

ENGINEERING STATEMENT OF RYAN WILLOUR OF THE FIRM OF
KESSLER AND GEHMAN ASSOCIATES, INC., CONSULTING ENGINEERS IN
CONNECTION WITH A MINOR AMENDMENT APPLICATION FOR A
CLASS A LOW POWER TELEVISION BROADCAST STATION WINQ-LP WITH
FCC FILE NUMBER BMPTTA-20011123AAA PREPARED FOR WILLIAM
BROTHERS TO SERVE PALM BEACH, FLORIDA

NARRATIVE STATEMENT

This firm has been employed by William Brothers to prepare engineering studies and the engineering portion of the FCC Form 301CA for a minor amendment to the above referenced application for the low power class A television broadcast station WINQ-LP.

This application proposes to make the following changes to FCC license BMPTTA-20011123AAA:

- Change antenna elevation pattern.
- Change antenna elevation beam tilt from 0.75° to 0.00°

The purpose of this application is to make the above said minor amendments to the transmit parameters of WINQ-LP to increase the overall coverage of the existing station parameters. No other changes are being proposed.

ENGINEERING ANALYSIS

In carrying out the engineering studies the following attached figures were prepared by me or under my supervision:

1. Proposed engineering specifications (Exhibit E1)
2. Elevation drawing of the antenna system (Exhibit E2)
3. Antenna Azimuth and Elevation Patterns (Exhibit E3)
4. USGS 7.5 minute topographic quadrangle showing the proposed transmitter location and coordinate lines (Exhibit E4)
5. Map showing the predicted coverage contour and compliance with the definition of a "minor modification" as per 47 C.F.R. §73.3572(a)(2). (Exhibit E5)
6. Exhibit(s) demonstrating interference compliance as per 47 C.F.R. (Exhibit E6)
 - §73.6011 to analog TV broadcast stations.

- §73.6012 and §73.6014 to low power TV, TV translator, Class A, and Digital Class A stations
 - §73.6013 to digital TV stations and DTV table of Allotments.
 - §73.6020 land mobile stations.
7. Environmental Impact / RFR Hazard Analysis (Exhibit E7)

PROPOSED ENGINEERING SPECIFICATION ANALYSIS

WINQ-LP is herein proposed to operate on channel 43 with a negative frequency offset using the parameters shown in Exhibit E1, and the directional antenna pattern shown in Exhibit E3. It is proposed to employ an existing support structure with the FCC tower registration number: 1018573 located at the sight shown in Exhibit E4. The proposed antenna will be top mounted as demonstrated in Exhibit E2 with a center of radiation above ground of 297.9 meters. The overall structure height is not proposed to be modified by the instant application thus FAA approval is not necessary. The facilities detailed in Exhibit E1, E2, E3, and E4 are proposed to achieve the coverage demonstrated in Exhibit E5.

MINOR MODIFICATION ANALYSIS

As per §73.3572(a)(2), this minor amendment to FCC file number: BMPTTA-20011123AAA would bring the proposed facility in compliance with the definition of a “minor modification” to BPTTL-19990611JA since the output channel does not change and the protected contour of the amended facility is predicted to overlap the BPTTL-19990611JA protected contour as demonstrated in Exhibit E5B.

INTERFERENCE ANALYSIS

The applicant accepts full responsibility for the elimination of any objectionable interference including that caused by intermodulation to facilities in existence or authorized prior to the grant of this application.

NTSC INTERFERENCE PROTECTION:

As per 47 C.F.R. §73.6011 interference protection to TV broadcast stations are based upon 47 C.F.R. §74.705. The following stations were found to be in violation of the spacing and / or contour separation requirements:

- WFLX FCC File Number: BPCT-19990910AAA, and BLCT-19860514KH as demonstrated in Exhibit E6A and E6B respectively.
- WXEL-TV FCC File Numbers: BLET-19820625KF as demonstrated in

Exhibit E6C

- WBSF FCC File Number: BLCT-19980422KG as demonstrated in Exhibit E6D

As per §74.705(e)¹ it is respectfully requested that the methodology provided in OET Bulletin No. 69 be admissible to determine interference to WFLX, WXEL-TV AND WBSF. With the use of this methodology, interference **is not predicted to be greater than or equal to a 0.05% population loss** to the areas within the protected contour of the above reference stations, and thus are in compliance with the interference criteria.

CLASS A INTERFERENCE PROTECTION:

As per §73.6012 and §73.6014 the proposed Class A TV station is in compliance pursuant to the requirements specified in §74.707 to other Class A TV stations and digital Class A TV stations.

DTV INTERFERENCE PROTECTION:

As per §73.6013 and §73.623(c)(2) through (c)(4) the following DTV stations were analyzed for potential interference received from the herein proposed station:

- WXPX FCC File Number: BPCDT-19990602KF as demonstrated in Exhibit E6E
- WFCT-DT Allotted facility as demonstrated in Exhibit E6F
- WPPB-DT FCC File Number: BPEDT-19991028ACM and the allotted facility as demonstrated in Exhibit E6G and E6H respectively.

Interference **is not predicted to be greater than or equal to a 0.05% population loss** to the areas within the protected contour of the above reference stations, and thus is in compliance with the interference criteria.

LAND MOBILE RADIO SERVICE INTERFERENCE PROTECTION:

As per §73.6020 the proposed Class A TV station complies with the protection standards pursuant §74.709 to land mobile radio services.

¹ “In support of a request for waiver of the interference protection rules, an applicant for a low power TV, TV translator or TV booster may make full use of terrain shielding and Longley-Rice terrain dependent propagation prediction methods to demonstrate that the proposed facility would not be likely to cause interference to TV broadcast stations. Guidance on using the Longley-Rice methodology is provided in *OET Bulletin No. 69*.”

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 assuming flat terrain. Exhibit E7 calculations were made using a frequency of 644 MHz, which is the lower edge of the proposed channel. To account for ground reflections, a coefficient of 1.6 was included in the calculation.

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 restrictive 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 WINQ-LP were not taken into account.

A chain link fence shall encompass the WINQ-LP support structure if it is not already. The applicant will cooperate with any other users of the tower by reducing the power to the antenna or if necessary completely cutting it off in order to protect maintenance workers on the tower.

DECLARATION OF ENGINEER

I, Ryan Wilhour, declare and state that I am a graduate electrical engineer with a Bachelor of Science in Electrical Engineering and my qualifications are a matter of record with the Federal Communication Commission, and that I am an engineer in the firm of Kessler and Gehman Associates, Inc., and that firm has been retained by William Brothers to prepare the herein application.

The foregoing statement and the report regarding the aforementioned engineering work are true and correct to the best of my knowledge. Executed on January 28, 2002

KESSLER AND GEHMAN ASSOCIATES, INC.



Ryan Wilhour

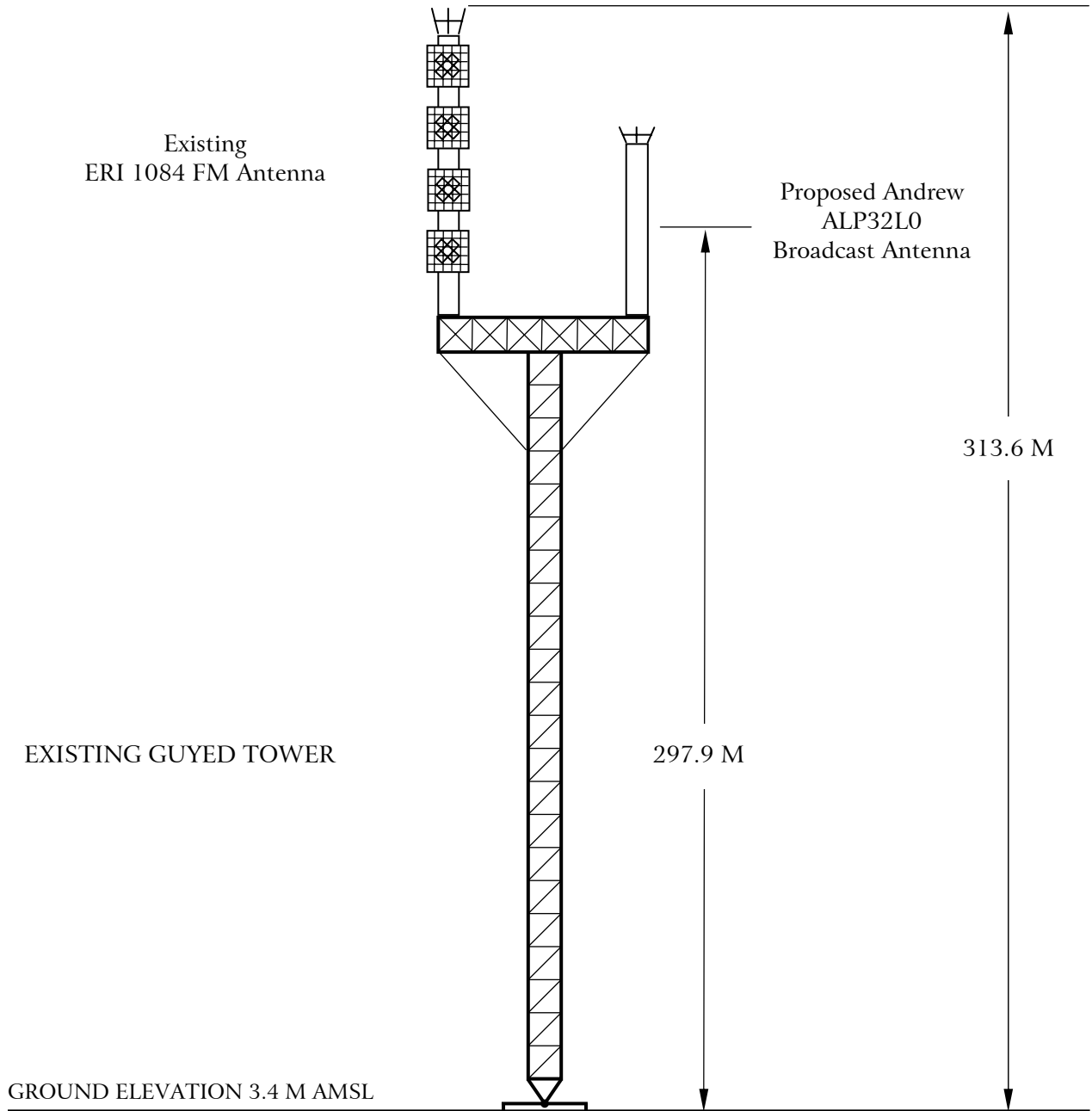
WINQ-LP

PALM BEACH, FLORIDA

ENGINEERING SPECIFICATIONS

- A. Transmitter Site NAD 27
North Latitude 27° 01' 31.8"
West Longitude 80° 10' 42.8"
- Street Address 3350 Bridge Road
Hobe Sound, Florida
- B. Proposed Facility
- | | | |
|---------|-----------|-------------|
| Channel | Number | 43 |
| | Frequency | 644-650 MHz |
- C. Antenna Height
- | | |
|---|---------|
| Height of Site Above Mean Sea Level (AMSL) | 3.4 m |
| Overall Height of Structure Above Ground
(including all appurtenances) | 313.6 m |
| Overall Height of Structure Above Mean Sea Level
(including all appurtenances) | 317.0 m |
| Height of Site Below Average Terrain | 0.1 m |
| Effective Height of Antenna Above Ground | 297.9 m |
| Effective Height of Antenna Above Average Terrain | 297.8 m |
| Effective Height of Antenna Above Mean Sea Level | 301.3 m |
- D. Antenna Parameters – Horizontal Polarization
- | | |
|--|-----------|
| Maximum Antenna Gain in Beam Maximum | 19.50 dBd |
| Maximum Antenna Gain in Horizontal Plane | 19.50 dBd |
| Maximum Effective Radiated Power | 150.0 kW |
| In Beam Maximum | 21.76 dBk |
| Maximum Effective Radiated Power | 150.0 kW |
| In Horizontal Plane | 21.76 dBk |

