

APPLICATION FOR MINOR
MODIFICATION TO A LICENSED DTV
BROADCAST STATION
FCC FILE NO.: BLEDT-20030303AAP
TO MAXIMIZE AND OPERATE IN THE POST
DTV TRANSITION PERIOD - WFSG-DT
FLORIDA STATE UNIVERSITY
PANAMA CITY, FLORIDA

KESSLER & GEHMAN ASSOCIATES, INC.
TELECOMMUNICATIONS CONSULTING ENGINEERS

20080620

Prepared by Ryan Wilhour

KGGA

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KESSLER AND GEHMAN ASSOCIATES, INC.

ENGINEERING STATEMENT OF RYAN WILHOUR OF THE FIRM KESSLER AND
GEHMAN ASSOCIATES, INC., CONSULTING ENGINEERS IN CONNECTION WITH
AN APPLICATION FOR MINOR MODIFICATION OF A PERMITTED DTV
BROADCAST STATION FCC FILE NUMBER BLEDT-20030303AAP TO MAXIMIZE
OPERATION IN THE POST DTV TRANSITION PERIOD
WFSG-DT
FLORIDA STATE UNIVERSITY
PANAMA CITY, FLORIDA

This firm has been employed by Florida State University “FSU” to prepare engineering studies and a minor modification application to FCC file number BLEDT-20030303AAP for post DTV transition maximization.

FSU, licensee of WFSG-DT, Channel 38 herein proposes to increase its ERP from 49.2 kW to 158 kW for its post DTV transition operation. It is also proposed to correct the antenna height above average terrain from 137m to 133m although NO PHYSICAL ELEVATION CHANGE WILL BE MADE. No other changes are proposed.

ATTACHED FIGURES

In carrying out the engineering studies the following attached figures were prepared:

1. Engineering Specifications (Exhibit E1)
2. Elevation drawing of the antenna system (Exhibit E2)
3. Antenna Elevation Pattern (Exhibit E3)
4. USGS 7.5 minute topographic quadrangle showing the proposed transmitter location and the coordinate lines (Exhibit E4)
5. Map showing the predicted DTV coverage contour (Exhibit E5)
6. Allocation Analysis (Exhibit E6)
7. Environmental Impact/ RFR Hazard Analysis (Exhibit E7)

ALLOCATION ANALYSIS

It is herein proposed to modify the above referenced channel 38 digital facility to maximize its coverage area without causing impermissible interference to other post DTV transition facilities. Exhibit E6 demonstrates the interference considerations for the proposed facility and further illustrates complete compliance to the 0.5% interference threshold criteria. The proposed facility is not short spaced with any other facility and thus no entities are culled in Exhibit E6 for interference analysis.

ENVIRONMENTAL IMPACT/RFR HAZARD ANALYSIS

An analysis has been made of the human exposure to RFR using the calculation methodology described in OET Bulletin 65, Edition, 97-01. Exhibit E7 is a RFR study demonstrating compliance within 5% of the most restrictive permissible exposure at any location 2 meters above the ground. Exhibit E7 calculations were made using a frequency of 614 MHz, which is the lower edge of the proposed channel. To account for ground reflections, a coefficient of 1.6 was included in the calculations.

Pursuant to OET Bulletin 65 concerning multiple-user transmitter sites only those licensees whose transmitters produce power density levels greater than 5.0% of the exposure limit are considered significant contributors to RFR. Since the proposed operation is well within 5% of the most permissible exposure at any location 2 meters above the ground, it is not considered a significant contributor to RFR exposure. Thus, contributions to exposure from other RF sources in the vicinity of WFSG-DT were not taken into account. The instant proposal complies with the FCC limits for human exposure to RF radiation and thus is excluded from further environmental processing.

DECLARATION OF ENGINEER

The foregoing statement and the report regarding the aforementioned engineering work are true and correct to the best of my knowledge. Executed on June 20, 2008.

The logo for Kessler and Gehman Associates, Inc. (KGA) features the letters 'KGA' in a stylized, serif font. The letters are white and are superimposed on a thick, horizontal grey bar that extends across the width of the logo.

Ryan Wilhour

A handwritten signature in blue ink that reads 'Ryan Wilhour'. The signature is written in a cursive, flowing style.

