

Consolidated Engineering Statement

Minor Modification of Pending Application

Creating a Singleton from Mx Group #124

Applicant: Salvation Poem Foundation

Facility Id: 768698

Originally: 201C1 MN Grand Meadow

Becoming: 202C3 MN Harmony (singleton)

Robert Moore
3/7/2022

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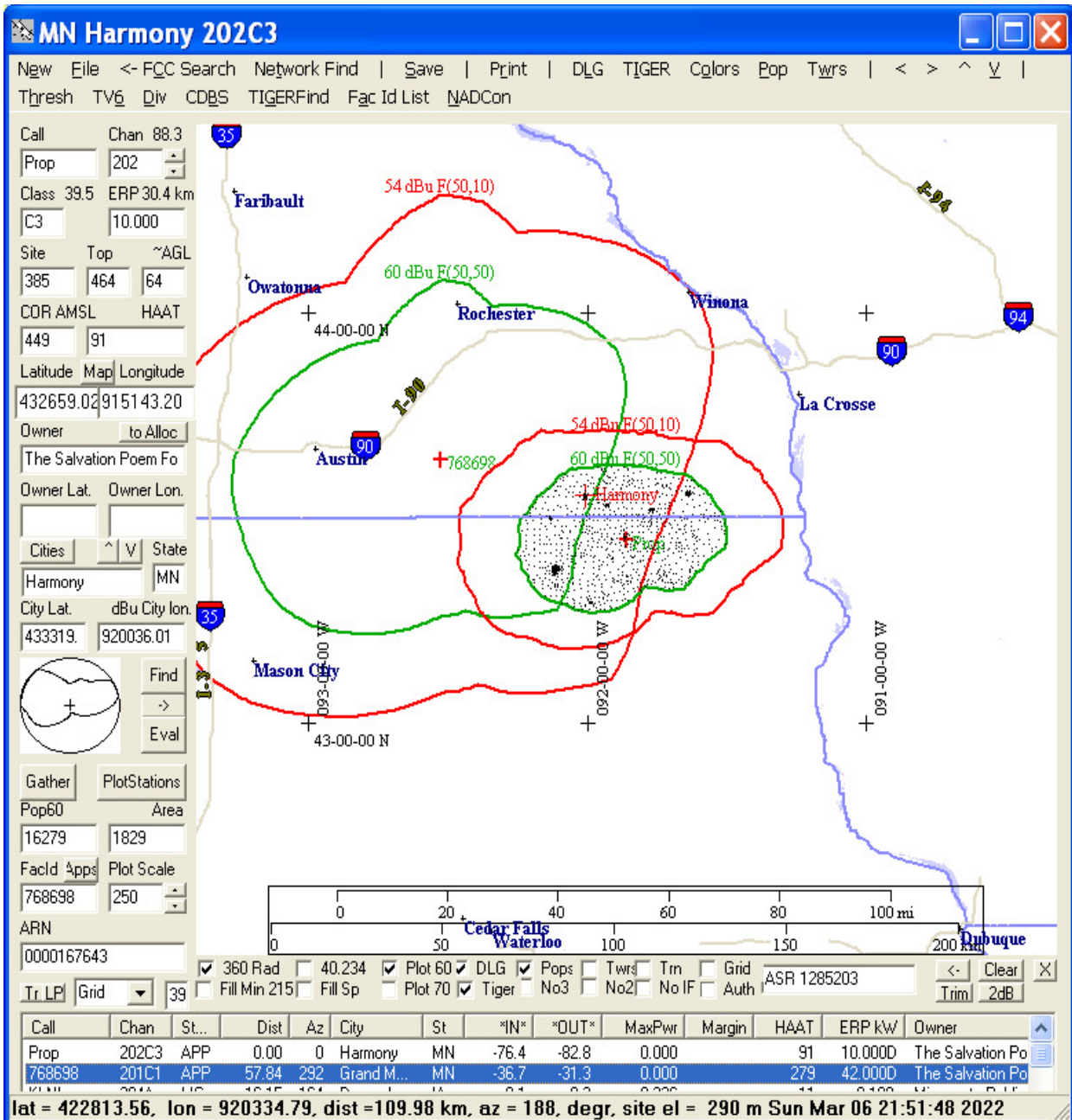
Abstract and Amendment Purpose Statement

This amendment proposes modifying a 42 kW ERP directional NCE FM application mired in a large mutually exclusive group into a 10kW ERP directional that is not mutually exclusive with anything. It will be on an existing rental tower (ASR 1285203). Therefore no NPA or ASR studies are required. The original city of license is changed to one in both 60 dBu contours. Although the application claims 1st and 1st+2nd NCE Threshold preference and diversity, it can be granted as an unencumbered singleton.

Minor Change Showing

The proposed facility has several changes:

- 1) A new location, but with overlapping and mutually exclusive contours with the previous facility.
- 2) A new city, but within the 60 dBu contour of both applications.
- 3) A new channel and class, but only one channel away from the previous channel.



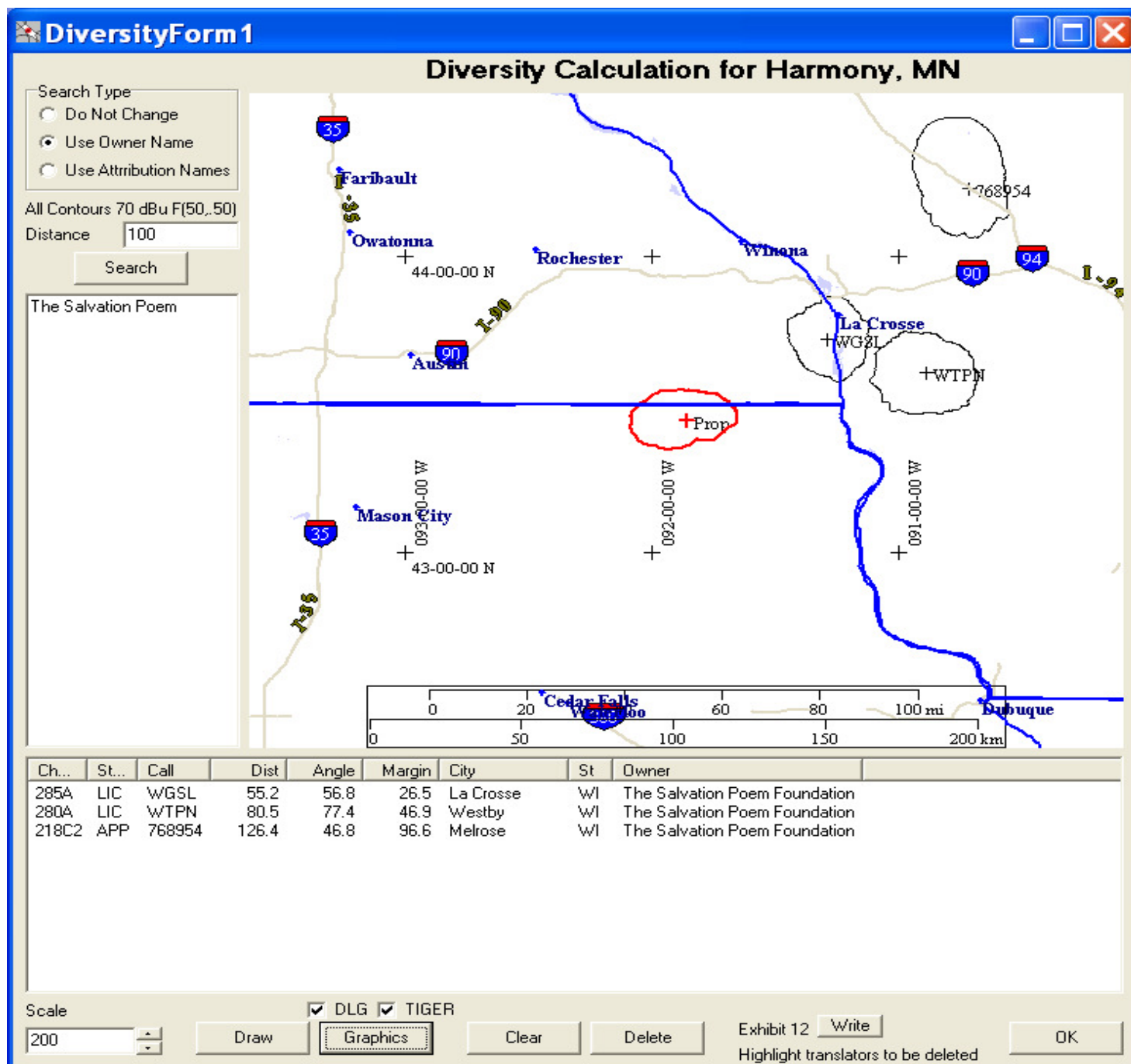
Other authorizations – Attributable Interest

FM Station File					
File State <f1> Find Near Chan Step List Summarize					
Summary: Pattern = "Salvation Poem" Including Translators					
Ch Stat	Call	Owner	City	St	
201C1 APP0	768698	The Salvation Poem Foundation	Grand Meadow	MN	
203A APP0	768708	The Salvation Poem Foundation	Cedar Grove	WI	
207C3 CP 0	WEQS.C	The Salvation Poem Foundation	Sparta	WI	
207A LICB	WEQS	The Salvation Poem Foundation	Sparta	WI	
213C2 CP 0	767916	The Salvation Poem Foundation	Westfield	WI	
218C2 APP0	768954	The Salvation Poem Foundation	Melrose	WI	
265C3 CP 0	NEW/WE	The Salvation Poem Foundation	Tomahawk	WI	
268C3 LICB	WWJC	The Salvation Poem Foundation	Augusta	WI	
276A CP 0	NEW/WE	The Salvation Poem Foundation	Crandon	WI	
280A LICB	WTPN	The Salvation Poem Foundation	Westby	WI	
285A LIC0	WGSL	The Salvation Poem Foundation	La Crosse	WI	
11					

Melrose is now a CP.

Diversity Showing



The applicant claims 2 points for diversity.