ELEVATION VIEW



OVERALL HEIGHT AGL: 313.6 M
OVERALL HEIGHT AMSL: 317.0 M
RADIATION CENTER AGL: 297.9 M
RADIATION CENTER AMSL: 301.3 M
RADIATION CENTER AAT: 297.8 M
AVERAGE TERRAIN: 3.5 M

NAD27 COORDINATES:
N. LATITUDE 27° 01' 31.8"
W. LONGITUDE 80° 10' 42.8"

NOTE: NOT TO SCALE

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Gainesville, Florida 32607

WINQ-LP
PALM BEACH, FLORIDA

20020128

EXHIBIT E2

WINQ-LP

PALM BEACH, FLORIDA

TABULATION OF RELATIVE FIELD FOR PROPOSED DIRECTIONAL ANTENNA

<u>AZIMUTH</u>	<u>RELATIVE FIELD</u>	<u>AZIMUTH</u>	<u>RELATIVE FIELD</u>
N000°E	0.111	N180°E	0.970
N005°E	0.100	N185°E	0.949
N010°E	0.095	N190°E	0.924
N015°E	0.101	N195°E	0.895
N020°E	0.117	N200°E	0.864
N025°E	0.141	N205°E	0.832
N030°E	0.176	N210°E	0.800
N035°E	0.212	N215°E	0.767
N040°E	0.250	N220°E	0.733
N045°E	0.287	N225°E	0.698
N050°E	0.323	N230°E	0.662
N055°E	0.358	N235°E	0.626
N060°E	0.392	N240°E	0.590
N065°E	0.425	N245°E	0.556
N070°E	0.458	N250°E	0.523
N075°E	0.490	N255°E	0.490
N080°E	0.522	N260°E	0.457
N085°E	0.556	N265°E	0.425
N090°E	0.590	N270°E	0.392
N095°E	0.626	N275°E	0.358
N100°E	0.662	N280°E	0.323
N105°E	0.698	N285°E	0.287
N110°E	0.733	N290°E	0.250
N115°E	0.767	N295°E	0.212
N120°E	0.800	N300°E	0.176
N125°E	0.832	N305°E	0.141
N130°E	0.864	N310°E	0.117
N135°E	0.895	N315°E	0.101
N140°E	0.923	N320°E	0.094
N145°E	0.949	N325°E	0.100
N150°E	0.969	N330°E	0.112
N155°E	0.985	N335°E	0.122
N160°E	0.995	N340°E	0.131
N165°E	1.000	N345°E	0.132
N170°E	0.994	N350°E	0.130
N175°E	0.985	N355°E	0.122

MAXIMUM OF 1.000 AT N165°E

MINIMUM OF 0.094 AT N320°E

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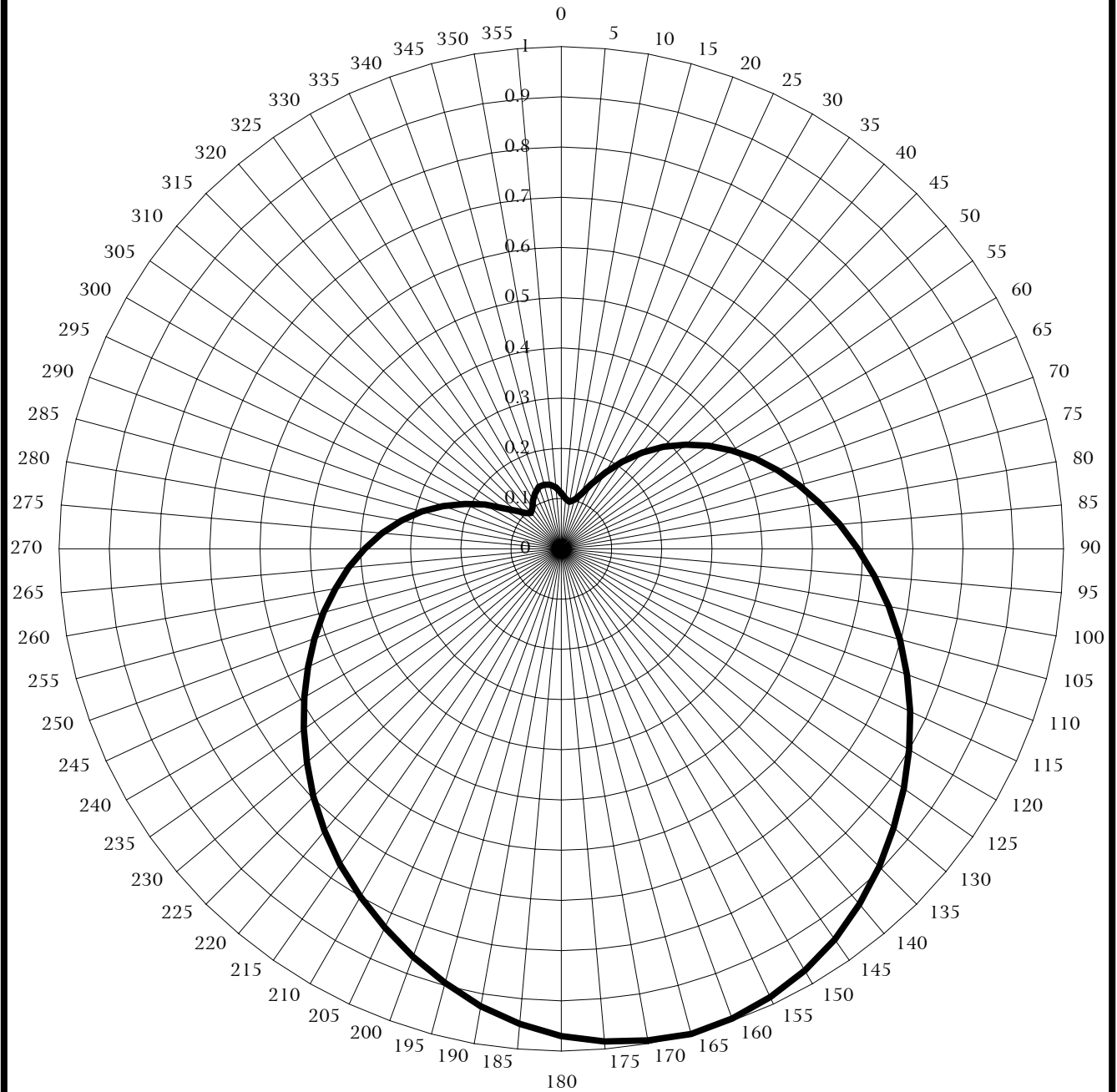
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WINQ-LP
PALM BEACH, FLORIDA

20020128

EXHIBIT E3A

RELATIVE FIELD AZIMUTH PATTERN



ANDREW - ALP32LO, BROADCAST ANTENNA
ORIENTED WITH BEAM MAXIMA AT 165°
MAXIMUM HORIZONTAL GAIN: 2.82 (4.5 dB)

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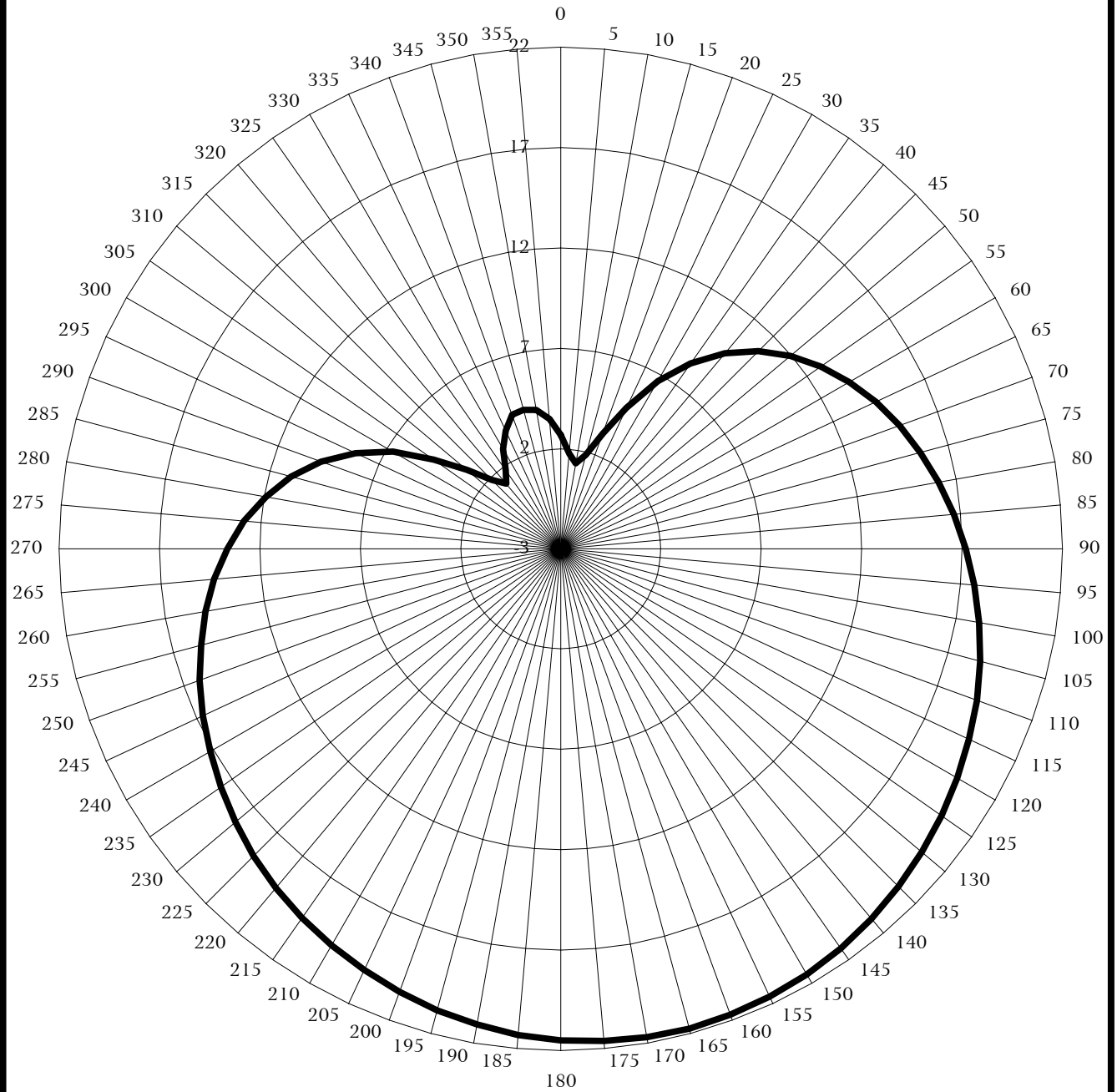
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EXHIBIT E3B

