APPLICATION FOR MINOR
AMENDMENT TO A PENDING DTV
BROADCAST STATION WLRN-DT
FCC FILE NO.: BPEDT-20080609AAM
TO MAXIMIZE AND OPERATE IN THE POST
DTV TRANSITION PERIOD
THE SCHOOL BOARD OF MIAMI - DADE
COUNTY, FL
MIAMI, FLORIDA

KESSLER & GEHMAN ASSOCIATES, INC.
TELECOMMUNICATIONS CONSULTING ENGINEERS

20080729

Prepared by Ryan Wilhour

507 N.W. 60th Street, Suite C
Gainesville, Florida 32607

ENGINEERING STATEMENT OF RYAN WILHOUR OF THE FIRM KESSLER AND GEHMAN ASSOCIATES, INC., CONSULTING ENGINEERS IN CONNECTION WITH AN APPLICATION FOR MINOR AMENDMENT TO A PENDING DTV BROADCAST STATION WLRN-DT FCC FILE NUMBER BPEDT-20080609AAM TO MAXIMIZE OPERATION IN THE POST DTV TRANSITION PERIOD
THE SCHOOL BOARD OF MIAMI - DADE COUNTY, FL
MIAMI, FLORIDA

PROCLAMATION OF ENGINEER

I, Ryan Wilhour, am an associate of Kessler and Gehman Associates, Inc. with offices in Gainesville, Florida. I am a graduate of the University of Florida with a Bachelor of Science degree in electrical engineering.

This firm has been employed by The School Board of Miami-Dade County, FL to prepare a minor amendment to a pending application (FCC file number BLEDT-20030311AEF) for post DTV transition maximization.

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. USGS 7.5 minute topographic quadrangle showing the proposed transmitter location and the coordinate lines (Exhibit E3)
4. Antenna azimuth and elevation patterns (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)

NARRATIVE

The instant amendment application proposes to reduce the proposed ERP from 1000kW to 870kW to remedy impermissible interference to WDLP-CA (FCC file No.: BLTTA-20080206ADA), no other changes are proposed.

ALLOCATION ANALYSIS

Exhibit E6 demonstrates the interference considerations for the proposed facility and further illustrates complete compliance to the 0.5% interference threshold criteria.

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 506 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 WLRN-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 July 29, 2008.

