

KLEIN BROADCAST ENGINEERING, L.L.C.

dedicated to improving the science and technology of radio & television communications

JUNE 2010

**FCC FORM 349 APPLICATION
FOR MODIFICATION OF
FM BROADCAST TRANSLATOR STATION
(A MINOR CHANGE for FILL-IN TRANSLATOR STATION)**

**MAGIC BROADCASTING, II
W225AG
FCC FACILITY ID# 141653
FM CHANNEL 227 / 93.3mHz.
PANAMA CITY, FLORIDA**

INTRODUCTION and ENGINEERING STATEMENT

The engineering portion of this application was prepared by the firm of Klein Broadcast Engineering, L.L.C., in support of an application filed by Magic Broadcasting,II, for an FM Translator Station Construction Permit to serve the Community of Panama City, Florida. The information supplied herein is for the modification of FM Translator Station W225AG. The application proposes a minor change for a “Fill-In” FM Translator.

The Proposed modification for FM Translator Station W225AG is for operation with its new parent station AM Broadcast Station WPCF at Panama City, Florida, on 1290kHz., FCC Facility ID# 13012.

INTRODUCTION and ENGINEERING STATEMENT cont'd page two: W225AG

The proposed “fill-In” translator station will serve the Community of Panama City, Florida. The facility proposed will use an Electronics Research, Inc. (ERI) model, LP-1E-DA, a single element, circularly polarized FM directional antenna.

The maximum Effective Radiated Power (ERP) will be 0.250kW. The center of radiation (COR) for the proposed antenna will be 65 meters AGL, on an existing tower structure. The ground level at the site is 4.9 meters AMSL.

The antenna location is proposed at NL:30-10-44 / WL:85-46-55 (NAD-27)

The equipment to be used will be type accepted by the Commission.

Overall Antenna Support Structure Height Above Ground	132.9	meters
Elevation of Site Above Mean Sea Level	4.9	meters
Height of Antenna Radiation Center AMSL	69.9	meters
Height of Antenna Radiation Center AGL	65.0	meters
Major Lobe Direction	120	degrees True

Antenna Support Registration Number (ASR#) 1027323

The applicant proposes to change the facility location to the above listed geographic Coordinates, which is the site of WPCF(AM). It is proposed to increase the maximum E.R.P. to 0.250kW Horizontal & Vertical Polarization. The applicant proposes to use a directional antenna to reduce the E.R.P. between 270 degrees true and 330 degrees true. The applicant proposes to change frequency to FM Channel 227 / 93.3mHz. and change the primary station to WPCF(AM). The applicant also proposes to change the FM Translator Type to “Fill-In” Service.

INTRODUCTION and ENGINEERING STATEMENT cont'd page three: W225AG

The proposed facility is not located in an international border zone. The applicant has filed a transfer of control application for FM Translator Station W225AG and has also filed a transfer of control application for AM Standard Broadcast Station WPCF. The applicant will own both the primary station and the translator station when the Commission grant the pending transfer applications.

The proposed changes are “minor” since the coverage contour (60dBu f(50,50) of the presently licensed facility overlaps the coverage contour (60dBu f(50,50) of the proposed facility. The proposed change in frequency is to the second adjacent channel above the presently licensed channel. This application was prepared using FCC 30-arc second

Engineering Exhibit E-1 is a contour map showing the existing and proposed 60dBu contours overlap each other.

Engineering Exhibit E-2 is an contour analysis of the proposed facility with the 2.0mV/M Daytime Contour of the Primary Station WPCF and a circle showing a 25 mile radius from the proposed site. The proposed 60dBu contour of the modified translator station is wholly contained with the WPCF 2.0mV/M Daytime Contour.

Engineering Exhibit E-3 is a polar plot and tabulation of the proposed directional antenna pattern.

Engineering Exhibit E-4 is a Table of Authorizations Requiring Protection from the facility proposed herein for FM Translator Station W225AG.

INTRODUCTION and ENGINEERING STATEMENT cont'd page four: W225AG

Engineering Exhibit E-5 is a contour map showing compliance with the contour protection requirements of 47 C.F.R. Section 74.1204 with respect to the authorizations listed in Engineering Exhibit E-4.

FAA NOTIFICATION

The proposed FM Translator Station antenna is proposed to be mounted on an existing tower. Notification to the FAA was not made.

ENVIRONMENTAL STATEMENT

The proposed facility for the W225AG FM Translator Station, proposes its antenna mounted on an existing antenna support structure. The applicant will cooperate with other users of the site with regard to the cessation of operation or the reduction of operating power, whatever is necessary to comply with the Commission's Rules, Regulations and Guidelines on Human Exposure to Non-Ionizing RF Radiation. Details of actual compliance with the Commission's RFR Guidelines may be found in Exhibit E-10RHS. Engineering Exhibit E-10RHS is a detailed study of the proposed FM translator station facility with regard to its contribution to RFR levels on the proposed site.

