

FOR
FCC
USE
ONLY

FCC 301

APPLICATION FOR CONSTRUCTION PERMIT FOR COMMERCIAL BROADCAST STATION

FOR COMMISSION USE ONLY

FILE NO.

Section I - General Information

1	Legal Name of the Applicant		
	Mailing Address		
	City	State or Country (if foreign address)	ZIP Code
	Telephone Number (include area code)		E-Mail Address (if available)
	FCC Registration Number	Call Sign	Facility ID Number

2.	Contact Representative (if other than applicant)	Firm or Company Name	
	Mailing Address		
	City	State or Country (if foreign address)	ZIP Code
	Telephone Number (include area code)		E-Mail Address (if available)

3. If this application has been submitted without a fee, indicate reason for fee exemption (see 47 C.F.R. Section 1.1114):

☐ Governmental Entity ☐ Other _____

4. Application Purpose.

- | | |
|--|--|
| <input type="checkbox"/> New Station | <input type="checkbox"/> Major Modification of construction permit |
| <input type="checkbox"/> New Station with Petition for Rulemaking or Counterproposal to Amend FM Table of Allotments | <input type="checkbox"/> Minor Modification of construction permit |
| <input type="checkbox"/> New Station with Petition for Rulemaking or Counterproposal to Amend FM Table of Allotments using Tribal Priority | <input type="checkbox"/> Major Amendment to pending application |
| | <input type="checkbox"/> Minor Amendment to pending application |
| <input type="checkbox"/> Major Change in licensed facility | |
| <input type="checkbox"/> Minor Change in licensed facility | |

a. File number of original construction permit: _____

☐ N/A

b. Service Type: ☐ AM ☐ FM ☐ TV ☐ DTV ☐ DTS

c. DTV Type: ☐ Pre-Transition ☐ Post-Transition ☐ Both

d. Community of License:

City	State
------	-------

e. Facility Type: ☐ Main ☐ Auxiliary

If an amendment, submit as an Exhibit a listing by Section and Question Number of the portions of the pending application that are being revised.

Exhibit No.

NOTE: In addition to the information called for in this section, an explanatory exhibit providing full particulars must be submitted for each question for which a "No" response is provided.

Section II - Legal

1. **Certification.** Applicant certifies that it has answered each question in this application based on its review of the application instructions and worksheets. Applicant further certifies that where it has made an affirmative certification below, this certification constitutes its representation that the application satisfies each of the pertinent standards and criteria set forth in the application instructions and worksheets. ☐ Yes ☐ No

2. **Parties to the Application.**

a. List the applicant, and, if other than a natural person, its officers, directors, stockholders and other entities with attributable interests, non-insulated partners and/or members. If a corporation or partnership holds an attributable interest in the applicant, list separately its officers, directors, stockholders and other entities with attributable interests, non-insulated partners and/or members. Create a separate row for each individual or entity. Attach additional pages if necessary.

(1) Name and address of the applicant and each party to the application holding an attributable interest (if other than individual also show name, address and citizenship of natural person authorized to vote the stock or holding the attributable interest). List the applicant first, officers next, then directors and, thereafter, remaining stockholders and other entities with attributable interests, and partners.

(2) Citizenship.

(3) Positional Interest: Officer, director, general partner, limited partner, LLC member, investor/creditor attributable under the Commission's **equity/debt plus** standard, etc.

(4) Percentage of votes.

(5) Percentage of total assets (equity plus debt).

(1)	(2)	(3)	(4)	(5)

b. Applicant certifies that equity and financial interests not set forth above are non-attributable.

☐ Yes ☐ No

See Explanation
in Exhibit No.

☐ N/A

3. **Other Authorizations.** List call signs, locations, and facility identifiers of all other broadcast stations in which applicant or any party to the application has an attributable interest.

Exhibit No.

☐ N/A

4. **Multiple Ownership.**

a. Is the applicant or any party to the application the holder of an attributable radio joint sales agreement or an attributable radio or television time brokerage agreement in the same market as the station subject to this application?

☐ Yes ☐ No

If "YES," radio applicants must submit as an Exhibit a copy of each such agreement for radio stations.

Exhibit No.

Section II - Legal

- b. Applicant certifies that the proposed facility complies with the Commission's multiple ownership rules.

☐ Yes ☐ No

Radio applicants only: If "Yes," submit an Exhibit providing information regarding the market, broadcast station(s), and other information necessary to demonstrate compliance with 47 C.F.R. Section 73.3555(a).

See Explanation
in Exhibit No.

All Applicants: If "No," submit as an Exhibit a detailed explanation in support of an exemption from, or waiver of, 47 C.F.R. Section 73.3555.

- c. Applicant certifies that the proposed facility:

☐ Yes ☐ No

- (1) does not present an issue under the Commission's policies relating to media interests of immediate family members;
- (2) complies with the Commission's policies relating to future ownership interests; and
- (3) complies with the Commission's restrictions relating to the insulation and non-participation of non-party investors and creditors.

See Explanation
in Exhibit No.

- d. Does the Applicant claim status as an "eligible entity," that is, an entity that qualifies as a small business under the Small Business Administration's size standards for its industry grouping (as set forth in 13 C.F.R. Section 121.201), and holds:

☐ Yes ☐ No

- (1) 30 percent or more of the stock or partnership interests and more than 50 percent of the voting power of the corporation or partnership that will own the media outlet; or
- (2) 15 percent or more of the stock or partnership interests and more than 50 percent of the voting power of the corporation or partnership that will own the media outlet, provided that no other person or entity owns or controls more than 25 percent of the outstanding stock or partnership interests; or
- (3) more than 50 percent of the voting power of the corporation that will own the media outlet (if such corporation is a publicly traded company)?

See Explanation
in Exhibit No.