KGA

Ryan Wilhour

Consulting Engineer

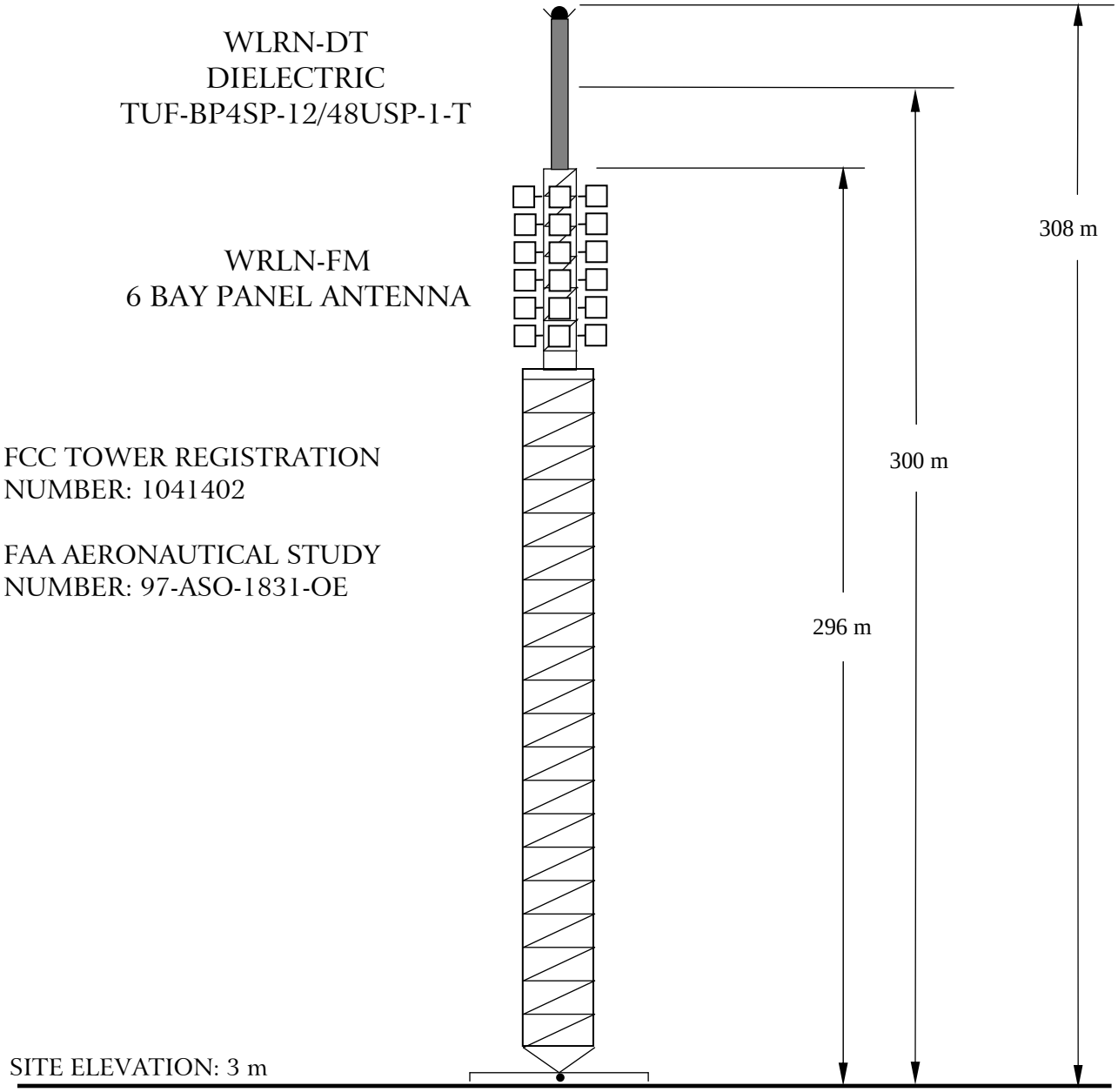
WLRN-DT

MIAMI, FLORIDA

ENGINEERING SPECIFICATIONS

A.	Transmitter Site (NAD 27)			
		North Latitude	25 ° 58 ' 46 "	
		West Longitude	80 ° 11 ' 46 "	
	Street Address or Location			
		3300 SW 52ND Avenue Pembroke Park, Florida		
B.	Proposed Facility			
	DTV Channel			
		Number	20	
		Frequency	506-512	MHz
C.	Antenna Height			
	Height of Site Above Mean Sea Level (AMSL)		3	m
	Overall Height of Structure Above Ground (including all appurtenances)		308	m
	Overall Height of Structure Above Mean Sea Level (including all appurtenances)		311	m
	Height of Site Above Average Terrain		1	m
	Effective Height of Antenna Above Ground		300	m
	Effective Height of Antenna Above Average Terrain		301	m
	Effective Height of Antenna Above Mean Sea Level		303	m
D.	Antenna Parameters – Horizontal Polarization			
	Maximum Antenna Gain in Beam Maximum		17.32	dBd
	Maximum Antenna Gain in Horizontal Plane		15.70	dBd
	Maximum Effective Radiated Power		870	kW
	In Beam Maximum		39.40	dBk
	Maximum Effective Radiated Power		599	kW
	In Horizontal Plane		27.78	dBk

ELEVATION VIEW



OVERALL HEIGHT AGL:	308 m	NAD 27 COORDINATES:
OVERALL HEIGHT AMSL:	311 m	N. LATITUDE 25 º58' 46"
DTV RAD. CTR. AGL:	300 m	W. LONGITUDE 80 º11' 46"
DTV RAD. CTR. AMSL:	303 m	
DTV RAD. CTR. AAT	301 m	
AVERAGE TERRAIN:	2 m	

NOTE: NOT TO SCALE

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TABULATION OF RELATIVE FIELD FOR PROPOSED DIRECTIONAL ANTENNA

AZIMUTH	RELATIVE FIELD	AZIMUTH	RELATIVE FIELD
N000ºE	0.955	N180ºE	0.571
N010ºE	1.000	N190ºE	0.750
N020ºE	0.957	N200ºE	0.903
N030ºE	0.833	N210ºE	0.990
N040ºE	0.659	N220ºE	0.988
N050ºE	0.489	N230ºE	0.912
N060ºE	0.370	N240ºE	0.813
N070ºE	0.305	N250ºE	0.726
N080ºE	0.288	N260ºE	0.635
N090ºE	0.329	N270ºE	0.529
N100ºE	0.383	N280ºE	0.446
N110ºE	0.408	N290ºE	0.417
N120ºE	0.400	N300ºE	0.425
N130ºE	0.358	N310ºE	0.483
N140ºE	0.303	N320ºE	0.583
N150ºE	0.288	N330ºE	0.681
N160ºE	0.332	N340ºE	0.765
N170ºE	0.423	N350ºE	0.859