Consulting Engineer

WFSG-DT

PANAMA CITY, FLORIDA

ENGINEERING SPECIFICATIONS

- A. Transmitter Site (NAD 27)
- | | |
|----------------|----------------|
| North Latitude | 30 ° 22 ' 02 " |
| West Longitude | 85 ° 55 ' 28 " |
- Street Address or Location
- Steelfield Road; 5.2 Miles Nw
West Bay, FL
- B. Proposed Facility
- | | | |
|-------------|-----------|-------------|
| DTV Channel | Number | 38 |
| | Frequency | 614-620 MHz |
- C. Elevations
- | | |
|---|---------|
| Height of Site Above Mean Sea Level (AMSL) | 20.0 m |
| Overall Height of Structure Above Ground (including all appurtenances) | 148.9 m |
| Overall Height of Structure Above Mean Sea Level (including all appurtenances) | 168.9 m |
| Effective Height of Antenna Above Ground | 124.0 m |
| Effective Height of Antenna Above Average Terrain | 132.7 m |
| Effective Height of Antenna Above Mean Sea Level | 144.0 m |
- D. Antenna Parameters – Horizontal Polarization
- | | |
|--------------------------------------|-----------|
| Maximum Antenna Gain in Beam Maximum | 13.62 dB |
| Maximum Effective Radiated Power | 21.99 dBk |
| In Beam Maximum | 158.0 kW |

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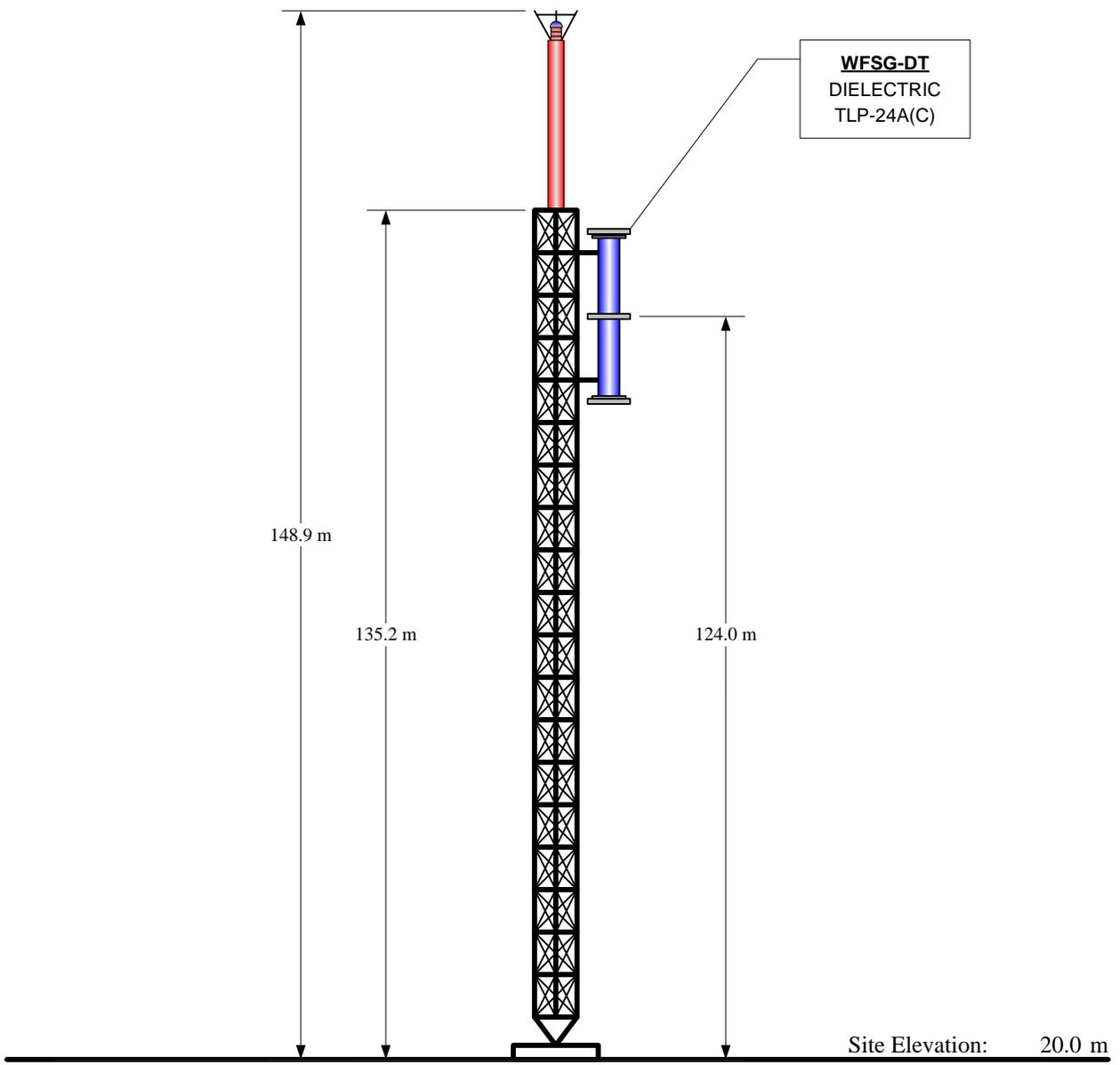
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EXHIBIT E1



| | |
|------------------------|---------|
| Overall Height AGL: | 148.9 m |
| Overall Height AMSL: | 168.9 m |
| Radiation Center AGL: | 124.0 m |
| Radiation Center AMSL: | 144.0 m |
| Radiation Center HAAT: | 132.7 m |
| Average Terrain: | 11.3 m |