INTRODUCTION and ENGINEERING STATEMENT cont'd page five: W225AG

The applicant, Magic Broadcasting, II, requests the Commission consider this instant application for the facility proposed herein and respectfully requests the Commission grant the instant application for the requested minor change modified facility for FM Translator Station W225AG.

Respectfully submitted,

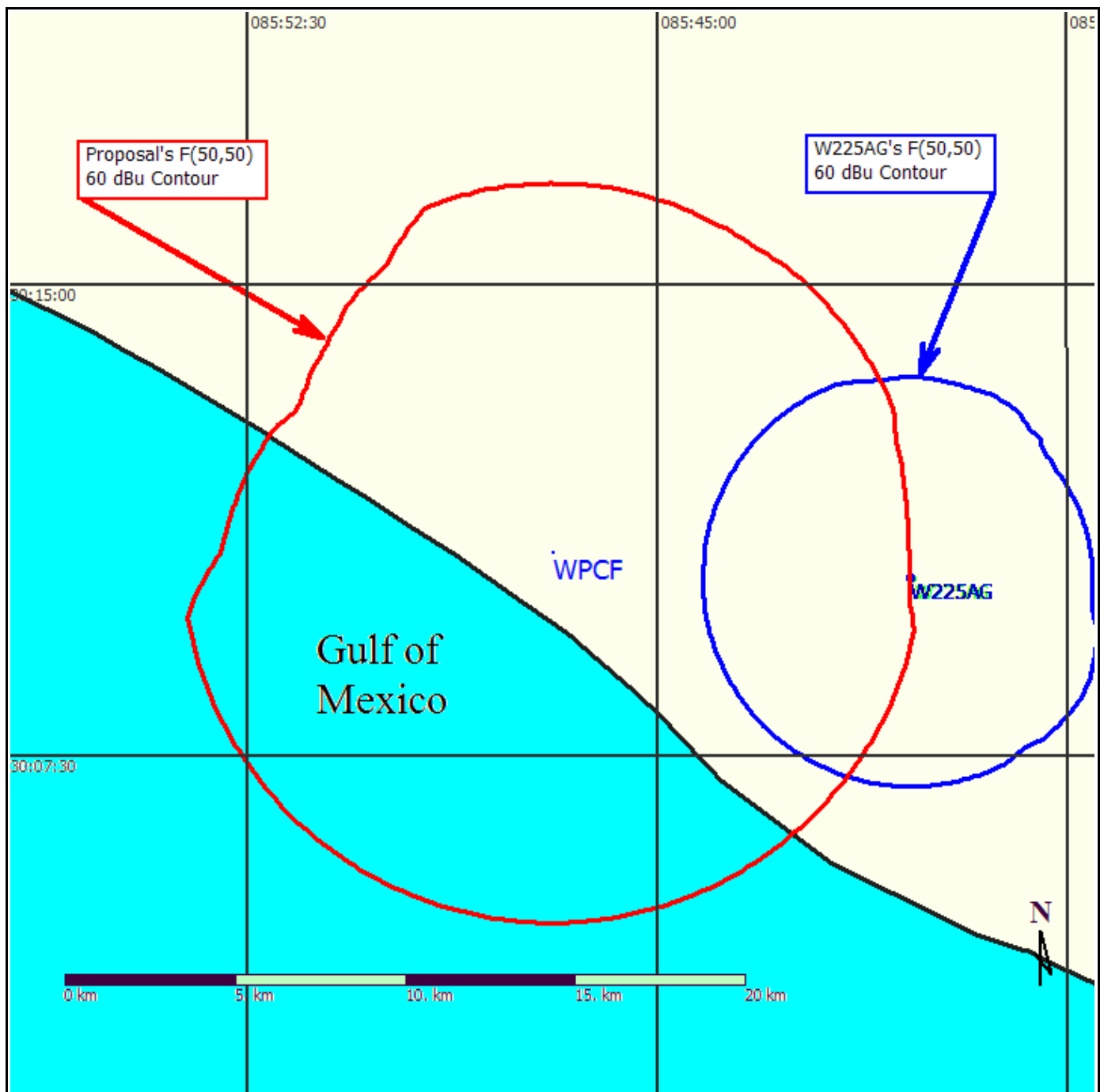
Elliott Kurt Klein, Consulting Broadcast Engineer

For:

Magic Broadcasting, II

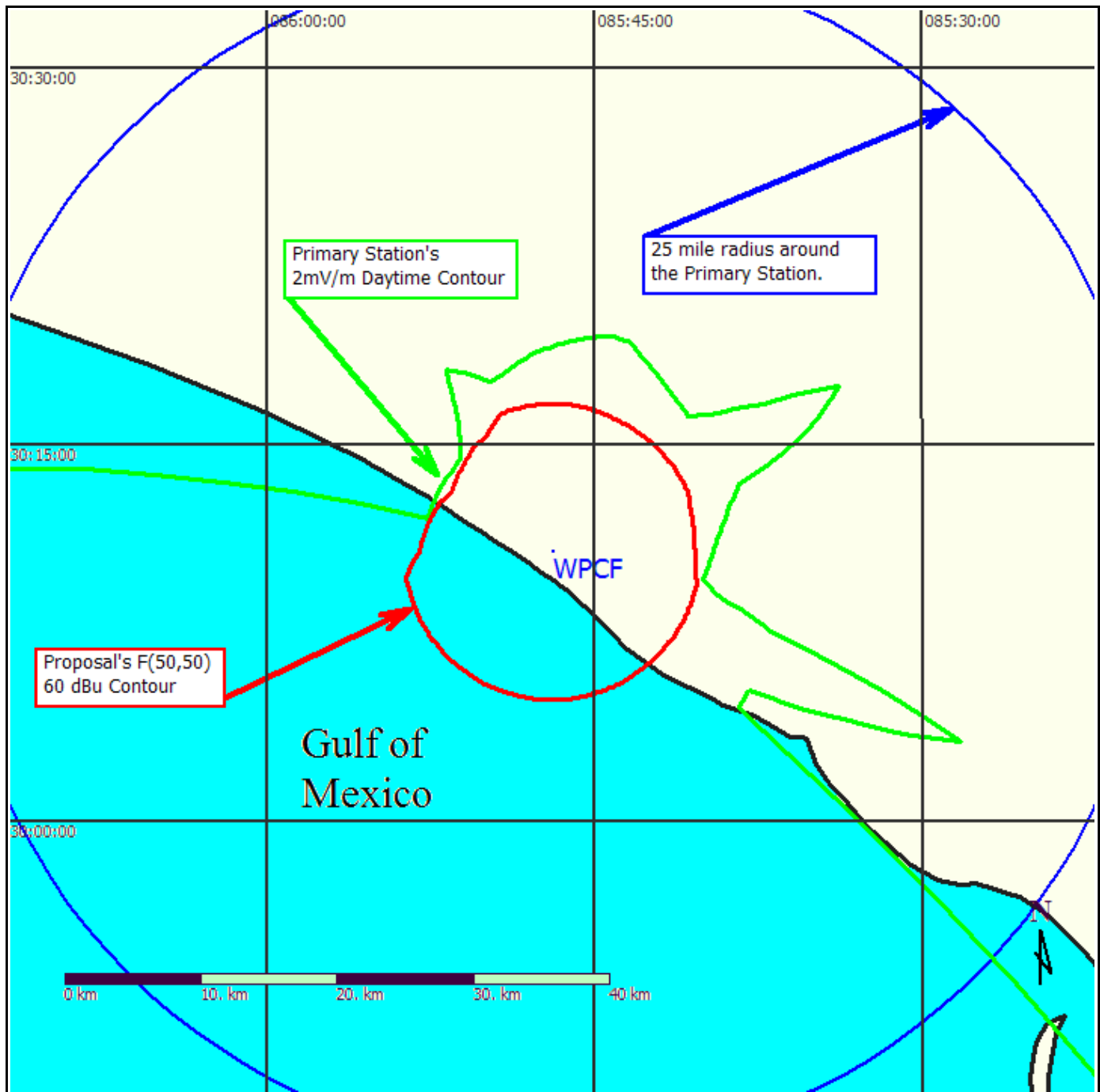
10 June 2010

EXHIBIT E-1 Existing & Proposed 60dBu f(50,50) Contour Analysis W225AG



The coverage contour of the licensed facility overlaps the coverage contour of the proposed facility.