MAXIMUM OF 1.000 AT N010ºE, N214ºE

ADDITIONAL AZIMUTHS 0.286 AT N147ºE AND N078ºE, 0.410 AT N112ºE, 0.416 AT N291ºE

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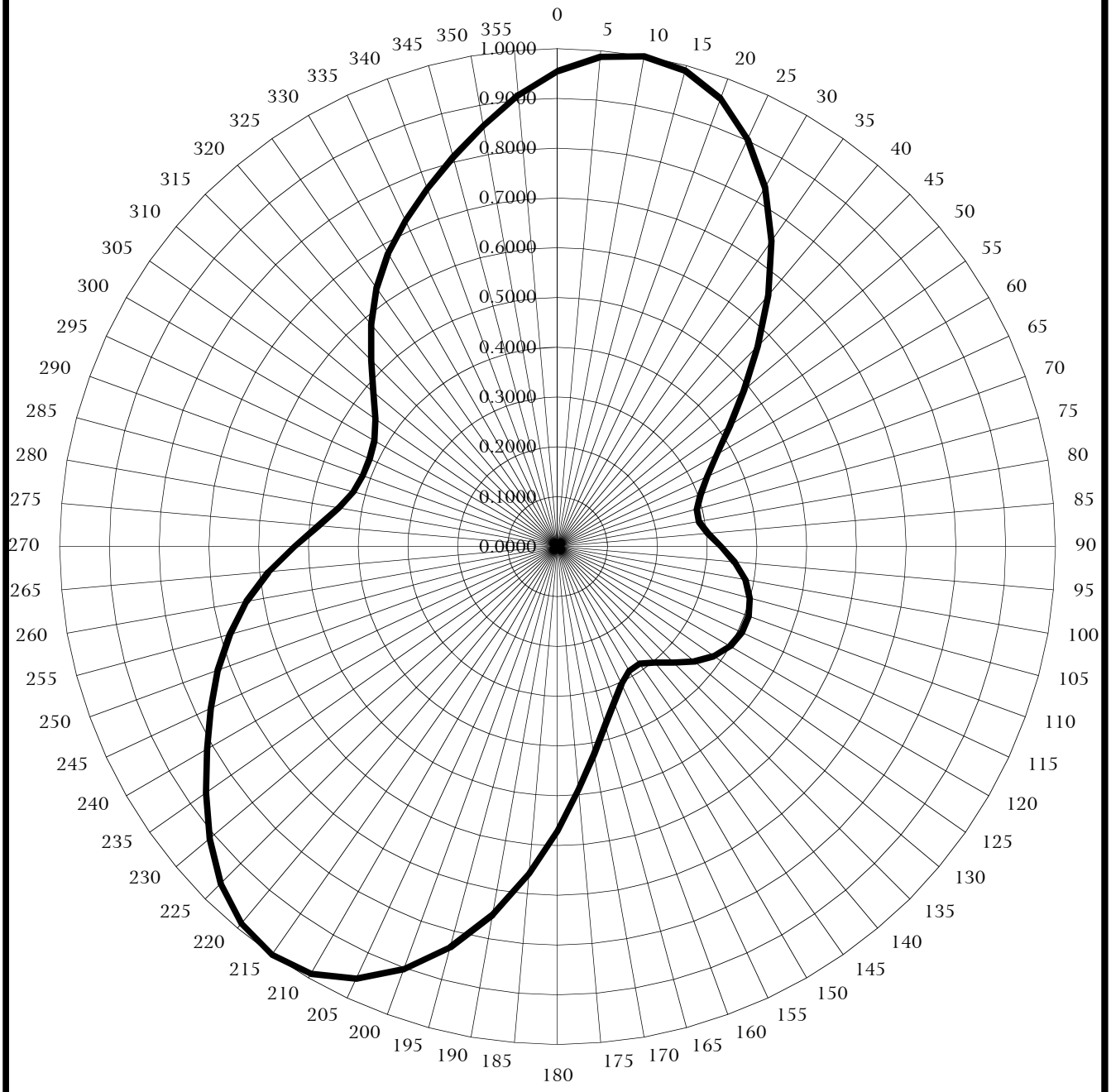
RELATIVE FIELD AZIMUTH PATTERN



DIELECTRIC - TUF-BP4SP-12/48USP-1-T
ORIENTED WITH BEAM MAXIMA A 10º AND 214º
AZIMUTH GAIN: 2.4 (3.80 dBd)

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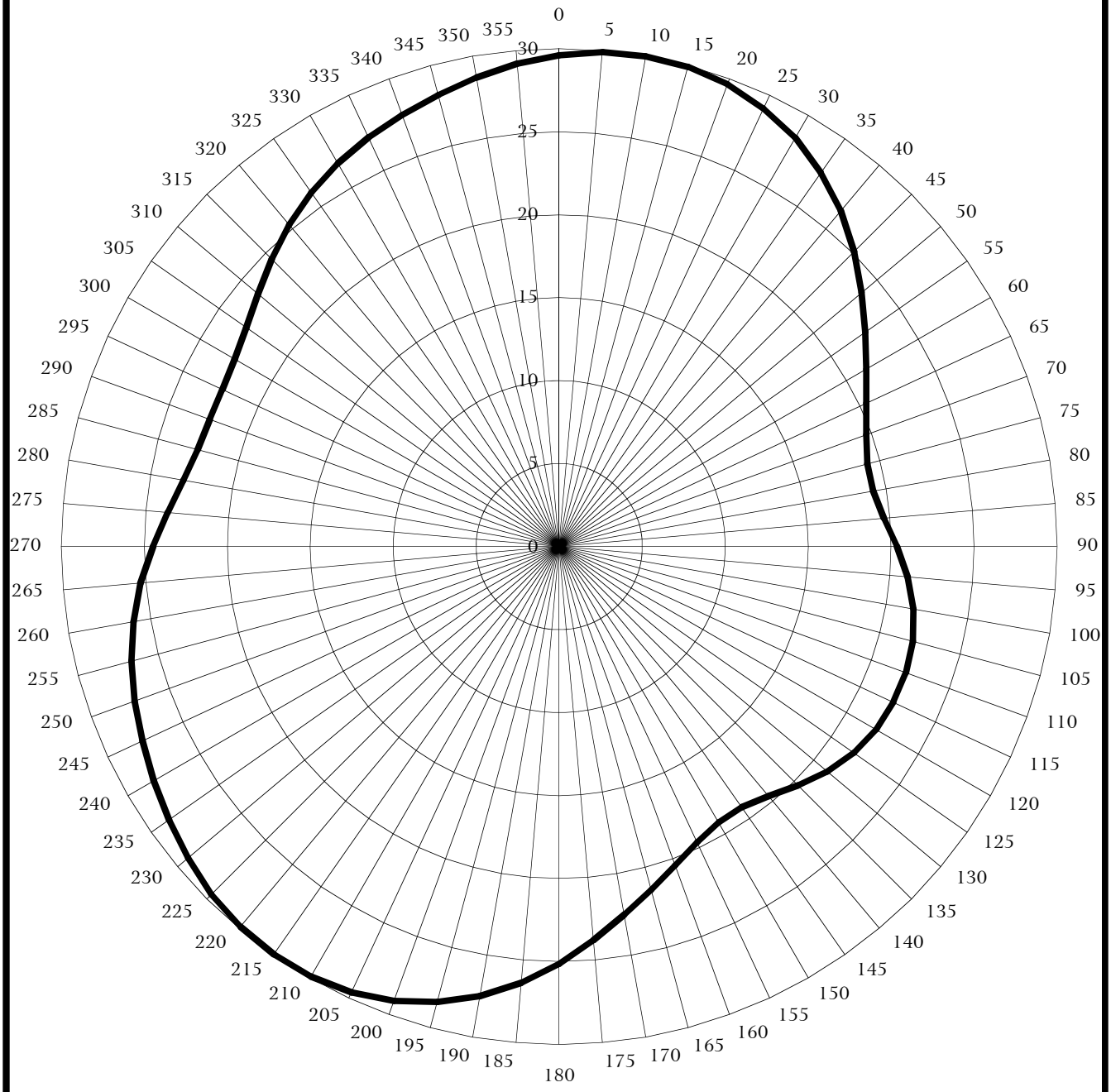
EXHIBIT E3B