Identification of the city of license

City of License Finder									
File Search By Options About									
Clear ByLocation ByName Delete City Sort Summarize Dist Sort Pop Sort Print									
MN	Harmony		1020	433319	0920036	Co. Fillmore	El.	GNIS	
MN	Harmony	city	1081	433319	920033	Land	290 Water	0 Gaz	

← Harmony MN



See Photos

Harmony, Minnesota

harmony.mn.us

Directions

Harmony is a city in Fillmore County, Minnesota, United States. The population was 1,020 at the 2010 census. The town bills itself as the "Biggest Little Town in Southern Minnesota" and features the largest Amish community in the state. [Wikipedia](#)

Country: United States

State: Minnesota

County: Fillmore

Population (2010): 1,020

Estimate (2019): 987

Time zone: Central (CST) (UTC-6)

Summer (DST): CDT (UTC-5)

ZIP code: 55939

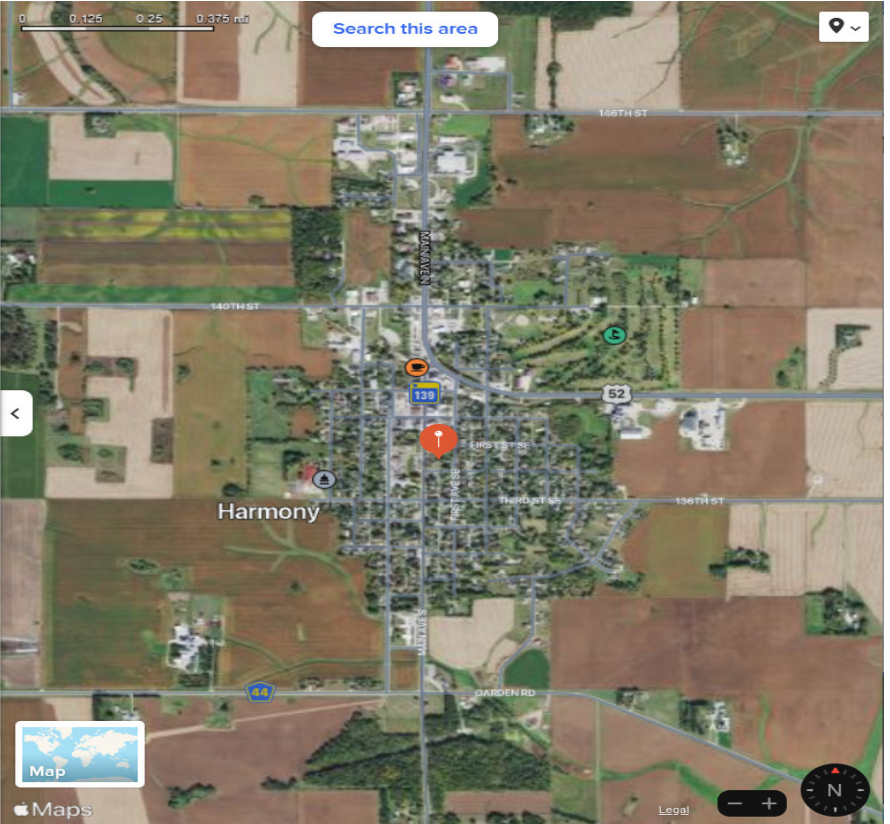
Area code(s): 507 Exchange: 886

FIPS code: 27-27188

GNIS feature ID: 0644677

0 0.125 0.25 0.375 mi

Search this area



Harmony

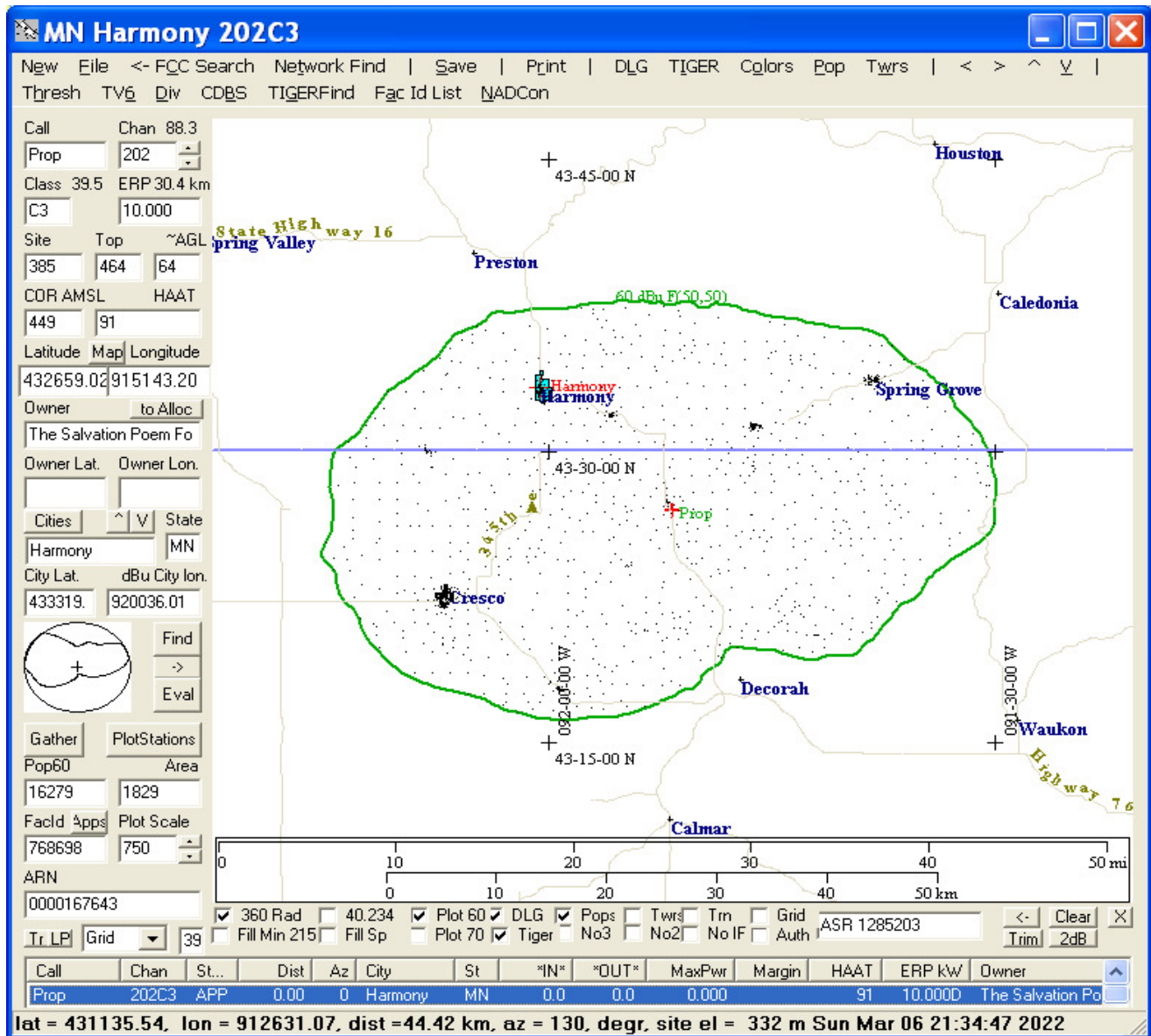
Map

Apple Maps

Legal

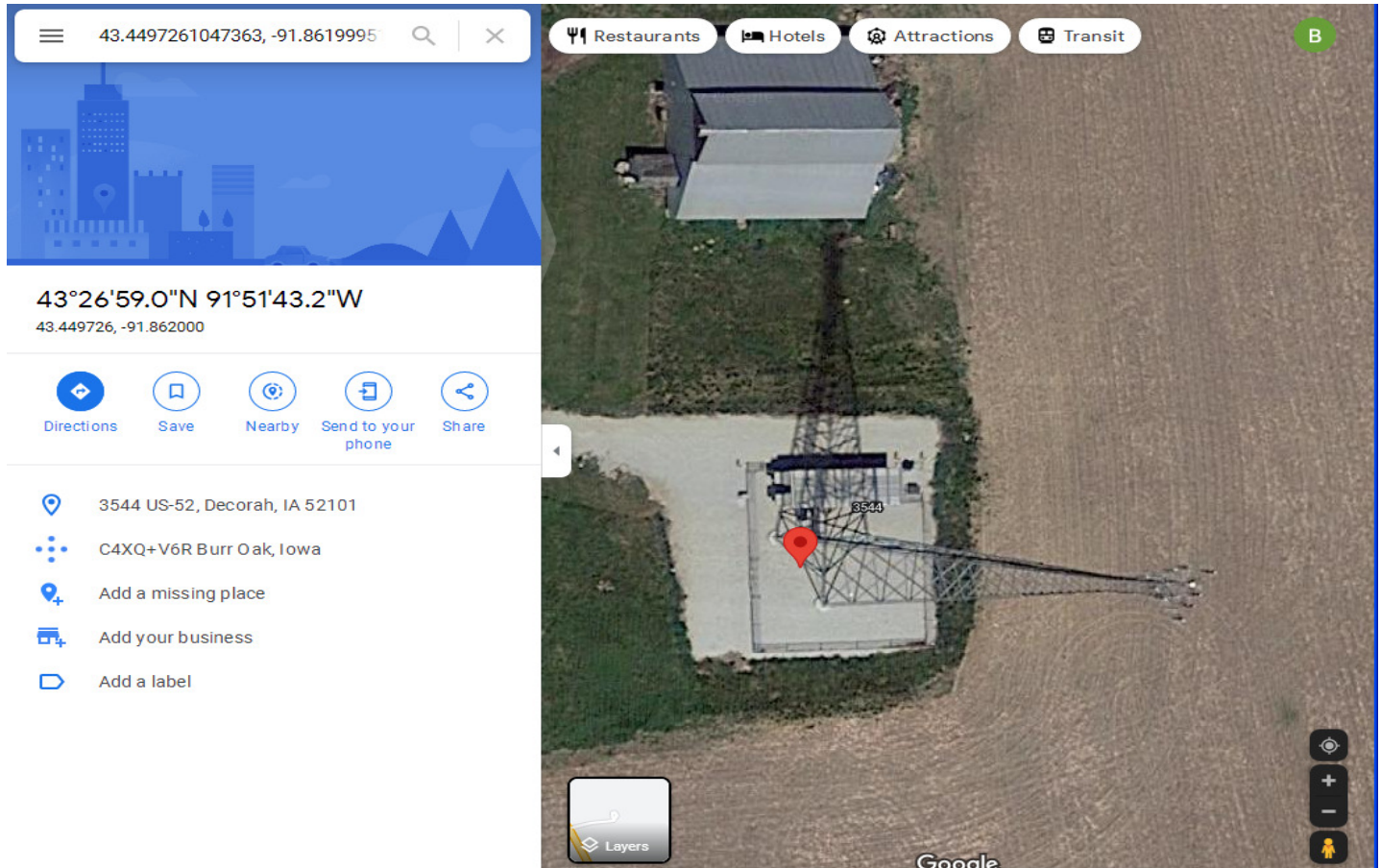
City Coverage showing

This map shows that the city of license is fully surrounded by the 60 dBu contour of the proposed facility, as required.



