



6340 Sky Creek Drive, Sacramento, California 95828
P.O. Box 292880, Sacramento, California 95829-2880

(916) 383-1177 FAX (916) 383-1182

ANTENNA SPECIFICATIONS

Call Sign: WLIG-LD

Date: June 25, 2009

Channel: 45

Model: JA/MS-12/45-SCM

ELECTRICAL SPECIFICATIONS:

CHANNEL: 45 (656-662 MHz)

POLARIZATION: Circular

AZIMUTH PATTERN: Modified Lobe

H-POL PEAK GAIN: 24.8(x) / 13.9 dBd

V-POL PEAK GAIN: 24.8(x) / 13.9 dBd

BEAM TILT: 0.7 °

NULL FILL: 10%

INPUT IMPEDANCE: 50 ohms, nominal

MAXIMUM VSWR: 1.05:1 over channel

ANTI-ICING PROTECTION: Radome

INPUT CONNECTION: TBD

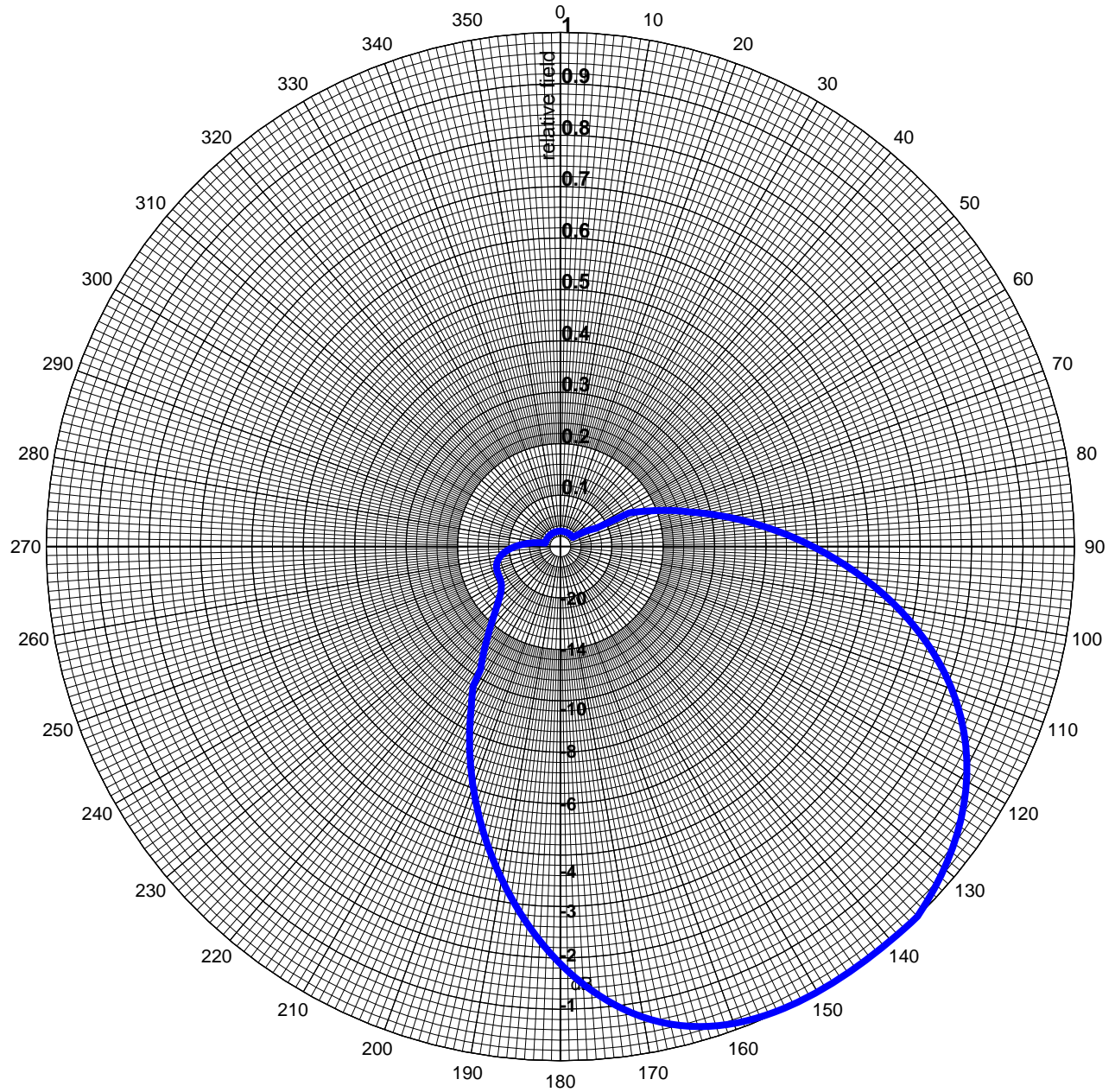


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AZIMUTH PATTERN

True North



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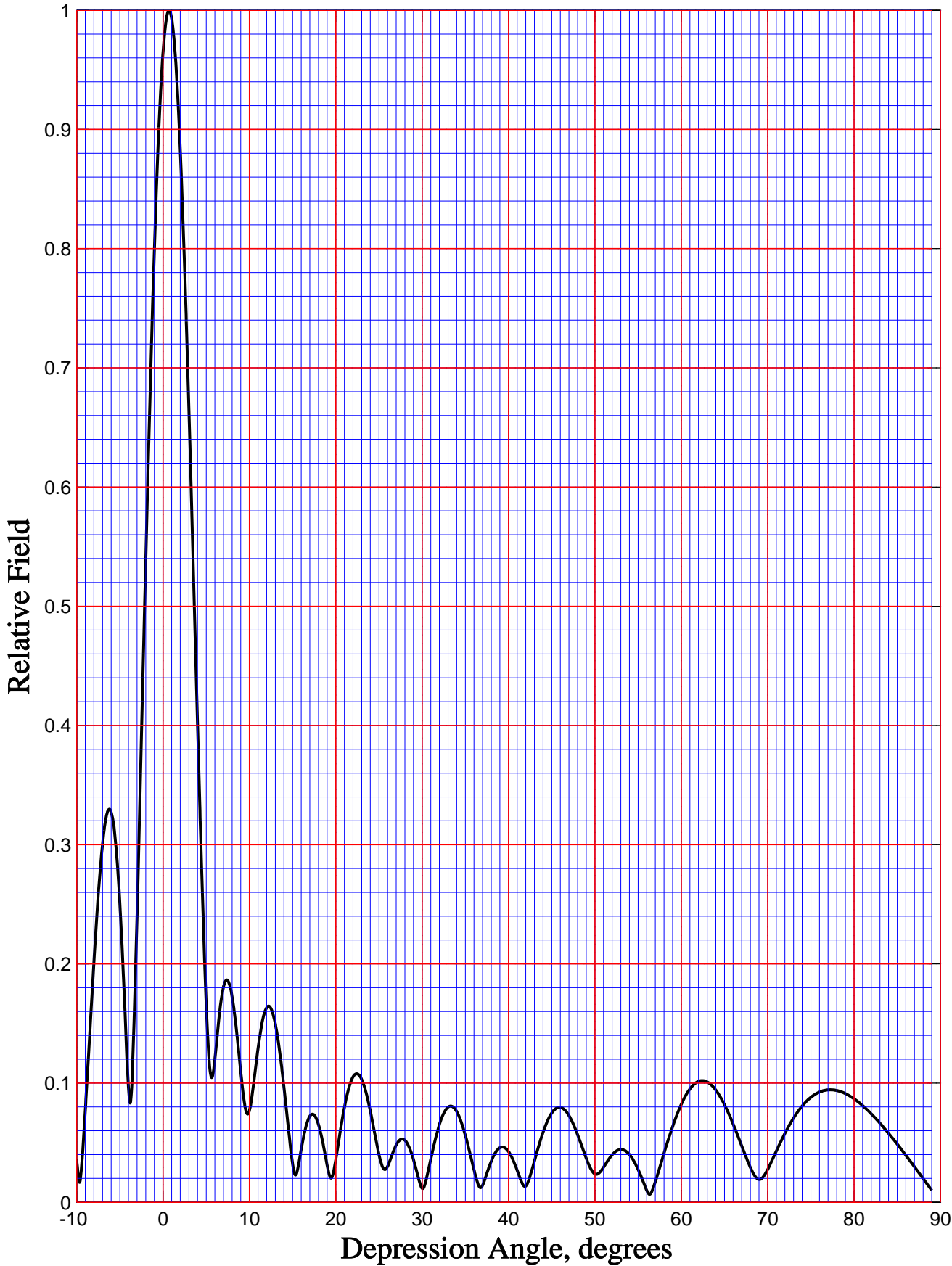
ANTENNA MODEL JA/MS-12/45-SCM