All applicants: If "Yes," submit as an Exhibit a detailed showing demonstrating proof of status as an eligible entity.

5. **Character Issues.** Applicant certifies that neither applicant nor any party to the application

☐ Yes ☐ No

- a. any broadcast application in any proceeding where character issues were left unresolved or were resolved adversely against the applicant or party to the application; or
- b. any pending broadcast application in which character issues have been raised.

See Explanation
in Exhibit No.

6. **Adverse Findings.** Applicant certifies that, with respect to the applicant and any party to the application, no adverse finding has been made, nor has an adverse final action been taken by any court or administrative body in a civil or criminal proceeding brought under the provisions of any law related to the following: any felony; mass media-related antitrust or unfair competition; fraudulent statements to another governmental unit; or discrimination.

☐ Yes ☐ No

See Explanation
in Exhibit No.

7. **Alien Ownership and Control.** Applicant certifies that it complies with the provisions of Section 310 of the Communications Act of 1934, as amended, relating to interests of aliens and foreign governments.

☐ Yes ☐ No

See Explanation
in Exhibit No.

8. **Program Service Certification.** Applicant certifies that it is cognizant of and will comply with its obligations as a Commission licensee to present a program service responsive to the issues of public concern facing the station's community of license and service area.

☐ Yes ☐ No

9. **Local Public Notice.** Applicant certifies that it has or will comply with the public notice requirements of 47 C.F.R. Section 73.3580.

☐ Yes ☐ No

10. **Auction Authorization.** If the application is being submitted to obtain a construction permit for which the applicant was the winning bidder in an auction, then the applicant certifies, pursuant to 47 C.F.R. Section 73.5005(a), that it has attached an exhibit containing the information required by 47 C.F.R. Sections 1.2107(d), 1.2110(i), 1.2112(a) and 1.2112(b), if applicable.

☐ Yes ☐ No ☐ N/A

Exhibit No.

An exhibit is required unless this question is inapplicable.

11. **Anti-Drug Abuse Act Certification.** Applicant certifies that neither applicant nor any party to the application is subject to denial of federal benefits pursuant to Section 5301 of the Anti-Drug Abuse Act of 1988, 21 U.S.C. Section 862.

☐ Yes ☐ No

12. **Equal Employment Opportunity (EEO).** If the applicant proposes to employ five or more full-time employees, applicant certifies that it is filing simultaneously with this application a Model EEO Program Report on FCC Form 396-A.

☐ Yes ☐ No ☐ N/A

13. **Petition for Rulemaking/Counterproposal to Add New FM Channel to FM Table of Allotments.** If the application is being submitted concurrently with a Petition for Rulemaking or Counterproposal to Amend the FM Table of Allotments (47 C.F.R. Section 73.202) to add a new FM channel allotment, petitioner/counter-proponent certifies that, if the FM channel allotment requested is allotted, petitioner/counter-proponent will apply to participate in the auction of the channel allotment requested and specified in this application.

☐ Yes ☐ No ☐ N/A

14. **Tribal Priority - Threshold Qualifications.** Is the Applicant applying for an FM allotment set forth in a Public Notice announcing a Tribal Threshold Qualifications window? An Applicant answering "Yes" must provide an Exhibit demonstrating that it would have been qualified to add the allotment for which it is applying using the Tribal Priority.

☐ Yes ☐ No

Exhibit No.

I certify that the statements in this application are true, complete, and correct to the best of my knowledge and belief, and are made in good faith. I acknowledge that all certifications and attached Exhibits are considered material representations. I hereby waive any claim to the use of any particular frequency as against the regulatory power of the United States because of the previous use of the same, whether by license or otherwise, and request an authorization in accordance with this application. (See Section 304 of the Communications Act of 1934, as amended.)

Typed or Printed Name of Person Signing CARL TUTERA	Typed or Printed Title of Person Signing PRESIDENT
Signature <i>Carl Tuter</i>	Date 8/16/22

WILLFUL FALSE STATEMENTS ON THIS FORM ARE PUNISHABLE BY FINE AND/OR IMPRISONMENT (U.S. CODE, TITLE 18, SECTION 1001), AND/OR REVOCATION OF ANY STATION LICENSE OR CONSTRUCTION PERMIT (U.S. CODE, TITLE 47, SECTION 312(a)(1)), AND/OR FORFEITURE (U.S. CODE, TITLE 47, SECTION 503).

SECTION III PREPARER'S CERTIFICATION

I certify that I have prepared Section III (Engineering Data) on behalf of the applicant, and that after such preparation, I have examined and found it to be accurate and true to the best of my knowledge and belief.

Name Louis R. duTreil Jr.	Relationship to Applicant (e.g., Consulting Engineer) Technical Consultant	
Signature	Date 8/1/22	
Mailing Address 5212 Station Way		
City Sarasota	State or Country (if foreign address) FL	ZIP Code 34233
Telephone Number (include area code) 941-329-6004	E-Mail Address (if available) bobjr@DLR.com	

WILLFUL FALSE STATEMENTS ON THIS FORM ARE PUNISHABLE BY FINE AND/OR IMPRISONMENT (U.S. CODE, TITLE 18, SECTION 1001), AND/OR REVOCATION OF ANY STATION LICENSE OR CONSTRUCTION PERMIT (U.S. CODE, TITLE 47, SECTION 312(a)(1)), AND/OR FORFEITURE (U.S. CODE, TITLE 47, SECTION 503).

SECTION III - A AM Engineering

TECHNICAL SPECIFICATIONS Ensure that the specifications below are accurate. Contradicting data found elsewhere in this application will be disregarded. All items must be completed. The response "on file" is not acceptable.

