

Poker Flat Meteor Radar RF Exposure

Radar peak power is 30kW (74.77 dBm)

We have a 4.4% duty cycle, therefore the average transmit power is 742.28 W (58.70 dBm)

Antenna gain at 10 degree elevation = -2.5dB (Figure 1)

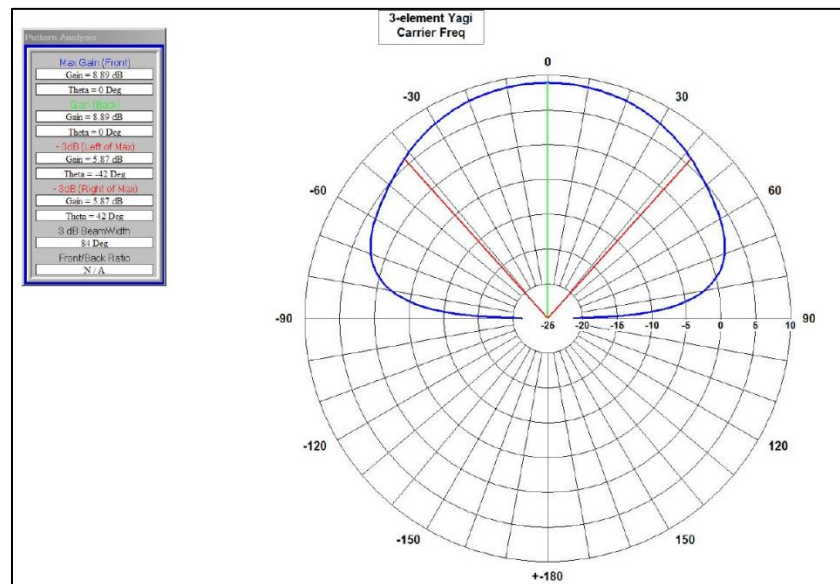


Figure 1

Therefore, the average radiated power at 10 degree elevation is 416W (56.2 dBm)

The distance R for which we have 1mW/cm² is determined by $P_T/(4 \pi R^2)$ and comes to 2.43 m.

Figure 3 shows the site plan, which includes a 40 X 40 foot fence to keep personnel away from the transmit antenna. Field strength outside the 20 foot radius of fenced area is 0.089mW/cm²

Therefore no environmental assessment is required. (See figure 2)

Federal Communications Commission

§ 1.1311

§ 1.1310 Radiofrequency radiation exposure limits.

The criteria listed in table 1 shall be used to evaluate the environmental impact of human exposure to radiofrequency (RF) radiation as specified in § 1.1307(b), except in the case of portable devices which shall be evaluated according to the provisions of § 2.1093 of this chapter. Further information on evaluating compliance with these limits can be found in the FCC's OST/OET Bulletin Number 65, "Evaluating Compliance with FCC-Specified Guidelines for Human Exposure to Radiofrequency Radiation."

NOTE TO INTRODUCTORY PARAGRAPH: These limits are generally based on recommended

exposure guidelines published by the National Council on Radiation Protection and Measurements (NCRP) in "Biological Effects and Exposure Criteria for Radiofrequency Electromagnetic Fields," NCRP Report No. 86, Sections 17.4.1, 17.4.1.1, 17.4.2 and 17.4.3. Copyright NCRP, 1986, Bethesda, Maryland 20814. In the frequency range from 100 MHz to 1500 MHz, exposure limits for field strength and power density are also generally based on guidelines recommended by the American National Standards Institute (ANSI) in Section 4.1 of "IEEE Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz," ANSI/IEEE C95.1-1992, Copyright 1992 by the Institute of Electrical and Electronics Engineers, Inc., New York, New York 10017.

TABLE 1—LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm ²)	Averaging time (minutes)
(A) Limits for Occupational/Controlled Exposures				
0.3–3.0	614	1.63	*(100)	6
3.0–30	1842/f	4.89/f	*(300/f)	6
30–300	61.4	0.163	1.0	6
300–1500			*(300)	6
1500–100,000			5	6
(B) Limits for General Population/Uncontrolled Exposure				
0.3–1.34	614	1.63	*(100)	30
1.34–30	824/f	2.19/f	*(150/f)	30
30–300	27.5	0.073	0.2	30
300–1500			*(1500)	30
1500–100,000			1.0	30

f = frequency in MHz

* = Plane-wave equivalent power density

NOTE 1 TO TABLE 1: Occupational/controlled limits apply in situations in which persons are exposed as a consequence of their employment provided those persons are fully aware of the potential for exposure and can exercise control over their exposure. Limits for occupational/controlled exposure also apply in situations when an individual is transient through a location where occupational/controlled limits apply provided he or she is made aware of the potential for exposure.