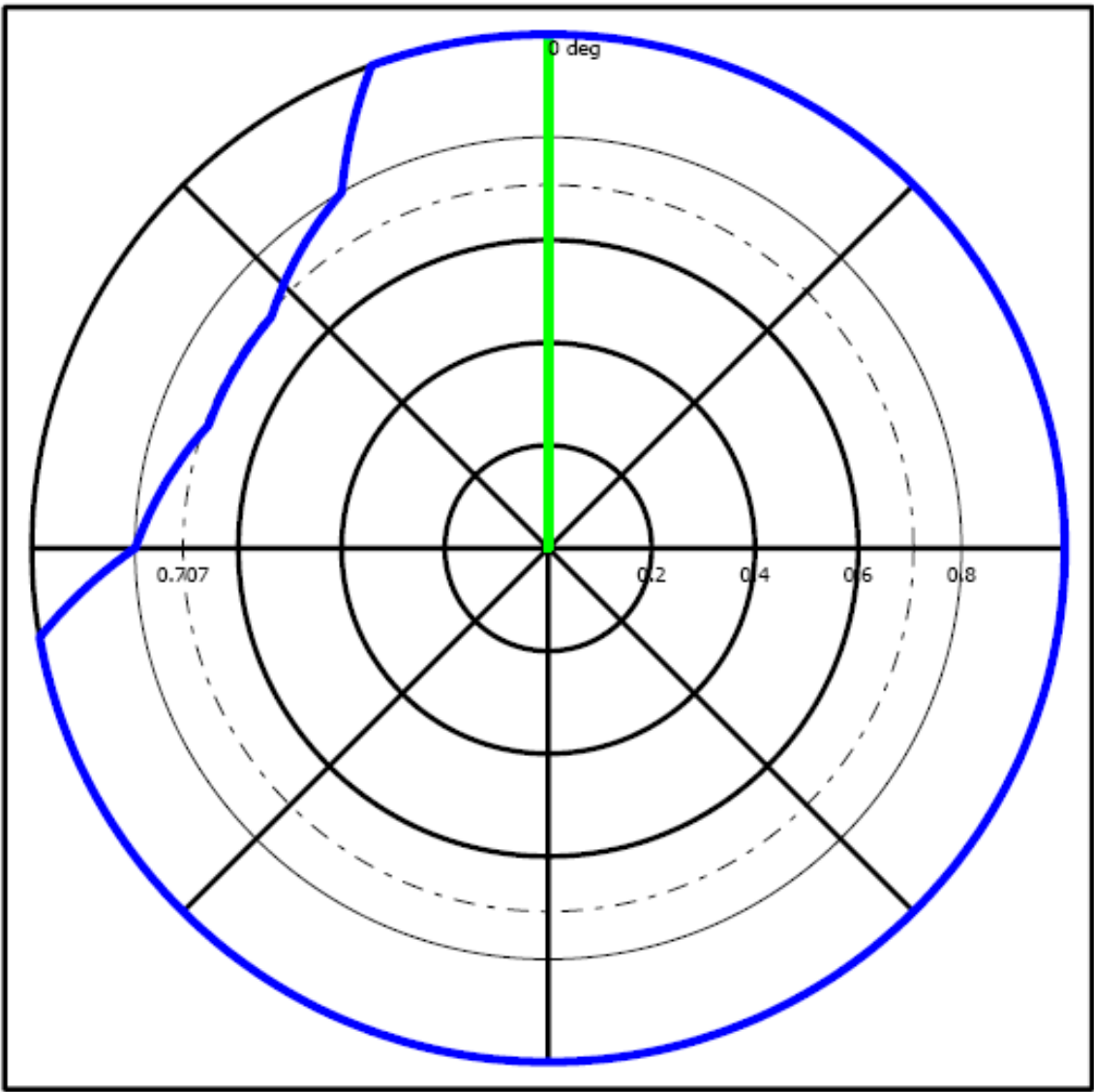
EXHIBIT E-2 60dBu Contour Proposed for W225AG with WPCF Daytime 2.0mV/M



The FM Translator's coverage contour does not extend beyond:

- The 2 mV/m daytime contour of the AM primary station to be rebroadcast or
- A 25-mile radius centered at the AM primary station's transmitter site.

