

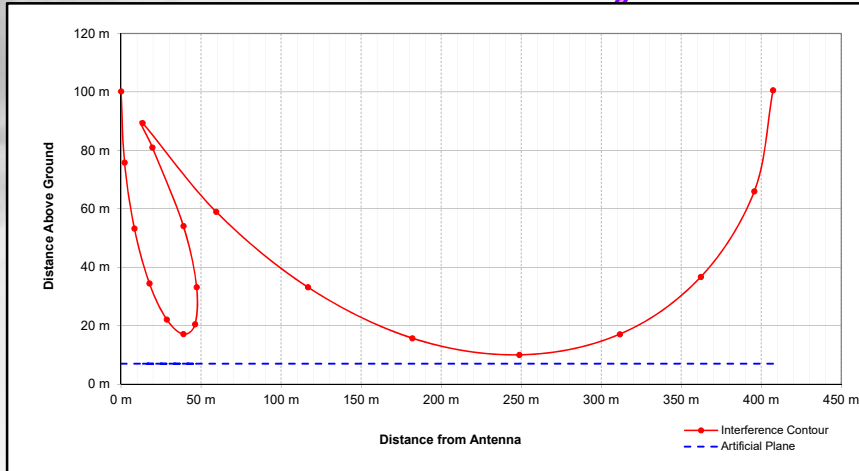
**Exhibit 13.2**  
**§74.1204(d) 2nd/3rd Adjacent Channel**  
**Given Interference Waiver Request**  
**WPZR(FM) - Mount Clemens, MI (CH274B)**  
**WMUZ(FM) - Detroit, MI (CH278B)**

USGS 03 SEC Terrain Database  
 U.S. Census 2010 PL Database

**CH276D.P**

*WPZR(FM) - 80.7 F(50:50)dBμ Contour*

*WMUZ(FM) - 68.7 F(50:50)dBμ Contour*



**CH276D.P**  
 Shelby Twp, MI  
 Proposed Operation  
 Facility ID: 142079  
 Latitude: 42-38-54.90 N  
 Longitude: 083-04-31.30 W  
 ERP: 0.25 kW  
 Channel: 276D (103.1 MHz)  
 AMSL Height: 314.0 m  
 Horiz. Pattern: Directional

**WPZR(FM)**

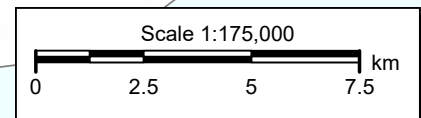
**WPZR(FM)**  
 Mount Clemens, MI  
 BMLH20000512AAD  
 Facility ID: 54915  
 Latitude: 42-32-39 N  
 Longitude: 082-54-09 W  
 ERP: 50.00 kW  
 Channel: 274B (102.7 MHz)  
 AMSL Height: 337.0 m  
 Horiz. Pattern: Directional

**WMUZ(FM)**  
 Detroit, MI  
 BMLH20150210AAQ  
 Facility ID: 73298  
 Latitude: 42-22-40 N  
 Longitude: 083-14-35 W  
 ERP: 50.00 kW  
 Channel: 278B (103.5 MHz)  
 AMSL Height: 336.0 m  
 Horiz. Pattern: Omni