ERP - dBk



DIELECTRIC - TUF-BP4SP-12/48USP-1-T
MAXIMUM ERP 1000KW (30 DBK)

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EXHIBIT E3C

ELEVATION PATTERN

DIELECTRIC - TUF-BP4SP-12/48USP-1-T

RMS Gain at Main Lobe : 22.50 (13.52 dBd)
RMA Gain at Horizontal: 15.5 (11.90 dBd)
Beam Tilt: 0.80 deg

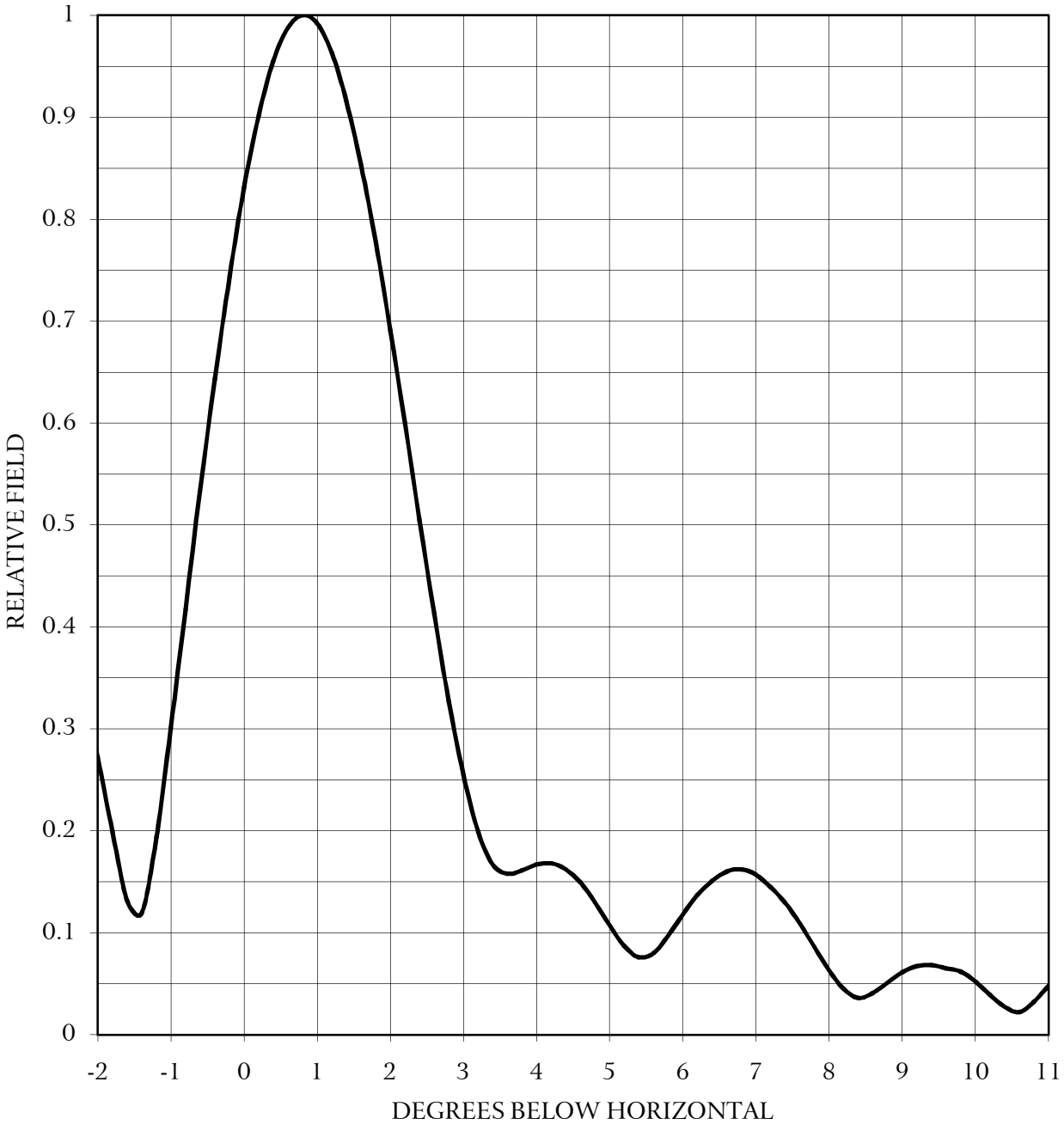

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EXHIBIT E3D

ELEVATION PATTERN

DIELECTRIC - TUF-BP4SP-12/48USP-1-T

RMS Gain at Main Lobe : 22.50 (13.52 dBd)
RMA Gain at Horizontal: 15.5 (11.90 dBd)
Beam Tilt: 0.80 deg