NAD 27 Coordinates:

N. Latitude: 30° 22' 02"

W. Longitude: 85° 55' 28"

FCC Tower Registration Number: 1038765

FAA Aeronautical Study Number: 97-ASO-2299-OE

NOTE: NOT TO SCALE

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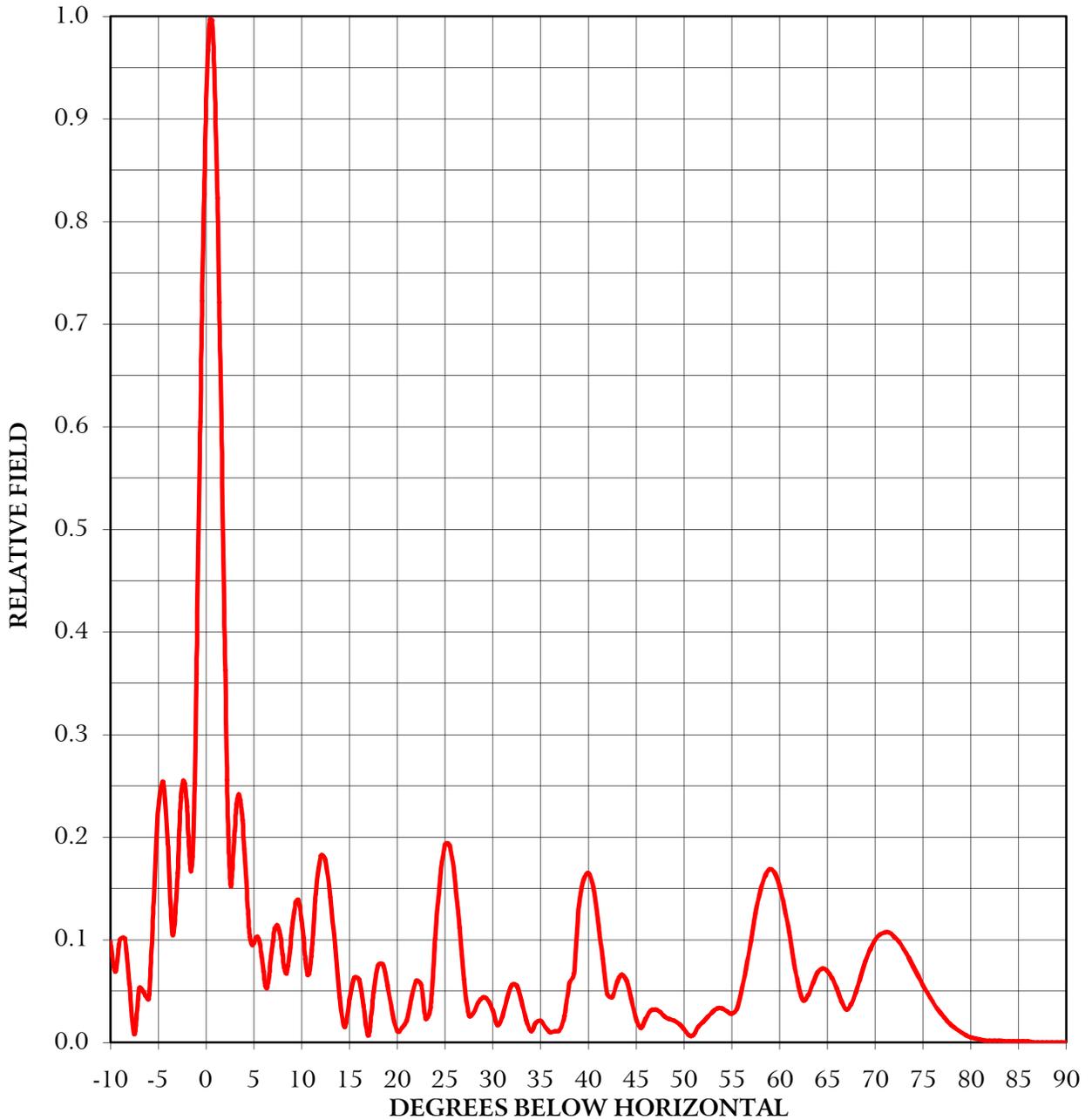
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EXHIBIT E2

