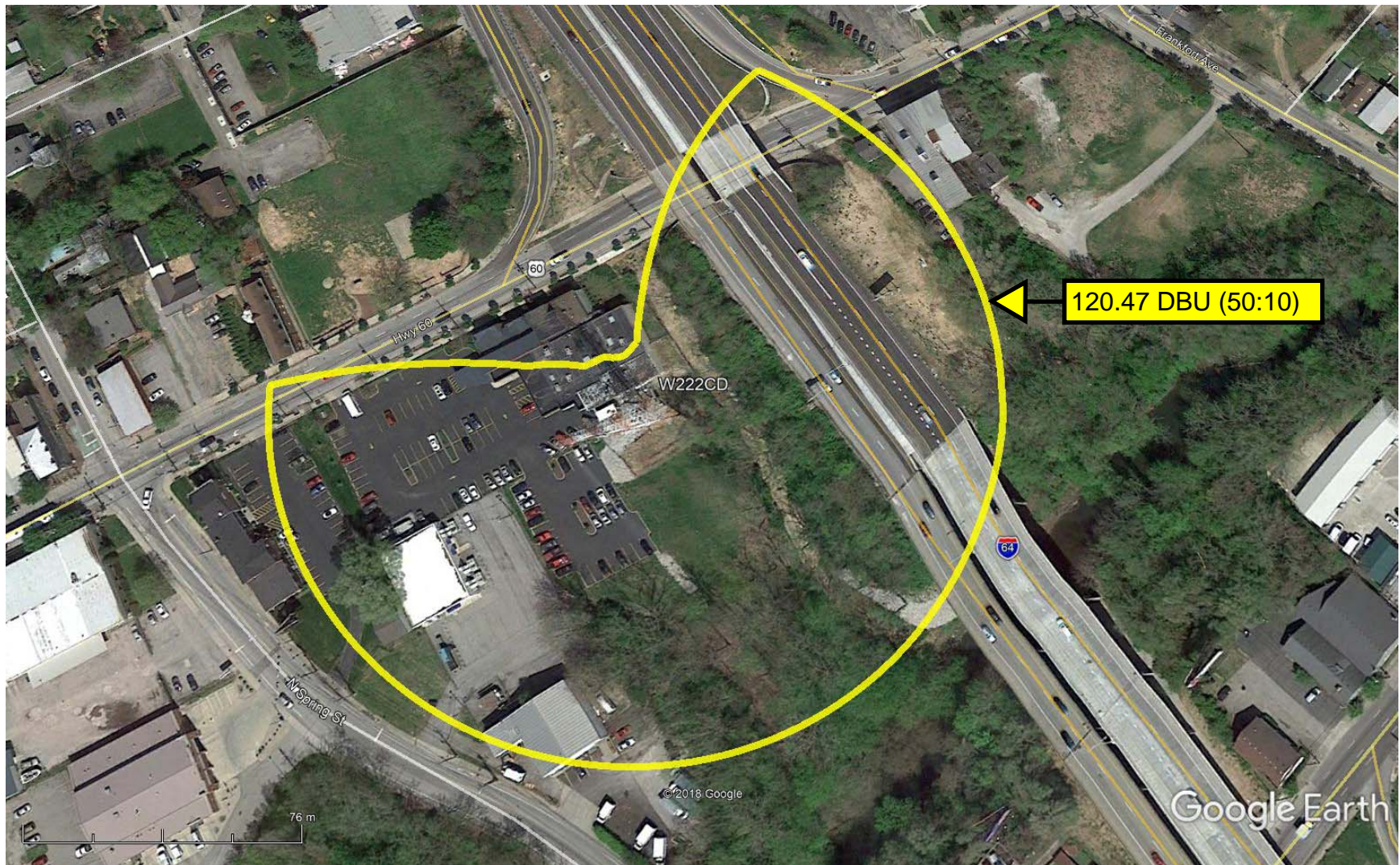
Protected Station's Contour = 80.47076 dBu  
 Translator's or LPFM's full Interference contour 120.47076

Review Azimuth = 0 Degrees True  
 Relative Field on the horizon at Review Azimuth = 1.000  
 Translator/LPFM ERP on the horizon at Review Azimuth = 0.25 kW  
 Distance between stations = 15.7 km  
 Protected Station= WFPK, 6.8 kW, 426 M Meters COR AMSL