EXHIBIT E-3 W225AG Proposed Directional Antenna Pattern Plot & Tabulation

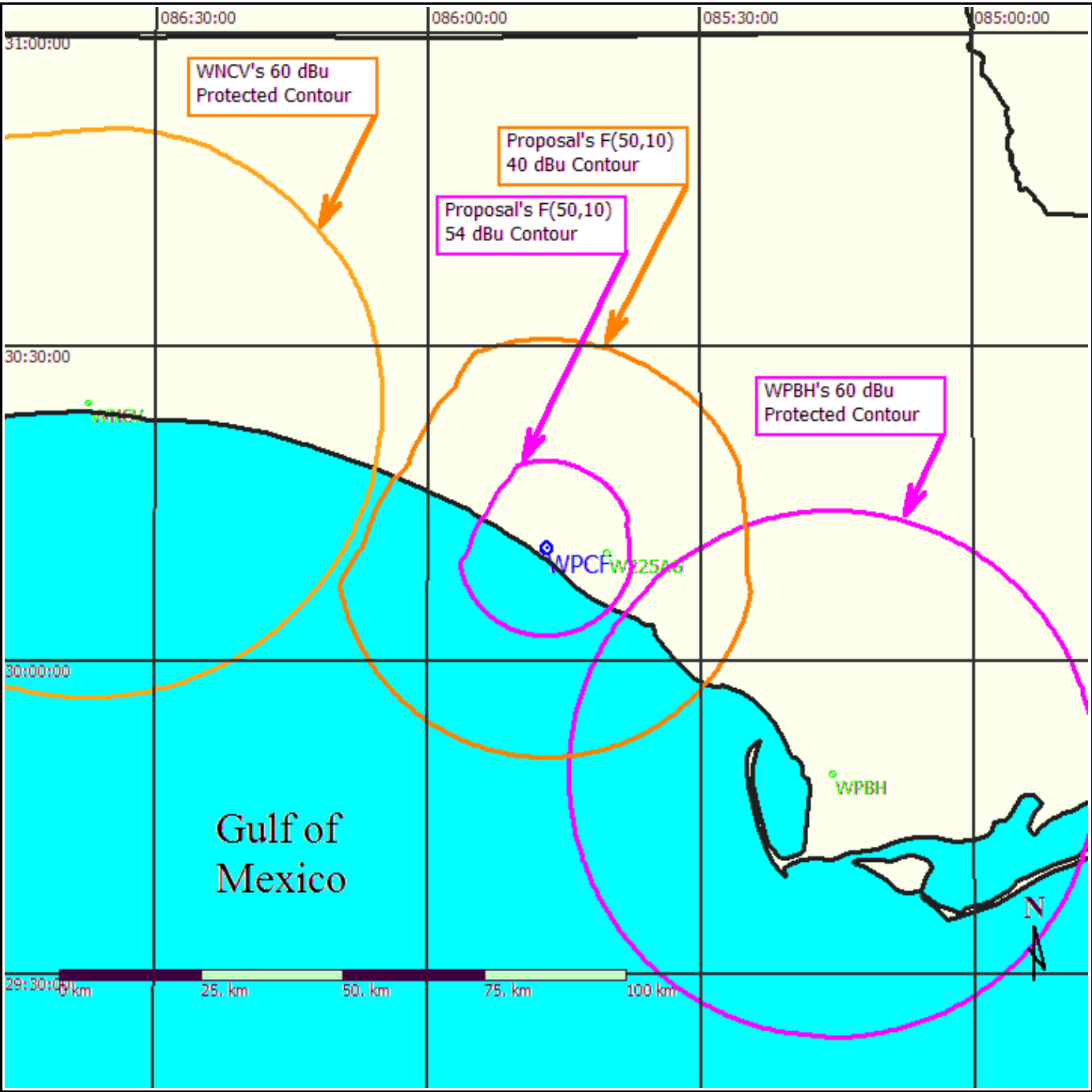


Degree	Field	Degree	Field	Degree	Field	Degree	Field	Degree	Field	Degree	Field
000	1.000	060	1.000	120	1.000	180	1.000	240	1.000	300	0.700
010	1.000	070	1.000	130	1.000	190	1.000	250	1.000	310	0.700
020	1.000	080	1.000	140	1.000	200	1.000	260	1.000	320	0.750
030	1.000	090	1.000	150	1.000	210	1.000	270	0.800	330	0.800
040	1.000	100	1.000	160	1.000	220	1.000	280	0.750	340	1.000
050	1.000	110	1.000	170	1.000	230	1.000	290	0.700	350	1.000

EXHIBIT E-4
AUTHORIZATIONS REQUIRING PROTECTION

ID	City	St	Chan	CL	Stat	Prefix	ARN	Dist
WNCV	SHALIMAR	FL	227	C2	LIC	BLH	20060802AYR	84.87
WPBH	PORT ST. JOE	FL	228	C2	LIC	BLH	19940613KM	64.28

EXHIBIT E-5 INTERFERING & PROTECTED CONTOUR ANALYSIS for W225AG



Contours are color coded so that the overlap of LIKE COLORED lines indicates prohibited overlap.