ERP - dBk



ANDREW - ALP32LO, BROADCAST ANTENNA
ORIENTED WITH BEAM MAXIMA AT 165°

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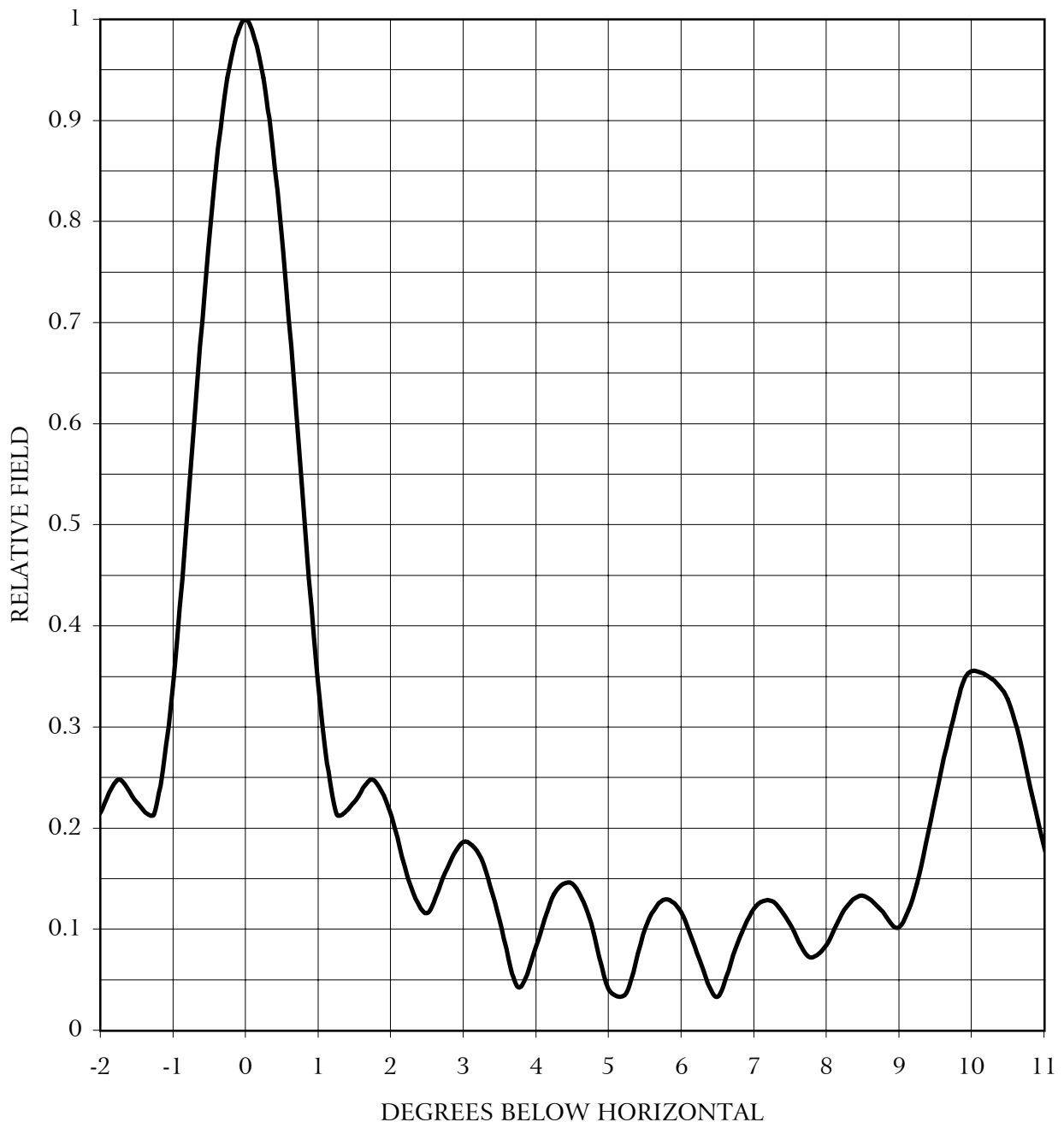
EXHIBIT E3C

ELEVATION PATTERN

ANDREW - APL32LO

RMS Elevation Gain at Main Lobe: 31.93 (15.04 dB)
RMS Elevation Gain at Horizontal: 31.93 (15.04 dB)

Beam Tilt 0.0 deg
Frequency 647.0 MHz



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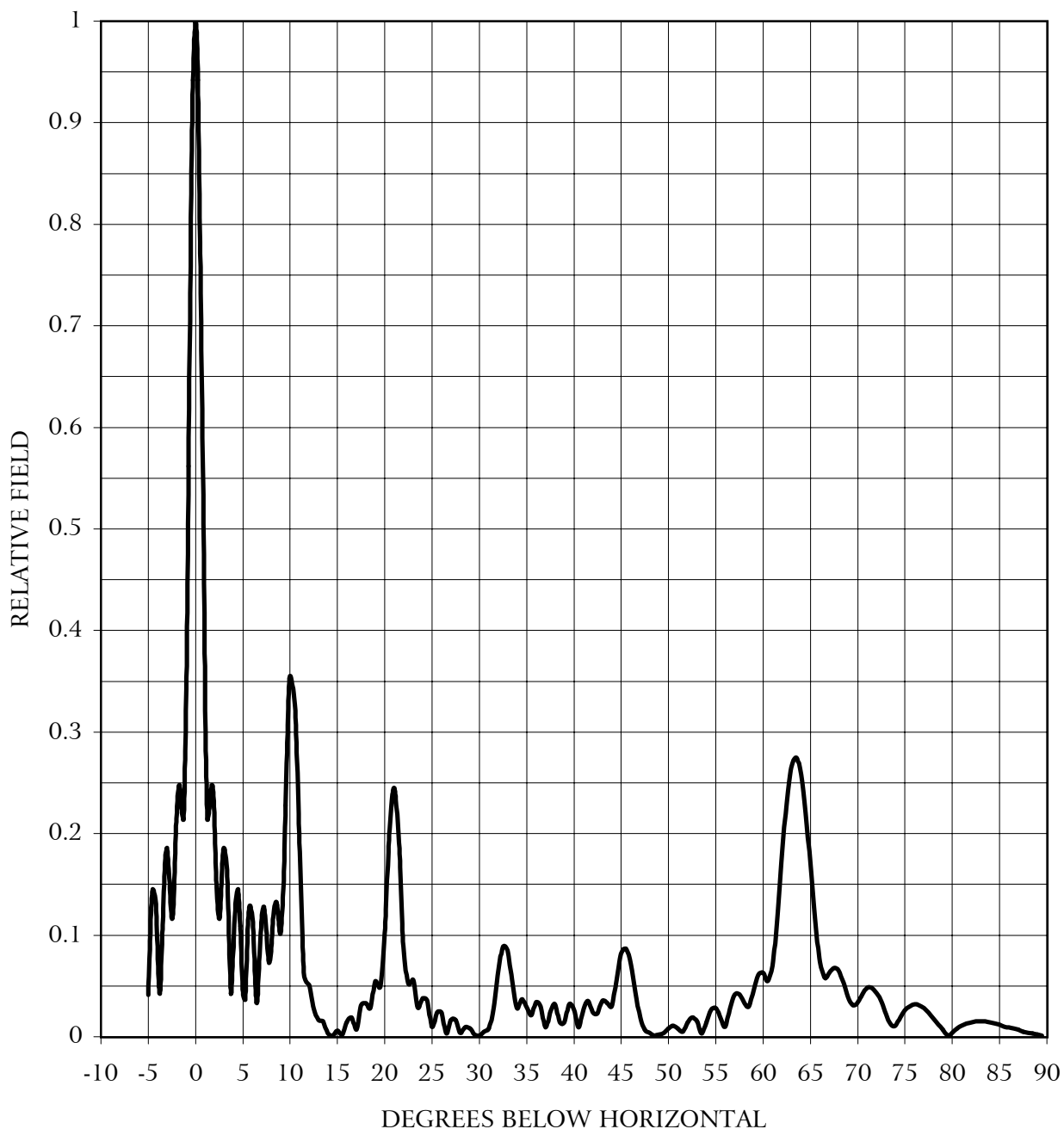
EXHIBIT E3D

ELEVATION PATTERN

ANDREW - APL32LO

RMS Elevation Gain at Main Lobe: 31.93 (15.04 dB)
RMS Elevation Gain at Horizontal: 31.93 (15.04 dB)