TECH BOX

1. Frequency: 810 kHz

2. Class: ☐ A ☐ B ☐ C ☒ D

3. Hours of Operation: ☒ Unlimited ☐ Limited ☐ Daytime ☐ Share Time ☐ Specified Hours:

4. Daytime Operation: ☒ Yes ☐ No

a. Power: 2 kW

b. Antenna Location Coordinates: (NAD 27)

28° 34' 12" ☒ N

☐ S Latitude

81° 26' 00" ☐ E

☒ W Longitude

c. Nondirectional: ☐ Yes ☒ No

If "Yes," complete the following items. If additional space is needed, please provide the information requested below in an Exhibit.

Exhibit No.

Theoretical mV/m per kW at 1 km

Tower	
Overall height above ground (include obstruction lighting) (meters)	
Antenna structure registration	<div>Number</div> <div><input type="checkbox"/> Notification filed with FAA</div> <div><input type="checkbox"/> Not applicable</div>
Height of radiator above base insulator, or above base, if grounded (meters)	
Electrical height of radiator (degrees)	
Top-Loaded/Sectionalized apparent height (degrees)	
A	
B	
C	
D	

TECH BOX - DAYTIME OPERATION

d. Directional:

☒ Yes ☐ No

If "Yes," complete the following items. If additional space is needed, please provide the information requested below in an Exhibit.

Exhibit No.

Theoretical _____ mV/m at 1 km

441.8 / 464.1

Standard RMS: _____ mV/m at 1 km

Towers 2	1	2	3	4
Overall height above ground (include obstruction lighting) (meters)	94.2	94.2		
Antenna structure registration	<u>1247871</u> <input type="checkbox"/> Number Notification filed with FAA <input type="checkbox"/> Not applicable	<u>1247872</u> <input type="checkbox"/> Number Notification filed with FAA <input type="checkbox"/> Not applicable	<input type="checkbox"/> Number Notification filed with FAA <input type="checkbox"/> Not applicable	<input type="checkbox"/> Number Notification filed with FAA <input type="checkbox"/> Not applicable
Height of radiator above base insulator, or above base, if grounded (meters)	92.5	92.5		
Electrical height of radiator (degrees)	90.0	90.0		
Field ratio	1	.65		
Phase (degrees)	0	-105		
Spacing (degrees)	0	90.0		
Tower orientation (degrees)	0	81.6		
Tower reference switch	0	0		
Top-Loaded/Sectionalized apparent height (degrees)				
A				
B				
C				
D				

Augmented:

☐ Yes ☒ No

If "Yes," complete the following:

Augmented RMS: _____ mV/m at 1 km

Azimuth

Span

Augmentation radiation
(mV/m at 1 km)

TECH BOX - NIGHTTIME OPERATION

5. Nighttime Operation:

☒ Yes ☐ No

a. Power: 0.021 kW

b. Antenna Location Coordinates: (NAD 27)

28 ° 34 ' 12 " ☒ N ☐ S Latitude
81 ° 26 ' 00 " ☐ E ☒ W Longitude

c. Nondirectional:

☒ Yes ☐ No

If "Yes," complete the following items. If additional space is needed, please provide the information requested below in an Exhibit.

Exhibit No.

Theoretical 305.77 mV/m per kW at 1 km

Tower	2
Overall height above ground (include obstruction lighting) (meters)	94.2
Antenna structure registration	<u>1247872</u> Number <input type="checkbox"/> Notification filed with FAA <input type="checkbox"/> Not applicable
Height of radiator above base insulator, or above base, if grounded (meters)	94.2
Electrical height of radiator (degrees)	90.0
Top-Loaded/Sectionalized apparent height (degrees)	
A	
B	
C	
D	

TECH BOX - NIGHTTIME OPERATION

d. Directional:

If "Yes," complete the following items. If additional space is needed, please provide the information requested below in an Exhibit.

☐ Yes ☒ No

Exhibit No.

Theoretical _____ mV/m at 1 km

Standard RMS: _____ mV/m at 1 km

Towers	1	2	3	4
Overall height above ground (include obstruction lighting) (meters)				
Antenna structure registration	<div>Number</div> <input type="checkbox"/> Notification filed with FAA <input type="checkbox"/> Not applicable	<div>Number</div> <input type="checkbox"/> Notification filed with FAA <input type="checkbox"/> Not applicable	<div>Number</div> <input type="checkbox"/> Notification filed with FAA <input type="checkbox"/> Not applicable	<div>Number</div> <input type="checkbox"/> Notification filed with FAA <input type="checkbox"/> Not applicable
Height of radiator above base insulator, or above base, if grounded (meters)				
Electrical height of radiator (degrees)				
Field ratio				
Phase (degrees)				
Spacing (degrees)				
Tower orientation (degrees)				
Tower reference switch				
Top-Loaded/Sectionalized apparent height (degrees)				
A				
B				
C				
D				

Augmented:

☐ Yes ☒ No

If "Yes," complete the following:

Augmented RMS: _____ mV/m at 1 km

Azimuth

Span

Augmentation radiation

TECH BOX - CRITICAL HOURS OPERATION

6. Critical Hours Operation:

☐ Yes ☒ No

a. Power: _____ kW

b. Antenna Location Coordinates: (NAD 27)

_____ ° _____ ' _____ " ☐ N ☐ S Latitude
 _____ ° _____ ' _____ " ☐ E ☐ W Longitude

c. Nondirectional:

☐ Yes ☒ No

If "Yes," complete the following items. If additional space is needed, please provide the information requested below in an Exhibit.

Exhibit No.