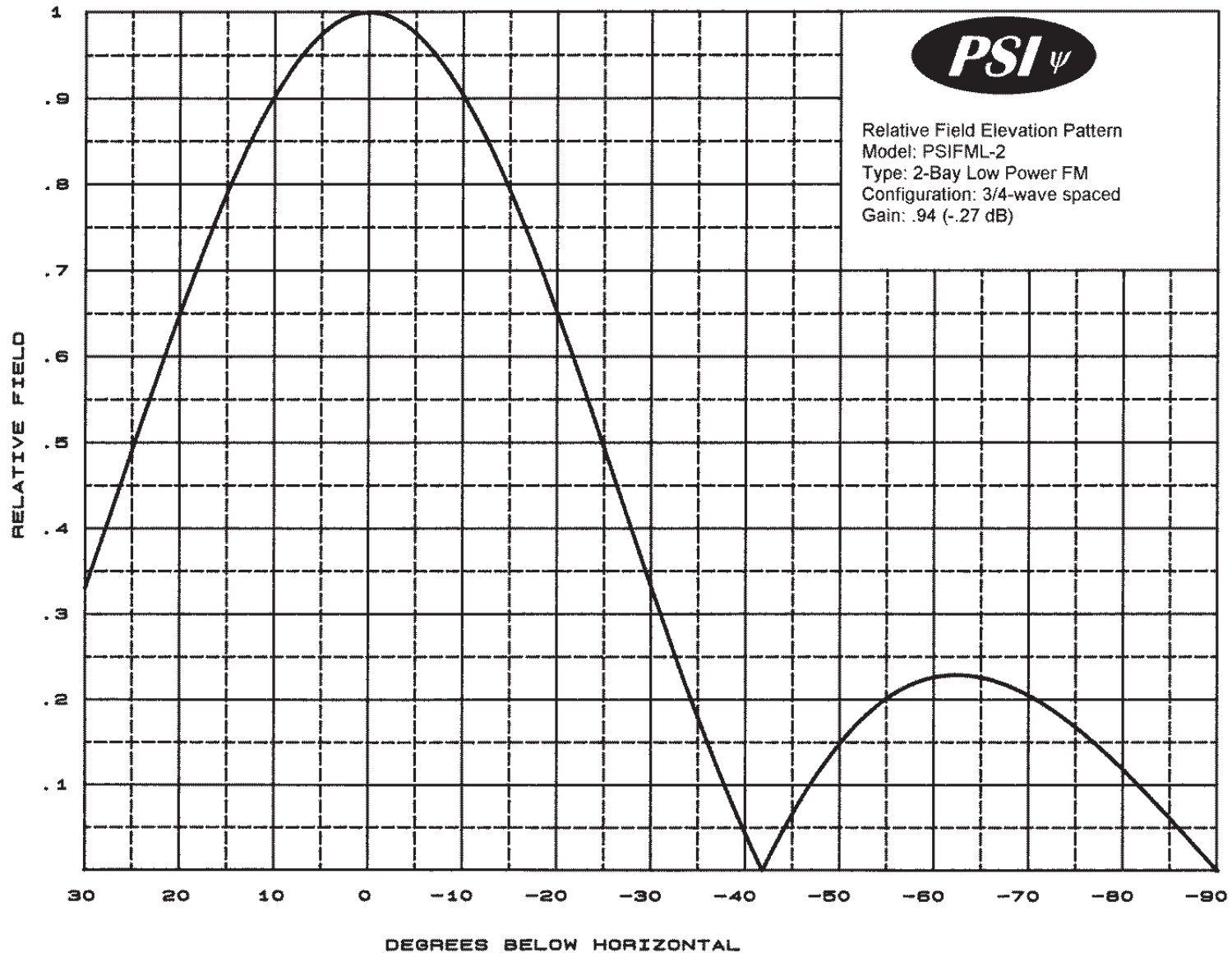
Proposed Antenna: 2 Bay PSI FML-0.75λ (Three-quarter Spaced)								
Proposed Power: 0.25 kW								
Antenna Height AGL: 100.6 meters								
Interference Contour: 108.7 dBu f(50:10)								
Artificial Ground Plane Height: 7 meters								
Distance (Free Space) Equation: $= (10^4 \cdot (106.92 - [\text{desired dBu}] + [\text{ERP in dBk}] / 20)) \cdot 1000$								
Field Strength (dBu) Equation $= 106.92 - 20 \cdot (\text{LOG10}[\text{DistMeters} / 1000]) + [\text{ERP in dBk}]$								
Depression				Distance				
Angle	Antenna			from Ant.				
Below	Relative	ERP	ERP	to Interference	Distance	Field Strength	Distance	Field Strength
Horizon	Field	in kW	in dBk	Contour	from Ant. to Artificial Plane	in dBu @ Artificial Plane	from Ant. to Ground Level	in dBu @ Ground Level
0°	1.000	0.250	-6.02	407.35 m	Infinite	---	---	---
-5°	0.975	0.238	-6.24	397.17 m	1073.94 m	100.06 dBu	1154.26 m	99.43 dBu
-10°	0.903	0.204	-6.91	367.84 m	539.02 m	105.38 dBu	579.33 m	104.75 dBu
-15°	0.792	0.157	-8.05	322.62 m	361.64 m	107.71 dBu	388.69 m	107.08 dBu