Depression Angle From Horizon(Deg)	Vertical Relative Field	Horizontal Relative Field	ERP (kw)	Dist to IX Contour Along Dep. Angle(m)	Dist to IX Contour From Tower Base(m)	Height IX Above Ground (m)
00.00	1.00	1.0	0.2500	105.0587	105.0587	073.000
05.00	0.996	1.0	0.2480	104.6385	104.2403	063.880
10.00	0.985	1.0	0.2426	103.4828	101.9107	055.030
15.00	0.966	1.0	0.2333	101.4867	098.0286	046.733
20.00	0.94	1.0	0.2209	098.7552	092.7995	039.224
25.00	0.906	1.0	0.2052	095.1832	086.2653	032.774
30.00	0.866	1.0	0.1875	090.9808	078.7917	027.510
35.00	0.819	1.0	0.1677	086.0431	070.4824	023.648
40.00	0.766	1.0	0.1467	080.4750	061.6474	021.272
45.00	0.707	1.0	0.1250	074.2765	052.5214	020.479
50.00	0.643	1.0	0.1034	067.5527	043.4221	021.252
55.00	0.573	1.0	0.0821	060.1986	034.5285	023.688
60.00	0.5	1.0	0.0625	052.5293	026.2647	027.508
65.00	0.423	1.0	0.0447	044.4398	018.7811	032.724
70.00	0.342	1.0	0.0292	035.9301	012.2888	039.237
75.00	0.259	1.0	0.0168	027.2102	007.0425	046.717
80.00	0.174	1.0	0.0076	018.2802	003.1743	054.998
85.00	0.087	1.0	0.0019	009.1401	000.7966	063.895
90.00	0.001	1.0	0.0000	000.1051	000.0000	072.895