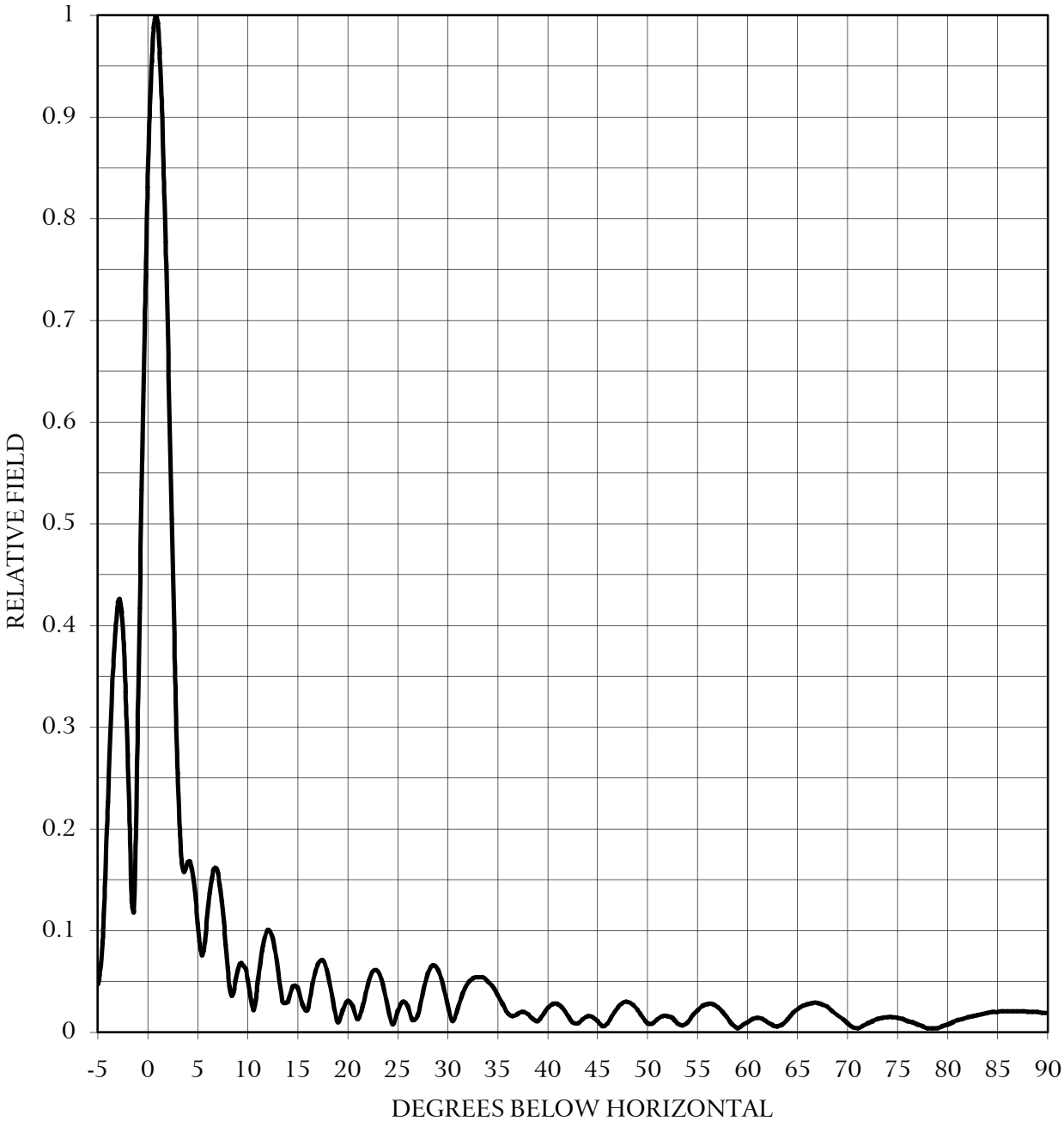

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EXHIBIT E3E

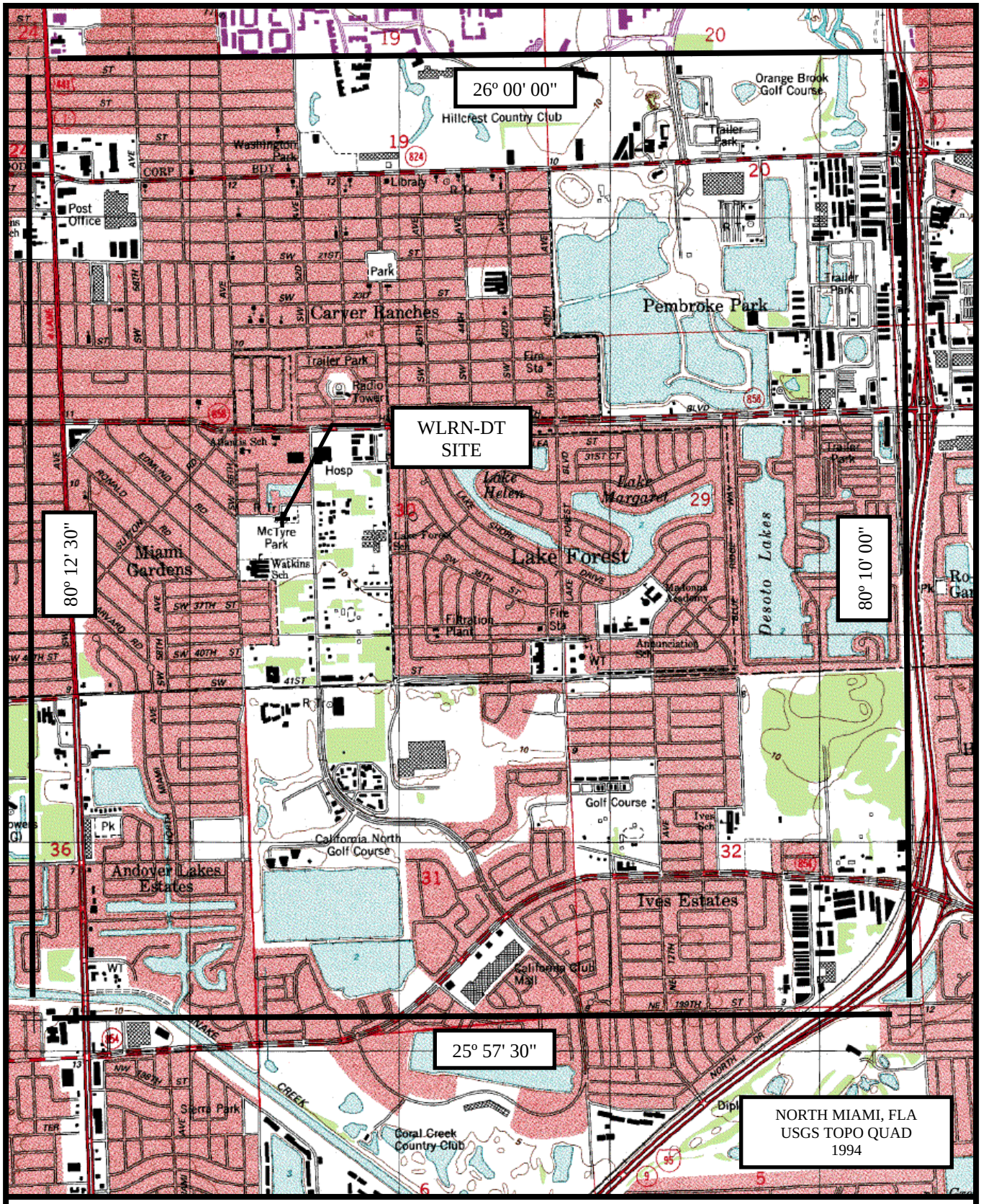

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EXHIBIT E4

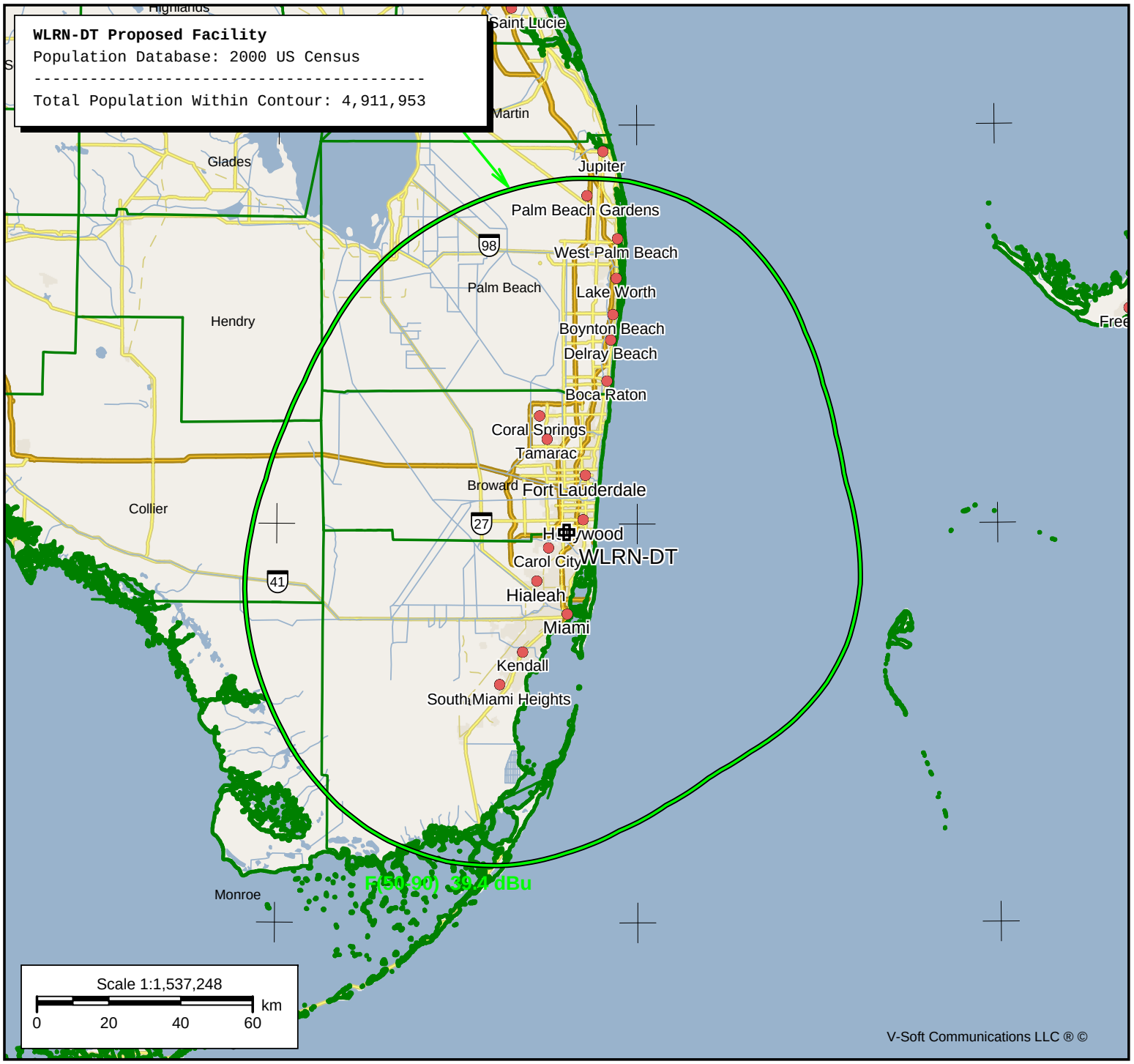
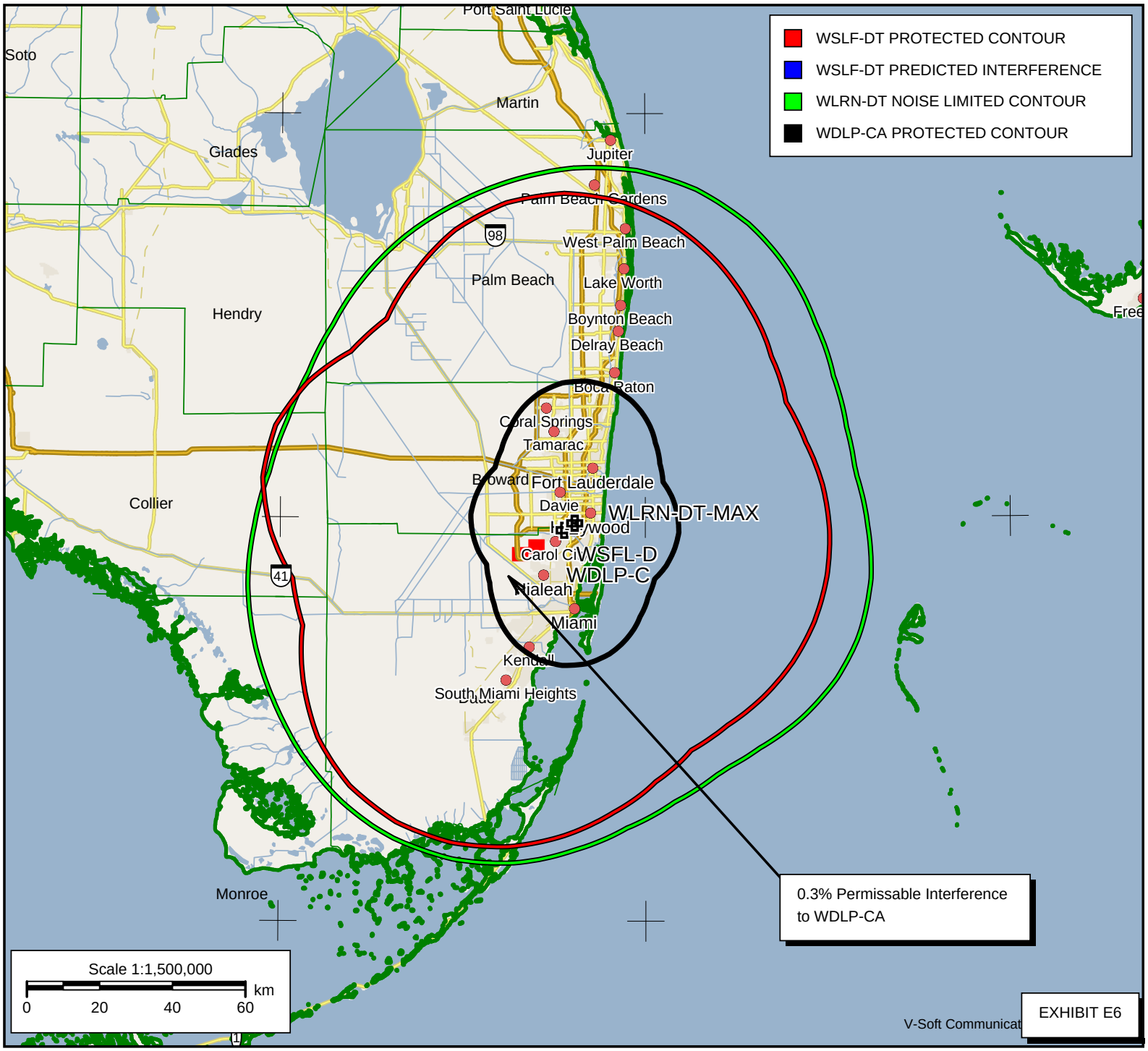

WLRN-DT Proposed Facility
Population Database: 2000 US Census
Total Population Within Contour: 4,911,953
WLRN-DT - Blue Ctr
PROPOSED
Latitude: 25-58-46 N
Longitude: 080-11-46 W
ERP: 870.00 kW
Channel: 20
AMSL Height: 303.0 m
HAAT: 301.0 m
Horiz. Pattern: Directional
Vert. Pattern: Yes
Elec Tilt: 0.8
Prop Model: None
Saint Lucie
Martin
Glades
Jupiter
Palm Beach Gardens
West Palm Beach
Palm Beach
Lake Worth
Hendry
Boynton Beach
Delray Beach
Boca Raton
Coral Springs
Tamarac
Broward
Fort Lauderdale
Collier
Hollywood
Carol City
WLRN-DT
Hialeah
Miami
Kendall
South Miami Heights
Monroe
98
27
41
F(50,90) 39.4 dBu
Scale 1:1,537,248
0 20 40 60 km
V-Soft Communications LLC ® ©

