

**ENGINEERING STATEMENT  
APPLICATION FCC 349  
Prepared For Polnet Communications, Ltd  
W223CN Zion, Illinois  
Facility ID 142464 92.5 FM .250 kW  
FCC Form 349-Instant Application**

- 1) Statement-Nature Of Proposal
- 2) Exhibit 1 - Proposed W223CN 60 dBu  
and 25 mile ARC with WPJX AM 1500  
Facility ID 49293(Primary Station)
- 3) Exhibit 2 - W223CN - 54 dBu And First  
Adjacent WCPY 60 dBu
- 4) Exhibit 3 – W223CN Proposed 100 dBu  
And Second Adjacent WVTY 60 dBu
- 5) Exhibit 4 – W223CN Proposed 48 dBu  
And First Adjacent WPWR Licensed 54  
dBu
- 6) Exhibit 5 - Proposed W223CN 34 dbu  
and Co Channel WCLR 54 dBu Contour
- 7) Exhibit 6 – W223CN 34 dBU and Co  
Channel WMBZ 54 DBU Contour
- 8) Exhibit 7 - Proposed PSIFMT 1AC  
Directional Pattern

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**Statement - Nature Of Proposal**

Polnet Communications, Ltd. ("Polnet") is the licensee of Translator Station W223CN, 92.5 FM, Zion, Illinois (Facility ID 147928) W223CN is a licensed Class D FM station with authority to operate .065 kW with a Directional facility (BLFT-20161201AEQ). WPJX AM 1500-Zion, Illinois is the Primary station (BL-20091230ACS). WPJX AM 1500 Facility ID(49293).

Polnet herein proposes that this instant application utilize a different antenna than the current License (BLFT-20161201AEQ). Polnet is requesting a change to a PSIFMT 1 AC directional pattern. Polnet Proposes the currently licensed tower and coordinates for this instant application (Tower ASR #1008305). Polnet requests a change from 249' (76 meters) to 270 Feet (82.3 meters).

Polnet Requests operation at .250 kW power ERP Vertical and Horizontal.

The proposed W223CN FM 92.5 instant application has the 60 dBu of W223CN within the 25 mile arc of the primary station WPJX AM 1500 (BL-20091230ACS).

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Statement - Nature Of Proposal Page 2**

**W223CN FM 92.5 Proposed Site**

**Tower ASR:**

1008305

**Coordinates: NAD 83**

42-26-34.8 N

88-03-26.8 W

**Elevation:**

AGL: 270.0'(82.3 Meters)

G-AMSL: 833.33' (254.00m)

RC-AMSL: 1103.33' (336.30m)

HAAT: 345.77' (105.40m)