Theoretical _____ mV/m per kW at 1 km

Tower	
Overall height above ground (include obstruction lighting) (meters)	
Antenna structure registration	<div style="text-align: center;">_____</div> <div style="text-align: center;">Number</div> <input type="checkbox"/> Notification filed with FAA <input type="checkbox"/> Not applicable
Height of radiator above base insulator, or above base, if grounded (meters)	
Electrical height of radiator (degrees)	
Top-Loaded/Sectionalized apparent height (meters)	
A	
B	
C	
D	

TECH BOX - CRITICAL HOURS OPERATION

d. Directional:

☐ Yes ☒ No

if "Yes," complete the following items. If additional space is needed, please provide the information requested below in an Exhibit.

Exhibit No.

Theoretical _____ mV/m at 1 km

Standard RMS: _____ mV/m at 1 km

Towers	1	2	3	4
Overall height above ground (include obstruction lighting) (meters)				
Antenna structure registration	<div>Number</div> <input type="checkbox"/> Notification filed with FAA <input type="checkbox"/> Not applicable	<div>Number</div> <input type="checkbox"/> Notification filed with FAA <input type="checkbox"/> Not applicable	<div>Number</div> <input type="checkbox"/> Notification filed with FAA <input type="checkbox"/> Not applicable	<div>Number</div> <input type="checkbox"/> Notification filed with FAA <input type="checkbox"/> Not applicable
Height of radiator above base insulator, or above base, if grounded (meters)				
Electrical height of radiator (degrees)				
Field ratio				
Phase (degrees)				
Spacing (degrees)				
Tower orientation (degrees)				
Tower reference switch				
Top-Loaded/Sectionalized apparent height (degrees)				
A				
B				
C				
D				

Augmented:

☐ Yes ☒ No

If "Yes," complete the following:

Augmented RMS: _____ mV/m at 1 km

Azimuth

Span

Augmentation radiation

NOTE: In addition to the information called for in this section, an explanatory exhibit providing full particulars must be submitted for each question for which a "No" response is provided.

CERTIFICATION

7. **Broadcast Facility.** The proposed facility complies with the engineering standards and assignment requirements of 47 C.F.R. Sections 73.24(e), 73.24(g), 73.33, 73.45, 73.150, 73.152, 73.160, 73.182(a)-(i), 73.186, 73.189, 73.1650. **Exhibit Required.** ☒ Yes ☐ No

See Explanation in Exhibit No.
Exhibit No. Tech. Exhibits
8. **Community Coverage.** The proposed facility complies with community coverage requirements of 47 C.F.R. Section 73.24(i). ☒ Yes ☐ No

See Explanation in Exhibit No.
9. **Main Studio Location.** The proposed main studio location complies with requirements of 47 C.F.R. Section 73.1125. ☒ Yes ☐ No

See Explanation in Exhibit No.
10. **Interference.** The proposed facility complies with all of the following applicable rule sections. Check all those that apply. An exhibit is required for each applicable section.
- Groundwave.**
- a. ☒ 47 C.F.R. Section 73.37

Exhibit No.
- Skywave.**
- b. ☒ 47 C.F.R. Section 73.182.

Exhibit No.
- Critical Hours.**
- c. ☒ 47 C.F.R. Section 73.187.

Exhibit No.
11. **Environmental Protection Act.** The proposed facility is excluded from environmental processing under 47 C.F.R. Section 1.1306 (i.e., the facility will not have a significant environmental impact and complies with the maximum permissible radio frequency electromagnetic exposure limits for controlled and uncontrolled environments). Unless the applicant can determine compliance through the use of the RF worksheets in Appendix A, an **Exhibit is required.** ☒ Yes ☐ No

See Explanation in Exhibit No.
- By checking "Yes" above, the applicant also certifies that it, in coordination with other users of the site, will reduce power or cease operation as necessary to protect persons having access to the site, tower or antenna from radio frequency electromagnetic exposure in excess of FCC guidelines.
12. **Community of License Change - Section 307(b).** If the application is being submitted to change the facility's community of license, then the applicant certifies that it has attached an exhibit containing information demonstrating that the proposed community of license change constitutes a preferential arrangement of assignments under Section 307(b) of the Communications Act of 1934, as amended (47 U.S.C. Section 307(b)). ☐ Yes ☐ No ☒ N/A

Exhibit No.
- An exhibit is required** unless this question is not applicable.
13. **Dispositive Section 307(b) Preference**
- a. Was the AM facility that is the subject of this application awarded on the basis of a dispositive Section 307(b) preference? ☐ Yes ☐ No
- b. If yes to 13(a), applicant certifies that: (i) the community of license proposed in the subject application is the same as that on which the Section 307(b) preference was based, or (ii) as shown in the attached Exhibit, the service area proposed in the subject application is substantially equivalent to the service area on which the Section 307(b) preference was based. ☐ Yes ☐ No ☐ N/A

Exhibit No.
- c. If yes to 13(a) and no to 13(b), applicant certifies that, although in the subject application it proposes to: (i) change the community of license, or (ii) modify service to the area on which the Section 307(b) preference was based, it has for a period of four years of on-air operations: (1) served the community of license, or (2) provided full service to the area on which the Section 307(b) preference was based. ☐ Yes ☐ No

Exhibit No.