## E1B AERIAL VIEW OF 120 DBU INTERFERENCE CONTOUR





## E1B STREET VIEW OF TALLEST BUILDINGS WITHIN 120 DBU



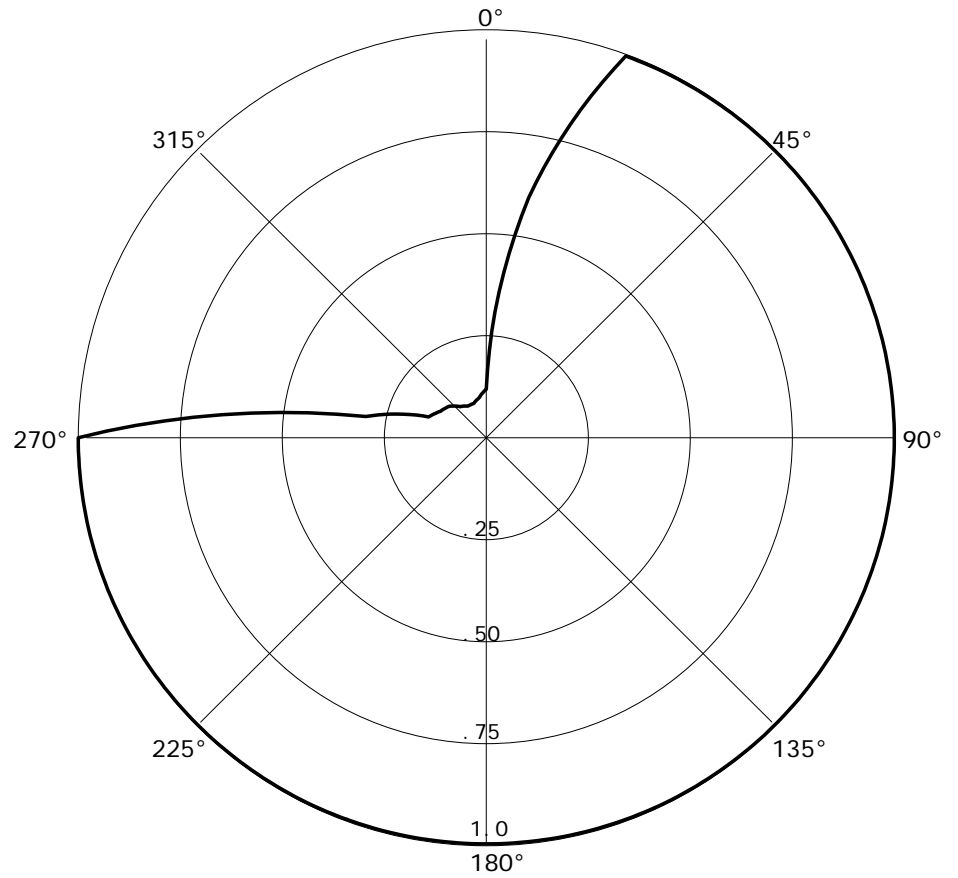
# E1C DA

04-16-2018

RMS(V) = .856 Graph

i s Relative Fiel d

Azi	Fi el d	dBk	kW
000	0.120	-24.437	0.004
010	0.600	-10.458	0.090
020	1.000	-06.021	0.250
030	1.000	-06.021	0.250
040	1.000	-06.021	0.250
050	1.000	-06.021	0.250
060	1.000	-06.021	0.250
070	1.000	-06.021	0.250
080	1.000	-06.021	0.250
090	1.000	-06.021	0.250
100	1.000	-06.021	0.250
110	1.000	-06.021	0.250
120	1.000	-06.021	0.250
130	1.000	-06.021	0.250
140	1.000	-06.021	0.250
150	1.000	-06.021	0.250
160	1.000	-06.021	0.250
170	1.000	-06.021	0.250
180	1.000	-06.021	0.250
190	1.000	-06.021	0.250
200	1.000	-06.021	0.250
210	1.000	-06.021	0.250
220	1.000	-06.021	0.250
230	1.000	-06.021	0.250
240	1.000	-06.021	0.250
250	1.000	-06.021	0.250
260	1.000	-06.021	0.250
270	1.000	-06.021	0.250
280	0.300	-16.478	0.023
290	0.150	-22.499	0.006
300	0.130	-23.742	0.004
310	0.120	-24.437	0.004
320	0.100	-26.021	0.003
330	0.090	-26.936	0.002
340	0.090	-26.936	0.002
350	0.100	-26.021	0.003



**W222CD**  
**BMPFT20140908AFB**  
Latitude: 38-15-27 N  
Longitude: 085-43-23.70 W  
ERP: 0.25 kW  
Channel: 222  
Frequency: 92.3 MHz  
AMSL Height: 213.0 m  
Elevation: 139.0 m  
Horiz. Pattern: Directional