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EXHIBIT E-10RHS FCC FORM 349 APPLICATION FOR MODIFICATION of FM TRANSLATOR STATION

W225AG
(FCC Facility ID# 141653)
MAGIC BROADCASTING, II
FM CHANNEL 227 / 93.3 MHz.
PANAMA CITY , FLORIDA

RF RADIATION HAZARD COMPLIANCE STATEMENT

The facilities proposed herein by the applicant, permittee or licensee, in this Engineering Exhibit comply with FCC O.S.T. Bulletin #65 and #65A as revised (1997) and the ANSI C-95.1-1982 RF and ANSI C95.1992 and the NCRP exposure guidelines. The interpolation of the figures from the above referenced document, page 18, supplement "A", shows a WORST case requirement of 18.2 meters height above ground level requirement for the radiation center of the proposed single element crossed ring type FM broadcast antenna. A total horizontal and vertical effective radiated power of 0.5 kilowatts was used for this study and determination. The radiation center of the FM broadcast antenna system is proposed to be at 65 meters above ground level (AGL), well within the requirement for the antenna as determined from the above referenced documents. The antenna specified for use is an ERI LP-1E-DA Circularly Polarized Directional Antenna.

Occupational compliance is certified by the reduction of operating power or the complete cessation of operation during such time maintenance personnel are on the antenna support structure. A transmitter "LOCK OUT" circuit has been installed to prevent accidental turn on of the transmission equipment during the time maintenance personnel are on the antenna support structure. The applicant, permittee or licensee will cooperate with other site users in order to comply with The FCC Guidelines on Human Exposure to Non-Ionizing RF Radiation.

In addition to the preceding the applicant, permittee or licensee, has by computer program, performed additional calculations to predict RF power density at the base of the antenna support structure. This program predicts a maximum power density of 0.9365 MICROWatts/cm² at a distance of 63 meters from the base of the antenna support structure at a height of 2.0 meters above ground level. This is less than one tenth of one percent (0.1%) of the allowable RF power density for uncontrolled areas under the FCC and ANSI/EPA Guidelines, being limited to: 1.00mW/cm² for controlled areas and 200.0 microwatts/cm² for uncontrolled areas. All other power density was calculated to be below this maximum predicted level for a distance of 0 to 1000 meters distance from the base of the antenna support structure at 2.0 meters above ground level.

The computer program employed for the RFR analysis in this engineering exhibit uses either the Near Field or Far Field method for the calculation of power density and was written by the Commission's O.E.T. staff. In this particular case the Far Field Method was used. The formula used by the computer program was derived from the FCC O.S.T. Bulletin #65, as revised to date.

The formula may be stated in the following manner:

$$E(V/m) = 1.6 * 221.72 * \text{SQRT}(\text{ERP}) * (\text{element pattern factor}) * (\text{array factor}) / \text{DIST}$$

$$H(A/m) = 1.6 * 0.588 * \text{SQRT}(\text{ERP}) * (\text{element pattern factor}) * (\text{array factor}) / \text{DIST}$$

Where:

ERP = effective radiated power in kilowatts, relative to a half wave dipole.

DIST = distance in meters from the antenna radiation center to the observation point in meters.

The 1.6 factor found in the ANSI/EPA formula and used above at the beginning of each equation takes into account possible contributions from ground reflections. The element pattern factor in a linearly interpolated relative field value at the appropriate depression angle below the horizon as taken directly from the EPA data. The array factor is computed at the appropriate depression angle using the number of antenna elements, when normalized to 1.0 in the main lobe. This array factor only applies to antenna arrays of point sources where each source has equal power distribution and phase, and are uniformly spaced. The element patterns themselves can be associated with particular antenna designs. As of May 1986 there were six (6) element types identified for FM antennas as listed in the ANSI/EPA data and FCC Bulletin #65. The EPA Type 3 crossed ring element is used on the ERI LP-1E-DA Antenna Type 3 is listed in the EPA data and was used for the calculations contained herein. There were two types listed for television, one for VHF and one for UHF.

There are several other sources of RFR at the site. However, since the contribution from the facility proposed herein is considerably less than one percent of the allowable maximum uncontrolled power density no further analysis is required under the "Safe Harbor" provision of 47 C.F.R. Section 1.1307(b)(3).

ENGINEERING EXHIBIT E-10RHS cont'd page three: W225AG

The General Public will not have access to the site because the site wholly encompassed by fence and a locked gate. The only access to the site is by the locked gate. Only authorized personnel have access to the locked gate. This will prevent General Public access to the actual site. There is no RFR level on the site that exceeds the General Public Uncontrolled Exposure Limit of 200.0 microwatts/cm².

The applicant, permittee or licensee, will install and post RF Radiation Hazard Warning Signs in and around the site at approximately eye level for additional warning and safety.

Exhibit E-10 Figure 1. is a plot of the elevation pattern for the proposed antenna.

Exhibit E-10 Figure 2. is a plot of the RFR level expected to be produced by the facility proposed herein. This plot was generated using FM Model V2.10b available from the FCC O.E.T.