TECHNICAL SUMMARY

RADIO STATION WRSO
ORLOVISTA, FLORIDA
810 KHZ, 2 KW, DA-D (0.021 kW-N)

1. WRSO is licensed for operation at Orlovista, Florida, at a frequency of 810 kHz with 20 kW during daytime hours and 0.4 kW during nighttime hours. Different directional antenna patterns are licensed for daytime and nighttime operations.*
2. The instant application is to convert WRSO to a Class D daytime-only facility utilizing two of the registered antenna towers at the WRSO licensed transmitter site. The towers to be employed are Towers #1 and #2 with antenna structure registration numbers 1247871 and 1247872, respectively. In order to meet the daytime allocation requirements, a directional antenna system was designed with a nominal power of 2 kW.
3. It is noted that a secondary nighttime non-directional facility is proposed to be employed utilizing Tower #2 of the array with a power of 21 watts.
4. The proposed facility complies with the requirements of 47 C.F.R. Sections 73.37, 73.182 and 73.187. The proposed operation does not involve overlap of signal strength contours with other stations where there is not already such overlap. A daytime allocation study was made utilizing a combination of FCC Figure M-3 conductivities and field strength measurements on WWBA[†]. A nighttime allocation study for secondary service shows protection to all stations and international allotments operating on the co-channel and adjacent channel frequencies. A critical hours study was conducted to demonstrate compliance with all Class A stations requiring study on the proposed frequency.
5. There is existing daytime contour overlap from station WWOS (formerly WQIZ) into WRSO. In a previous application for WRSO that was granted, FCC File No.

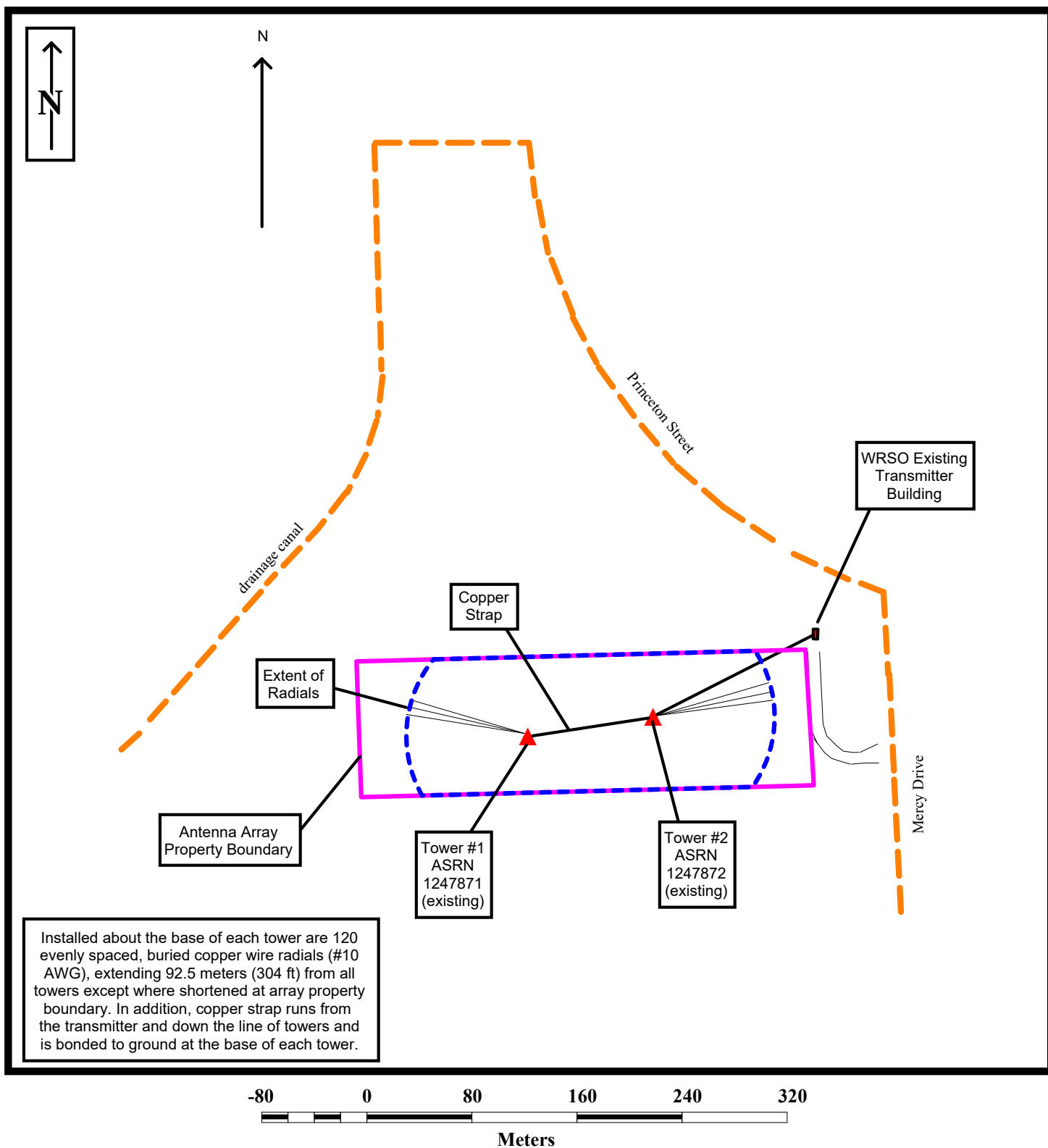
* See FCC File No. BMML-20150304ADE. It is noted that WRSO has been operating under Special Temporary Authority due to damage to its antenna system.

[†] See FCC File No. BP-20130429ACX. It is noted that WWBA now holds a construction permit to reduce its daytime power to 10 kW using a different directional antenna pattern. Because there is no change in the WWBA transmitter site, the field strength measurement data on WWBA from 2013 also was applied to the WWBA construction permit facility (BP-20220225AAJ).

BMP-20050624AAQ, it was noted that field strength measurements failed to detect any signal from WWOS in the vicinity of the proposed WRSO (formerly WEUS) service area. Additionally, the overlap is the result of a long salt-water path between WWOS and the Florida coast. Continued waiver of the contour overlap is requested if needed.