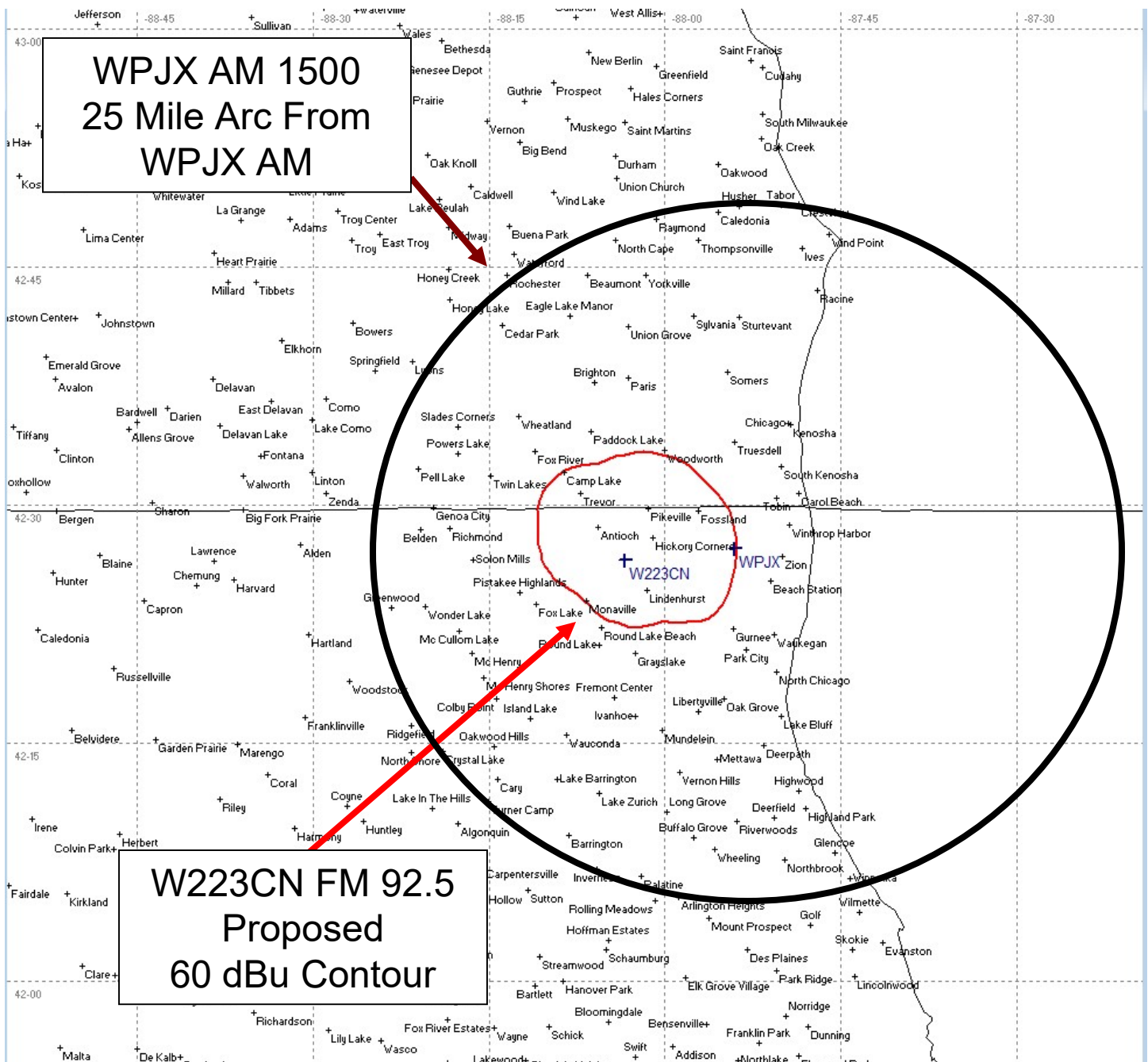
Directional Antenna

PSIFMT 1AC

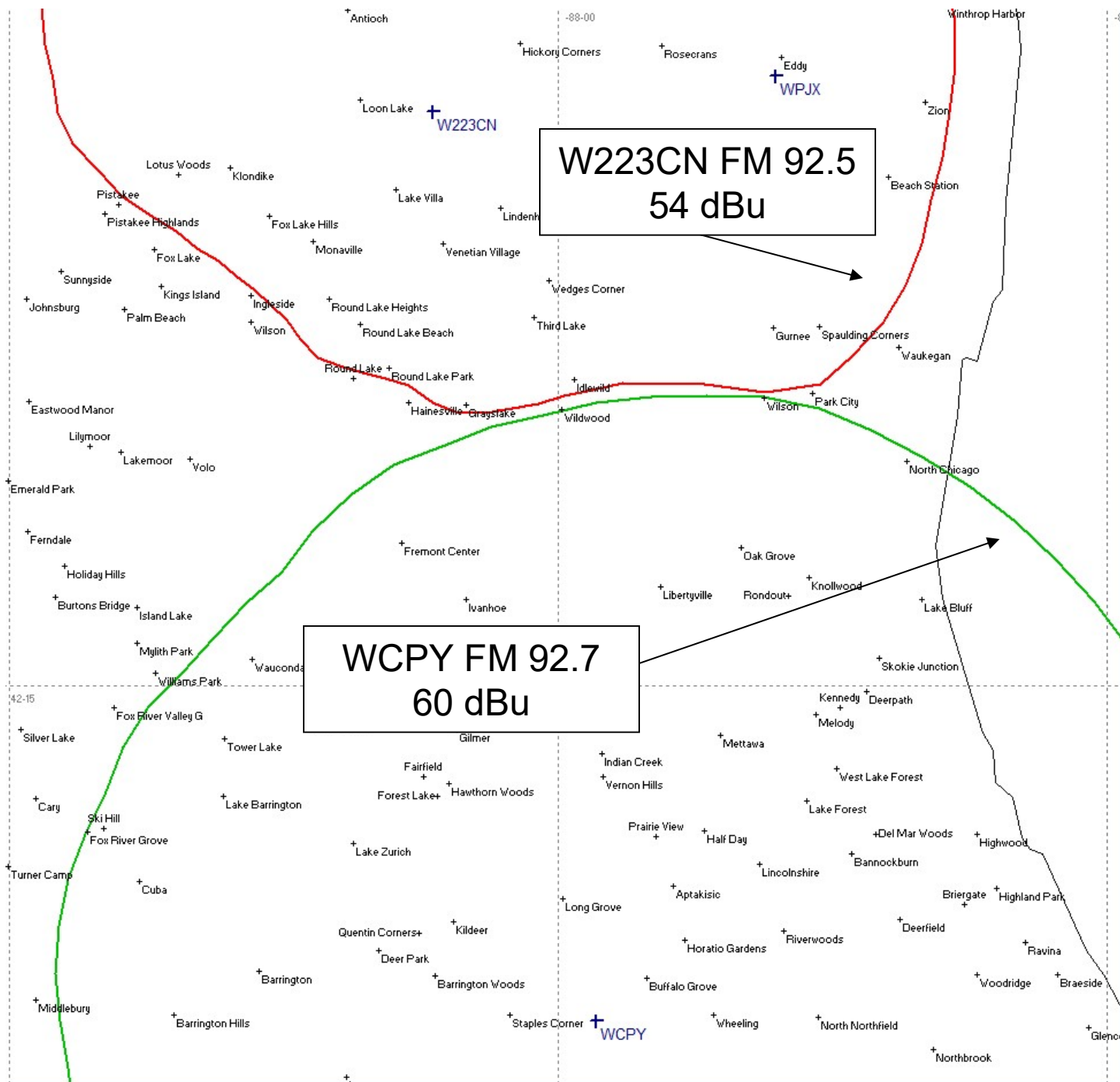
**Power:**

250 Watts ERP

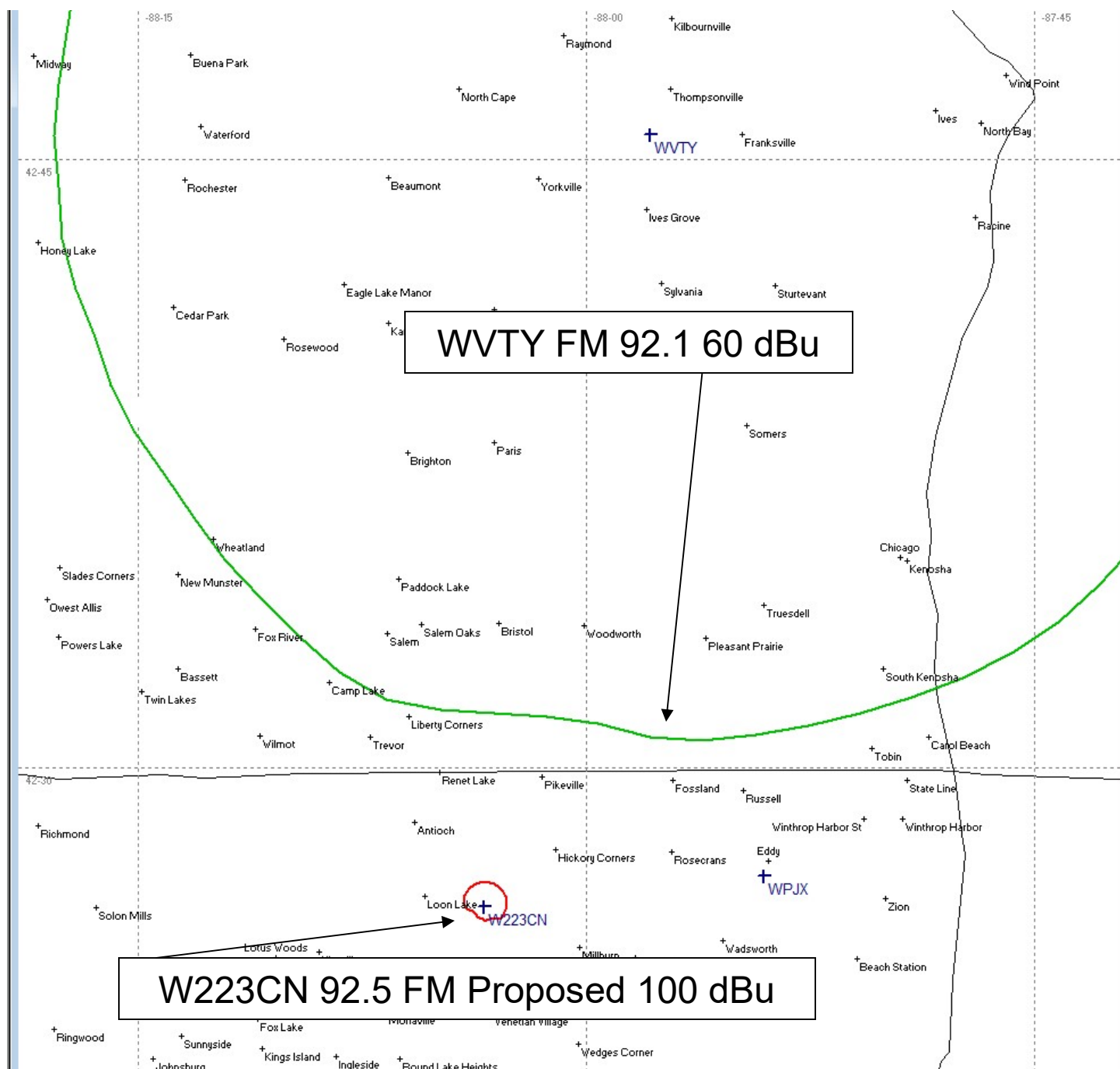
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**Exhibit 1 - 25 Mile Arc**



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**Exhibit 2**  
**W223CN - 54 dBu First Adjacent WCPY 60 dBu**



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W240DE Zion, Illinois  
Facility ID 142464 92.5 FM .250 kW  
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Exhibit 3  
W223CN Proposed 100 dBu - Second Adjacent WVTY 60 dBu**