**E2 60 DBU  
CONTOUR - 25  
MILE RADIUS**

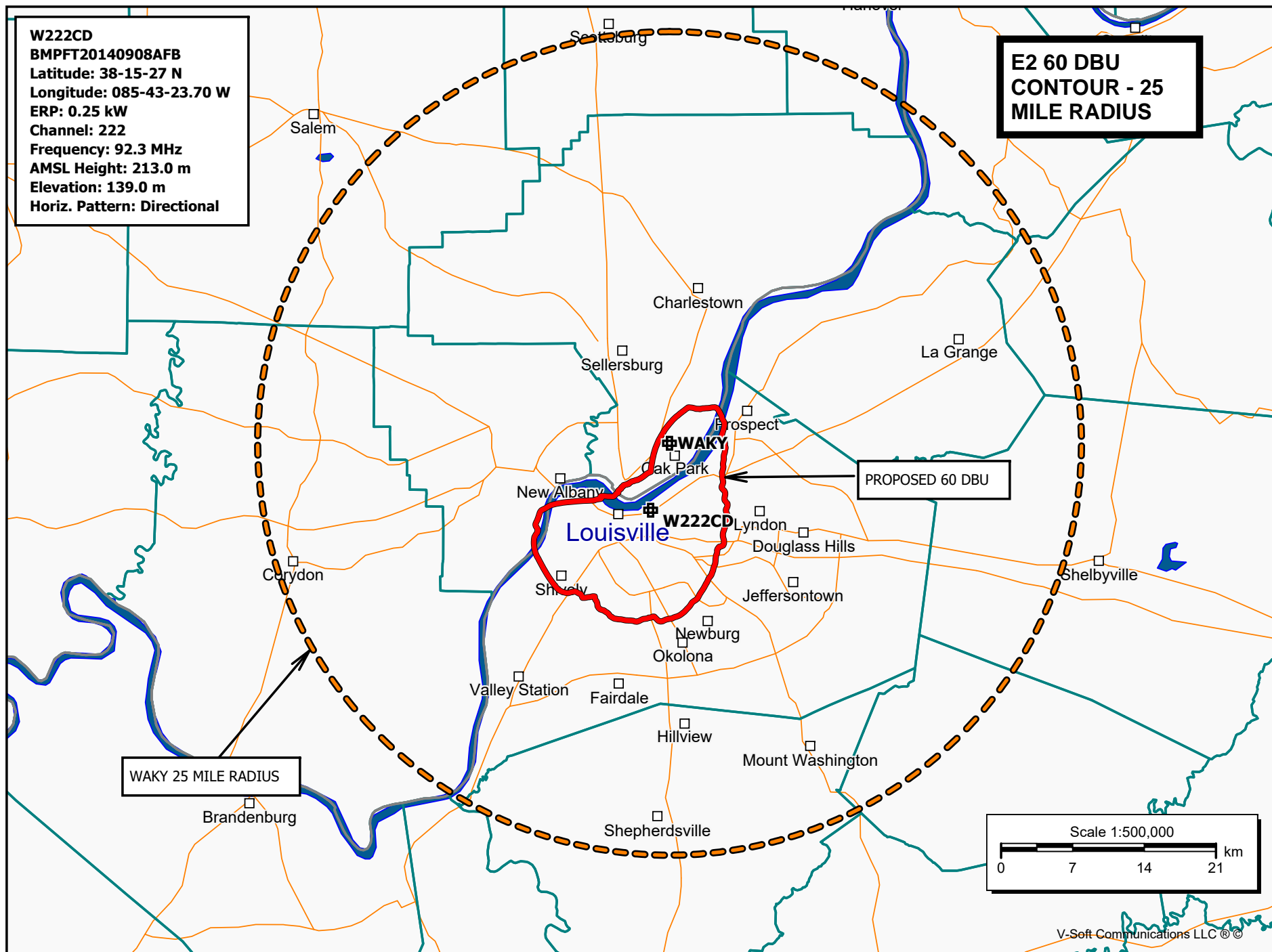
PROPOSED 60 DBU

WAKY 25 MILE RADIUS

Scale 1:500,000

0 7 14 21 km

V-Soft Communications LLC ©



ASR Registration Search  
Registration 1000439

E3 ASR

 [Map Registration](#)

Registration Detail

Reg Number	1000439	Status	Constructed
File Number	A0758014	Constructed	06/01/1987
EMI	No	Dismantled	
NEPA	No		

Antenna Structure

Structure Type TOWER - Free standing or Guyed Structure used for Commu

Location (in NAD83 Coordinates)

Lat/Long	38-15-27.0 N 085-43-23.3 W	Address	1536 Story Ave. (KY14738-A)
City, State	Louisville , KY		
Zip	40206	County	JEFFERSON
Center of AM Array		Position of Tower in Array	

Heights (meters)

Elevation of Site Above Mean Sea Level	Overall Height Above Ground (AGL)
139.0	75.0
Overall Height Above Mean Sea Level	Overall Height Above Ground w/o Appurtenances
214.0	74.1

Painting and Lighting Specifications

FAA Chapters 3, 4, 5, 13

Paint and Light in Accordance with FAA Circular Number 70/7460-1J

FAA Notification

FAA Study	2012-ASO-229-OE	FAA Issue Date	03/16/2012
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Owner & Contact Information

FRN	0020176814	Owner Entity Type
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Owner

SBA Towers III LLC	P: (561)995-7670
Attention To: Edward G. Roach	F:
8051 Congress Avenue	E: ERoach@sbsite.com
Boca Raton , FL 33487	

Contact

Roach , Edward G	P: (561)995-7670
8051 Congress Avenue	F:
Boca Raton , FL 33487	E: ERoach@sbsite.com

Last Action Status

Status	Constructed	Received	03/21/2012
Purpose	Notification	Entered	03/21/2012
Mode	Interactive		

# North American Datum Conversion

NAD 83 to NAD 27

NADCON Program Version 2.11

.....