NOTE 2 TO TABLE 1: General population/uncontrolled exposures apply in situations in which the general public may be exposed, or in which persons that are exposed as a consequence of their employment may not be fully aware of the potential for exposure or can not exercise control over their exposure.

[61 FR 41016, Aug. 7, 1996]

§ 1.1311 Environmental information to be included in the environmental assessment (EA).

(a) The applicant shall submit an EA with each application that is subject to

and uses. If high intensity white lighting is proposed or utilized within a residential area, the EA must also address the impact of this lighting upon the residents.

Figure 2

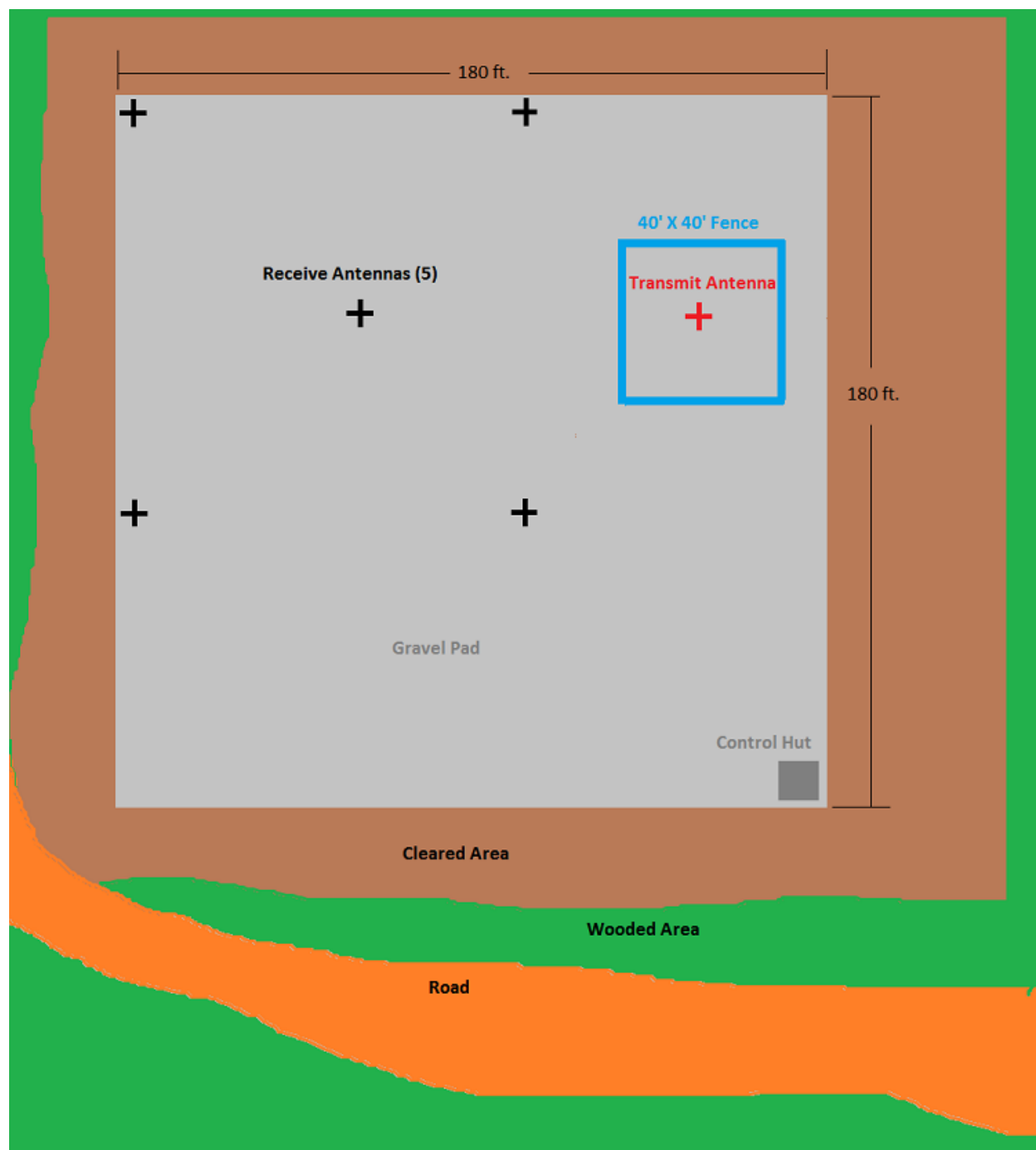


Figure 3