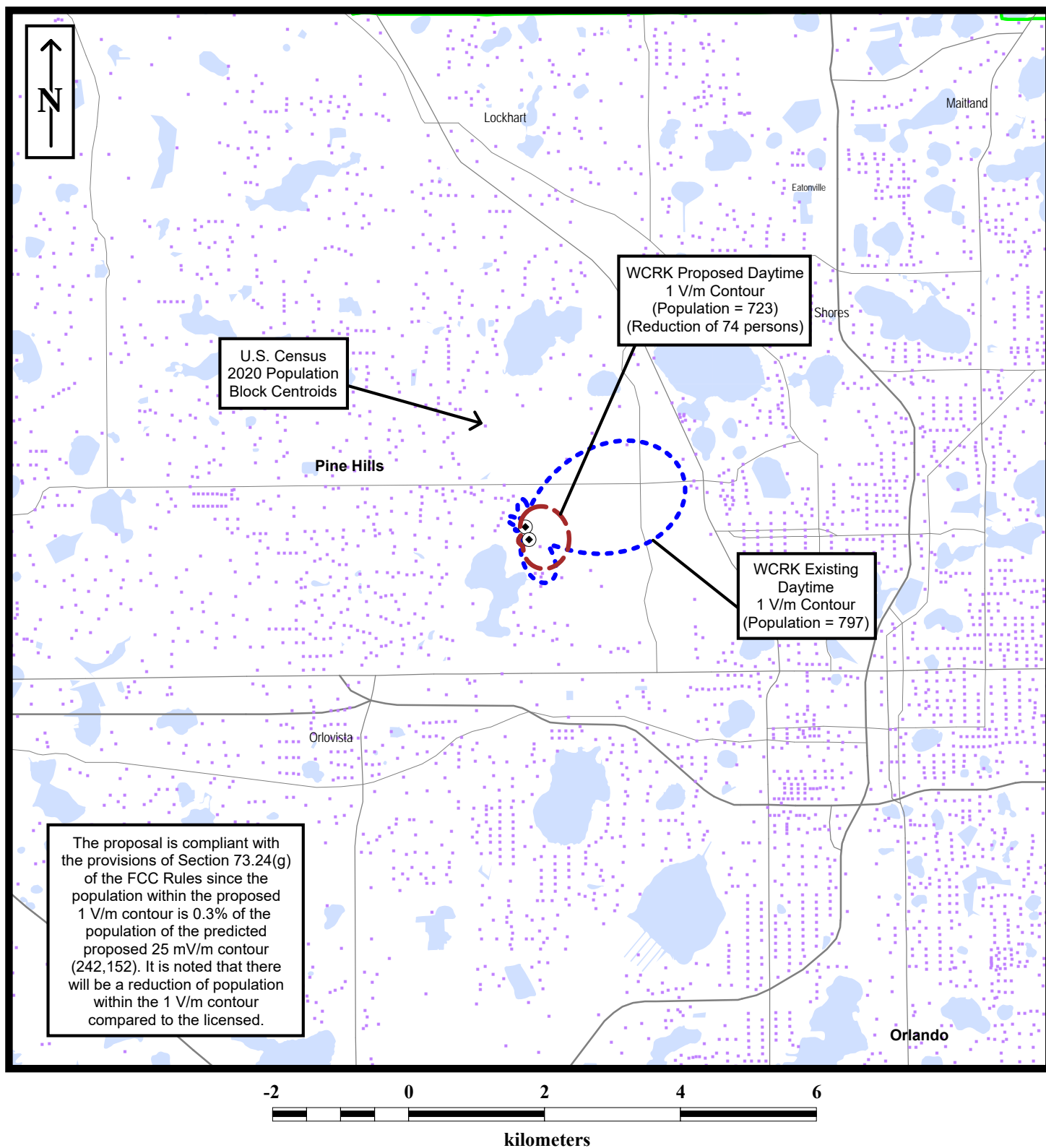
6. As included in previous applications for WRSO, WRSO reached an agreement with the Bahaman Public Utilities Commission regarding C6B3 for its earlier daytime power increase as shown on the included letter, dated June 6, 2013. The included allocation study shows compliance with the Bahaman agreement.

7. Maps showing the field strength contours requiring study and tabulations of pertinent data regarding the daytime and critical hours studies are included in the instant application.



