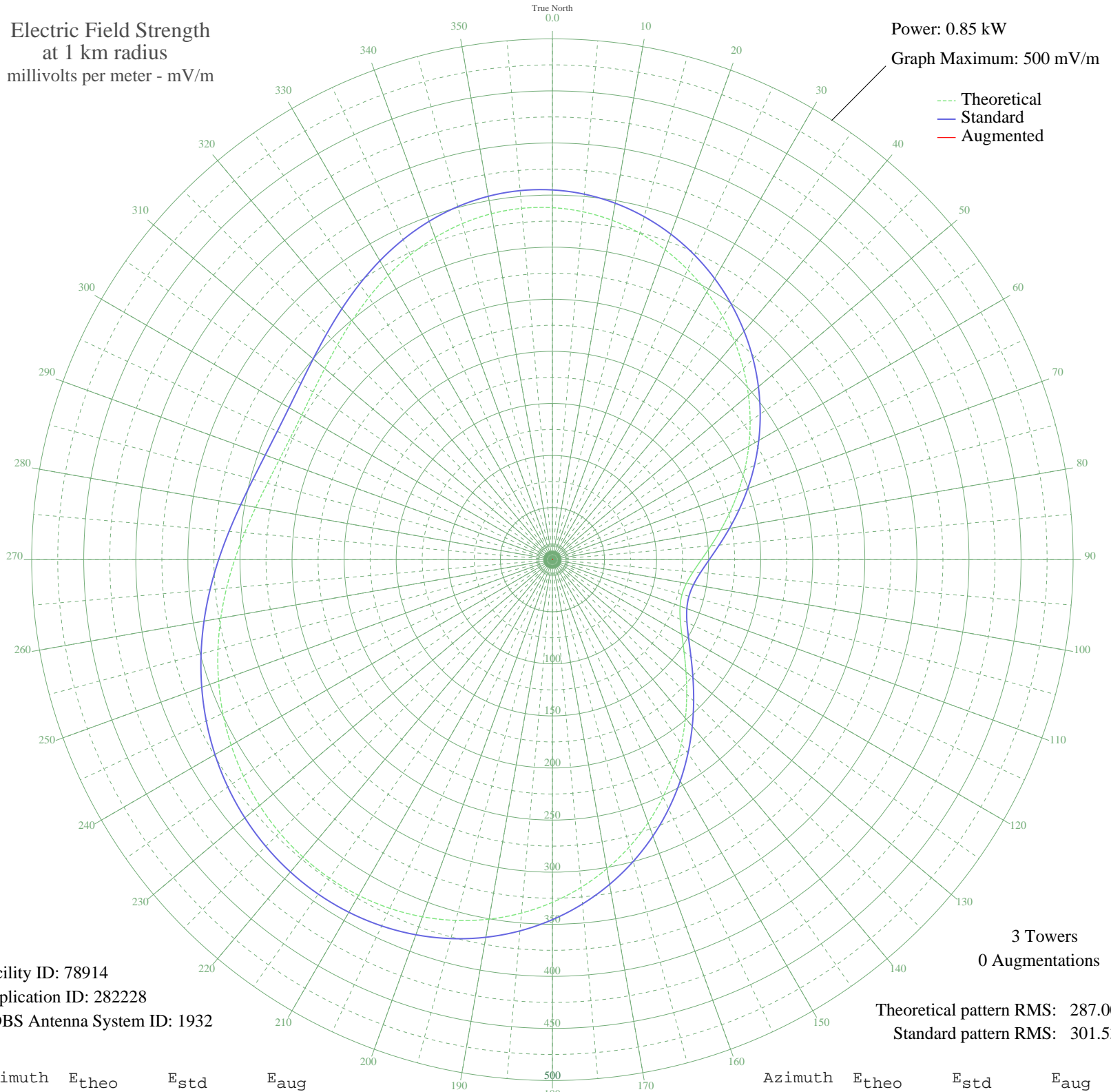


WVAL SAUK RAPIDS, MN BL-19990224DC 800 kHz

Nighttime

Electric Field Strength
at 1 km radius
millivolts per meter - mV/m

Power: 0.85 kW
Graph Maximum: 500 mV/m



Facility ID: 78914
Application ID: 282228
CDBS Antenna System ID: 1932

3 Towers
0 Augmentations

Theoretical pattern RMS: 287.00
Standard pattern RMS: 301.53

| Azimuth | E _{theo} | E _{std} | E _{aug} |
|---------|-------------------|------------------|------------------|
| 0 | 337.89 | 354.94 | |
| 5 | 335.27 | 352.19 | |
| 10 | 330.76 | 347.45 | |
| 15 | 324.46 | 340.84 | |
| 20 | 316.54 | 332.54 | |
| 25 | 307.19 | 322.72 | |
| 30 | 296.60 | 311.61 | |
| 35 | 284.97 | 299.41 | |
| 40 | 272.49 | 286.31 | |
| 45 | 259.35 | 272.52 | |
| 50 | 245.72 | 258.22 | |
| 55 | 231.77 | 243.59 | |
| 60 | 217.68 | 228.81 | |
| 65 | 203.63 | 214.07 | |
| 70 | 189.83 | 199.60 | |
| 75 | 176.53 | 185.66 | |
| 80 | 164.05 | 172.57 | |
| 85 | 152.75 | 160.74 | |
| 90 | 143.09 | 150.61 | |
| 95 | 135.57 | 142.73 | |
| 100 | 130.69 | 137.63 | |
| 105 | 128.91 | 135.76 | |
| 110 | 130.47 | 137.40 | |
| 115 | 135.41 | 142.56 | |
| 120 | 143.49 | 151.03 | |
| 125 | 154.33 | 162.39 | |
| 130 | 167.47 | 176.16 | |
| 135 | 182.42 | 191.83 | |
| 140 | 198.71 | 208.91 | |
| 145 | 215.90 | 226.93 | |
| 150 | 233.55 | 245.45 | |
| 155 | 251.27 | 264.04 | |
| 160 | 268.68 | 282.31 | |
| 165 | 285.44 | 299.90 | |
| 170 | 301.25 | 316.48 | |
| 175 | 315.83 | 331.79 | |

| Azimuth | E _{theo} | E _{std} | E _{aug} |
|---------|-------------------|------------------|------------------|
| 180 | 328.99 | 345.60 | |
| 185 | 340.56 | 357.74 | |
| 190 | 350.42 | 368.09 | |
| 195 | 358.52 | 376.59 | |