ELEVATION PATTERN

DIELECTRIC MODEL TLP-24A(C)

| | |
|-----------------------|------------|
| ELECTRICAL BEAM TILT: | 0.50° |
| MECHANICAL BEAM TILT: | N/A |
| FREQUENCY: | 617.00 MHz |



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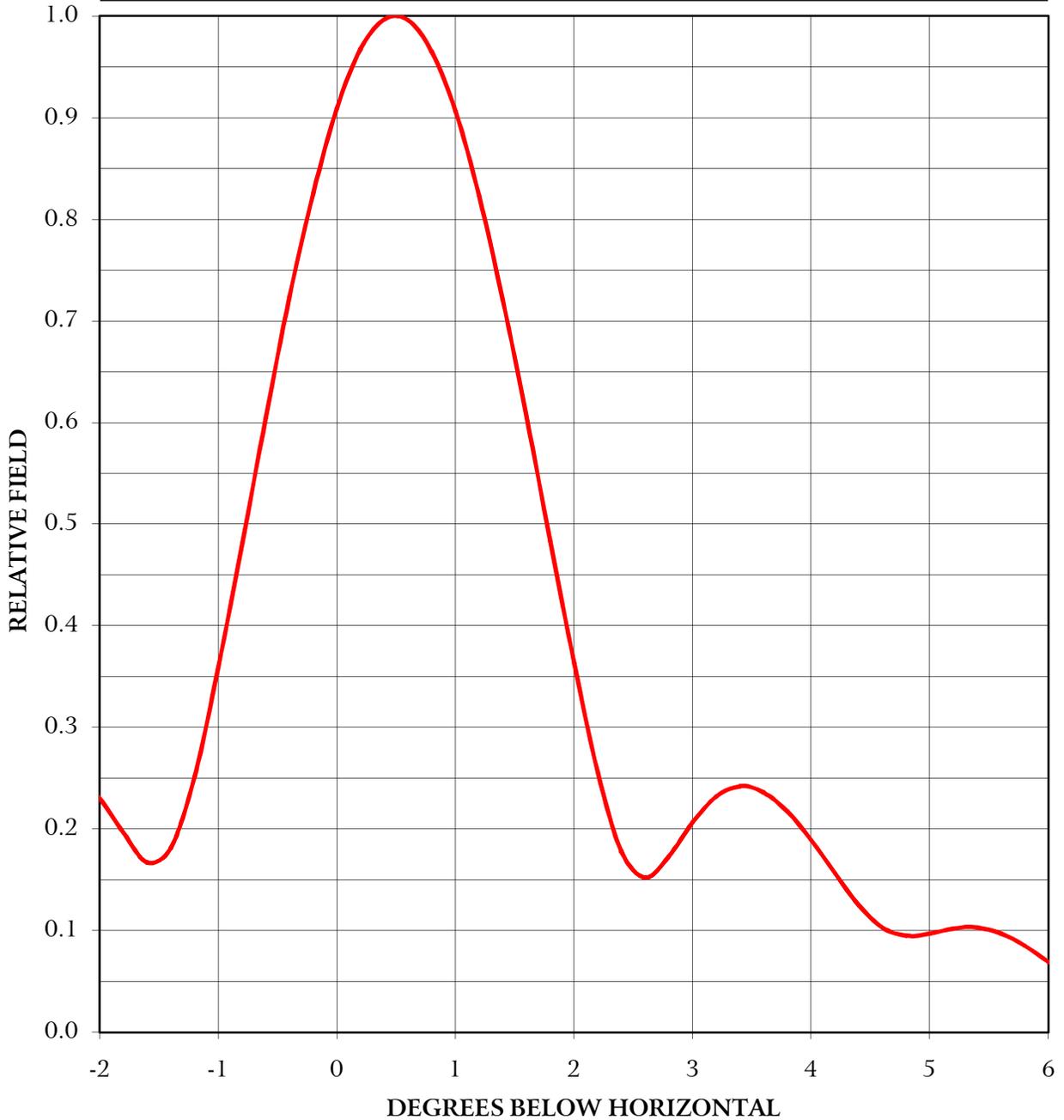
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EXHIBIT E3A

ELEVATION PATTERN

DIELECTRIC MODEL TLP-24A(C)

| | |
|-----------------------|------------|
| ELECTRICAL BEAM TILT: | 0.50° |
| MECHANICAL BEAM TILT: | N/A |
| FREQUENCY: | 617.00 MHz |