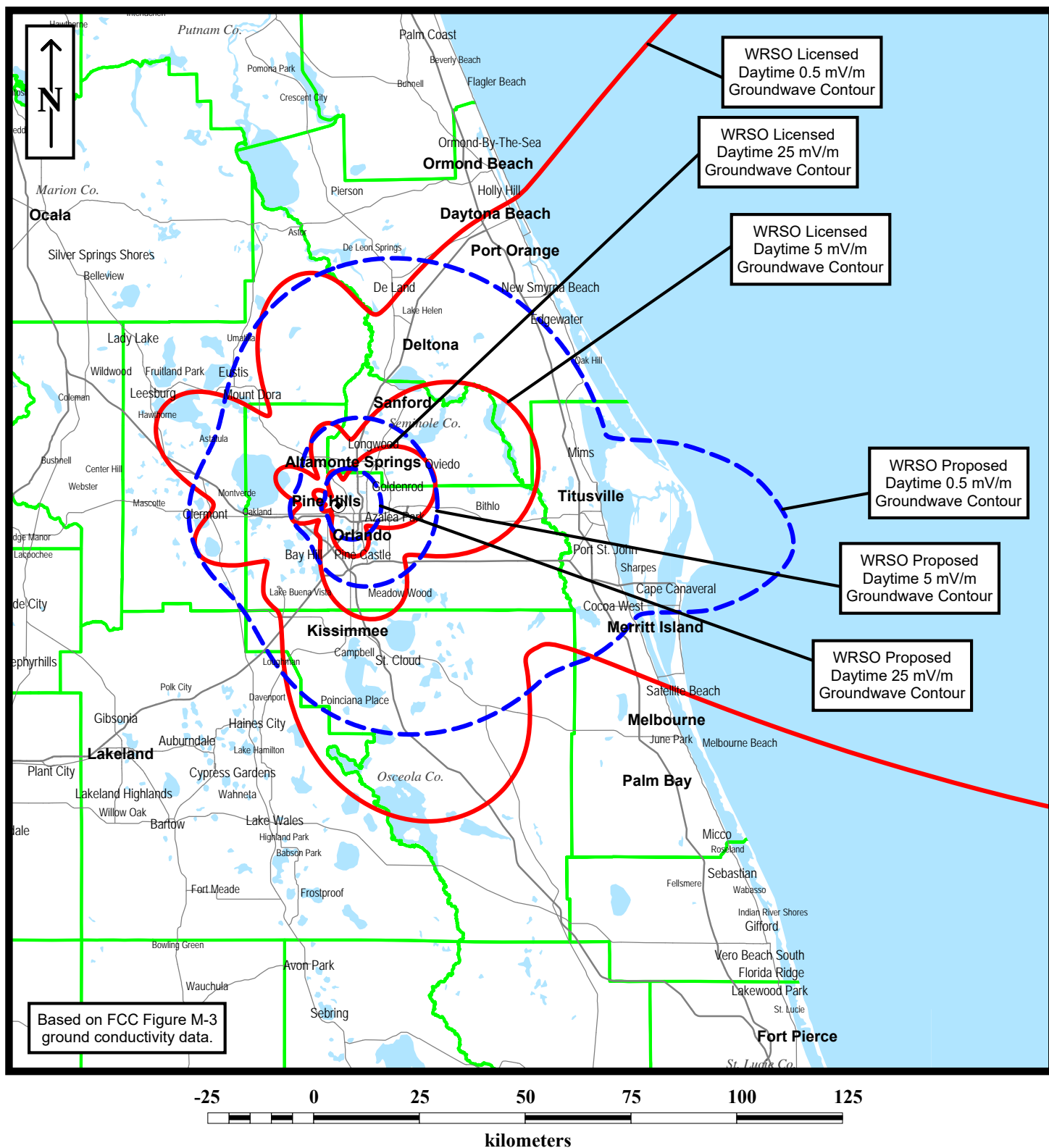
PROPERTY PLAT AND ANTENNA LAYOUT

duTreil, Lundin & Rackley, Inc. Sarasota, Florida



PREDICTED 1 V/M CONTOUR MAP

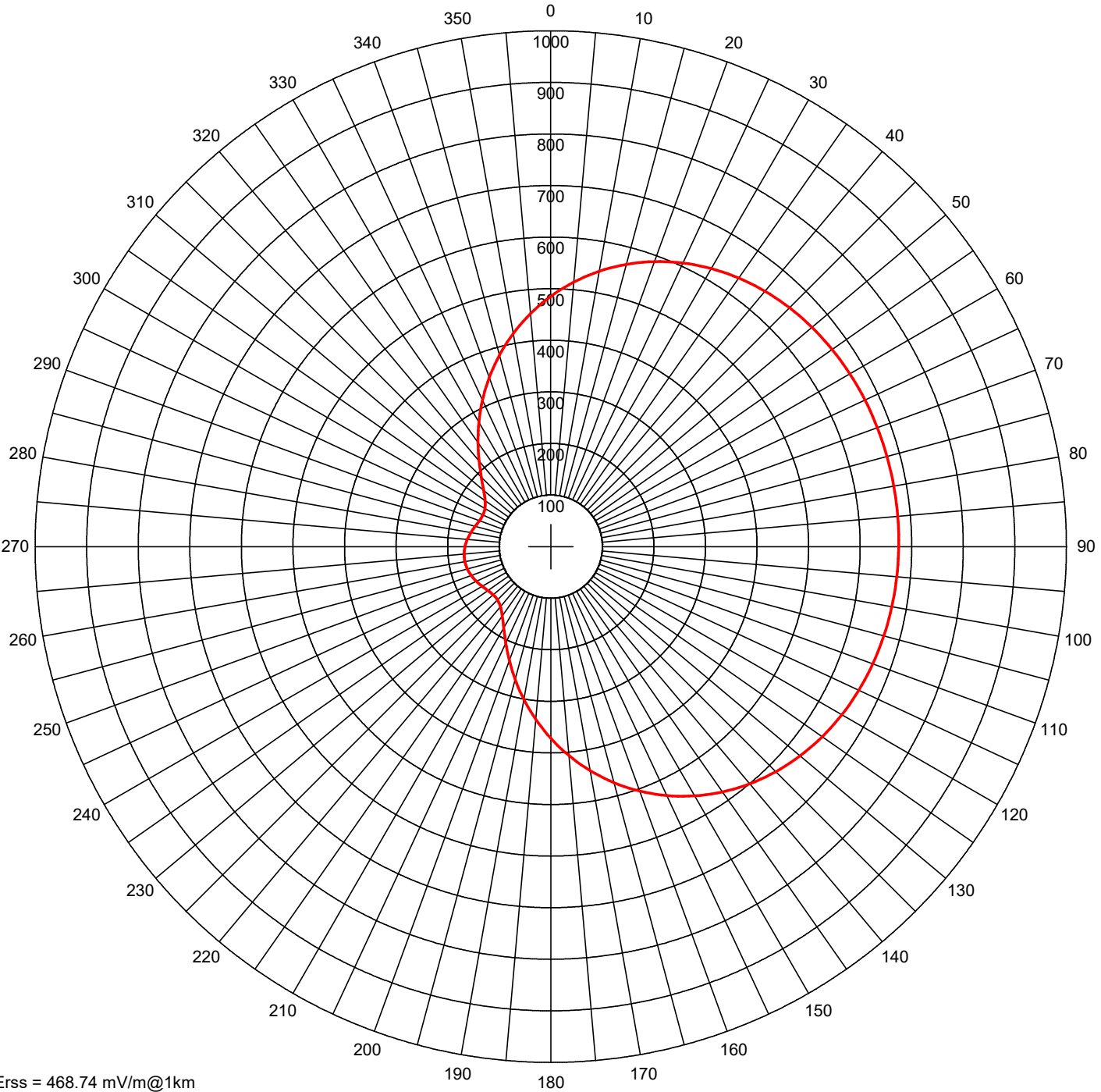
duTreil, Lundin & Rackley, Inc. Sarasota, Florida