Beam Tilt 0.0 deg
Frequency 647.0 MHz

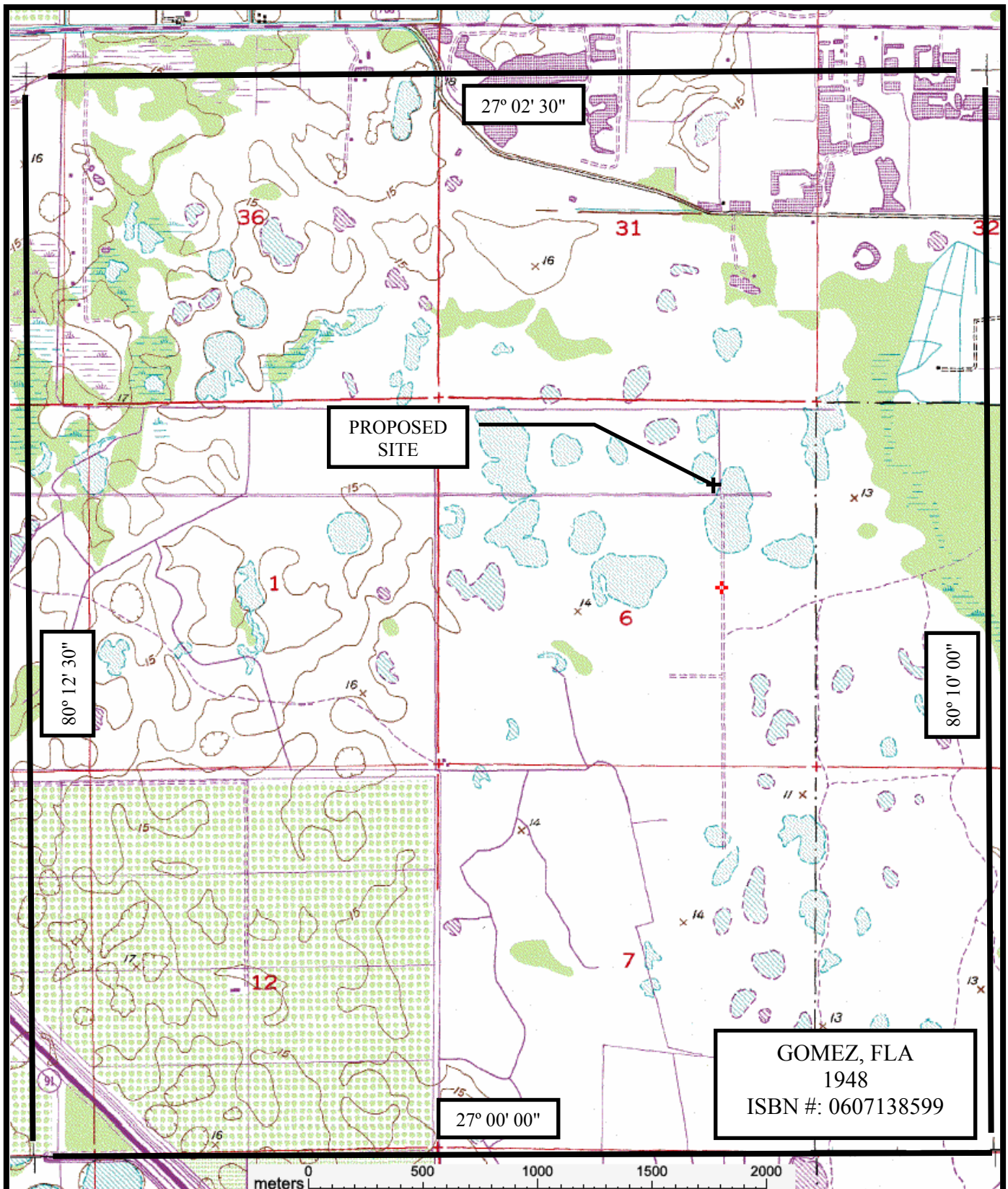


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EXHIBIT E3E



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20010128

EXHIBIT E4

Kessler and Gehman Associates, Inc.

WINQ-PROP
AMENDMENT
Latitude: 27-01-31.80 N
Longitude: 080-10-42.80 W
Power: 150.00 kW
Channel: 43-
Frequency: 646.5 MHz
AMSL Height: 301.3 m
Elevation: 4.0 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: 311.0
Receiver Ht AG: 10.0 m
Receiver Gain: 0 dB
Time Variability: 50.0%
Sit. Variability: 50.0%
ITM Mode: Broadcast

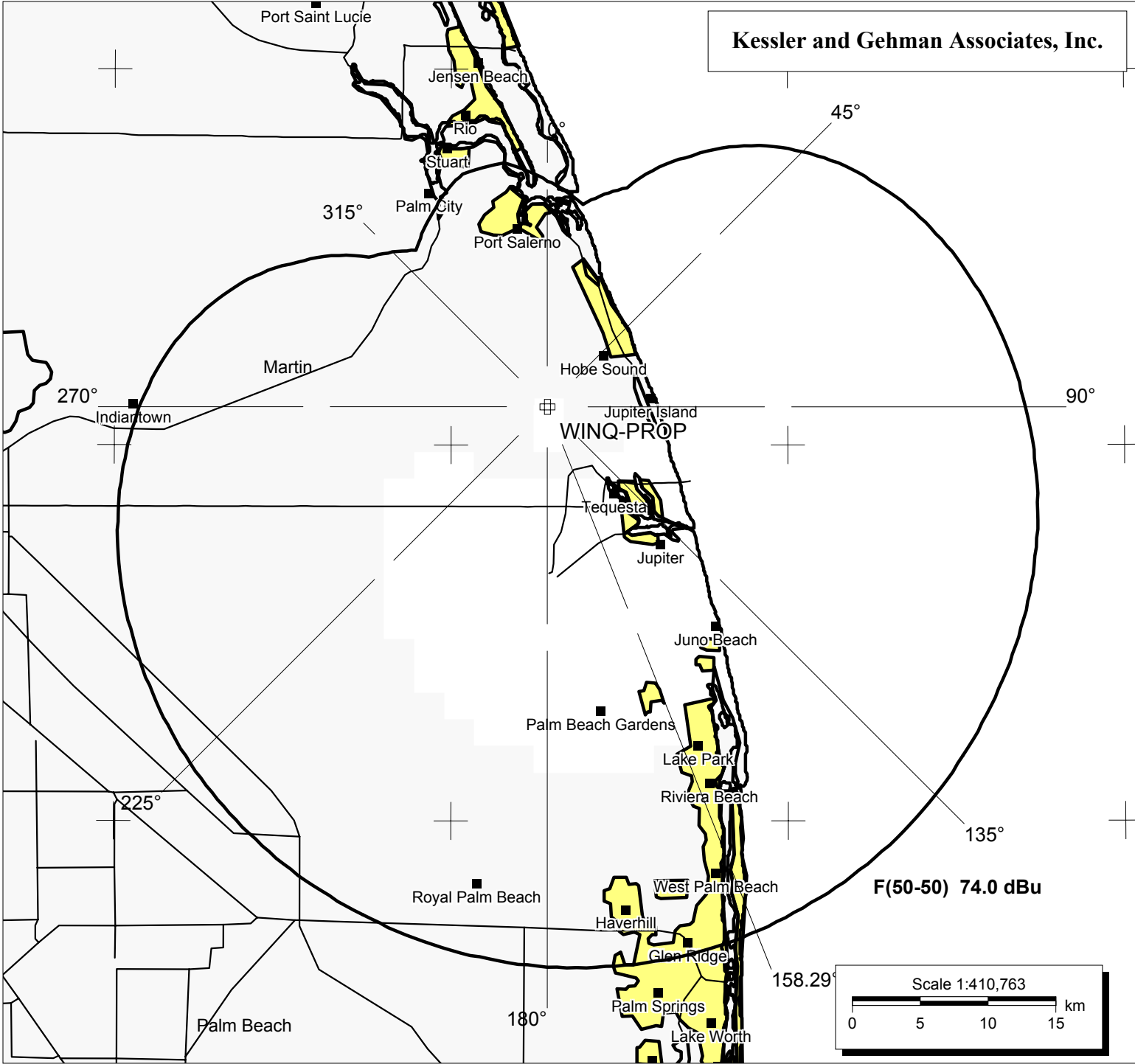


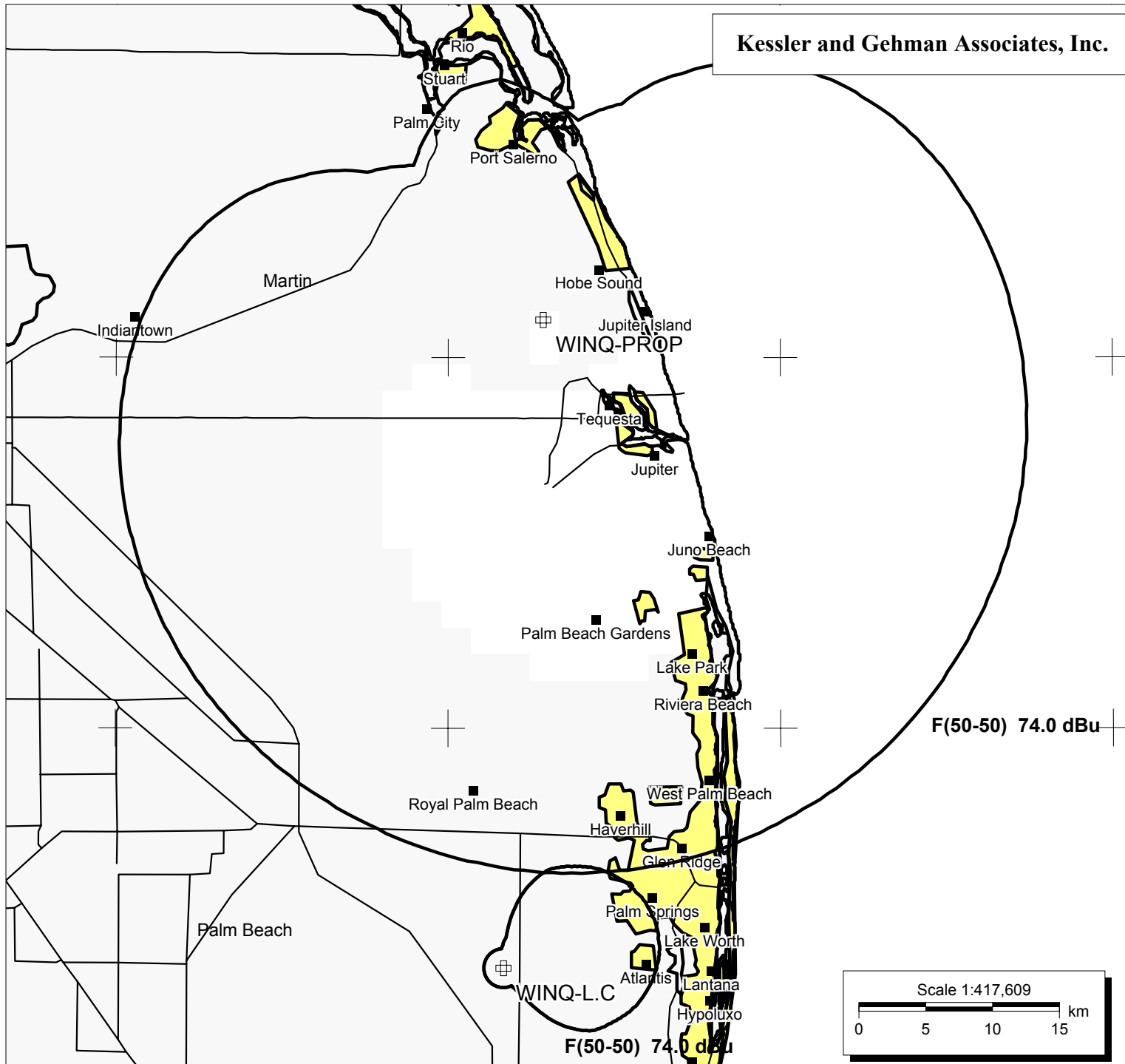
EXHIBIT E5A

Kessler and Gehman Associates, Inc.