-20°	0.650	0.106	-9.76	264.78 m	273.67 m	108.41 dBu	294.13 m	107.79 dBu
-25°	0.493	0.061	-12.16	200.82 m	221.48 m	107.85 dBu	238.04 m	107.22 dBu
-30°	0.331	0.027	-15.62	134.83 m	187.20 m	105.85 dBu	201.20 m	105.22 dBu
-35°	0.178	0.008	-21.01	72.51 m	163.19 m	101.65 dBu	175.39 m	101.03 dBu
-40°	0.043	0.000	-33.35	17.52 m	145.62 m	90.30 dBu	156.51 m	89.68 dBu
-45°	0.068	0.001	-29.37	27.70 m	132.37 m	95.11 dBu	142.27 m	94.49 dBu
-50°	0.149	0.006	-22.56	60.70 m	122.19 m	102.62 dBu	131.32 m	102.00 dBu
-55°	0.202	0.010	-19.91	82.29 m	114.26 m	105.85 dBu	122.81 m	105.22 dBu
-60°	0.227	0.013	-18.90	92.47 m	108.08 m	107.35 dBu	116.16 m	106.72 dBu
-65°	0.226	0.013	-18.94	92.06 m	103.28 m	107.70 dBu	111.00 m	107.08 dBu
-70°	0.205	0.011	-19.79	83.51 m	99.61 m	107.17 dBu	107.06 m	106.54 dBu
-75°	0.168	0.007	-21.51	68.44 m	96.90 m	105.68 dBu	104.15 m	105.05 dBu
-80°	0.118	0.003	-24.58	48.07 m	95.04 m	102.78 dBu	102.15 m	102.15 dBu
-85°	0.061	0.001	-30.31	24.85 m	93.96 m	97.15 dBu	100.98 m	96.52 dBu
-90°	0.001	0.000	-66.02	0.41 m	93.60 m	61.47 dBu	100.60 m	60.85 dBu