Identification of the tower

#: 0
Dist: 0.00
Az: 0
ASR 1285203
NAD27: 432659.11 915142.64
NAD83: 432659.00 915143.20
Site El: 384.7m Height 78.9m Top AMSL 463.6m
Structure Type: LTOWE
Location: 3546 US Highway 52, Decorah, IA
Dates Construction: 07/09/2013 Action: 02/05/2019
FAA Number: 2012-ACE-2216-OE
FAA Circular Number: 70/7460-1K Chapter: 4, 8, 12
Owner: Alltel Corporation
Network Regulatory
5055 North Point Pkwy
Alpharetta, GA, 30022
(770) 797-1070
Network.Regulatory@verizonwireless.com

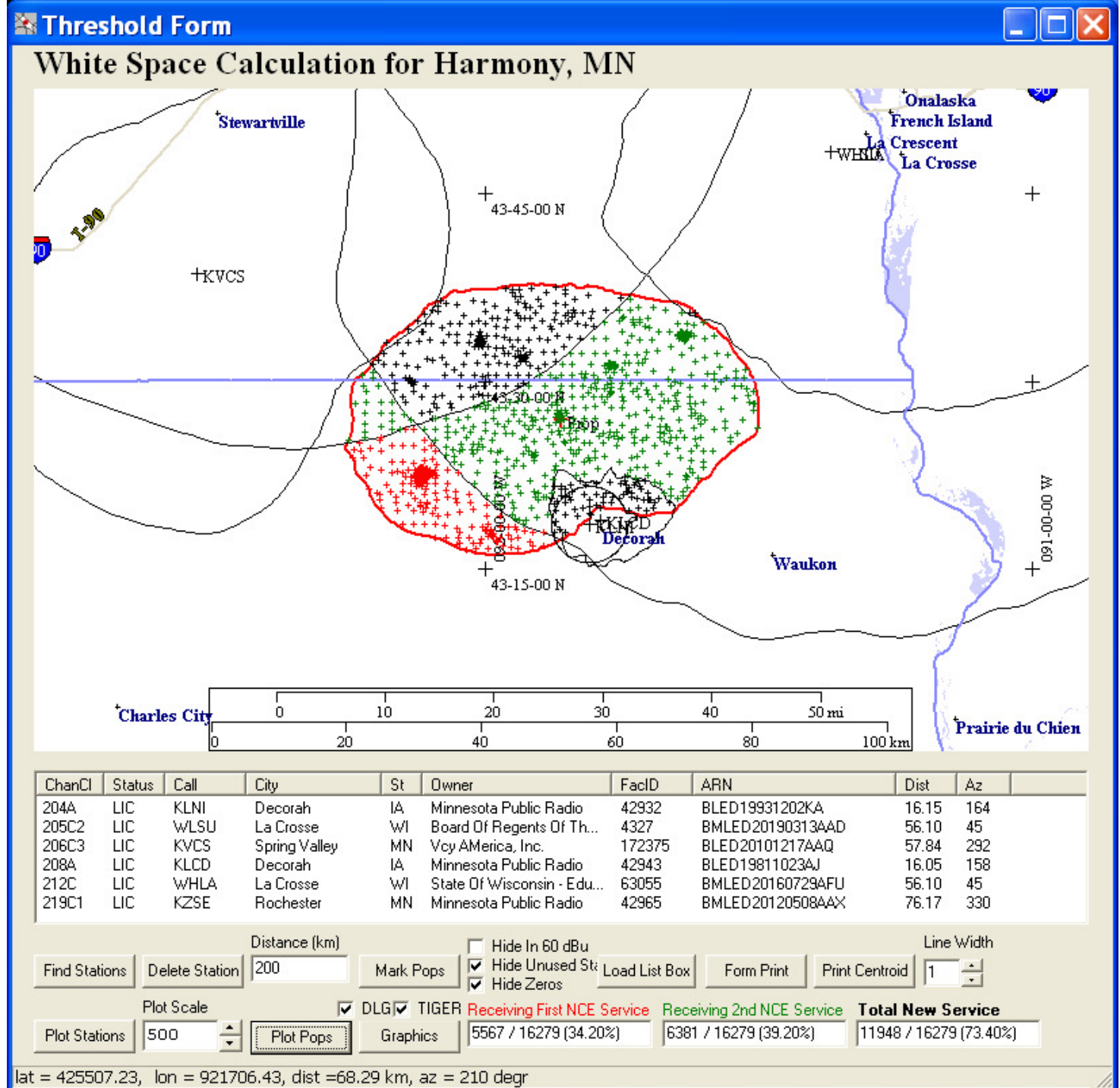


Threshold showing

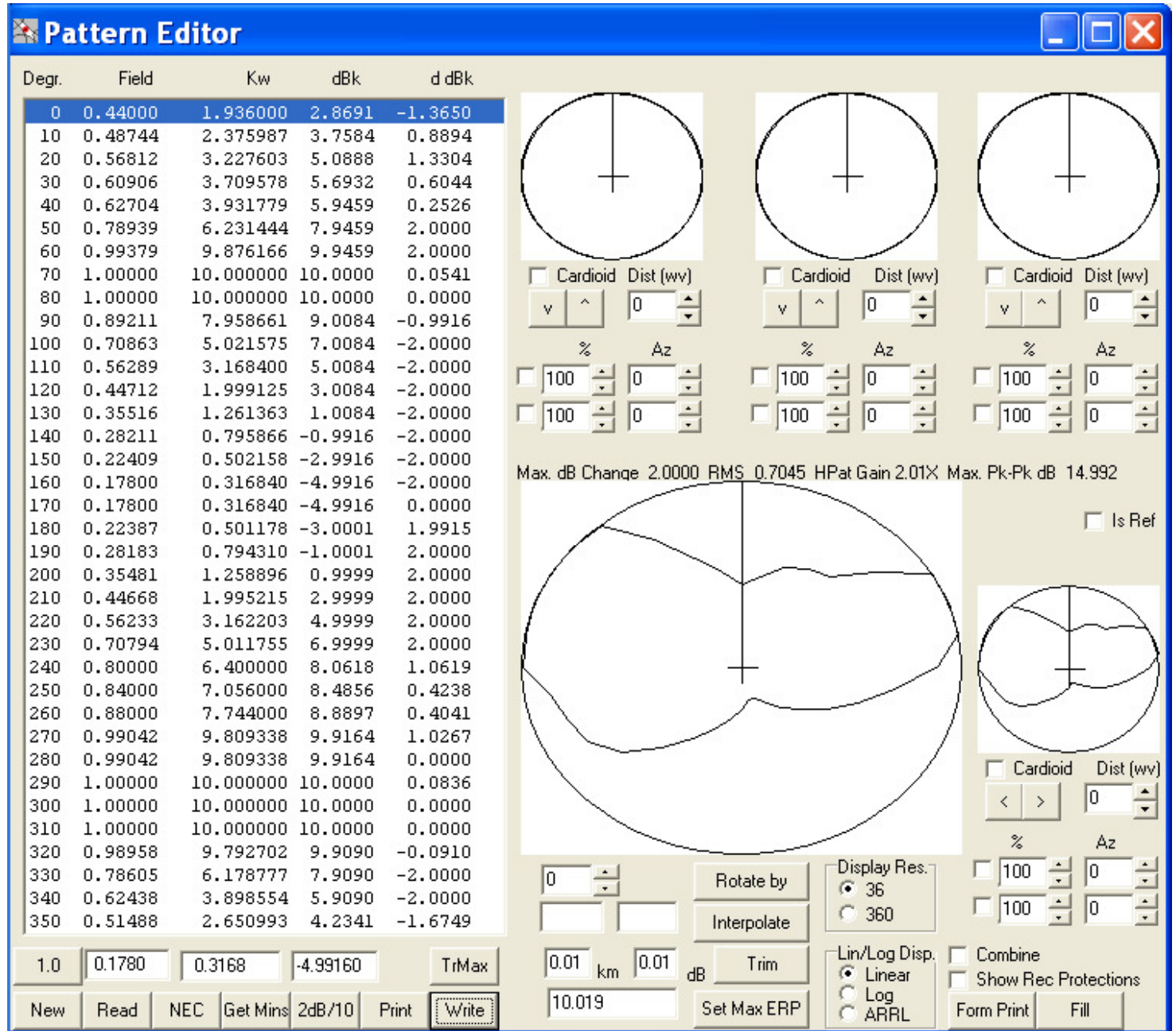
Threshold preference is claimed for

1st NCE of 5,567 (34.2%).

1st + 2nd NCE of 11,948 (73.4%).

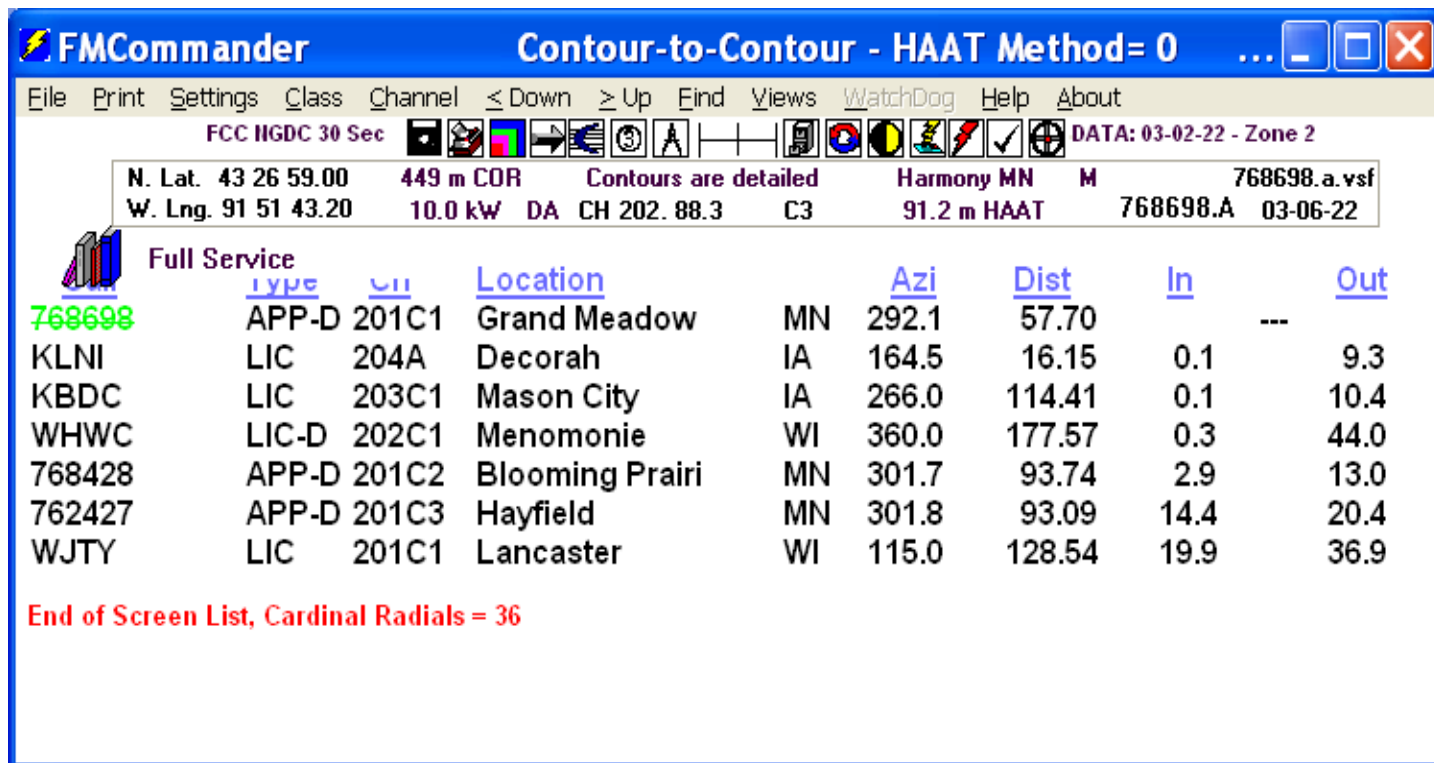


Pattern Showing



Thus the pattern conforms to the 2 dB/10 degree and the 15 dB max/min rules. Truncation to 3 places in the LMS form may impact this slightly.

FM Interference



This tabulation shows minimal distances at all azimuths, not just along the straight lines.

Channel 6 Television

No channel 6 television stations were found in the search.