WINQ-PROP

AMENDMENT

Latitude: 27-01-31.80 N
Longitude: 080-10-42.80 W
Power: 150.00 kW
Channel: 43-
Frequency: 646.5 MHz
AMSL Height: 301.3 m
Elevation: 4.0 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: 311.0
Receiver Ht AG: 10.0 m
Receiver Gain: 0 dB
Time Variability: 50.0%
Sit. Variability: 50.0%
ITM Mode: Broadcast



Kessler and Gehman Associates, Inc.

☒ WFLX.C
■ WINQ-PROP

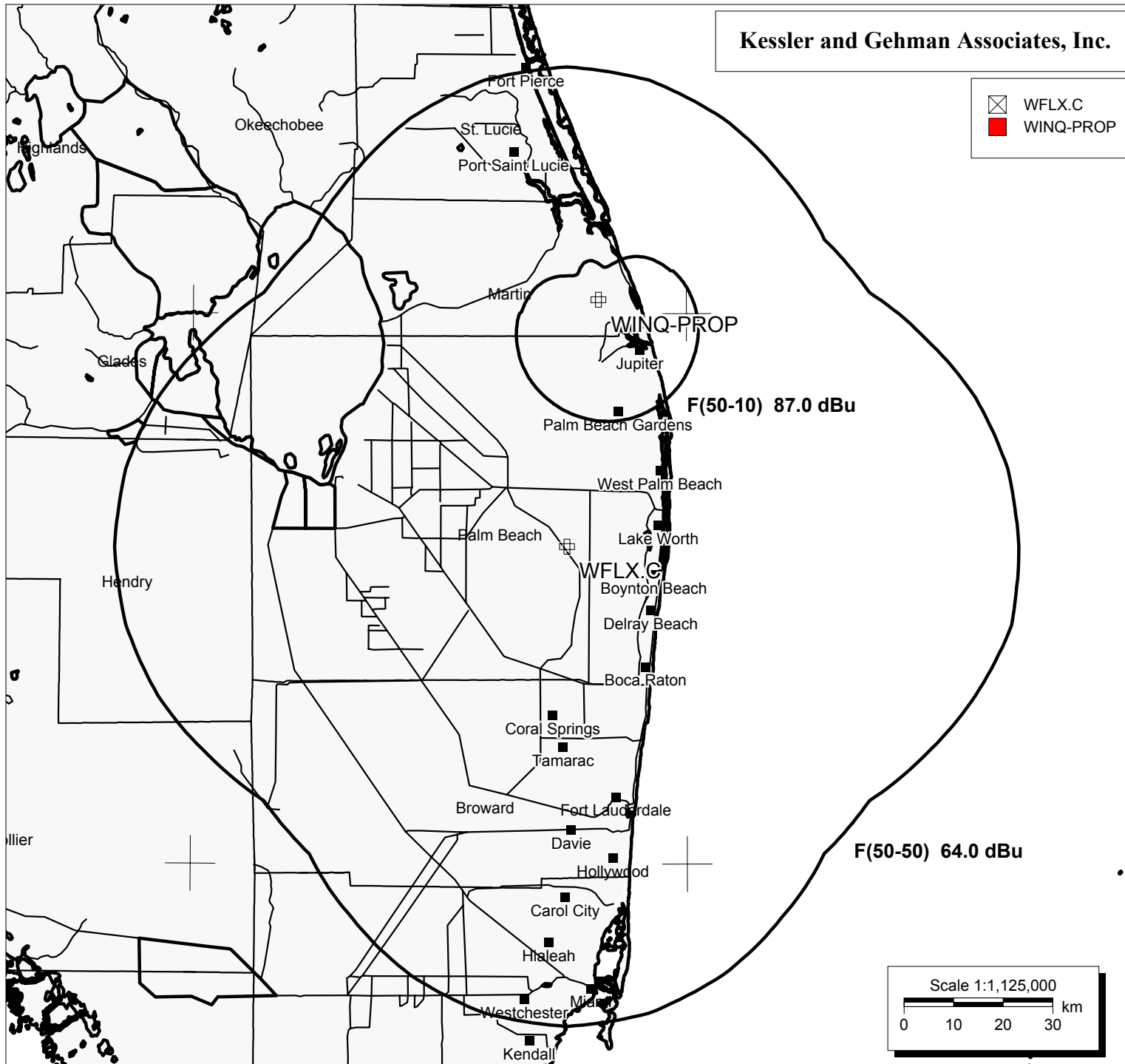
WFLX.C

BPCT19990910AAA
Latitude: 26-34-37 N
Longitude: 080-14-32 W
Power: 5000.00 kW
Channel: 29+
Frequency: 563.0 MHz
AMSL Height: 462.0 m
Elevation: 4.0 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: 50.0%
Sit. Variability: 50.0%
ITM Mode: Broadcast

WINQ-PROP

Latitude: 27-01-31.80 N
Longitude: 080-10-42.80 W
Power: 150.00 kW
Channel: 43-
Frequency: 647.0 MHz
AMSL Height: 301.3 m
Elevation: 4.0 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: 10.0%
Sit. Variability: 50.0%
ITM Mode: Broadcast