The applicant would like to note the existence of a §74.1204(d) Second/Third Adjacent Channel Given Interference Waiver Request toward WPZR(FM) - Mount Clemens, MI (CH274B) and WMUZ(FM) - Detroit, MI (CH278B) as noted here-in. Protection has been based on the worst case calculated 108.7 dBu F(50:10) Interference Contour, corresponding to the worst case WMUZ(FM) 68.7 dBu F(50:50) Protected Contour. Protection has been demonstrated through the attached downward radiation study. Full protection will be afforded each facility as the interference area will not reach the ground nor a seven meter artificial plane representing a standard two story home when taking into account the downward radiation characteristics of the antenna as supplied by the antenna manufacturer. A copy of the antenna manufacturer specifications has also been included here-in.

**WMUZ(FM)**



# Exhibit 13.2 - Copy of Manufacturer's Vertical Radiation Pattern Data



# Exhibit 13.2 - Copy of Manufacturer's Vertical Radiation Pattern Data



## Propagation Systems Inc.

Elevation Pattern Tabulation

Antenna: PSIFML-2 Special

Bay spacing: 3/4 wave

Angle	Field	dB	Angle	Field	dB	Angle	Field	dB
-90.00	0.001	-60.000	-50.00	0.149	-16.513	-10.00	0.903	-0.883
-89.00	0.012	-38.221	-49.00	0.135	-17.364	-9.00	0.921	-0.713
-88.00	0.025	-32.201	-48.00	0.120	-18.405	-8.00	0.937	-0.561
-87.00	0.037	-28.679	-47.00	0.104	-19.677	-7.00	0.952	-0.429
-86.00	0.049	-26.207	-46.00	0.086	-21.289	-6.00	0.964	-0.315
-85.00	0.061	-24.285	-45.00	0.068	-23.404	-5.00	0.975	-0.219
-84.00	0.073	-22.748	-44.00	0.048	-26.425	-4.00	0.984	-0.139
-83.00	0.085	-21.443	-43.00	0.027	-31.481	-3.00	0.991	-0.079
-82.00	0.096	-20.349	-42.00	0.005	-46.848	-2.00	0.996	-0.036
-81.00	0.107	-19.378	-41.00	0.018	-34.664	-1.00	0.999	-0.009
-80.00	0.118	-18.538	-40.00	0.043	-27.417	0.00	1.000	0.000
-79.00	0.129	-17.792	-39.00	0.068	-23.365	1.00	0.999	-0.009
-78.00	0.139	-17.125	-38.00	0.094	-20.529	2.00	0.996	-0.036
-77.00	0.149	-16.522	-37.00	0.121	-18.329	3.00	0.991	-0.079
-76.00	0.159	-15.984	-36.00	0.149	-16.531	4.00	0.984	-0.139
-75.00	0.168	-15.508	-35.00	0.178	-14.998	5.00	0.975	-0.219
-74.00	0.176	-15.072	-34.00	0.207	-13.669	6.00	0.964	-0.315
-73.00	0.184	-14.685	-33.00	0.237	-12.489	7.00	0.952	-0.429
-72.00	0.192	-14.335	-32.00	0.268	-11.431	8.00	0.937	-0.561
-71.00	0.199	-14.026	-31.00	0.299	-10.475	9.00	0.921	-0.713
-70.00	0.205	-13.752	-30.00	0.331	-9.602	10.00	0.903	-0.882
-69.00	0.211	-13.518	-29.00	0.363	-8.801	11.00	0.884	-1.072
-68.00	0.216	-13.315	-28.00	0.395	-8.061	12.00	0.863	-1.279
-67.00	0.220	-13.146	-27.00	0.428	-7.377	13.00	0.841	-1.508
-66.00	0.224	-13.009	-26.00	0.460	-6.742	14.00	0.817	-1.757
-65.00	0.226	-12.904	-25.00	0.493	-6.151	15.00	0.792	-2.029
-64.00	0.228	-12.834	-24.00	0.525	-5.599	16.00	0.765	-2.322
-63.00	0.229	-12.800	-23.00	0.557	-5.083	17.00	0.738	-2.639
-62.00	0.229	-12.794	-22.00	0.589	-4.603	18.00	0.710	-2.979
-61.00	0.228	-12.829	-21.00	0.620	-4.154	19.00	0.680	-3.344
-60.00	0.227	-12.898	-20.00	0.650	-3.736	20.00	0.650	-3.736
-59.00	0.224	-13.009	-19.00	0.680	-3.344	21.00	0.620	-4.154
-58.00	0.220	-13.158	-18.00	0.710	-2.979	22.00	0.589	-4.603
-57.00	0.215	-13.351	-17.00	0.738	-2.639	23.00	0.557	-5.083
-56.00	0.209	-13.600	-16.00	0.765	-2.323	24.00	0.525	-5.599
-55.00	0.202	-13.894	-15.00	0.792	-2.029	25.00	0.493	-6.151
-54.00	0.194	-14.260	-14.00	0.817	-1.759	26.00	0.460	-6.742
-53.00	0.184	-14.685	-13.00	0.840	-1.510	27.00	0.428	-7.377
-52.00	0.174	-15.192	-12.00	0.863	-1.281	28.00	0.395	-8.061
-51.00	0.162	-15.795	-11.00	0.884	-1.072	29.00	0.363	-8.801
						30.00	0.331	-9.602