Exhibit E5



WLRN-DT-MAX
MAXIMIZED
Latitude: 25-58-46 N
Longitude: 080-11-46 W
ERP: 870.00 kW
Channel: 20
Frequency: 509.0 MHz
AMSL Height: 303.0 m
Elevation: 3.0 m
Horiz. Pattern: Directional
Vert. Pattern: Yes
Elec Tilt: 0.8
Prop Model: Longley/Rice
Climate: Cont temperate
Conductivity: 0.0050
Dielec Const: 15.0
Refractivity: 301.0
Receiver Ht AG: 10.0 m
Receiver Gain: 0 dB
Time Variability: 90.0%
Sit. Variability: 50.0%
ITM Mode: Broadcast

WSFL-D

Latitude: 25-58-07 N
Longitude: 080-13-20 W
ERP: 1000.00 kW
Channel: 19
Frequency: 503.0 MHz
AMSL Height: 241.0 m
Elevation: 3.0 m
Horiz. Pattern: Directional
Vert. Pattern: Yes
Elec Tilt: 0.0
Prop Model: Longley/Rice
Climate: Cont temperate
Conductivity: 0.0050
Dielec Const: 15.0
Refractivity: 301.0
Receiver Ht AG: 10.0 m
Receiver Gain: 0 dB
Time Variability: 90.0%
Sit. Variability: 50.0%
ITM Mode: Broadcast

FAR FIELD EXPOSURE TO RF EMISSIONS

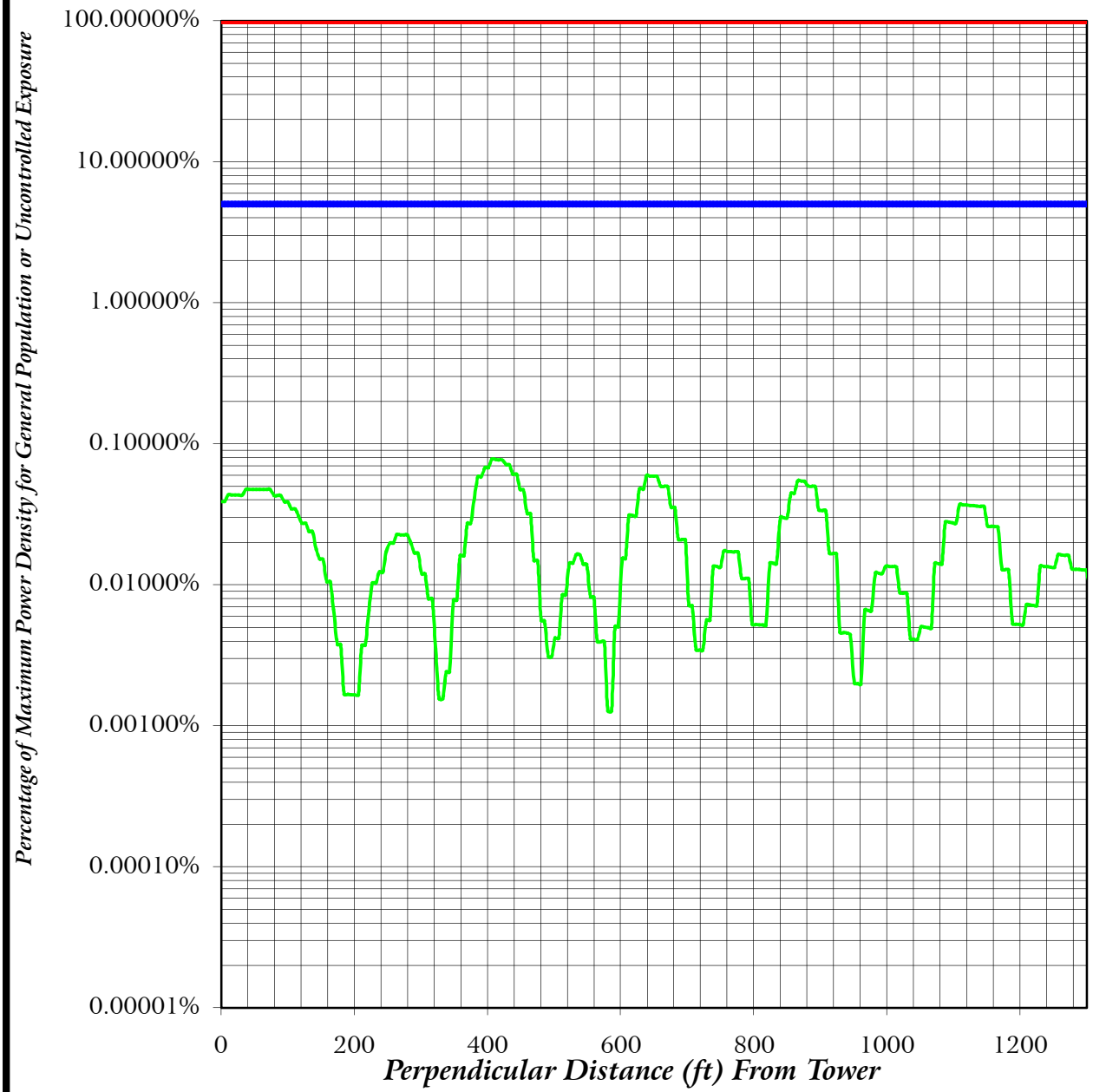


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EXHIBIT E7

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:

> Terrain[1] 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.