Transformation #: 1      Region: Conus

Latitude

Longitude

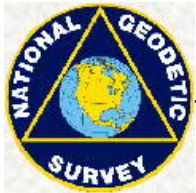
NAD 27 datum values:                    38 15 26.74465                    85 43 23.43637

```
NAD 83 datum values:      38 15 27.00000      85 43 23.30000
```

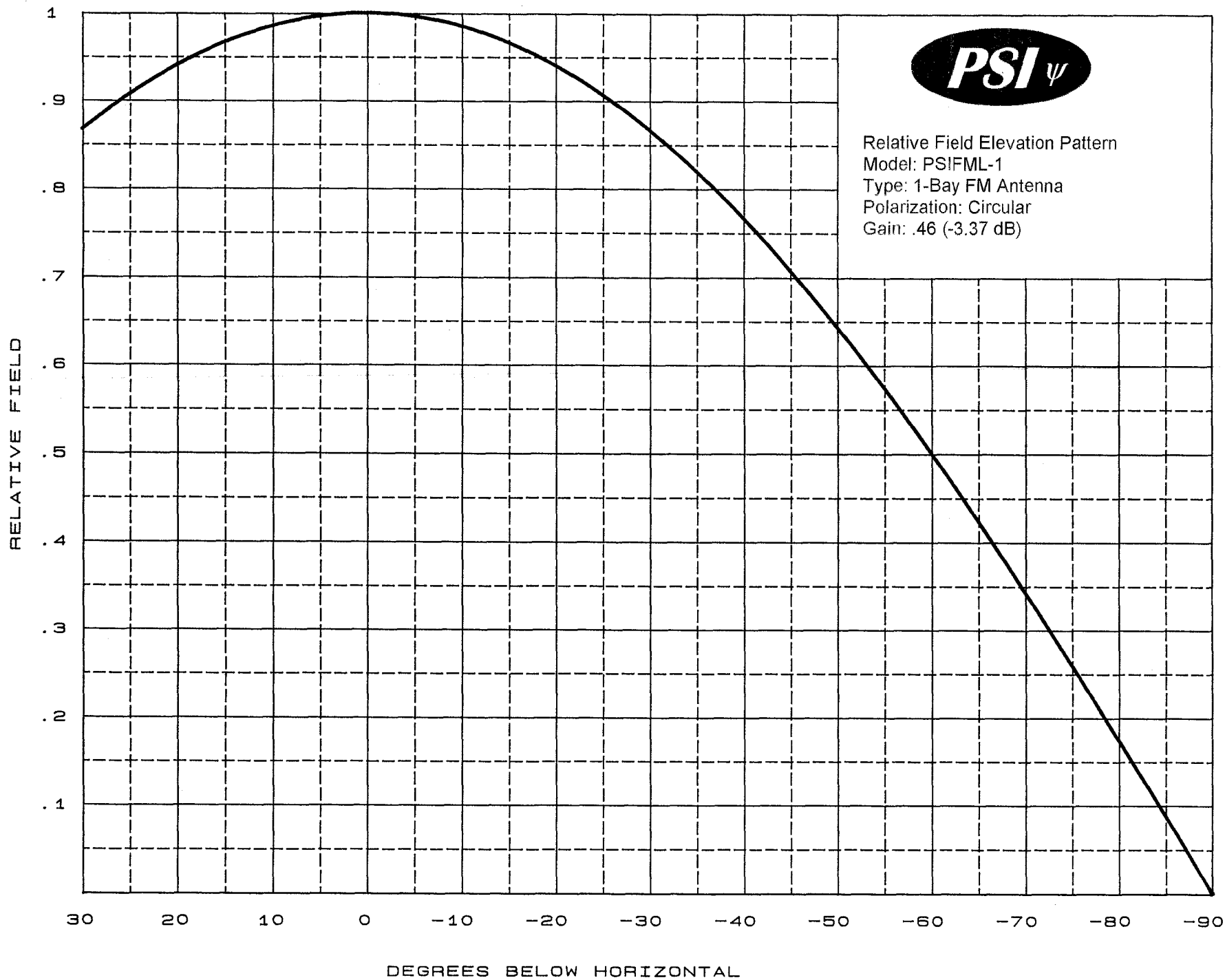
NAD 27 - NAD 83 shift values:            -0.25535                            0.13637(secs.)