Exhibit 15

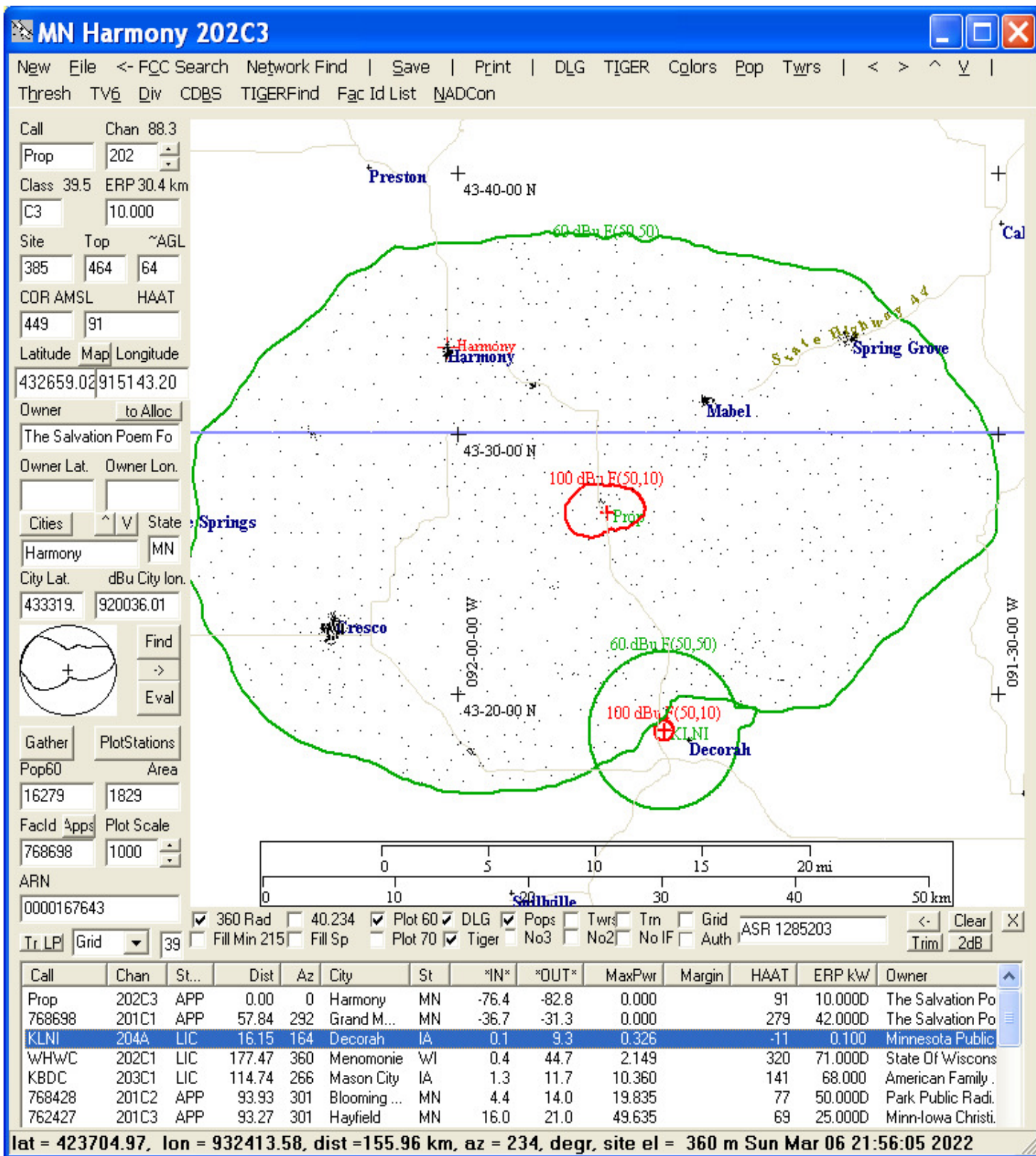
The Salvation Poem Foundation

Reference 202C3 ERP 10.000 kW HAAT 91 m COR 449 m AMSL
432659.02 N 88.3 MHz Average protected F(50,50) 30.4 km
915143.20 W Harmony, MN

ChnCl	Call	Stat	Azi	Dist	FacId	Lat	*IN*	*OUT*	
	Pwr	COR	HAAT		ARN	Lon	Req.	Margin	
	Owner			City		St			
202C3	Prop	APP	0	0.00	768698	432659.01			This facility
	10.000D	449	91	0000167643		915143.20			
	The Salvation Poem F			Harmony		MN			
201C1	768698	APP	292	57.84	768698	433834.00			This facility
	42.000D	691	279	0000167643		923135.99			
	The Salvation Poem F			Grand Meadow		MN			
204A	KLNI	LIC	164	16.15	42932	431834.91	0.12	9.26	See map and FMOver
	0.100	324	-11	BLED19931202KA		914830.61			
	Minnesota Public Rad			Decorah		IA			
202C1	WHWC	LIC	360	177.47	63078	450248.90	0.36	44.73	See map and FMOver
	71.000D	625	320	BMLE20140218AA		915147.59			
	State Of Wisconsin -			Menomonie		WI			
203C1	KBDC	LIC	266	114.74	87941	432211.80	1.32	11.67	See map and FMOver
	68.000	514	141	BLED20061101ACW		931627.70			
	American Family Asso			Mason City		IA			
201C2	768428	APP	301	93.93	768428	435316.99	4.43	13.96	See map
	50.000D	472	77	0000167196		925128.20			
	Park Public Radio, I			Blooming Prairi		MN			

This lower tabulation shows only direct line overlaps, NGDC 30 mapping data.

Prop vs KLNI



Find Information and Mapping Screen



Print Change Find Labels Lines Functions Contour Map Settings ~Scale Tools View Help



~ 1:050,000

FCC HGDC 30 Sec

Query Call

KLNI

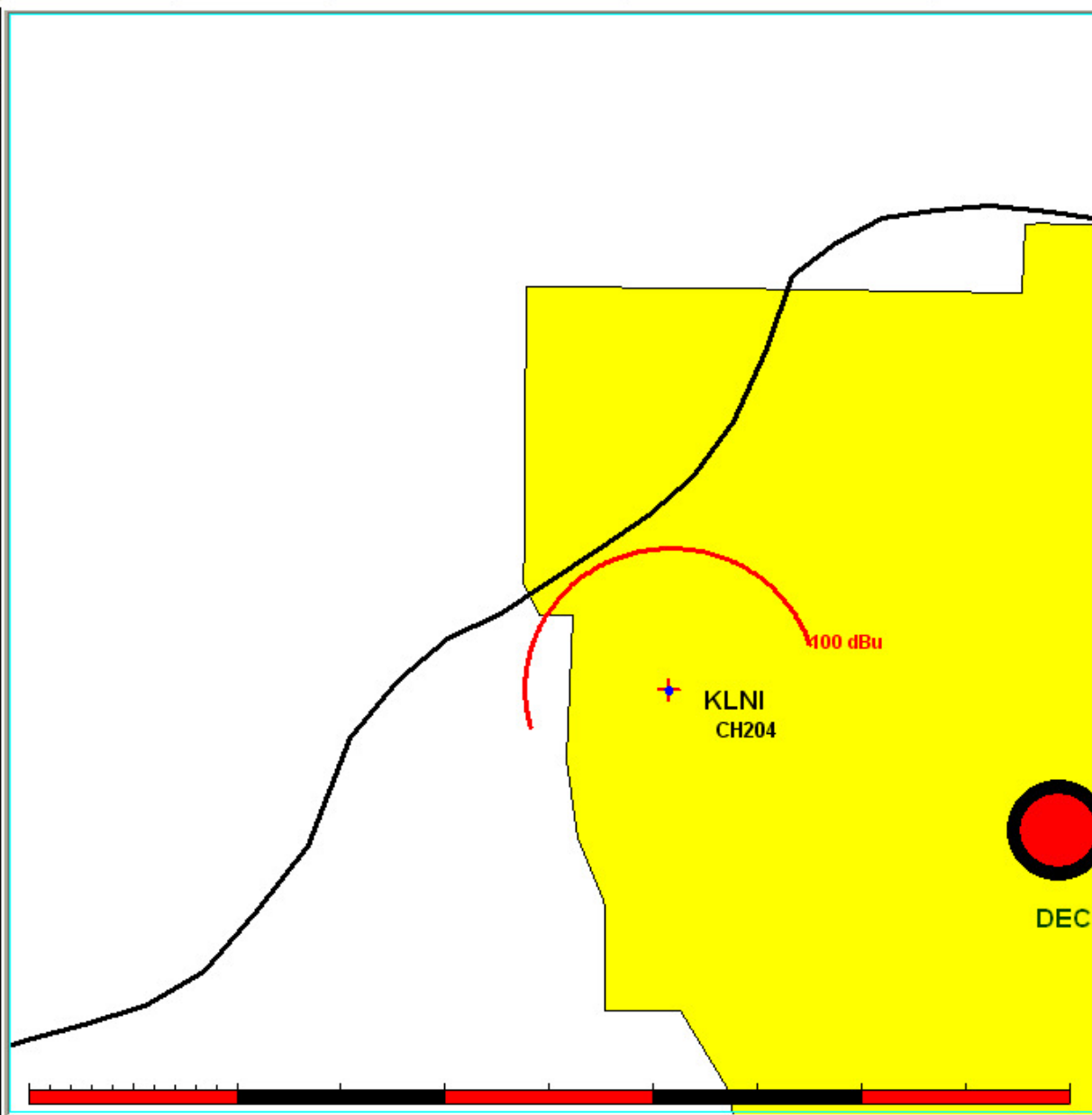
Execute Search

43 41 11.15 N
91 43 00.19 W
Elev=239.9 m

768698.A on CH 202 C3
ERP 10.0 kW DA
HAAT 91.2m,AMSL 449.0m

KLNI on CH 204 A
ERP 0.1 kW
HAAT -11.0m,AMSL 324.0m

768698.A Ref*
768698.A 1st
KLNI 2nd
KBDC 1st
WHWC Co
768428.A 1st
762427.A 1st
WJTY 1st