AZIMUTH PATTERN

| AZIMUTH | FIELD |
|---------|-------|
| 0 | 0.03 |
| 10 | 0.03 |
| 20 | 0.03 |
| 30 | 0.03 |
| 40 | 0.03 |
| 50 | 0.03 |
| 60 | 0.06 |
| 70 | 0.21 |
| 80 | 0.33 |
| 90 | 0.49 |
| 100 | 0.66 |
| 110 | 0.81 |
| 120 | 0.91 |
| 130 | 0.97 |
| 140 | 1.00 |
| 150 | 1.00 |
| 160 | 0.99 |
| 170 | 0.93 |
| 180 | 0.81 |
| 190 | 0.66 |
| 200 | 0.50 |
| 210 | 0.34 |
| 220 | 0.22 |
| 230 | 0.15 |
| 240 | 0.13 |
| 250 | 0.13 |
| 260 | 0.12 |
| 270 | 0.09 |
| 280 | 0.04 |
| 290 | 0.03 |
| 300 | 0.03 |
| 310 | 0.03 |
| 320 | 0.03 |
| 330 | 0.03 |
| 340 | 0.03 |
| 350 | 0.03 |



Elevation Pattern





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ANTENNA MODEL JA/MS-12/45-SCM

Elevation Pattern Tabulation for WLIG-LD, ch.45

| <u>Elevation</u> <u>angle</u> | <u>Relative</u> <u>Field</u> | <u>Elevation</u> <u>angle</u> | <u>Relative</u> <u>Field</u> | <u>Elevation</u> <u>angle</u> | <u>Relative</u> <u>Field</u> | <u>Elevation</u> <u>angle</u> | <u>Relative</u> <u>Field</u> |
|----------------------------------|---------------------------------|----------------------------------|---------------------------------|----------------------------------|---------------------------------|----------------------------------|---------------------------------|
| -10.0 | 0.036 | 15.0 | 0.0323 | 40.0 | 0.043 | 65.0 | 0.082 |
| -9.5 | 0.024 | 15.5 | 0.0251 | 40.5 | 0.036 | 65.5 | 0.074 |
| -9.0 | 0.077 | 16.0 | 0.0444 | 41.0 | 0.027 | 66.0 | 0.066 |
| -8.5 | 0.139 | 16.5 | 0.0622 | 41.5 | 0.017 | 66.5 | 0.057 |
| -8.0 | 0.202 | 17.0 | 0.0722 | 42.0 | 0.014 | 67.0 | 0.047 |
| -7.5 | 0.258 | 17.5 | 0.0731 | 42.5 | 0.022 | 67.5 | 0.038 |
| -7.0 | 0.301 | 18.0 | 0.0653 | 43.0 | 0.035 | 68.0 | 0.029 |
| -6.5 | 0.326 | 18.5 | 0.0501 | 43.5 | 0.047 | 68.5 | 0.022 |
| -6.0 | 0.328 | 19.0 | 0.0311 | 44.0 | 0.059 | 69.0 | 0.019 |
| -5.5 | 0.303 | 19.5 | 0.0204 | 44.5 | 0.068 | 69.5 | 0.021 |
| -5.0 | 0.252 | 20.0 | 0.0356 | 45.0 | 0.075 | 70.0 | 0.027 |
| -4.5 | 0.176 | 20.5 | 0.0586 | 45.5 | 0.079 | 70.5 | 0.035 |
| -4.0 | 0.096 | 21.0 | 0.0796 | 46.0 | 0.080 | 71.0 | 0.043 |
| -3.5 | 0.117 | 21.5 | 0.0956 | 46.5 | 0.078 | 71.5 | 0.051 |
| -3.0 | 0.242 | 22.0 | 0.1052 | 47.0 | 0.073 | 72.0 | 0.058 |