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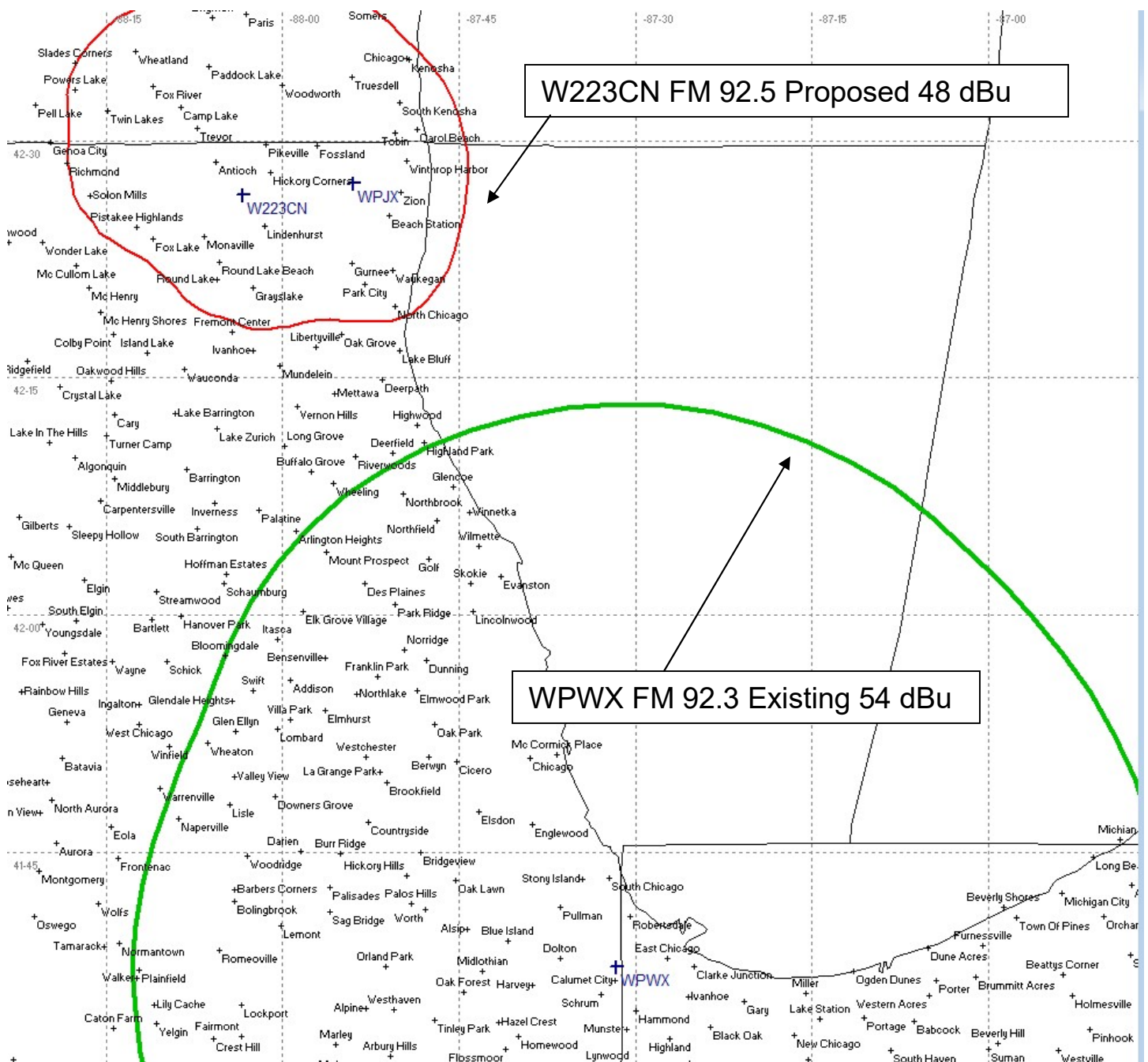
**W223CN Zion, Illinois**