EXHIBIT E6A



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☒ WFLX
■ WINQ-PROP

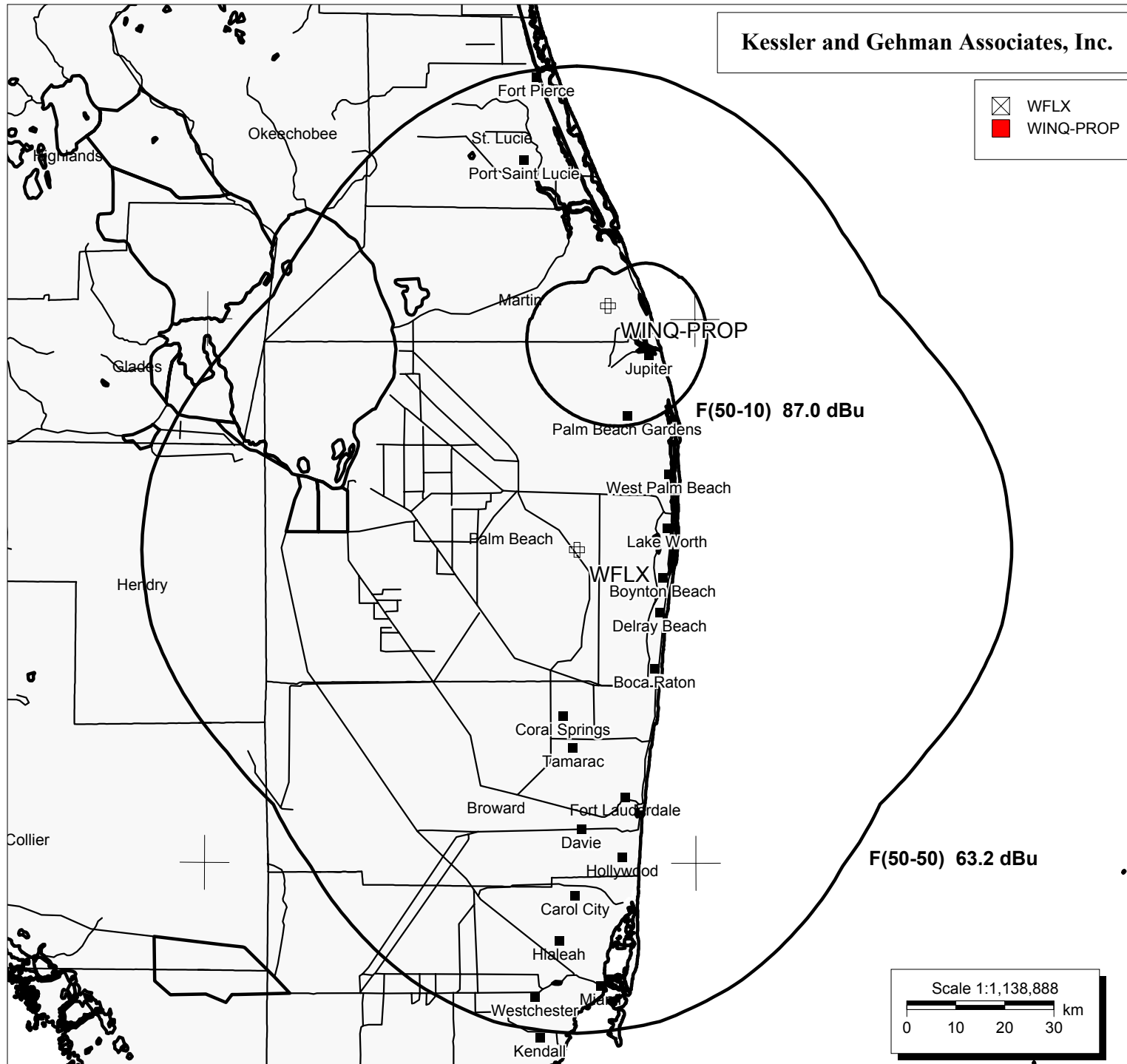
WFLX

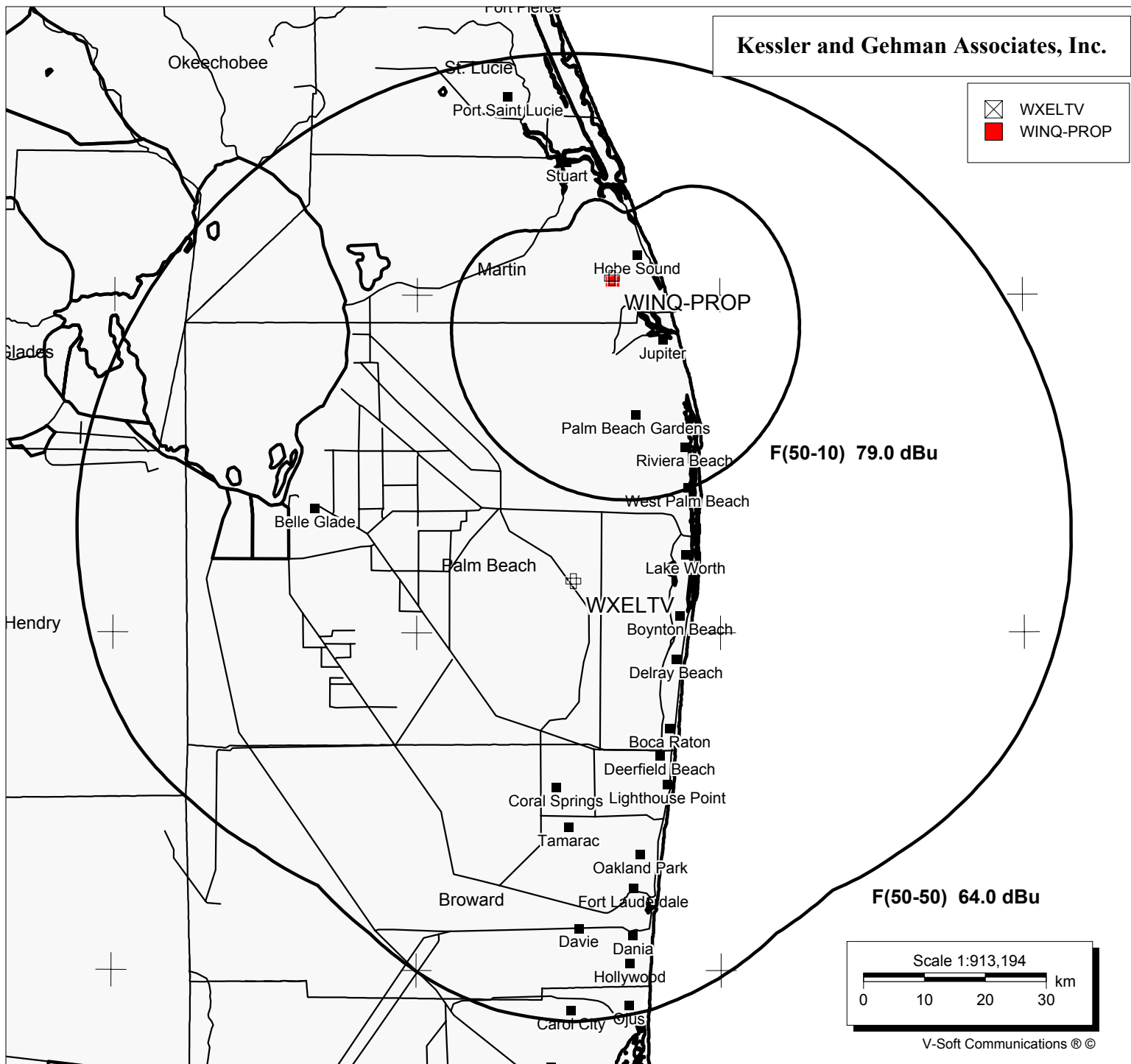
BLCT19860514KH
Latitude: 26-34-37 N
Longitude: 080-14-32 W
Power: 5000.00 kW
Channel: 29+
Frequency: 563.0 MHz
AMSL Height: 462.0 m
Elevation: 4.0 m
Horiz. Pattern: Directional
Vert. Pattern: Yes
Elec Tilt: 0.0
Prop Model: Longley/Rice
Climate: Cont temperate
Conductivity: 0.0050
Dielec Const: 15.0
Refractivity: 301.0
Receiver Ht AG: 10.0 m
Receiver Gain: 0 dB
Time Variability: 50.0%
Sit. Variability: 50.0%
ITM Mode: Broadcast

WINQ-PROP

Latitude: 27-01-31.80 N
Longitude: 080-10-42.80 W
Power: 150.00 kW
Channel: 43-
Frequency: 647.0 MHz
AMSL Height: 301.3 m
Elevation: 4.0 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: 10.0%
Sit. Variability: 50.0%
ITM Mode: Broadcast

EXHIBIT E6B





WXELTV

BLET19820625KF

Latitude: 26-34-37 N

Longitude: 080-14-32 W

Power: 2140.00 kW

Channel: 42+

Frequency: 641.0 MHz

AMSL Height: 444.0 m

Elevation: 4.0 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: 50.0%

Sit. Variability: 50.0%

ITM Mode: Broadcast

WINQ-PROP

Latitude: 27-01-31.80 N

Longitude: 080-10-42.80 W

Power: 150.00 kW

Channel: 43-

Frequency: 647.0 MHz

AMSL Height: 301.3 m

Elevation: 4.0 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

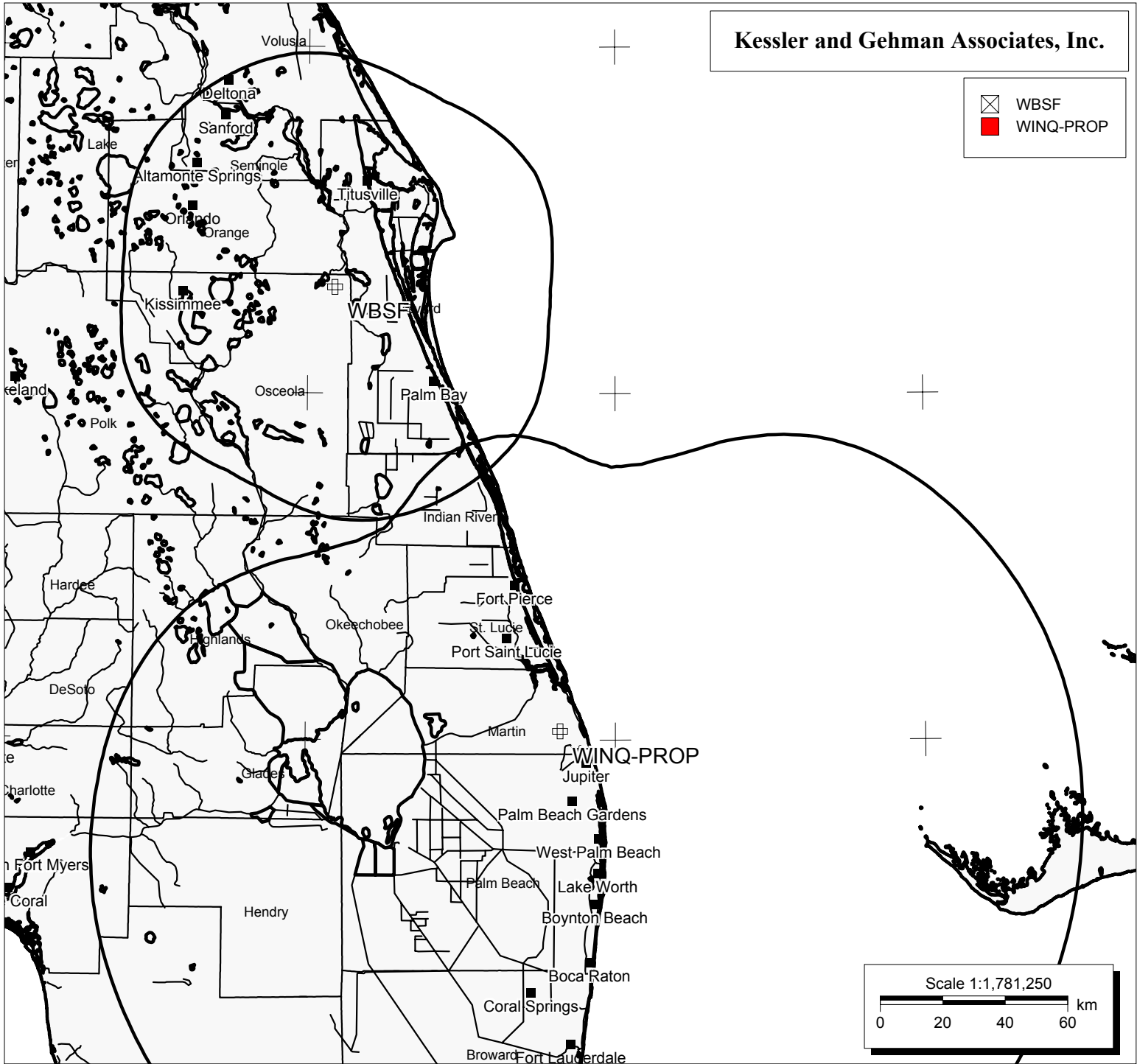
Time Variability: 10.0%

Sit. Variability: 50.0%

ITM Mode: Broadcast

EXHIBIT E6C

Kessler and Gehman Associates, Inc.



WBSF
BLCT19980422KG
Latitude: 28-18-22 N
Longitude: 080-54-45 W
Power: 2290.00 kW
Channel: 43+
Frequency: 647.0 MHz
AMSL Height: 311.0 m
Elevation: 10.0 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: 50.0%
Sit. Variability: 50.0%
ITM Mode: Broadcast

WINQ-PROP
Latitude: 27-01-31.80 N
Longitude: 080-10-42.80 W
Power: 150.00 kW
Channel: 43-
Frequency: 647.0 MHz
AMSL Height: 301.3 m
Elevation: 4.0 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: 10.0%
Sit. Variability: 50.0%
ITM Mode: Broadcast

Kessler and Gehman Associates, Inc.