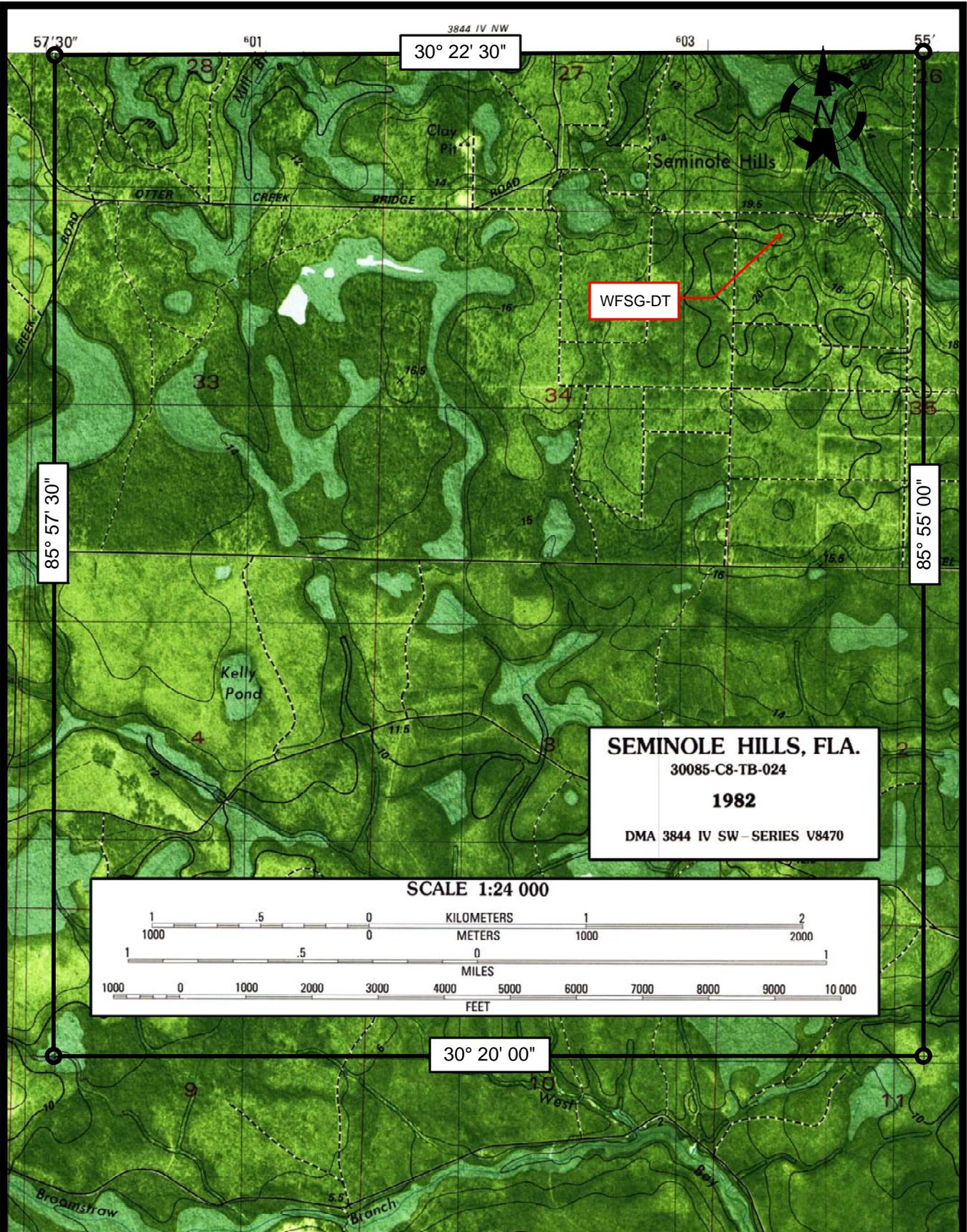


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EXHIBIT E3B



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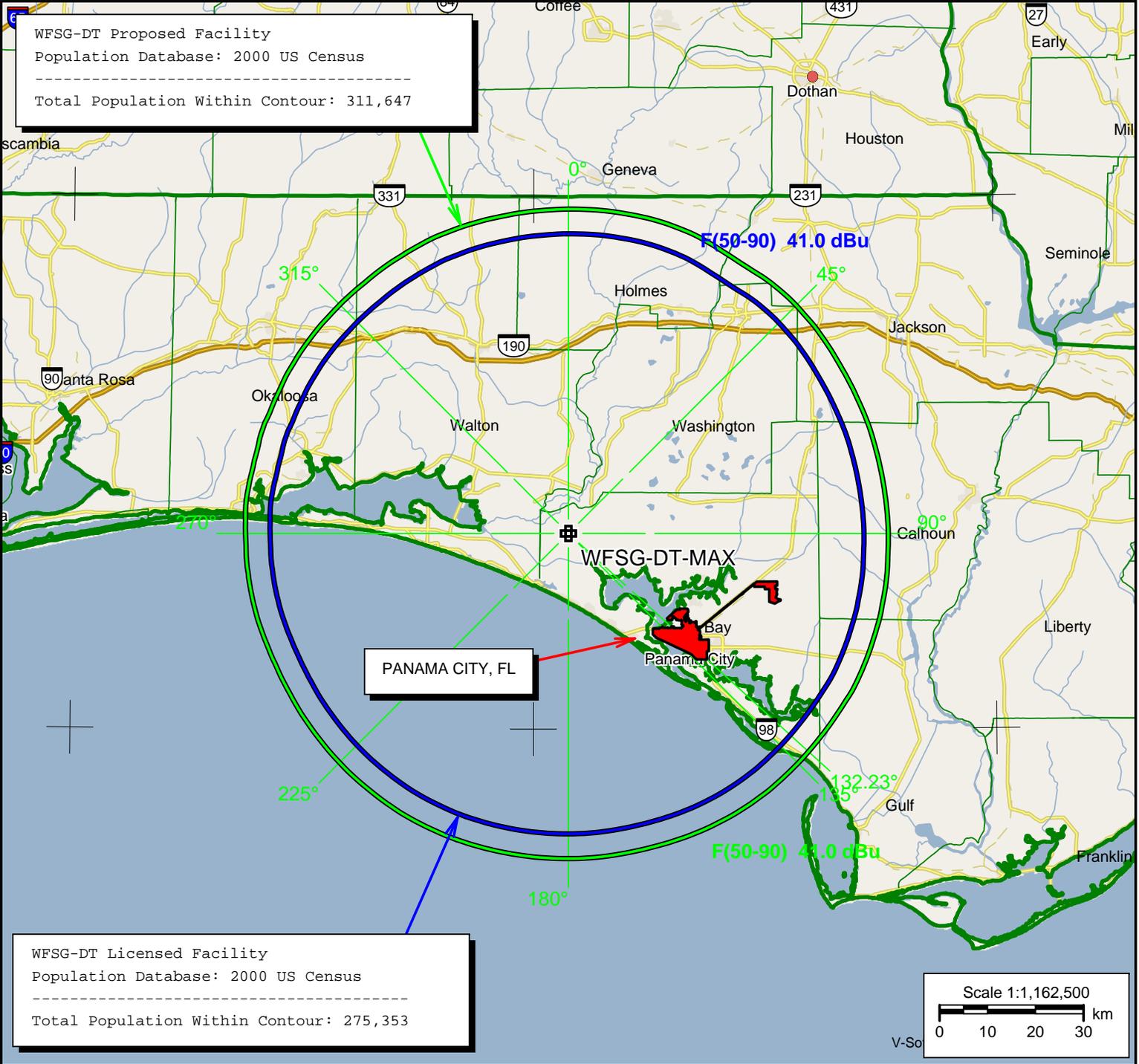
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EXHIBIT E4



WFSG-DT Proposed Facility
 Population Database: 2000 US Census

 Total Population Within Contour: 311,647

WFSG-DT-MAX
 Maximized
 Latitude: 30-22-02 N
 Longitude: 085-55-28 W
 ERP: 158.00 kW
 Channel: 38
 AMSL Height: 144.0 m
 Horiz. Pattern: Omni
 Vert. Pattern: Yes
 Elec Tilt: 0.5
 Prop Model: None

WFSG-DT
 BLEDT20030303AAP
 Latitude: 30-22-02 N
 Longitude: 085-55-28 W
 ERP: 49.20 kW
 Channel: 38
 AMSL Height: 144.0 m
 Horiz. Pattern: Omni
 Vert. Pattern: Yes
 Elec Tilt: 0.5
 Prop Model: None

