

Radio Frequency Fields Study

K280DD at Stratosphere Tower, Las Vegas, NV

The proposed “Rototiller” style, 2-bay, half-wave-spaced, ERI LP-2E-HW antenna system is to be side mounted 339.8 meters above ground level on an existing structure, specifically the lattice mast above the amusement ride “Big Shot” located atop the “Stratosphere Tower” of Las Vegas.

For this study it has been considered that the highest level (closest to the antenna) that general public has access is approximately 5 meters above the top of the ride carriages of the “Big Shot” at 325.8 meters above ground level. This level of interest is 14 meters below the proposed antenna, and at a maximum distance from the antenna center line of 4 meters.

The proposed facility was evaluated in terms of potential radio frequency exposure in the vicinity of the antenna utilizing the FCC’s FM Model program set to calculate values for a “Rototiller” type of antenna element, in an array spaced 0.5 wavelengths apart, operated with an effective radiated power of 0.250 Kilowatts in both the horizontal and vertical polarizations, as shown in Figure 2. At 2 meters above the level of interest, at 4 meters from the radiation centerline, this proposal will contribute worst case, 0.07 microwatts per square centimeter as shown in Figure 3. This value is 0.007 percent of the allowable ANSI limit for controlled exposure, and 0.04 percent of the allowable limit for uncontrolled exposure. This figure is less than 5% of the applicable FCC exposure limit at all locations extending out from the base of the tower. Section 1.1307(b)(3) excludes applications when the calculated level is predicted to be less than 5% of the applicable exposure limit. It is therefore believed that this proposal is in compliance with OET Bulletin Number 65 as required by the Federal Communications Commission.

The applicant will cooperate with other users of the tower to reduce power of the facility, or discontinue operation, as necessary to limit human exposure to levels less than specified by the Federal Communications Commission should anyone be required to climb the structure for maintenance or inspection.