The preceding assures compliance with the FCC, ANSI and NCRP requirements. Based on the preceding documents, tables, guidelines and calculations, the proposed operation of the main transmission facility for the proposed W225AG FM Translator Station proposed at Panama City, Florida, is in compliance with the FCC O.S.T. Bulletin #65 and the ANSI C-95.1-1992 and the NCRP RF Exposure Guidelines as amended to date. The applicant, permittee or licensee certifies compliance with the ANSI, NCRP and FCC Human Exposure Guidelines to Non-Ionizing RF Radiation.



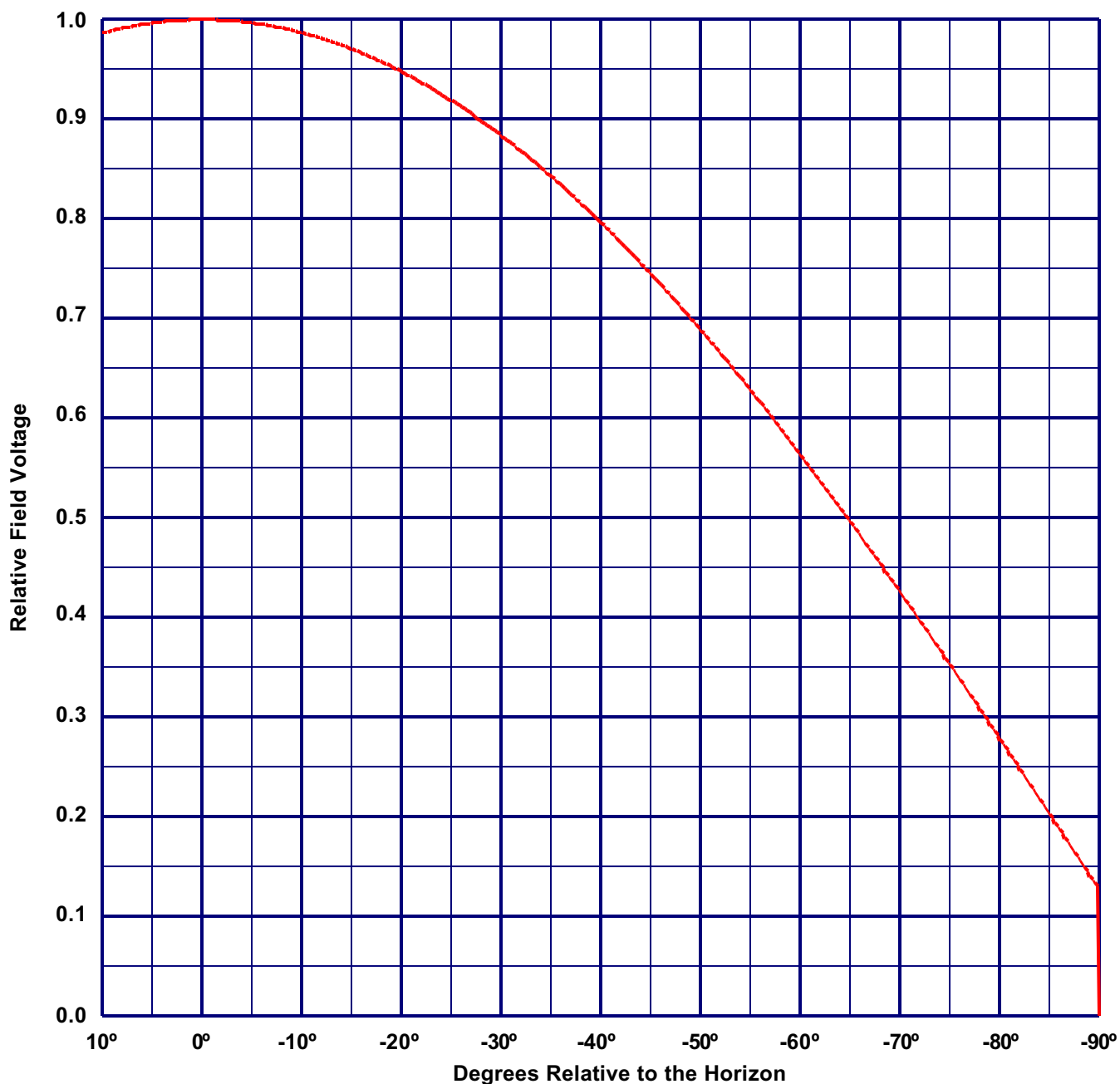
EXHIBIT E-10 FIGURE #1.