03-06-2022

Terrain Data: FCC NGDC 30 Sec

FMOver Analysis

768698.A

KLNI BLED19931202KA

Channel = 202C3

Max ERP = 10 kW

RCAMSL = 449 m

N. Lat. 43 26 59.00

W. Lng. 91 51 43.20

Protected

60 dBu

Channel = 204A

Max ERP = 0.1 kW

RCAMSL = 324 m

N. Lat. 43 18 34.90

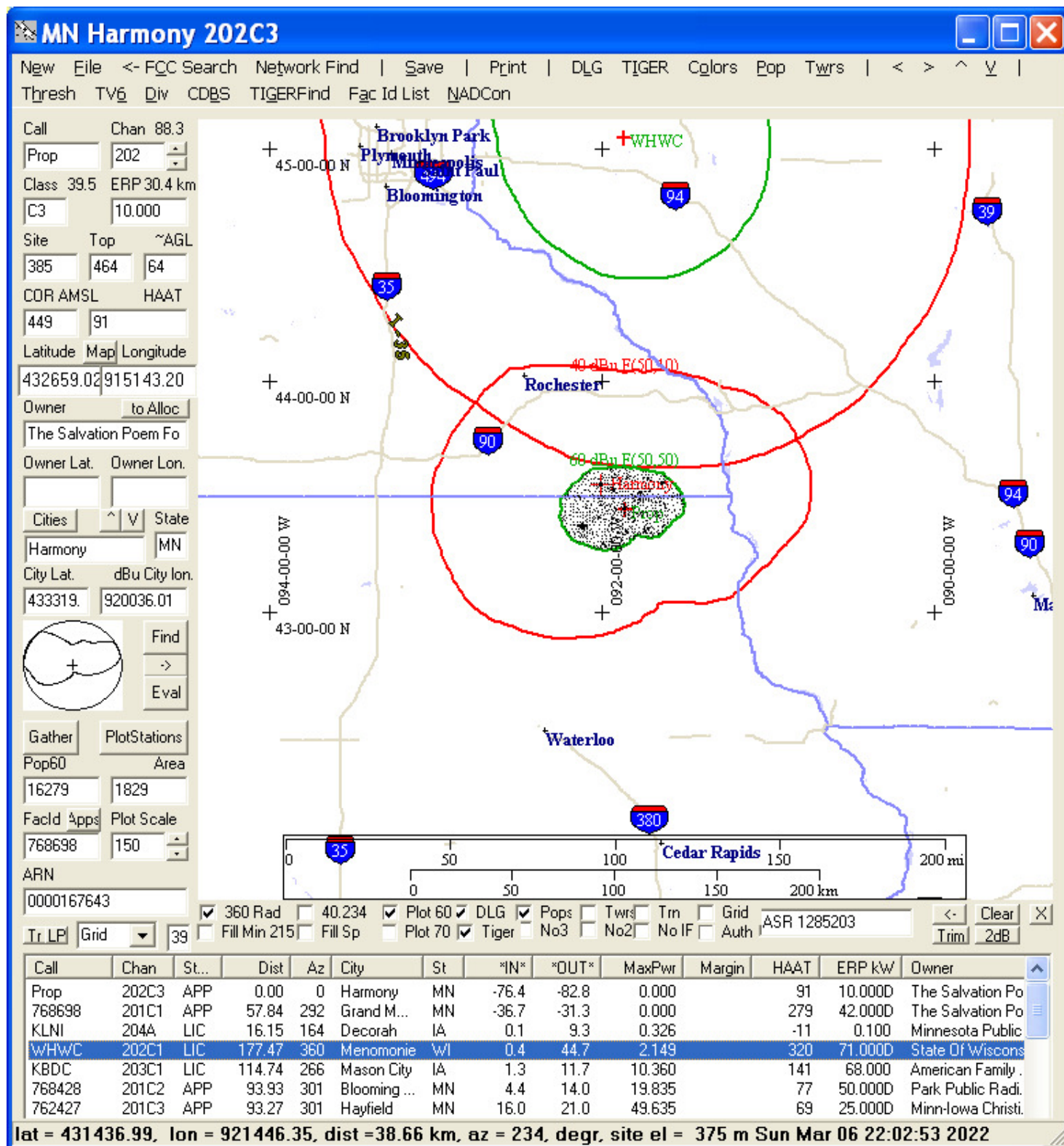
W. Lng. 91 48 30.60

Interfering

100 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)		Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
161.0	000.3168	0115.5	014.7		015.1	000.1000	-0013.1	001.7	80.64	
162.0	000.3168	0119.8	015.0		012.5	000.1000	-0019.9	001.4	94.19	
163.0	000.3168	0123.1	015.2		005.8	000.1000	-0031.5	001.1	96.36	
164.0	000.3168	0125.0	015.3		352.6	000.1000	-0026.5	000.9	98.07	
165.0	000.3168	0126.6	015.4		333.9	000.1000	0015.1	000.8	99.05<--	
166.0	000.3168	0128.1	015.5		312.8	000.1000	-0000.6	000.8	98.95	
167.0	000.3168	0129.6	015.6		294.8	000.1000	-0016.5	000.9	97.79	
168.0	000.3168	0130.6	015.7		283.2	000.1000	-0017.5	001.1	96.08	
169.0	000.3168	0133.0	015.8		271.7	000.1000	-0026.3	001.3	94.57	
170.0	000.3168	0136.5	016.1		260.9	000.1000	-0032.2	001.6	82.33	
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Prop vs WHWC



Find Information and Mapping Screen

Print Change Find Labels Lines Functions Contour Map Settings ~Scale Tools View Help



~ 1:250,000

FCC HGDC 30 Sec

Query Call

WHWC

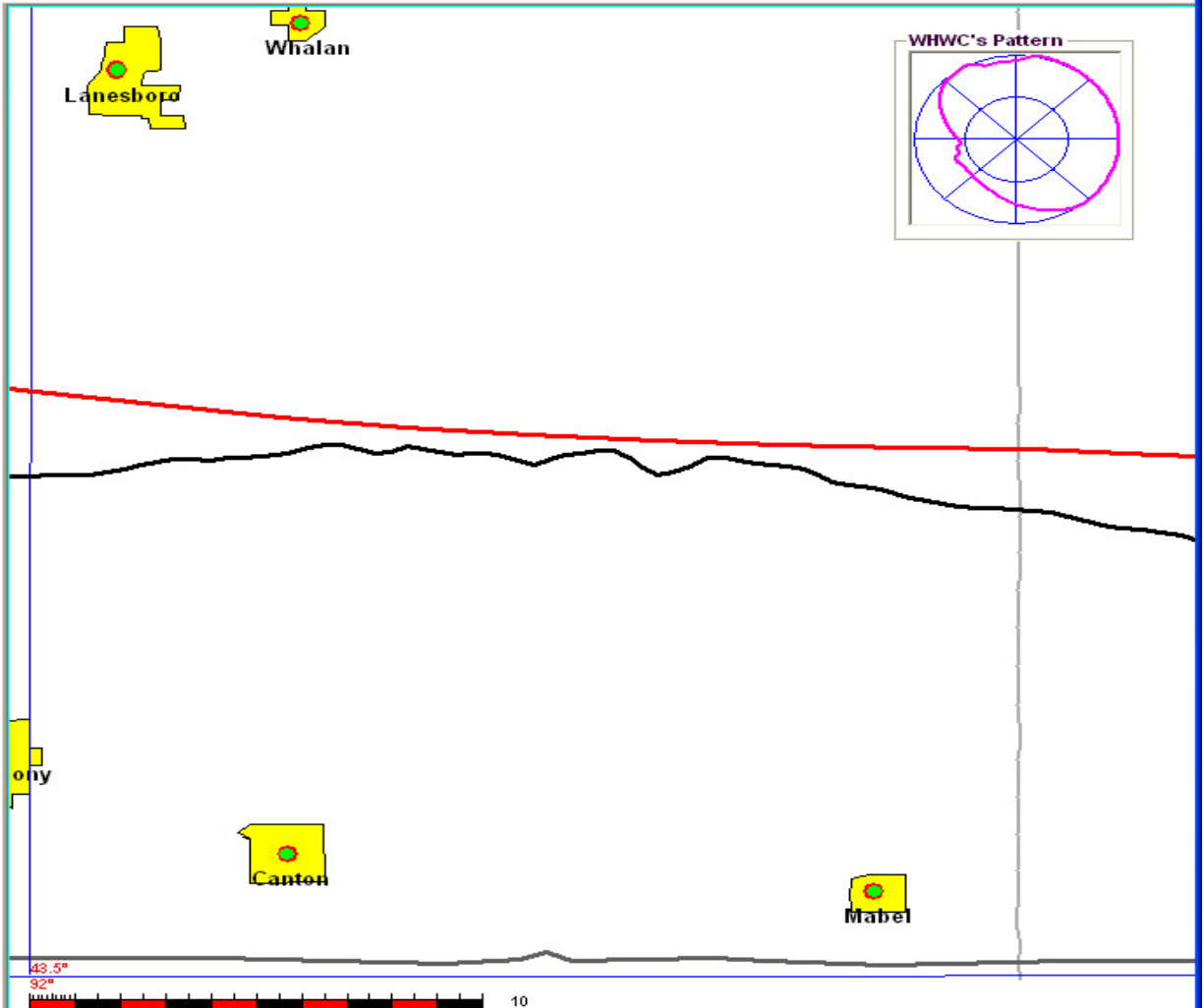
Execute Search

43 41 54.45 N
91 50 37.08 W
Elev=350.0 m

768698.A on CH 202 C3
ERP 10.0 kW DA
HAAT 91.2m, AMSL 449.0m

WHWC on CH 202 C1
ERP 71.0 kW DA
HAAT 320.0m, AMSL 625.0m

768698.A Ref*
768698.A 1st
KLNI 2nd
KBDC 1st
WHWC Co
768428.A 1st
762427.A 1st
WJTY 1st