Figure 1. Drawing and Image of Study Area

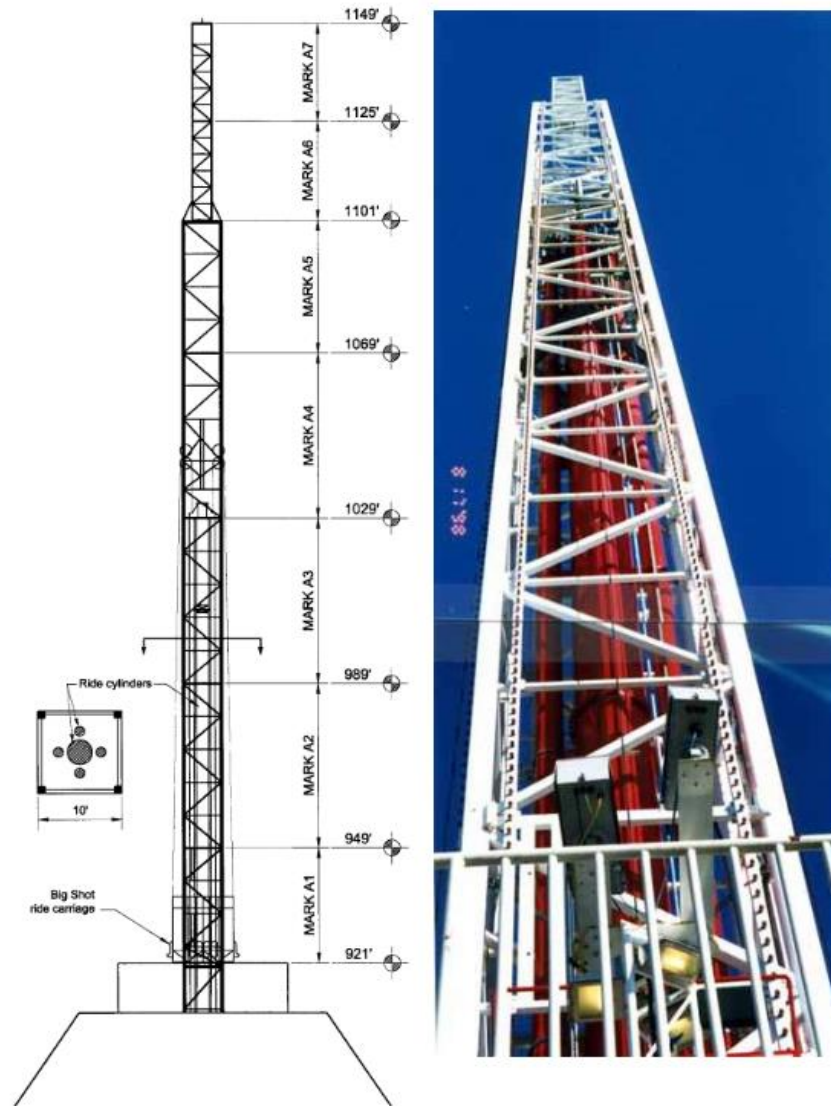


Figure 11. Schematic drawing of the “Big Shot” mast atop the Stratosphere Tower pod.

Figure 2. FM Model Graphic

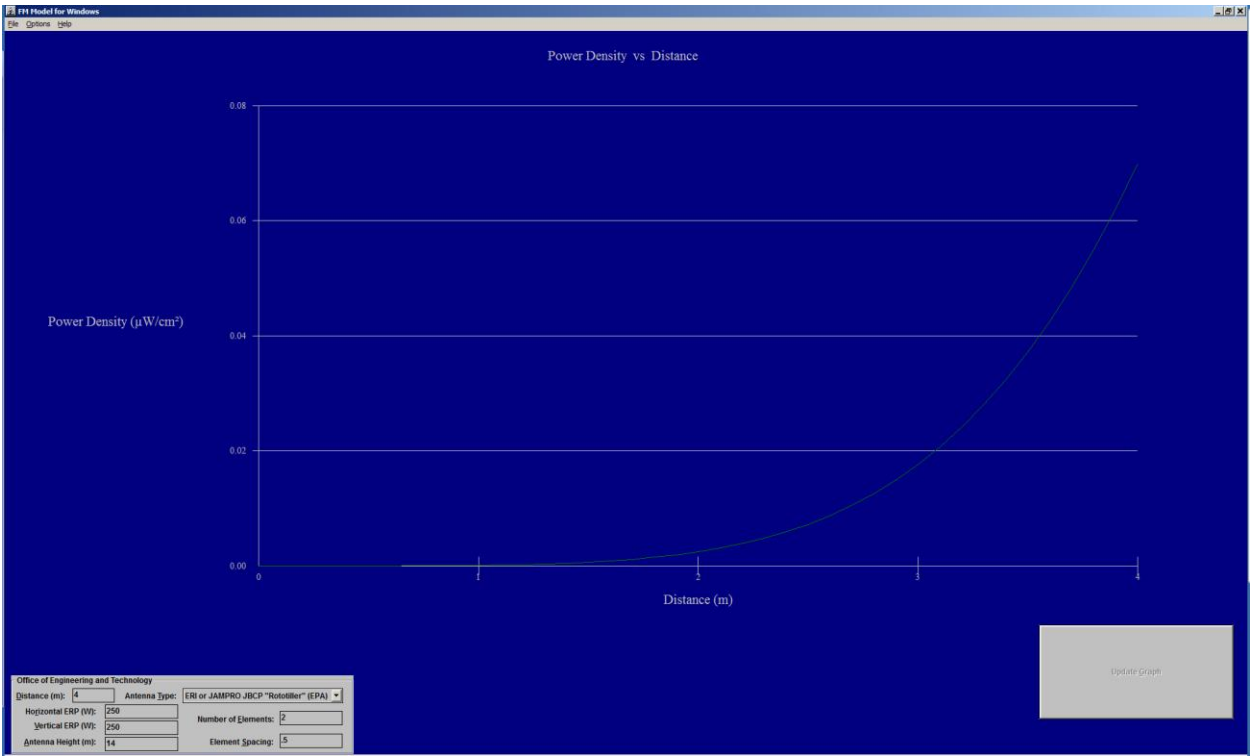
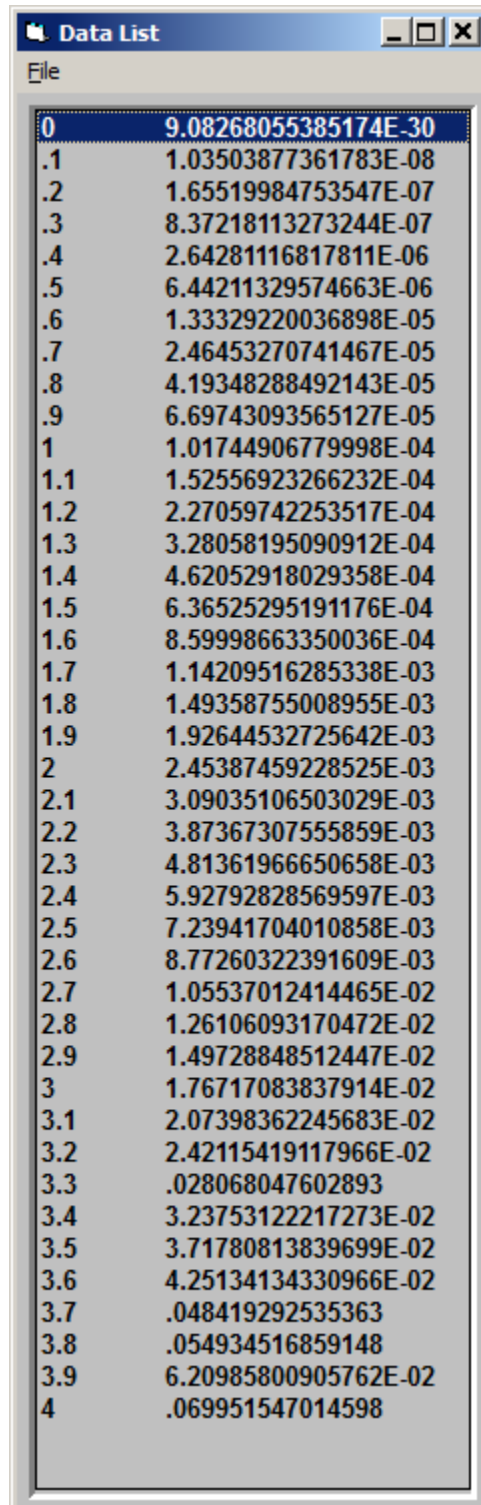