**Facility ID 142464 92.5 FM .250 kW**

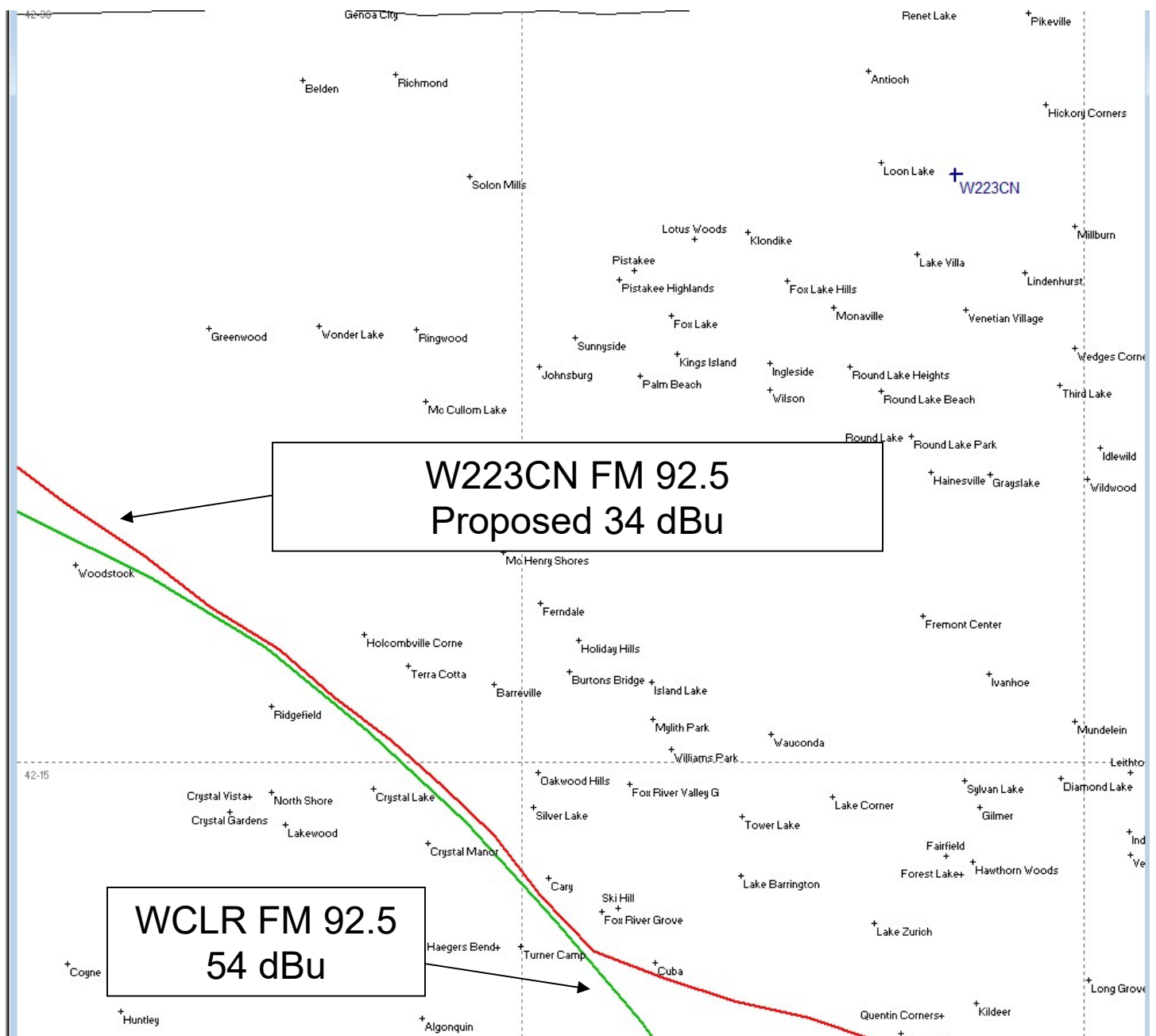
**FCC Form 349-Instant Application**

**Exhibit 4**

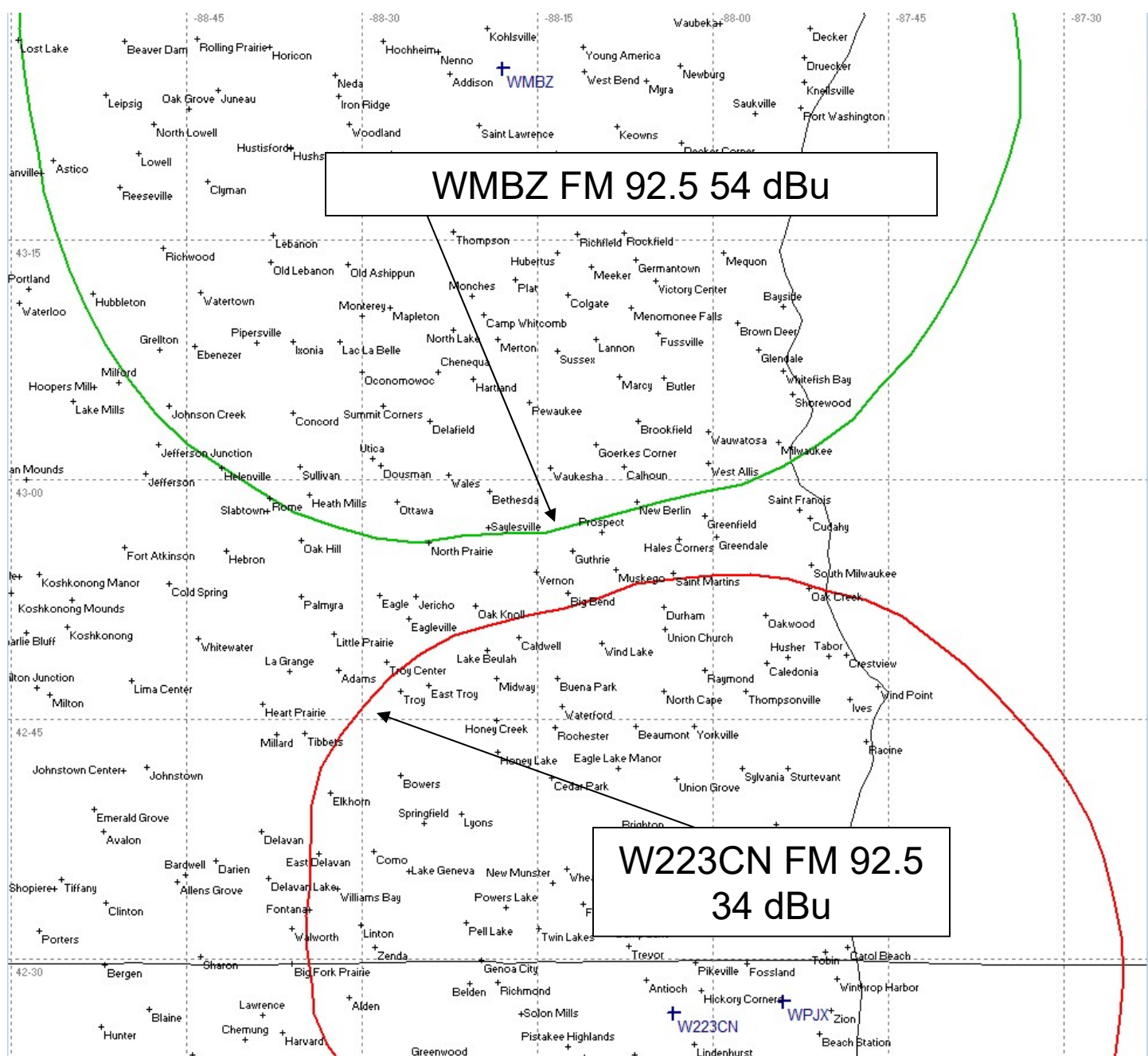