-7.873                      3.315    (meters)

Magnitude of total shift: 8.543(meters)



**NGS HOME PAGE**





**Propagation Systems Inc.**  
Elevation Pattern Tabulation  
Antenna: PSIFML-1

Angle	Field	dB	Angle	Field	dB	Angle	Field	dB
-90.0	0.001	-60.000	-50.0	0.643	-3.839	-10.0	0.985	-0.134
-89.0	0.017	-35.177	-49.0	0.656	-3.663	-9.0	0.988	-0.109
-88.0	0.035	-29.156	-48.0	0.669	-3.490	-8.0	0.990	-0.086
-87.0	0.052	-25.634	-47.0	0.682	-3.325	-7.0	0.992	-0.066
-86.0	0.070	-23.136	-46.0	0.695	-3.166	-6.0	0.994	-0.049
-85.0	0.087	-21.198	-45.0	0.707	-3.012	-5.0	0.996	-0.034
-84.0	0.104	-19.626	-44.0	0.719	-2.862	-4.0	0.997	-0.022
-83.0	0.122	-18.286	-43.0	0.731	-2.719	-3.0	0.998	-0.013
-82.0	0.139	-17.134	-42.0	0.743	-2.580	-2.0	0.999	-0.007
-81.0	0.156	-16.117	-41.0	0.755	-2.445	-1.0	1.000	-0.003
-80.0	0.174	-15.207	-40.0	0.766	-2.316	0.0	1.000	0.000
-79.0	0.191	-14.390	-39.0	0.777	-2.190	1.0	1.000	-0.003
-78.0	0.208	-13.644	-38.0	0.788	-2.071	2.0	0.999	-0.007
-77.0	0.225	-12.962	-37.0	0.798	-1.955	3.0	0.998	-0.013
-76.0	0.242	-12.330	-36.0	0.809	-1.842	4.0	0.997	-0.022
-75.0	0.259	-11.741	-35.0	0.819	-1.733	5.0	0.996	-0.034
-74.0	0.276	-11.194	-34.0	0.829	-1.630	6.0	0.994	-0.049
-73.0	0.292	-10.684	-33.0	0.839	-1.529	7.0	0.992	-0.066
-72.0	0.309	-10.203	-32.0	0.848	-1.432	8.0	0.990	-0.086
-71.0	0.325	-9.750	-31.0	0.857	-1.339	9.0	0.988	-0.109
-70.0	0.342	-9.320	-30.0	0.866	-1.251	10.0	0.985	-0.134
-69.0	0.358	-8.914	-29.0	0.875	-1.164	11.0	0.982	-0.162
-68.0	0.375	-8.530	-28.0	0.883	-1.082	12.0	0.978	-0.193
-67.0	0.391	-8.165	-27.0	0.891	-1.003	13.0	0.974	-0.227
-66.0	0.407	-7.815	-26.0	0.899	-0.928	14.0	0.970	-0.263
-65.0	0.423	-7.482	-25.0	0.906	-0.855	15.0	0.966	-0.301
-64.0	0.438	-7.164	-24.0	0.913	-0.786	16.0	0.961	-0.344
-63.0	0.454	-6.860	-23.0	0.920	-0.720	17.0	0.956	-0.389
-62.0	0.469	-6.569	-22.0	0.927	-0.657	18.0	0.951	-0.436
-61.0	0.485	-6.291	-21.0	0.933	-0.598	19.0	0.945	-0.487
-60.0	0.500	-6.023	-20.0	0.940	-0.542	20.0	0.940	-0.540
-59.0	0.515	-5.764	-19.0	0.945	-0.487	21.0	0.933	-0.598
-58.0	0.530	-5.517	-18.0	0.951	-0.437	22.0	0.927	-0.657
-57.0	0.545	-5.279	-17.0	0.956	-0.389	23.0	0.920	-0.720
-56.0	0.559	-5.050	-16.0	0.961	-0.344	24.0	0.913	-0.786
-55.0	0.573	-4.830	-15.0	0.966	-0.301	25.0	0.906	-0.855
-54.0	0.588	-4.616	-14.0	0.970	-0.263	26.0	0.899	-0.927
-53.0	0.602	-4.413	-13.0	0.974	-0.227	27.0	0.891	-1.003
-52.0	0.616	-4.214	-12.0	0.978	-0.193	28.0	0.883	-1.082
-51.0	0.629	-4.024	-11.0	0.982	-0.162	29.0	0.875	-1.164
						30.0	0.866	-1.251

file: FML 1-bay elevation tabulation

revision: A

Date: 1/28/08