| -2.5 | 0.388 | 22.5 | 0.1077 | 47.5 | 0.066 | 72.5 | 0.065 |
| -2.0 | 0.537 | 23.0 | 0.1032 | 48.0 | 0.057 | 73.0 | 0.071 |
| -1.5 | 0.677 | 23.5 | 0.0923 | 48.5 | 0.047 | 73.5 | 0.076 |
| -1.0 | 0.800 | 24.0 | 0.0767 | 49.0 | 0.037 | 74.0 | 0.081 |
| -0.5 | 0.898 | 24.5 | 0.0582 | 49.5 | 0.028 | 74.5 | 0.085 |
| 0.0 | 0.965 | 25.0 | 0.0402 | 50.0 | 0.024 | 75.0 | 0.088 |
| 0.5 | 0.997 | 25.5 | 0.0285 | 50.5 | 0.025 | 75.5 | 0.091 |
| 1.0 | 0.993 | 26.0 | 0.0301 | 51.0 | 0.029 | 76.0 | 0.093 |
| 1.5 | 0.954 | 26.5 | 0.0394 | 51.5 | 0.035 | 76.5 | 0.094 |
| 2.0 | 0.883 | 27.0 | 0.0481 | 52.0 | 0.040 | 77.0 | 0.094 |
| 2.5 | 0.784 | 27.5 | 0.0526 | 52.5 | 0.043 | 77.5 | 0.094 |
| 3.0 | 0.665 | 28.0 | 0.052 | 53.0 | 0.044 | 78.0 | 0.094 |
| 3.5 | 0.534 | 28.5 | 0.0462 | 53.5 | 0.043 | 78.5 | 0.093 |
| 4.0 | 0.400 | 29.0 | 0.0359 | 54.0 | 0.040 | 79.0 | 0.091 |
| 4.5 | 0.274 | 29.5 | 0.0225 | 54.5 | 0.035 | 79.5 | 0.089 |
| 5.0 | 0.167 | 30.0 | 0.0116 | 55.0 | 0.028 | 80.0 | 0.087 |
| 5.5 | 0.108 | 30.5 | 0.0199 | 55.5 | 0.019 | 80.5 | 0.084 |
| 6.0 | 0.120 | 31.0 | 0.0362 | 56.0 | 0.010 | 81.0 | 0.081 |
| 6.5 | 0.156 | 31.5 | 0.052 | 56.5 | 0.008 | 81.5 | 0.078 |
| 7.0 | 0.181 | 32.0 | 0.0652 | 57.0 | 0.017 | 82.0 | 0.074 |
| 7.5 | 0.186 | 32.5 | 0.0747 | 57.5 | 0.029 | 82.5 | 0.070 |
| 8.0 | 0.173 | 33.0 | 0.0798 | 58.0 | 0.041 | 83.0 | 0.066 |
| 8.5 | 0.145 | 33.5 | 0.0803 | 58.5 | 0.053 | 83.5 | 0.062 |
| 9.0 | 0.109 | 34.0 | 0.0762 | 59.0 | 0.064 | 84.0 | 0.058 |
| 9.5 | 0.080 | 34.5 | 0.0679 | 59.5 | 0.074 | 84.5 | 0.053 |
| 10.0 | 0.077 | 35.0 | 0.0563 | 60.0 | 0.082 | 85.0 | 0.049 |
| 10.5 | 0.100 | 35.5 | 0.0423 | 60.5 | 0.089 | 85.5 | 0.044 |
| 11.0 | 0.129 | 36.0 | 0.0274 | 61.0 | 0.095 | 86.0 | 0.039 |
| 11.5 | 0.152 | 36.5 | 0.0148 | 61.5 | 0.099 | 86.5 | 0.035 |
| 12.0 | 0.163 | 37.0 | 0.0142 | 62.0 | 0.101 | 87.0 | 0.030 |
| 12.5 | 0.163 | 37.5 | 0.0243 | 62.5 | 0.102 | 87.5 | 0.025 |
| 13.0 | 0.150 | 38.0 | 0.0344 | 63.0 | 0.101 | 88.0 | 0.020 |
| 13.5 | 0.127 | 38.5 | 0.0418 | 63.5 | 0.098 | 88.5 | 0.015 |
| 14.0 | 0.097 | 39.0 | 0.0458 | 64.0 | 0.094 | 89.0 | 0.010 |
| 14.5 | 0.063 | 39.5 | 0.046 | 64.5 | 0.089 | 90.0 | 0.000 |