PANAMA CITY, FL

WFSG-DT Licensed Facility
 Population Database: 2000 US Census

 Total Population Within Contour: 275,353

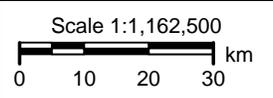
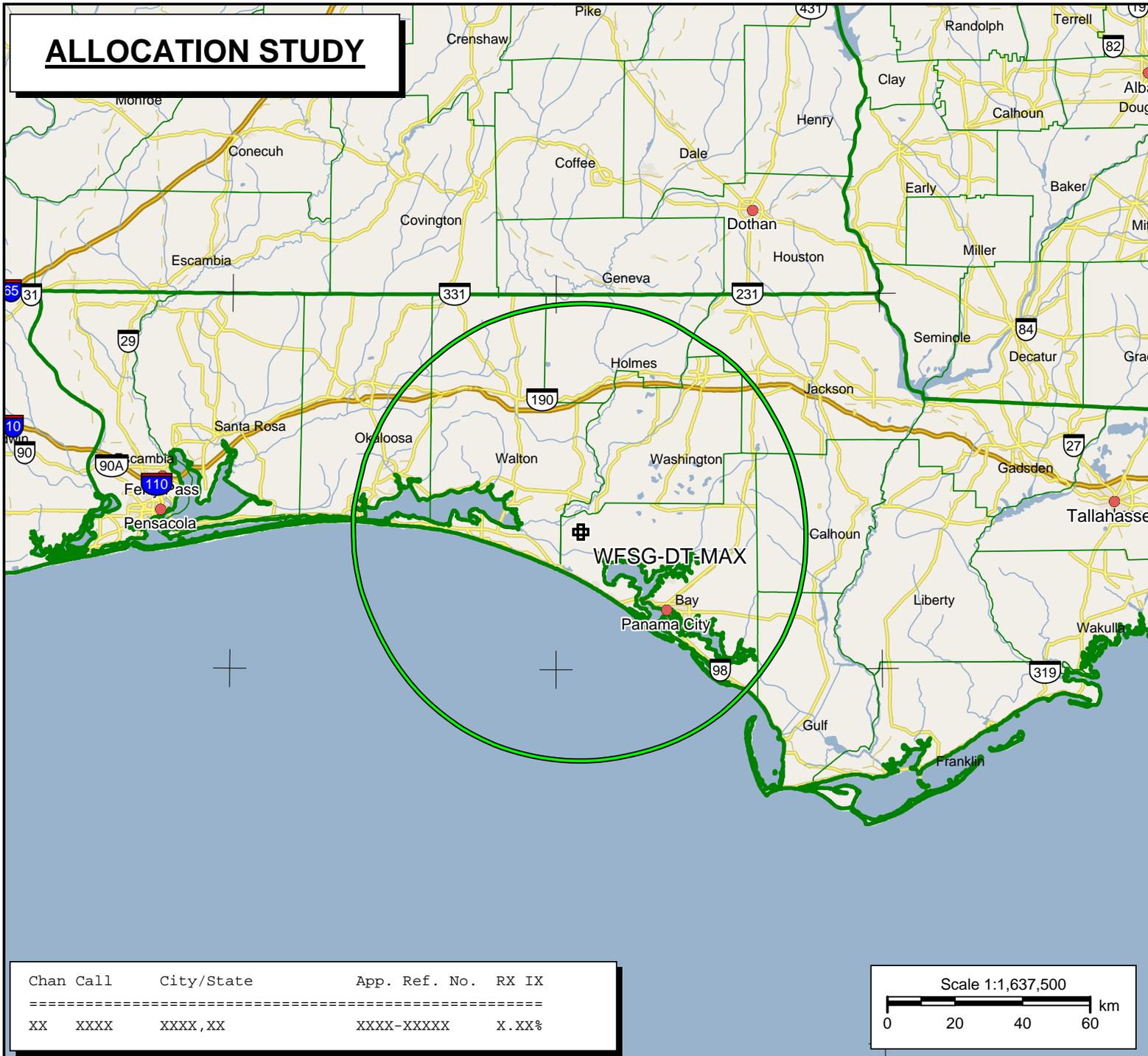


Exhibit E5

ALLOCATION STUDY



WFSG-DT-MAX
 Maximized
 Latitude: 30-22-02 N
 Longitude: 085-55-28 W
 ERP: 158.00 kW
 Channel: 38
 Frequency: 617.0 MHz
 AMSL Height: 144.0 m
 Elevation: 11.095 m
 Horiz. Pattern: Omni
 Vert. Pattern: Yes
 Elec Tilt: 0.5
 Prop Model: Longley/Rice
 Climate: Cont temperate
 Conductivity: 0.0050
 Dielec Const: 15.0
 Refractivity: 311.0
 Receiver Ht AG: 10.0 m
 Receiver Gain: 0 dB
 Time Variability: 90.0%
 Sit. Variability: 50.0%
 ITM Mode: Broadcast

| Chan | Call | City/State | App. Ref. No. | RX | IX |
|------|------|------------|---------------|----|-----|
| XX | XXXX | XXXX, XX | XXXX-XXXXX | X | XX% |