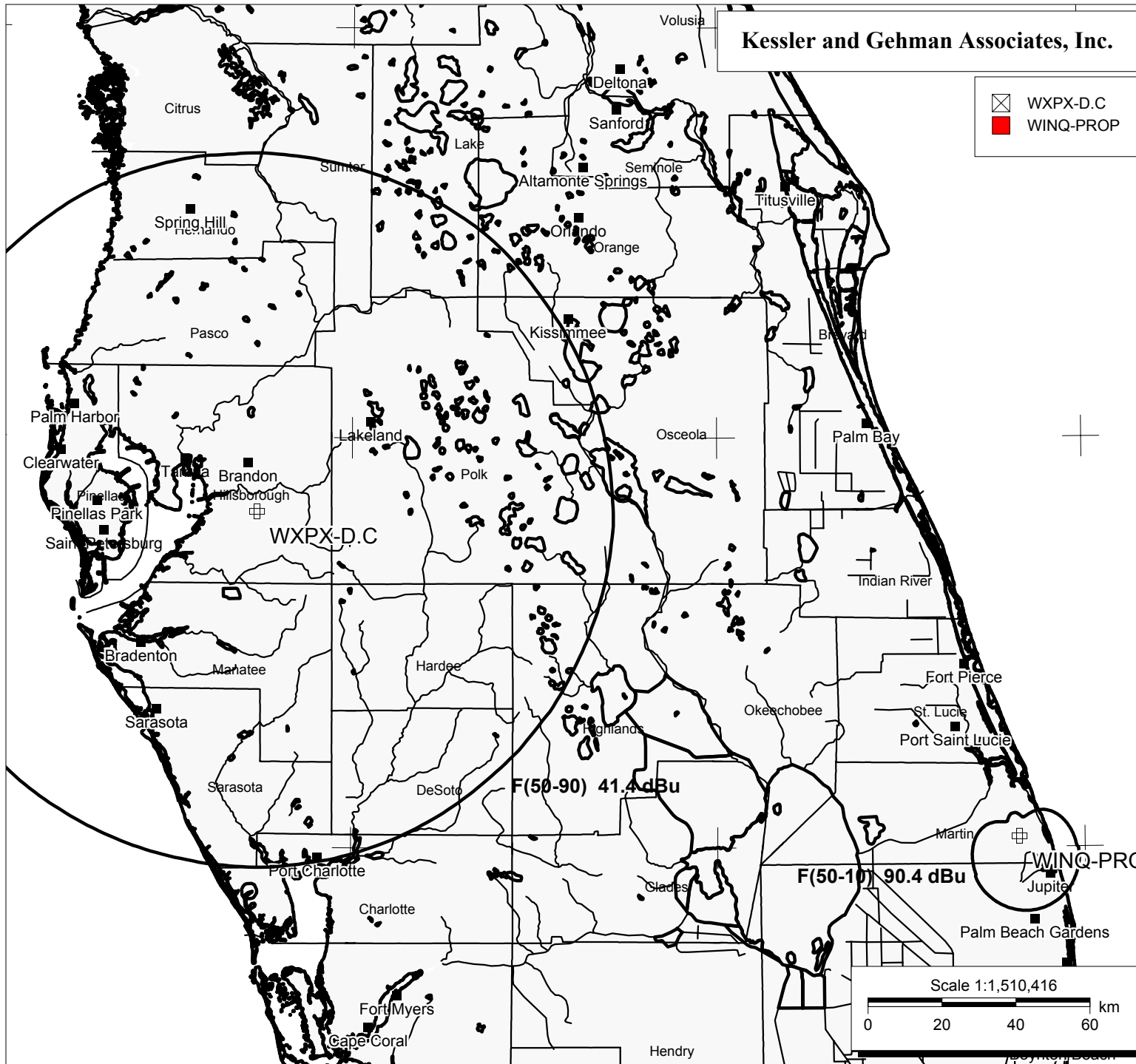
☒ WXPX-D.C
■ WINQ-PROP

WXPX-D.C

BPCDT19990602KF
Latitude: 27-49-10 N
Longitude: 082-15-39 W
Power: 210.00 kW
Channel: 42
Frequency: 641.0 MHz
AMSL Height: 495.0 m
Elevation: 17.84 m
Horiz. Pattern: Omni
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

WINQ-PROP

Latitude: 27-01-31.80 N
Longitude: 080-10-42.80 W
Power: 150.00 kW
Channel: 43-
Frequency: 647.0 MHz
AMSL Height: 301.3 m
Elevation: 4.0 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: 10.0%
Sit. Variability: 50.0%
ITM Mode: Broadcast



Kessler and Gehman Associates, Inc.

☒ WFCT-D.R
■ WINQ-PROP

WFCT-D.R

BLCT940812KE
Latitude: 27-24-30 N
Longitude: 082-15-00 W
Power: 50.00 kW
Channel: 42
Frequency: 641.0 MHz
AMSL Height: 481.0 m
Elevation: 25.3 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

WINQ-PROP

Latitude: 27-01-31.80 N
Longitude: 080-10-42.80 W
Power: 150.00 kW
Channel: 43-
Frequency: 647.0 MHz
AMSL Height: 301.3 m
Elevation: 4.0 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: 10.0%
Sit. Variability: 50.0%
ITM Mode: Broadcast

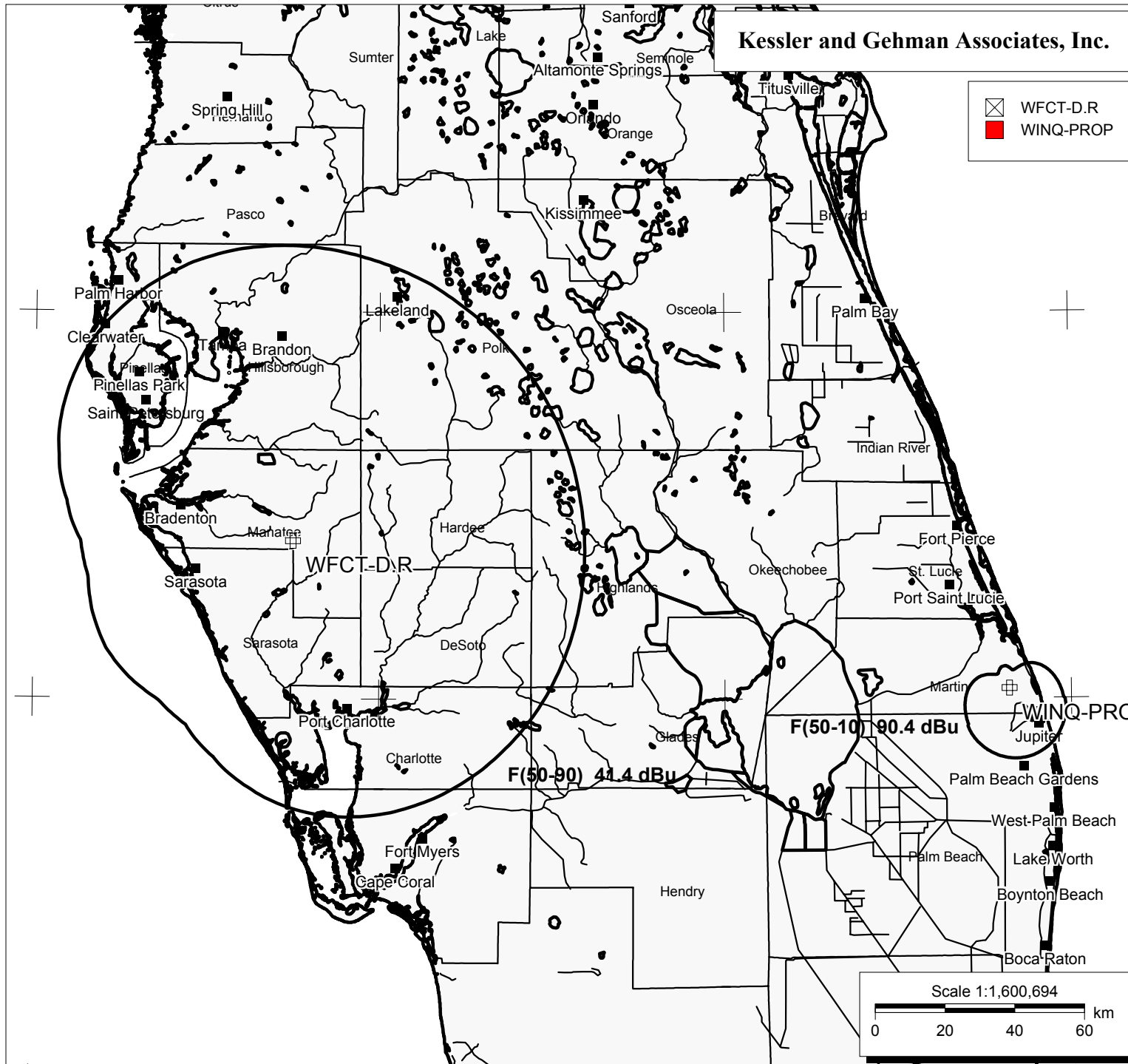
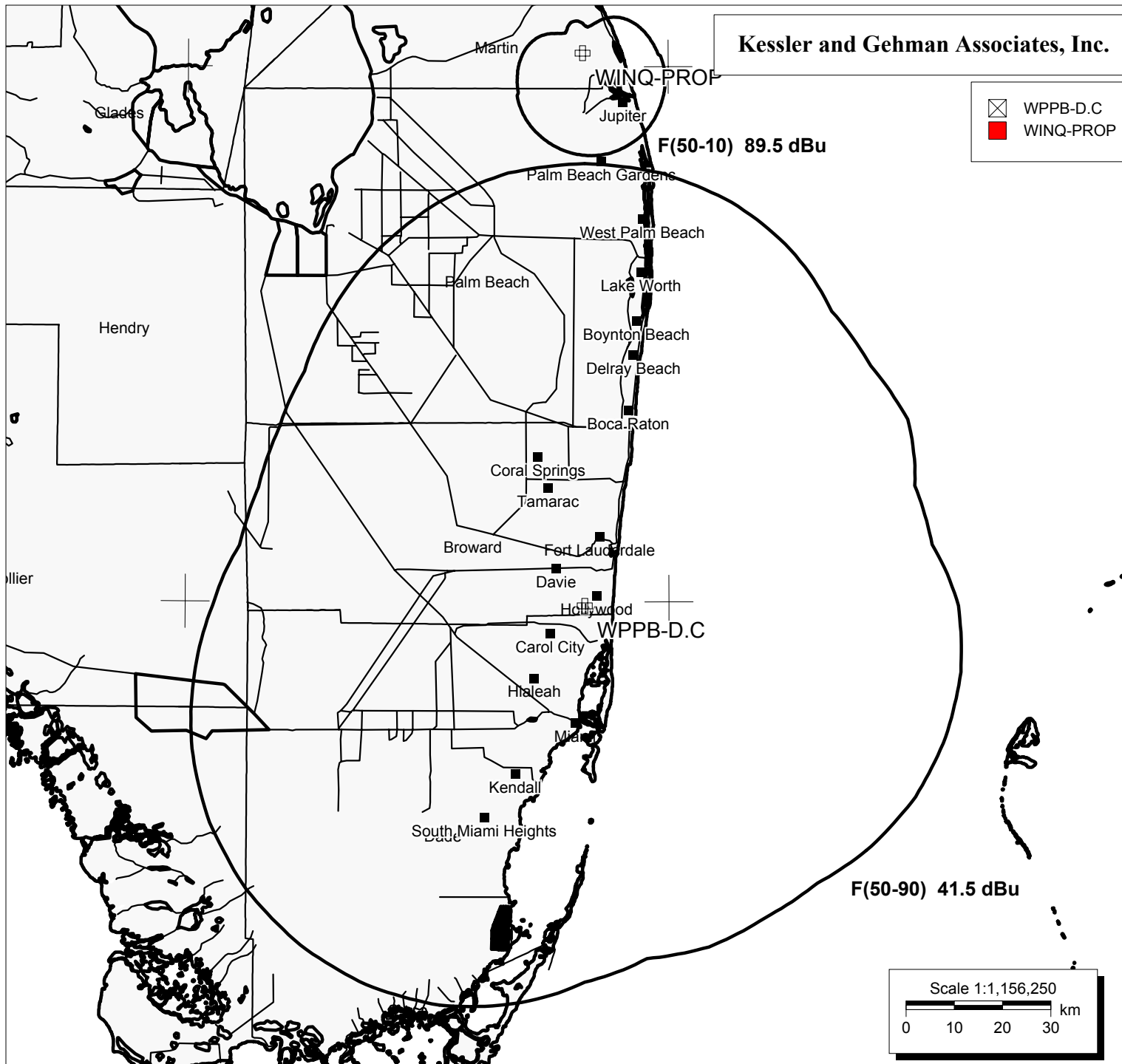
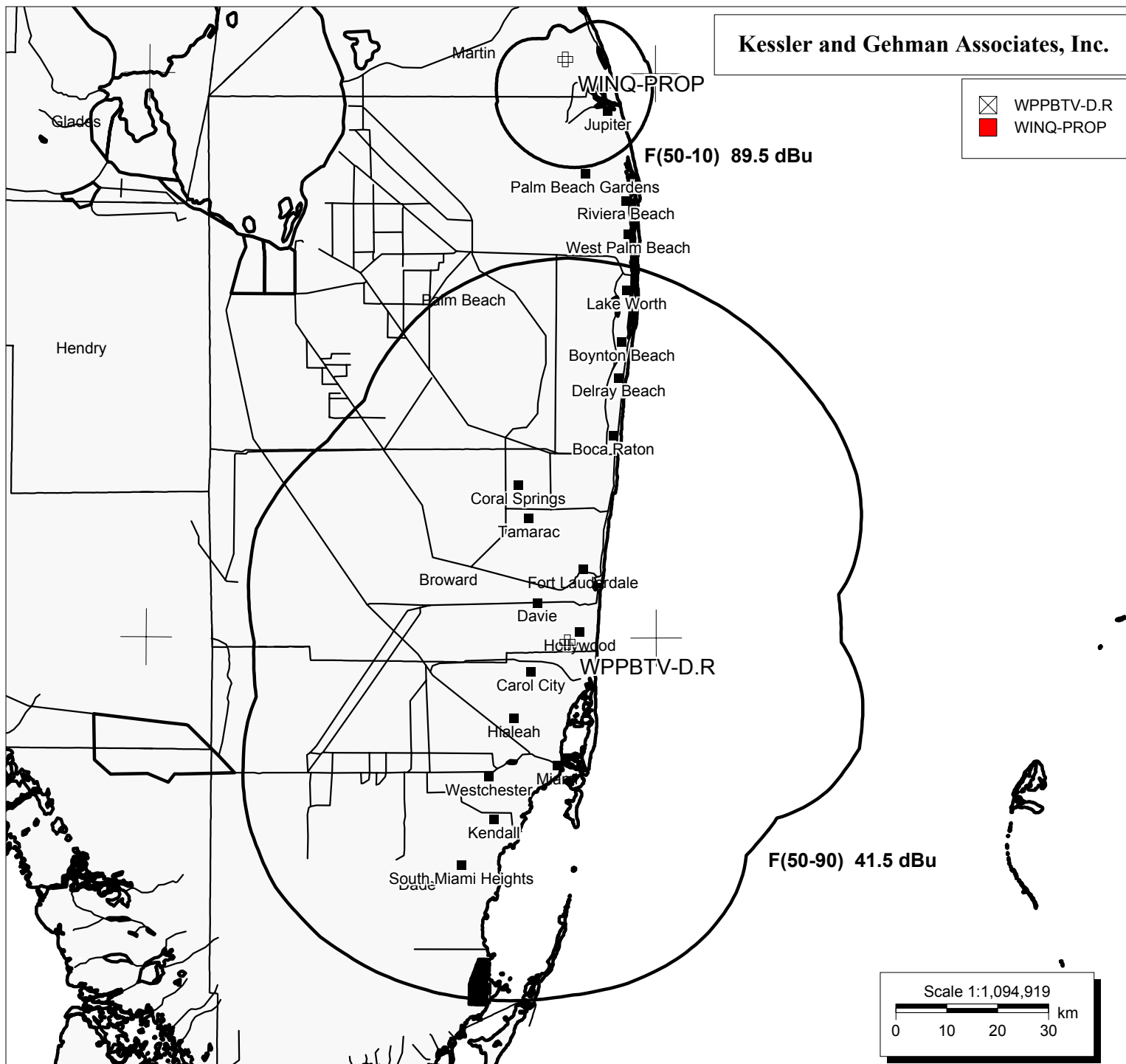