03-06-2022

Terrain Data: FCC NGDC 30 Sec

FMOver Analysis

768698.A

WHWC BMLED20140218AAE

Channel = 202C3

Max ERP = 10 kW

RCAMSL = 449 m

N. Lat. 43 26 59.00

W. Lng. 91 51 43.20

Protected

60 dBu

Channel = 202C1

Max ERP = 71 kW

RCAMSL = 625 m

N. Lat. 45 02 48.90

W. Lng. 91 51 47.60

Interfering

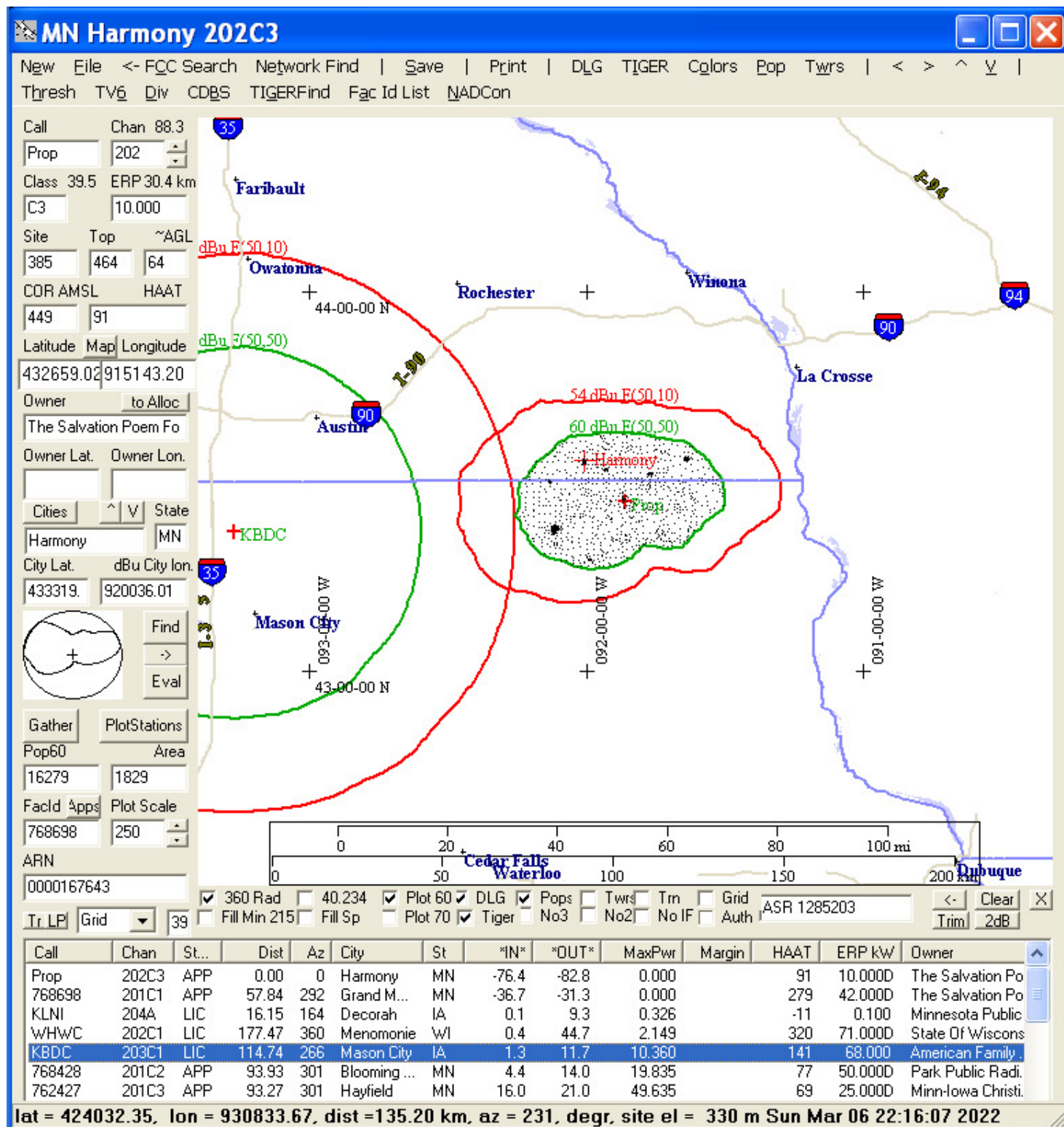
40 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
299.0	010.0000	0069.0	026.7	188.1	037.3922	0355.2	166.3	38.01	
300.0	010.0000	0067.9	026.5	187.9	037.4611	0355.2	165.9	38.08	
301.0	010.0000	0066.8	026.4	187.8	037.5292	0355.1	165.5	38.16	
302.0	010.0000	0065.7	026.2	187.7	037.5993	0355.0	165.2	38.23	
303.0	010.0000	0064.6	026.0	187.6	037.6694	0355.0	164.9	38.29	
304.0	010.0000	0063.8	025.9	187.5	037.7327	0354.9	164.5	38.36	
305.0	010.0000	0063.2	025.8	187.4	037.7897	0354.9	164.1	38.44	
306.0	010.0000	0063.1	025.7	187.3	037.8350	0354.8	163.8	38.51	
307.0	010.0000	0063.3	025.8	187.2	037.8749	0354.8	163.4	38.59	
308.0	010.0000	0063.5	025.8	187.1	037.9132	0354.8	162.9	38.67	
309.0	010.0000	0063.7	025.8	187.1	037.9564	0354.7	162.5	38.75	
310.0	010.0000	0063.4	025.8	187.0	038.0112	0354.7	162.2	38.82	
311.0	009.9800	0062.8	025.7	186.8	038.0808	0354.6	161.9	38.88	
312.0	009.9600	0061.8	025.5	186.7	038.1641	0354.6	161.6	38.94	
313.0	009.9401	0060.5	025.3	186.5	038.2545	0354.5	161.4	38.99	
314.0	009.9202	0059.3	025.0	186.4	038.3440	0354.4	161.2	39.03	
315.0	009.9003	0058.4	024.9	186.2	038.4263	0354.3	160.9	39.09	
316.0	009.8804	0058.0	024.8	186.1	038.4965	0354.2	160.7	39.14	
317.0	009.8605	0057.9	024.8	186.0	038.5582	0354.1	160.3	39.21	
318.0	009.8406	0058.0	024.8	185.9	038.6152	0354.0	160.0	39.27	
319.0	009.8208	0058.1	024.8	185.8	038.6764	0353.9	159.7	39.33	
320.0	009.8010	0057.7	024.7	185.7	038.7506	0353.8	159.4	39.39	
321.0	009.3896	0056.9	024.3	185.5	038.8707	0353.6	159.4	39.40	
322.0	009.0060	0056.0	023.9	185.3	038.9913	0353.4	159.4	39.41	
323.0	008.6304	0055.7	023.6	185.1	039.0947	0353.2	159.3	39.43	
324.0	008.2446	0056.1	023.5	184.9	039.1810	0353.1	159.2	39.46	
325.0	007.8854	0056.7	023.3	184.8	039.2628	0353.0	159.0	39.50	
326.0	007.5169	0057.0	023.1	184.6	039.3565	0352.8	158.9	39.52	
327.0	007.1741	0057.0	022.9	184.5	039.4552	0352.6	158.9	39.54	
328.0	006.8393	0056.9	022.6	184.3	039.5548	0352.5	158.8	39.55	
329.0	006.4964	0057.0	022.4	184.1	039.6533	0352.3	158.8	39.56	
330.0	006.1780	0057.2	022.1	184.0	039.7470	0352.1	158.8	39.57	
331.0	005.9290	0057.4	022.0	183.8	039.8355	0351.9	158.7	39.59	
332.0	005.6852	0057.4	021.7	183.7	039.9276	0351.7	158.7	39.60	
333.0	005.4464	0057.6	021.6	183.5	040.0161	0351.5	158.7	39.61	
334.0	005.1984	0058.3	021.4	183.4	040.0984	0351.4	158.6	39.63	
335.0	004.9702	0059.2	021.4	183.2	040.1753	0351.2	158.5	39.66	
336.0	004.7472	0060.4	021.3	183.1	040.2503	0351.1	158.3	39.69	
337.0	004.5293	0061.7	021.3	183.0	040.3261	0351.0	158.2	39.71	
338.0	004.3165	0062.7	021.2	182.8	040.4054	0350.9	158.1	39.73	
339.0	004.1088	0063.5	021.0	182.7	040.4898	0350.8	158.1	39.74	
340.0	003.8938	0064.2	020.9	182.6	040.5759	0350.7	158.1	39.75	

341.0	003.7577	0065.0	020.8		182.4	040.6531	0350.6	158.1	39.77
342.0	003.6240	0065.4	020.7		182.3	040.7344	0350.4	158.0	39.78
343.0	003.5046	0066.1	020.6		182.2	040.8128	0350.3	158.0	39.79
344.0	003.3756	0067.0	020.6		182.0	040.8898	0350.2	157.9	39.81
345.0	003.2490	0068.2	020.5		181.9	040.9644	0350.1	157.8	39.83
346.0	003.1248	0069.7	020.5		181.8	041.0378	0350.0	157.7	39.86
347.0	003.0030	0071.2	020.6		181.6	041.1123	0349.9	157.6	39.88
348.0	002.8837	0072.1	020.5		181.5	041.1919	0349.8	157.6	39.89<--
349.0	002.7668	0072.1	020.3		181.4	041.2763	0349.7	157.7	39.87
350.0	002.6522	0072.3	020.1		181.2	041.3590	0349.6	157.8	39.86
351.0	002.5705	0073.4	020.1		181.1	041.4340	0349.5	157.8	39.87
352.0	002.5000	0075.1	020.2		181.0	041.5061	0349.3	157.6	39.90
353.0	002.4206	0075.5	020.1		180.9	041.5848	0349.2	157.7	39.90<--
354.0	002.3523	0075.6	019.9		180.7	041.6636	0349.0	157.8	39.89
355.0	002.2753	0076.0	019.8		180.6	041.7409	0348.9	157.8	39.88
356.0	002.2090	0077.2	019.8		180.5	041.8158	0348.8	157.8	39.89
357.0	002.1344	0078.3	019.8		180.3	041.8914	0348.6	157.8	39.89
358.0	002.0703	0078.9	019.7		180.2	041.9672	0348.5	157.9	39.88
359.0	001.9981	0079.3	019.6		180.1	042.0428	0348.3	158.0	39.87
000.0	001.9360	0079.6	019.5		180.0	042.1193	0348.2	158.1	39.85
001.0	001.9802	0079.9	019.6		179.8	042.2009	0348.1	157.9	39.88
002.0	002.0160	0080.2	019.8		179.7	042.2837	0347.9	157.8	39.91
003.0	002.0612	0079.9	019.8		179.6	042.3670	0347.8	157.8	39.92
004.0	002.1068	0079.8	019.9		179.5	042.4514	0347.6	157.7	39.94<--
005.0	002.1530	0079.1	019.9		179.3	042.5347	0347.5	157.7	39.94
006.0	002.1902	0077.1	019.8		179.2	042.6130	0347.4	157.9	39.91
007.0	002.2373	0074.4	019.5		179.1	042.6868	0347.2	158.2	39.86
008.0	002.2848	0072.6	019.4		179.0	042.7625	0347.1	158.4	39.83
009.0	002.3329	0073.0	019.5		178.9	042.8485	0347.0	158.3	39.85
010.0	002.3717	0074.0	019.8		178.7	042.9387	0346.8	158.2	39.88
011.0	002.4602	0074.8	020.0		178.6	043.0348	0346.6	158.0	39.93
012.0	002.5402	0074.0	020.1		178.4	043.1200	0346.5	158.0	39.93<--
013.0	002.6214	0072.9	020.1		178.3	043.2022	0346.3	158.1	39.91
014.0	002.7040	0071.8	020.1		178.2	043.2846	0346.0	158.1	39.90
015.0	002.7878	0071.2	020.2		178.1	043.3701	0345.9	158.2	39.90
016.0	002.8730	0070.5	020.2		177.9	043.4552	0345.7	158.2	39.89
017.0	002.9594	0069.6	020.3		177.8	043.5379	0345.5	158.3	39.88
018.0	003.0470	0068.1	020.2		177.7	043.6132	0345.4	158.5	39.85
019.0	003.1360	0066.5	020.1		177.6	043.6858	0345.3	158.7	39.82
020.0	003.2262	0065.8	020.2		177.5	043.7682	0345.2	158.8	39.80
021.0	003.2718	0065.9	020.2		177.3	043.8548	0345.0	158.8	39.80
022.0	003.3178	0065.9	020.3		177.2	043.9390	0344.9	158.9	39.79
023.0	003.3640	0065.4	020.3		177.1	044.0162	0344.8	159.1	39.76
024.0	003.4106	0065.0	020.3		177.0	044.0945	0344.6	159.2	39.74
025.0	003.4692	0065.0	020.4		176.9	044.1800	0344.5	159.3	39.73
026.0	003.5165	0065.1	020.5		176.7	044.2652	0344.4	159.4	39.71
027.0	003.5641	0065.4	020.6		176.6	044.3543	0344.2	159.5	39.70
028.0	003.6120	0066.0	020.7		176.5	044.4471	0344.1	159.6	39.70
029.0	003.6603	0066.7	020.9		176.3	044.5427	0343.9	159.6	39.69
030.0	003.7088	0067.5	021.1		176.2	044.6419	0343.8	159.7	39.69
031.0	003.7332	0068.6	021.3		176.0	044.7418	0343.7	159.7	39.69
032.0	003.7577	0069.6	021.5		175.9	044.8400	0343.6	159.8	39.68
033.0	003.7700	0070.3	021.6		175.8	044.9292	0343.6	159.9	39.67
034.0	003.7946	0070.7	021.7		175.6	045.0164	0343.7	160.1	39.65
035.0	003.8192	0071.3	021.8		175.5	045.1060	0343.7	160.2	39.63
036.0	003.8440	0072.3	022.0		175.3	045.2044	0343.8	160.3	39.62
037.0	003.8688	0073.6	022.2		175.2	045.3079	0343.8	160.4	39.61
038.0	003.8813	0075.0	022.4		175.0	045.4142	0343.9	160.5	39.61
039.0	003.9063	0076.3	022.6		174.9	045.5194	0344.0	160.6	39.60
040.0	003.9313	0077.1	022.7		174.7	045.6121	0344.0	160.8	39.58