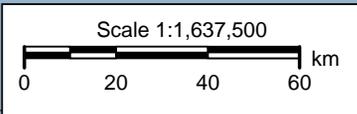
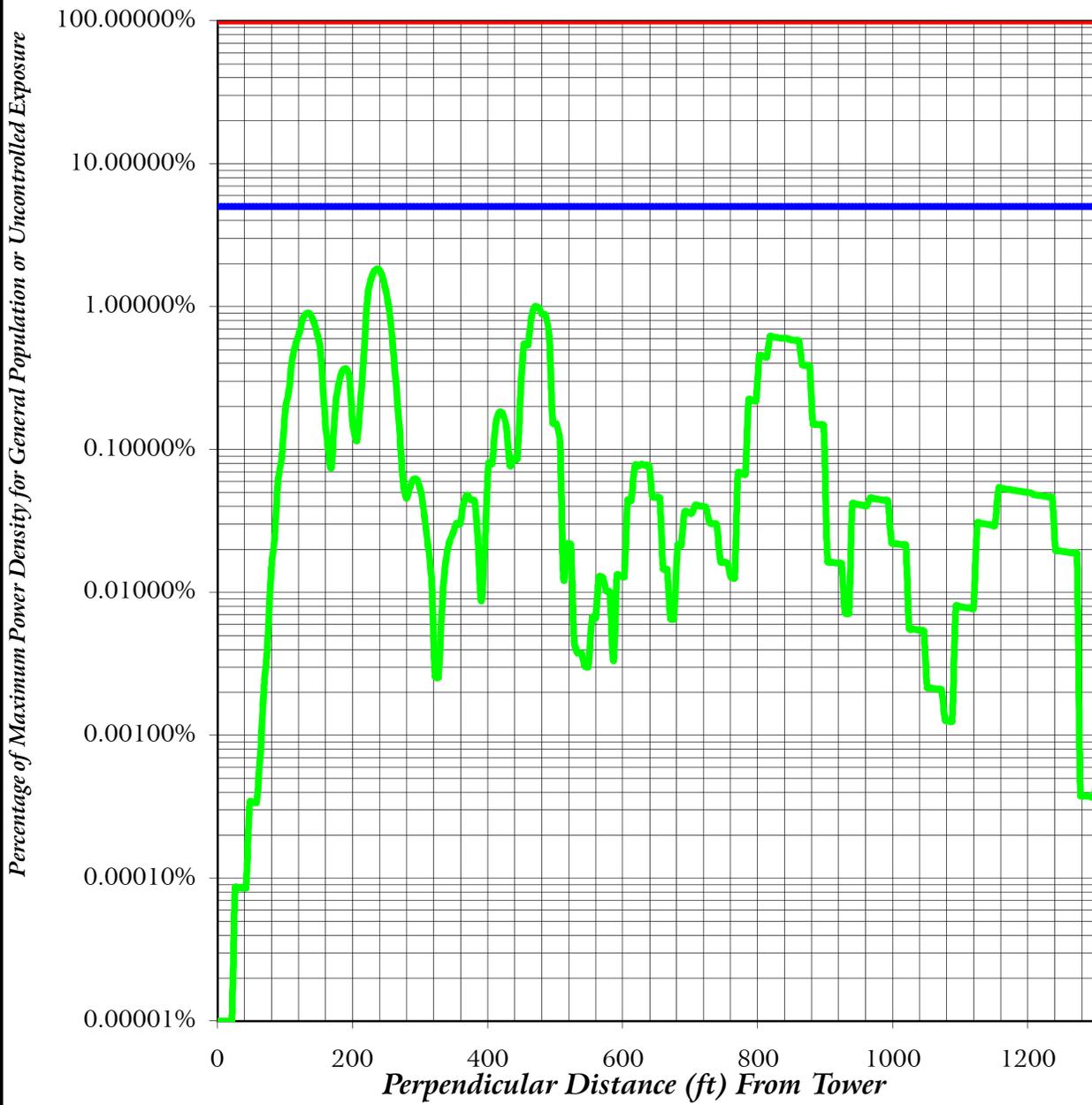


Exhibit E6

FAR FIELD EXPOSURE TO RF EMISSIONS



- Maximum Allowable General Population or Uncontrolled Exposure
- 5 % of Maximum General Population or Uncontrolled Exposure
- Percentage of Maximum General Population or Uncontrolled Exposure

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EXHIBIT E7

METHODOLOGY AND EXPLANATION OF
ENVIRONMENTAL IMPACT / RADIO FREQUENCY RADIATION
HAZARD ANALYSIS

A theoretical analysis has been conducted of the human exposure to radio frequency radiation (“RFR”) using the calculation methodology described in *OET Bulletin 65, Edition 97-01*. The RFR analysis is conducted pursuant to the following methodology:

Terrain¹ extraction is compiled from the proposed tower site to radial lengths of 0.25 miles in 0.001 mile increments for 360 radials. The power density is calculated for each terrain point at 6 feet above ground level using the elevation and azimuth pattern of the proposed broadcast antenna. The power density calculations are conducted using the lower edge of the proposed channel frequency. To account for ground reflections, a coefficient of 1.6 was included in the calculation.

The resulting cylindrical polar analysis is then summarized into a coordinate plane graph using the following methodology:

Starting from the origin the maximum calculated RFR value is determined among the 360 degree radials for each 0.001 mile increment, the value is then converted into a percentage of the maximum allowable general population or uncontrolled exposure and plotted as a function of perpendicular distance from the tower.

¹ Terrain extraction is based upon a 3 arc second point spacing terrain database.