Vertical Plane Relative Field Pattern

ERI TYPE SHP, SHPX, MP, MPX, LP OR LPX ELEMENT

A 1 level, 1 wave-length spaced antenna

with a HIV maximum power ratio of 1.000



Vertical Polarization Gain:

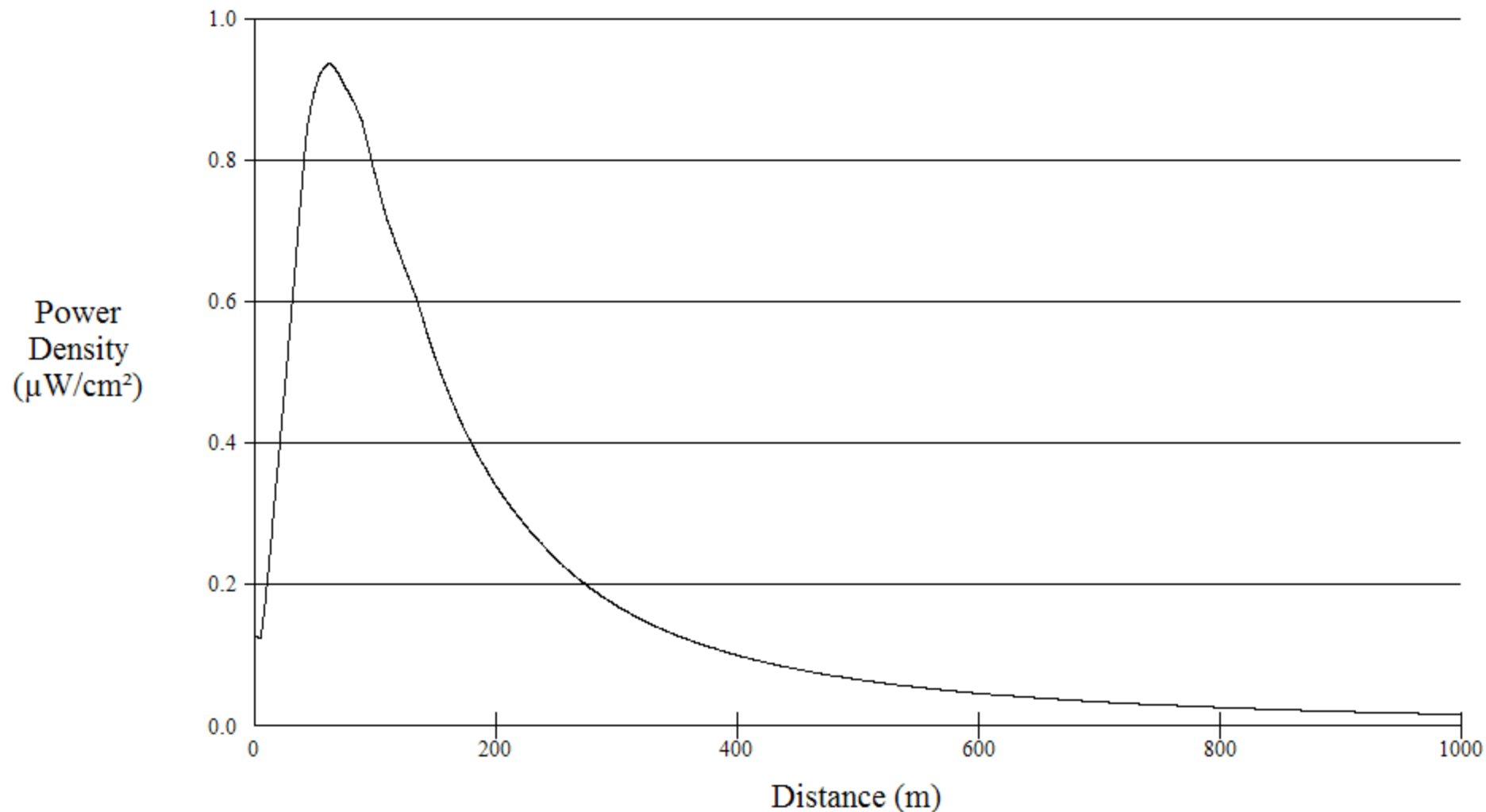
To Be Determined

Horizontal Polarization Gain:

To Be Determined

Power Density vs Distance

EXHIBIT E-10 FIGURE #2.



Office of Engineering and Technology

Distance (m): Antenna Type:

Horizontal ERP (W): Number of Elements:

Vertical ERP (W): Element Spacing:

Antenna Height (m):

Maximum RFR Power Density = 0.9365uW/cm2 at a distance of 63 meters from the base of the antenna support structure, 2 meters above ground level.

Antenna Manufacturer & Model: Electronics Research, Inc. (ERI) LP-1E-DA, a single element, circular polarized FM directional antenna.