041.0	004.1345	0077.3	023.0		174.6	045.7313	0344.1	160.9	39.57
042.0	004.3560	0077.4	023.3		174.4	045.8490	0344.1	161.0	39.57
043.0	004.5698	0077.9	023.7		174.2	045.9757	0344.2	161.1	39.56
044.0	004.7886	0078.9	024.1		174.0	046.1161	0344.2	161.1	39.57
045.0	005.0126	0079.9	024.4		173.8	046.2549	0344.3	161.2	39.57
046.0	005.2418	0080.2	024.7		173.6	046.3780	0344.3	161.4	39.55
047.0	005.4908	0080.1	025.0		173.5	046.4873	0344.4	161.6	39.53
048.0	005.7305	0079.5	025.1		173.3	046.5821	0344.4	161.8	39.49
049.0	005.9753	0078.6	025.3		173.2	046.6652	0344.5	162.1	39.45
050.0	006.2252	0077.4	025.3		173.1	046.7338	0344.5	162.5	39.39
051.0	006.5610	0075.8	025.4		173.0	046.8033	0344.6	162.8	39.34
052.0	006.8890	0074.1	025.4		172.9	046.8633	0344.6	163.2	39.28
053.0	007.2420	0072.5	025.4		172.8	046.9280	0344.7	163.6	39.22
054.0	007.5864	0071.3	025.5		172.7	046.9968	0344.7	163.9	39.16
055.0	007.9566	0070.3	025.6		172.6	047.0700	0344.7	164.2	39.11
056.0	008.3174	0069.4	025.7		172.5	047.1433	0344.8	164.6	39.05
057.0	008.6862	0068.7	025.9		172.4	047.2215	0344.8	164.9	39.00
058.0	009.0821	0068.3	026.1		172.3	047.3117	0344.8	165.3	38.95
059.0	009.4673	0068.3	026.3		172.1	047.4071	0344.9	165.6	38.90
060.0	009.8804	0068.5	026.6		172.0	047.5142	0344.9	165.9	38.85
061.0	009.8804	0068.9	026.6		171.9	047.5710	0344.9	166.3	38.79
062.0	009.9003	0069.4	026.7		171.8	047.6321	0345.0	166.7	38.72
063.0	009.9202	0070.3	026.9		171.7	047.7057	0345.0	167.1	38.66
064.0	009.9202	0071.7	027.1		171.6	047.7942	0345.1	167.5	38.60
065.0	009.9401	0073.1	027.4		171.5	047.8833	0345.1	167.9	38.54
066.0	009.9600	0073.9	027.5		171.4	047.9455	0345.2	168.3	38.47
067.0	009.9600	0073.6	027.5		171.3	047.9657	0345.2	168.8	38.39
068.0	009.9800	0073.4	027.4		171.3	047.9851	0345.2	169.2	38.30
069.0	009.9800	0073.6	027.5		171.3	048.0217	0345.2	169.7	38.23
070.0	010.0000	0074.7	027.7		171.2	048.0869	0345.3	170.1	38.15
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Prop vs KBDC



Find Information and Mapping Screen



Print Change Find Labels Lines Functions Contour Map Settings ~Scale Tools View Help



~ 1:100,000

Query Call

KBDC

43 27 44.74 N
92 14 41.57 W
Elev=393.2 m

768698.A on CH 202 C3
ERP 10.0 kW DA
HAAT 91.2m,AMSL 449.0m

KBDC on CH 203 C1
ERP 68.0 kW
HAAT 141.0m,AMSL 513.5m

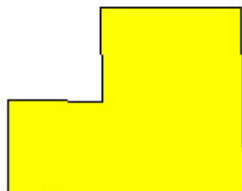
Execute Search

FCC HGDC 30 Sec

768698.A Ref*
768698.A 1st
KLNI 2nd
KBDC 1st
WHWC Co
768428.A 1st
762427.A 1st
WJTY 1st