**W223CN Proposed 48 dBu – First Adjacent WPWR Licensed 54 dBu**











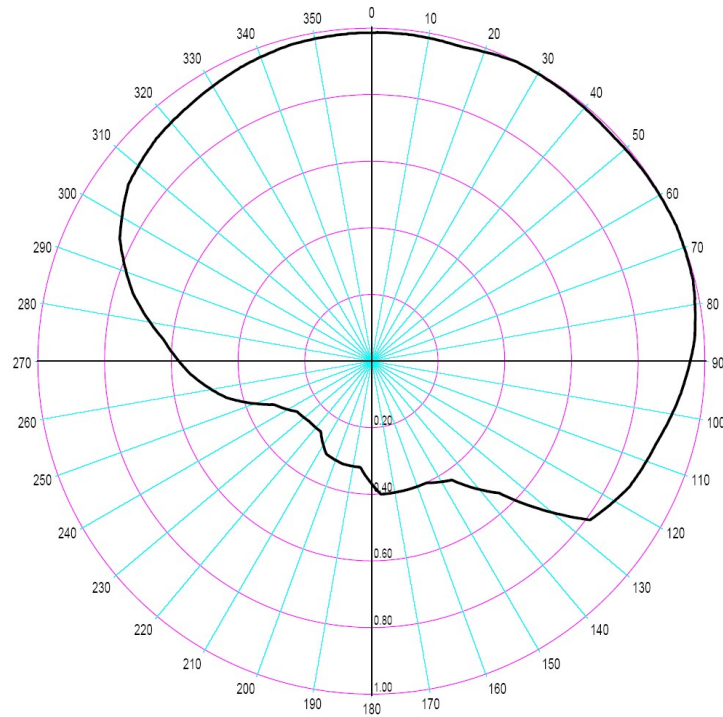
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**Exhibit 7**  
**PSIFMT 1 AC Directional Pattern**