EXHIBIT E6F



WPPB-D.C
BPEDT19991028ACM
Latitude: 25-59-34 N
Longitude: 080-10-27 W
Power: 565.00 kW
Channel: 44
Frequency: 653.0 MHz
AMSL Height: 311.0 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

WINQ-PROP
Latitude: 27-01-31.80 N
Longitude: 080-10-42.80 W
Power: 150.00 kW
Channel: 43-
Frequency: 647.0 MHz
AMSL Height: 301.3 m
Elevation: 4.0 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: 10.0%
Sit. Variability: 50.0%
ITM Mode: Broadcast



Kessler and Gehman Associates, Inc.

WPPBTV-D.R
WINQ-PROP

WPPBTV-D.R

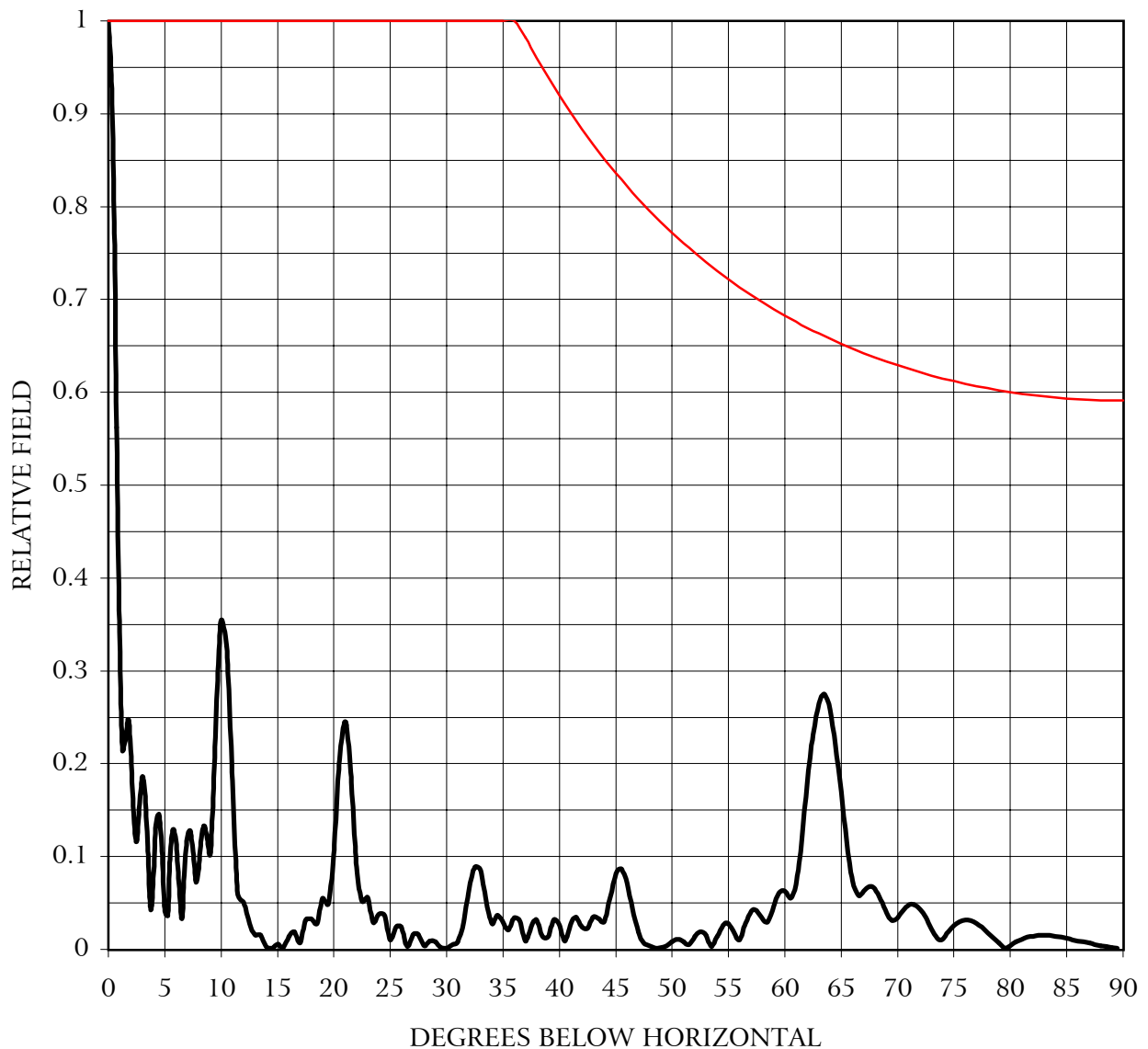
BMPET890303KN
Latitude: 25-59-34 N
Longitude: 080-10-27 W
Power: 61.70 kW
Channel: 44
Frequency: 653.0 MHz
AMSL Height: 312.0 m
Elevation: 3.0 m
Horiz. Pattern: Directional
Vert. Pattern: Yes
Elec Tilt: 0.0
Prop Model: Longley/Rice
Climate: Cont temperate
Conductivity: 0.0050
Dielec Const: 15.0
Refractivity: 301.0
Receiver Ht AG: 10.0 m
Receiver Gain: 0 dB
Time Variability: 90.0%
Sit. Variability: 50.0%
ITM Mode: Broadcast

WINQ-PROP

Latitude: 27-01-31.80 N
Longitude: 080-10-42.80 W
Power: 150.00 kW
Channel: 43-
Frequency: 647.0 MHz
AMSL Height: 301.3 m
Elevation: 4.0 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: 10.0%
Sit. Variability: 50.0%
ITM Mode: Broadcast

EXHIBIT E6H

RFR STUDY



- Represents the relative field of the proposed antenna with respect to the degrees below the horizontal plane.
- Represents the 5% threshold of the most restrictive permissible exposure at any location 2 meters above the ground. This curve takes into account the frequency of the proposed channel, the proposed power, the proposed height above ground level (2 meters above ground), and a ground reflection coefficient of 1.6. This calculation was made using the methodology in OET Bulletin 53, Edition, 97-01.

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EXHIBIT E7