Lime Springs



03-06-2022

Terrain Data: FCC NGDC 30 Sec

FMOver Analysis

768698.A

KBDC BLED20061101ACW

Channel = 202C3

Max ERP = 10 kW

RCAMSL = 449 m

N. Lat. 43 26 59.00

W. Lng. 91 51 43.20

Protected

60 dBu

Channel = 203C1

Max ERP = 68 kW

RCAMSL = 513.5 m

N. Lat. 43 22 11.80

W. Lng. 93 16 27.70

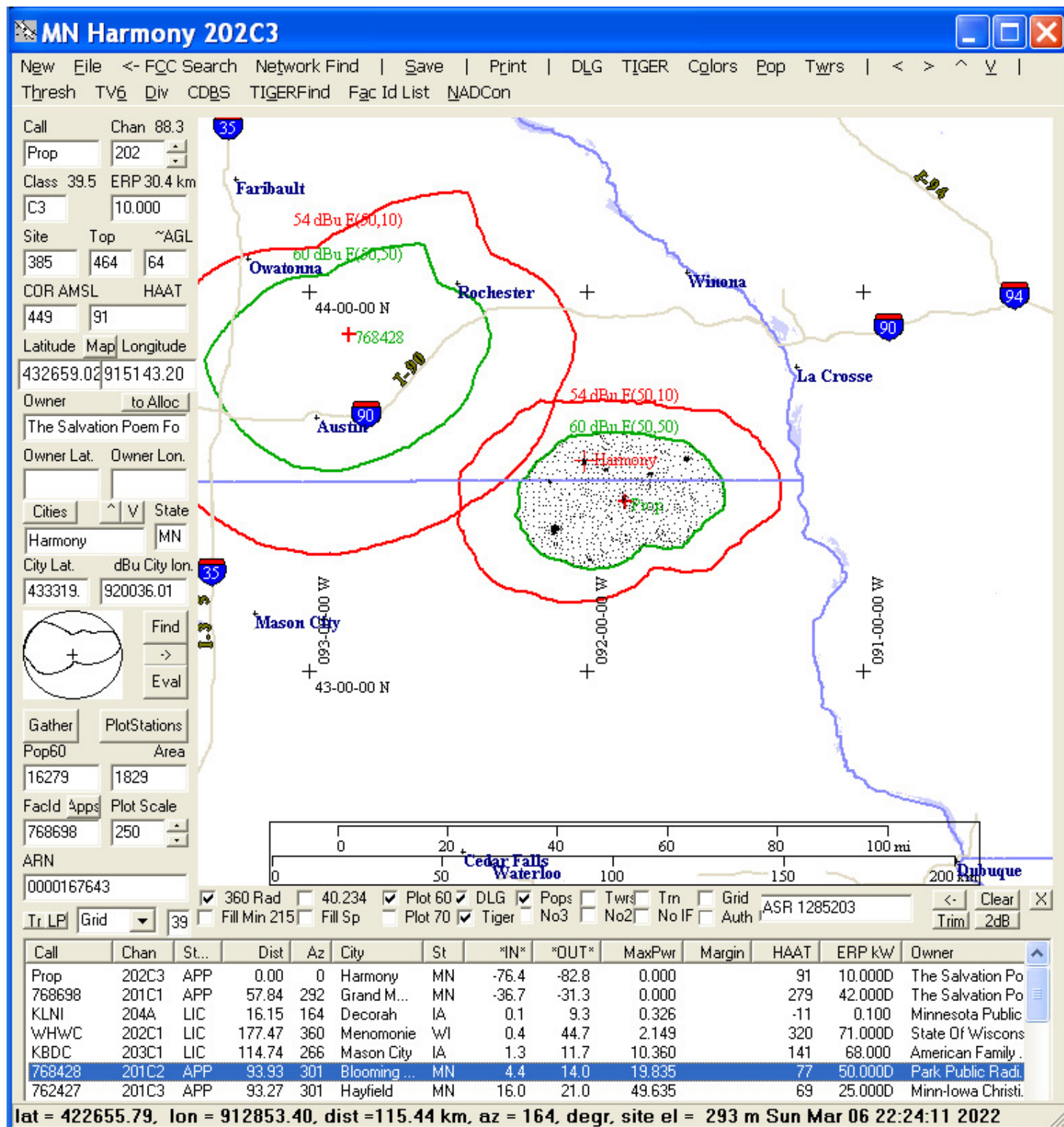
Interfering

54 dBu

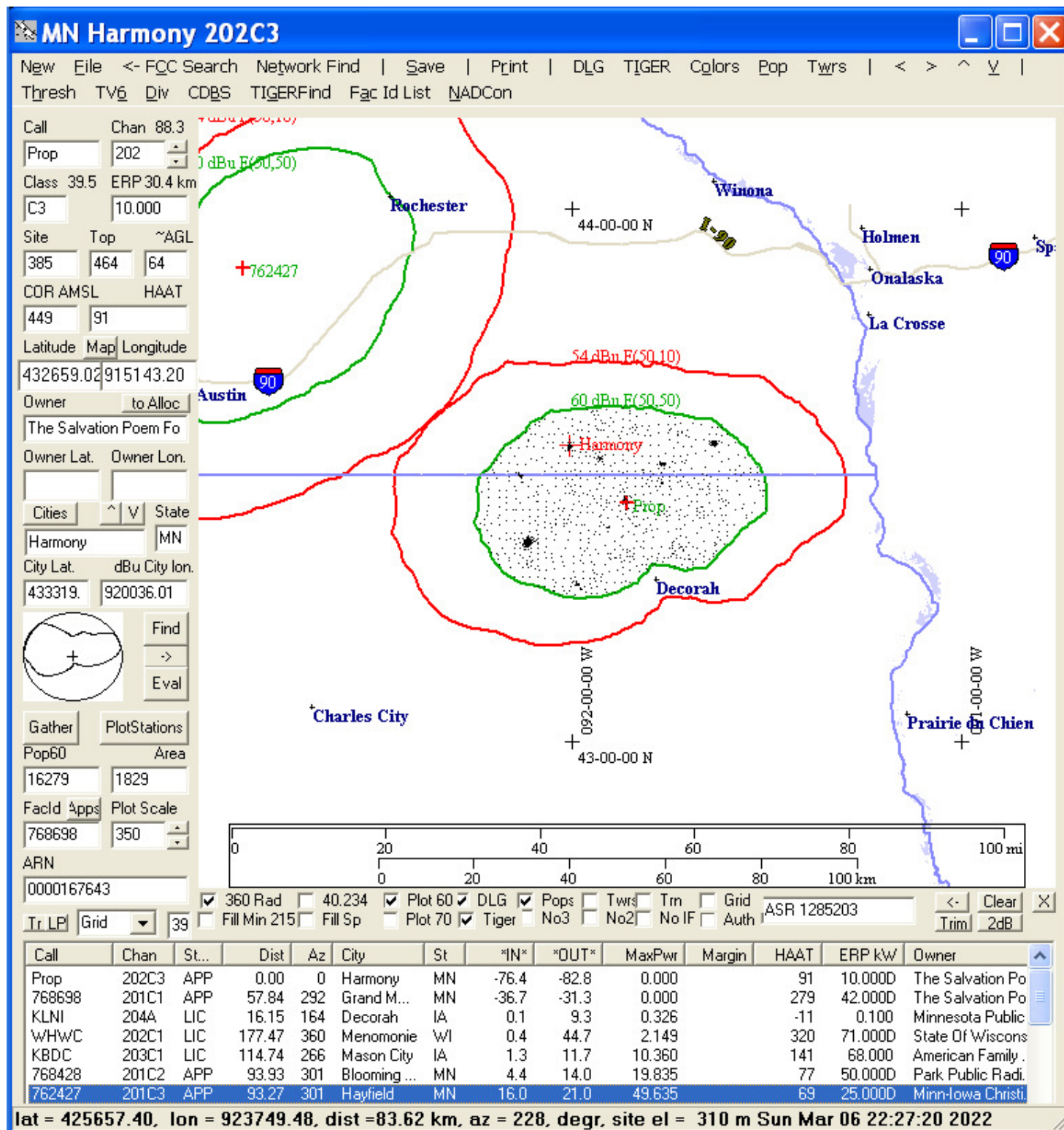
Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
240.0	006.4000	0106.3	029.5	093.5	068.0000	0149.4	088.8	52.09	
241.0	006.4642	0106.6	029.6	093.2	068.0000	0149.5	088.4	52.20	
242.0	006.5286	0107.0	029.8	093.0	068.0000	0149.6	088.1	52.31	
243.0	006.5934	0107.6	029.9	092.7	068.0000	0149.6	087.7	52.43	
244.0	006.6586	0108.1	030.0	092.5	068.0000	0149.6	087.3	52.54	
245.0	006.7240	0108.6	030.2	092.2	068.0000	0149.7	086.9	52.65	
246.0	006.7898	0108.9	030.3	092.0	068.0000	0149.7	086.6	52.75	
247.0	006.8558	0108.8	030.3	091.7	068.0000	0149.7	086.3	52.84	
248.0	006.9222	0108.4	030.4	091.3	068.0000	0149.7	086.1	52.91	
249.0	006.9890	0107.5	030.3	091.0	068.0000	0149.7	085.9	52.96	
250.0	007.0560	0106.7	030.3	090.7	068.0000	0149.7	085.7	53.01	
251.0	007.1234	0106.7	030.3	090.4	068.0000	0149.7	085.5	53.08	
252.0	007.1910	0107.5	030.5	090.1	068.0000	0149.7	085.1	53.19	
253.0	007.2590	0108.9	030.8	089.8	068.0000	0149.7	084.7	53.31	
254.0	007.3274	0110.1	031.0	089.5	068.0000	0149.7	084.4	53.42	
255.0	007.3960	0110.8	031.1	089.1	068.0000	0149.7	084.1	53.51	
256.0	007.4650	0110.4	031.2	088.8	068.0000	0149.7	083.9	53.56	
257.0	007.5342	0109.4	031.1	088.4	068.0000	0149.7	083.8	53.57	
258.0	007.6038	0108.4	031.0	088.0	068.0000	0149.7	083.8	53.59	
259.0	007.6738	0108.4	031.1	087.7	068.0000	0149.7	083.6	53.64	
260.0	007.7440	0109.7	031.3	087.3	068.0000	0149.7	083.3	53.74	
261.0	007.9388	0111.0	031.7	087.0	068.0000	0149.7	082.9	53.87	
262.0	008.1360	0111.5	032.0	086.6	068.0000	0149.7	082.6	53.96	
263.0	008.3357	0109.9	031.9	086.2	068.0000	0149.7	082.5	53.97<--	
264.0	008.5378	0106.8	031.7	085.8	068.0000	0149.8	082.8	53.90	
265.0	008.7423	0103.4	031.4	085.5	068.0000	0149.8	083.1	53.81	
266.0	008.9492	0100.6	031.1	085.1	068.0000	0149.8	083.3	53.74	
267.0	009.1585	0098.1	030.9	084.7	068.0000	0149.8	083.5	53.67	
268.0	009.3702	0096.4	030.8	084.3	068.0000	0149.8	083.6	53.64	
269.0	009.5844	0094.7	030.7	084.0	068.0000	0149.8	083.8	53.60	
270.0	009.8010	0093.0	030.6	083.6	068.0000	0149.8	083.9	53.55	
271.0	009.8010	0093.3	030.6	083.3	068.0000	0149.8	084.0	53.54	
272.0	009.8010	0094.0	030.7	082.9	068.0000	0149.8	083.9	53.56	
273.0	009.8010	0094.7	030.8	082.5	068.0000	0149.8	083.9	53.57	
274.0	009.8010	0095.6	031.0	082.1	068.0000	0149.8	083.8	53.58	
275.0	009.8010	0095.7	031.0	081.8	068.0000	0149.7	083.9	53.55	
276.0	009.8010	0096.1	031.1	081.4	068.0000	0149.7	084.0	53.53	
277.0	009.8010	0096.2	031.1	081.0	068.0000	0149.6	084.1	53.49	
278.0	009.8010	0096.4	031.1	080.7	068.0000	0149.6	084.2	53.46	
279.0	009.8010	0096.5	031.1	080.3	068.0000	0149.5	084.4	53.41	
280.0	009.8010	0096.2	031.1	080.0	068.0000	0149.5	084.6	53.34	
281.0	009.8208	0094.6	030.9	079.7	068.0000	0149.4	085.0	53.22	
282.0	009.8406	0091.6	030.4	079.5	068.0000	0149.3	085.6	53.03	
283.0	009.8605	0088.7	029.9	079.3	068.0000	0149.3	086.2	52.84	

284.0	009.8804	0086.2	029.5		079.1	068.0000	0149.2	086.8	52.66
285.0	009.9003	0084.4	029.2		078.8	068.0000	0149.2	087.3	52.52
286.0	009.9202	0083.2	029.0		078.6	068.0000	0149.1	087.7	52.41
287.0	009.9401	0082.6	029.0		078.3	068.0000	0149.0	088.0	52.31
288.0	009.9600	0081.7	028.8		078.1	068.0000	0149.0	088.3	52.21
289.0	009.9800	0080.4	028.6		077.8	068.0000	0148.9	088.8	52.08
290.0	010.0000	0079.5	028.5		077.6	068.0000	0148.9	089.1	51.97
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Prop vs 768428



Prop vs 762427



Radiation Hazard

There are no broadcast facilities within 12 km..

ID Stations V:2.1.15 (C) V-Soft Communications ...

ID Stations

Search Parameters

N. Latitude

W. Longitude

Distance (km)

Date > yymmdd

Station Type

☒ AM Stations

☒ FM Stations

☒ TV Stations

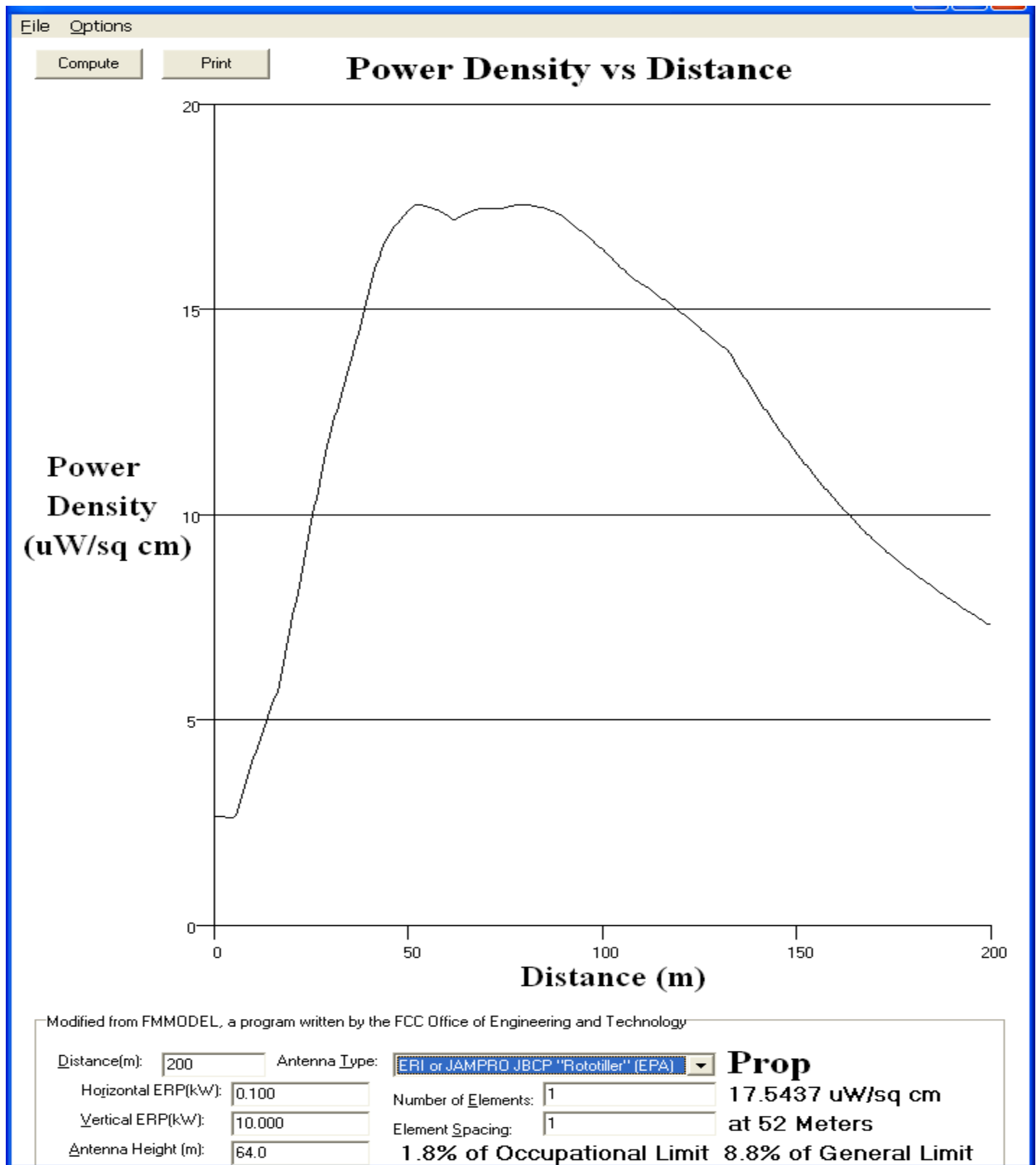
Include secondaries:

☒ FM Translators

☒ TV Translators

Call	Service	City	State	Chan.	Power	Coordinates	Dist	Bear
AM	-----	None Found	-----					
FM	-----							
K268AF	X	Decorah	IA	268D	0000.200kW	432041.80N 914840.50W	012.4	160.6
K235CT	X	Decorah	IA	235D	0000.250kW	431927.90N 914705.50W	015.3	155.9
TV	-----							
K25PE-	G	Decorah	IA	25	0015.000kW	431936.0N 914557.0W	015.7	150.4

Even a single bay would be safe on the ground, as shown below, but space is reserved for 2 bays to keep the required ERP under control.



Protected zones report

Protected zones report for 768698.A on channel 202C3 03-06-2022

Lat. 43 26 59.0 Lng. 91 51 43.2, ERP= 10 kw, HAAT= 91.2 m

Facility is okay with respect to AM station towers.

Closest AM Facility is KWLC, DECORAH, IA, L, ND2 at 164.4° at a distance of 16.2 km

Facility is okay with respect to FCC monitoring stations.

Closest FCC Monitoring Station is 490.5 km= Allegan, MI

Facility is okay toward West Virginia Quiet Zone. Distance to center = 1184.2 km

Facility is okay toward Table Mountain. Distance to Center = 1171.3 km, Azimuth = 256.2 Degrees True