ComStudy

PSIFMT-1 AC

Horizontal Pattern

Vertical Pattern



Azim	Rel.FS	ERP [W]	dBk	Azim	Rel.FS	ERP [W]	dBk	Azim	Rel.FS	ERP [W]	dBk	Azim	Rel.FS	ERP [W]	dBk
0.0	0.986	243.060	-6.143	90.0	0.955	228.016	-6.420	180.0	0.368	33.857	-14.703	270.0	0.578	83.525	-10.782
5.0	0.987	243.553	-6.134	95.0	0.935	218.566	-6.604	185.0	0.328	26.897	-15.703	275.0	0.619	95.794	-10.187
10.0	0.985	242.567	-6.152	100.0	0.914	208.858	-6.801	190.0	0.320	25.601	-15.917	280.0	0.674	113.574	-9.447
15.0	0.982	241.092	-6.178	105.0	0.893	199.371	-7.003	195.0	0.320	25.601	-15.917	285.0	0.733	134.328	-8.718
20.0	0.988	244.047	-6.125	110.0	0.877	192.291	-7.160	200.0	0.316	24.965	-16.027	290.0	0.783	153.279	-8.145
25.0	0.997	248.513	-6.047	115.0	0.862	185.769	-7.310	205.0	0.311	24.181	-16.165	295.0	0.830	172.233	-7.639
30.0	0.997	248.513	-6.047	120.0	0.840	176.408	-7.535	210.0	0.290	21.026	-16.772	300.0	0.864	186.632	-7.290
35.0	0.995	247.517	-6.064	125.0	0.815	166.064	-7.797	215.0	0.265	17.557	-17.555	305.0	0.895	200.265	-6.984
40.0	0.993	246.523	-6.081	130.0	0.706	124.615	-9.044	220.0	0.260	16.901	-17.721	310.0	0.912	207.945	-6.821
45.0	0.990	245.036	-6.108	135.0	0.576	82.948	-10.812	225.0	0.260	16.901	-17.721	315.0	0.926	214.378	-6.688
50.0	0.992	246.027	-6.090	140.0	0.502	63.004	-12.006	230.0	0.264	17.425	-17.588	320.0	0.935	218.566	-6.604
55.0	0.995	247.517	-6.064	145.0	0.442	48.843	-13.112	235.0	0.269	18.091	-17.425	325.0	0.943	222.322	-6.530
60.0	0.997	248.513	-6.047	150.0	0.418	43.683	-13.597	240.0	0.290	21.026	-16.772	330.0	0.953	227.062	-6.439
65.0	0.999	249.511	-6.029	155.0	0.403	40.604	-13.914	245.0	0.315	24.807	-16.054	335.0	0.963	231.852	-6.348
70.0	0.997	248.513	-6.047	160.0	0.400	40.002	-13.979	250.0	0.372	34.598	-14.610	340.0	0.972	236.206	-6.267
75.0	0.994	247.020	-6.073	165.0	0.400	40.002	-13.979	255.0	0.437	47.744	-13.211	345.0	0.979	239.621	-6.205
80.0	0.984	242.075	-6.161	170.0	0.400	40.002	-13.979	260.0	0.488	59.539	-12.252	350.0	0.983	241.583	-6.169
85.0	0.973	236.693	-6.258	175.0	0.400	40.002	-13.979	265.0	0.535	71.559	-11.453	355.0	0.985	242.567	-6.152