| 200 | 364.82 | 383.20 | |
| 205 | 369.33 | 387.94 | |
| 210 | 372.10 | 390.84 | |
| 215 | 373.17 | 391.97 | |
| 220 | 372.62 | 391.39 | |
| 225 | 370.55 | 389.21 | |
| 230 | 367.04 | 385.53 | |
| 235 | 362.21 | 380.46 | |
| 240 | 356.18 | 374.13 | |
| 245 | 349.09 | 366.70 | |
| 250 | 341.11 | 358.32 | |
| 255 | 332.45 | 349.23 | |
| 260 | 323.35 | 339.68 | |
| 265 | 314.10 | 329.98 | |
| 270 | 305.07 | 320.49 | |
| 275 | 296.63 | 311.64 | |
| 280 | 289.24 | 303.89 | |
| 285 | 283.33 | 297.68 | |
| 290 | 279.30 | 293.45 | |
| 295 | 277.43 | 291.49 | |
| 300 | 277.89 | 291.97 | |
| 305 | 280.62 | 294.84 | |
| 310 | 285.39 | 299.85 | |
| 315 | 291.80 | 306.57 | |
| 320 | 299.32 | 314.46 | |
| 325 | 307.37 | 322.91 | |
| 330 | 315.36 | 331.30 | |
| 335 | 322.76 | 339.06 | |
| 340 | 329.11 | 345.72 | |
| 345 | 334.02 | 350.87 | |
| 350 | 337.22 | 354.24 | |
| 355 | 338.54 | 355.62 | |

The theoretical pattern is used to create the standard pattern. Augmentations (if any) expand the standard pattern in specified directions. See Sections 73.150 and 73.152 of the FCC's Rules.

AM coverage may not mirror the pattern shown here. Additional factors such as ground conductivity or skywave propagation affect how far the AM signal will travel.

Patterns for stations outside the USA are based on notified parameters.

AM directional patterns created before 1982 used units of 1 mV/m at 1 mile, not one kilometer. The pattern values on such plots at 1 mile will be 0.62137 of the values listed here. Measured pattern values may vary from values shown here.

Plot is best printed on 11" by 17" or larger paper.

20 Nov 2009

Prepared by Audio Division, Media Bureau
Federal Communications Commission