Figure 3. FM Model Tabular Output



0	9.08268055385174E-30
.1	1.03503877361783E-08
.2	1.65519984753547E-07
.3	8.37218113273244E-07
.4	2.64281116817811E-06
.5	6.44211329574663E-06
.6	1.33329220036898E-05
.7	2.46453270741467E-05
.8	4.19348288492143E-05
.9	6.69743093565127E-05
1	1.01744906779998E-04
1.1	1.52556923266232E-04
1.2	2.27059742253517E-04
1.3	3.28058195090912E-04
1.4	4.62052918029358E-04
1.5	6.36525295191176E-04
1.6	8.59998663350036E-04
1.7	1.14209516285338E-03
1.8	1.49358755008955E-03
1.9	1.92644532725642E-03
2	2.45387459228525E-03
2.1	3.09035106503029E-03
2.2	3.87367307555859E-03
2.3	4.81361966650658E-03
2.4	5.92792828569597E-03
2.5	7.23941704010858E-03
2.6	8.77260322391609E-03
2.7	1.05537012414465E-02
2.8	1.26106093170472E-02
2.9	1.49728848512447E-02
3	1.76717083837914E-02
3.1	2.07398362245683E-02
3.2	2.42115419117966E-02
3.3	.028068047602893
3.4	3.23753122217273E-02
3.5	3.71780813839699E-02
3.6	4.25134134330966E-02
3.7	.048419292535363
3.8	.054934516859148
3.9	6.20985800905762E-02
4	.069951547014598