PREDICTED LICENSED AND PROPOSED DAYTIME GROUNDWAVE CONTOURS

duTreil, Lundin & Rackley, Inc. Sarasota, Florida

Proposed Daytime Directional Pattern



Erss = 468.74 mV/m@1km
Theo RMS: 441.8 mV/m@1km
Std RMS: 464.128 mV/m@1km
Q: 14.142 mV/m@1km

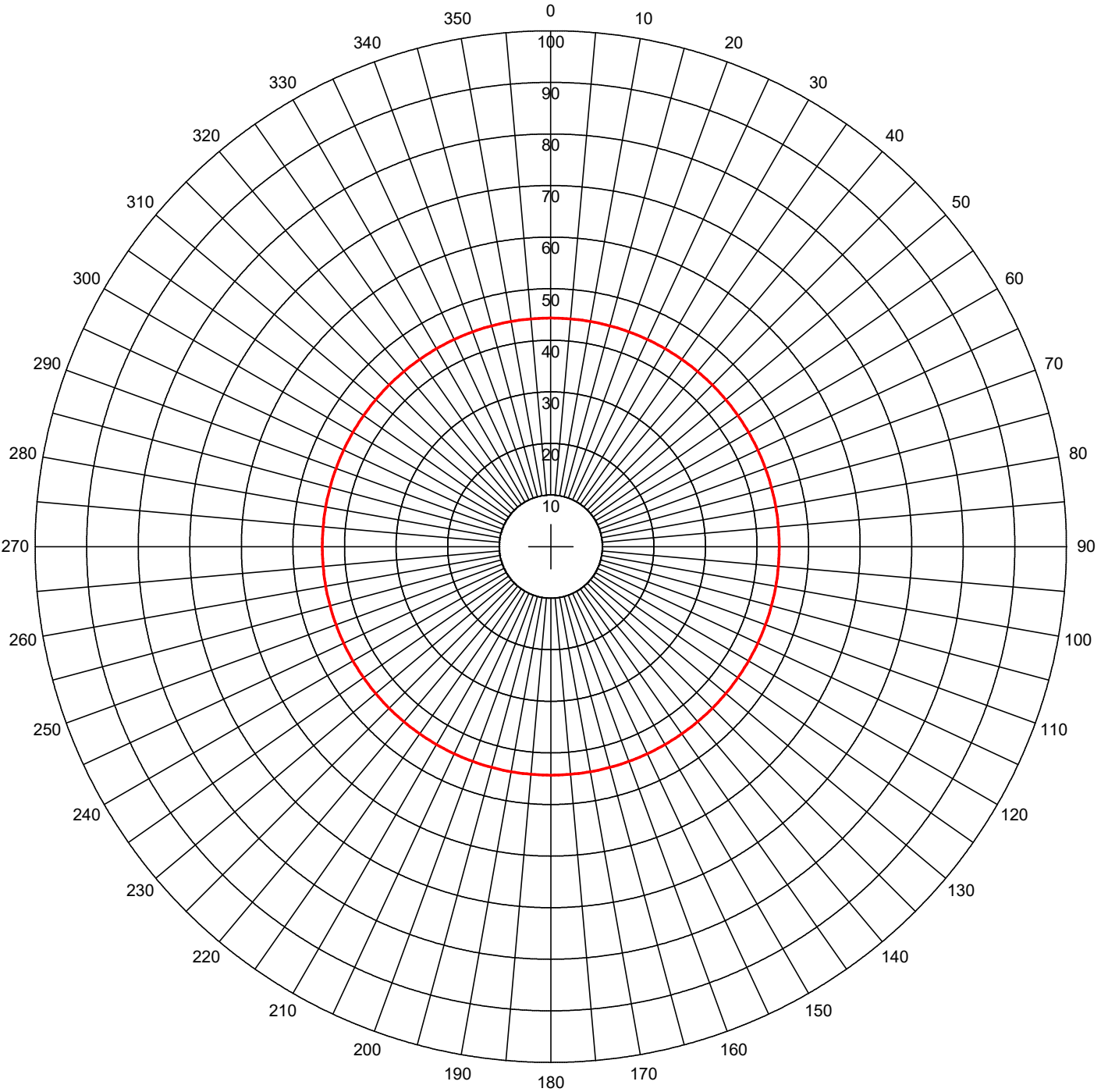
Standard Horizontal Plane Pattern

— Pattern (mV/m @ 1km)
— Pattern X10

#	Field Ratio	Phase (deg)	Spacing (deg)	Orient (deg)	Height (deg)	Ref Swch	TL Swch	A (deg)	B (deg)	C (deg)	D (deg)
1	1.000	0.0	0.0	0.0	90.0	0	0	0.0	0.0	0.0	0.0
2	0.650	-105.0	90.0	81.6	90.0	0	0	0.0	0.0	0.0	0.0

Call: WRSO
Freq: 810 kHz
ORLOVISTA, FL, US
Hours: D
Lat: 28-34-12 N
Lng: 081-26-00 W
Power: 2.0 kW
Theo RMS: 441.80 mV/m@1km
 @ 2.0 kW

Proposed Nighttime Azimuth Pattern



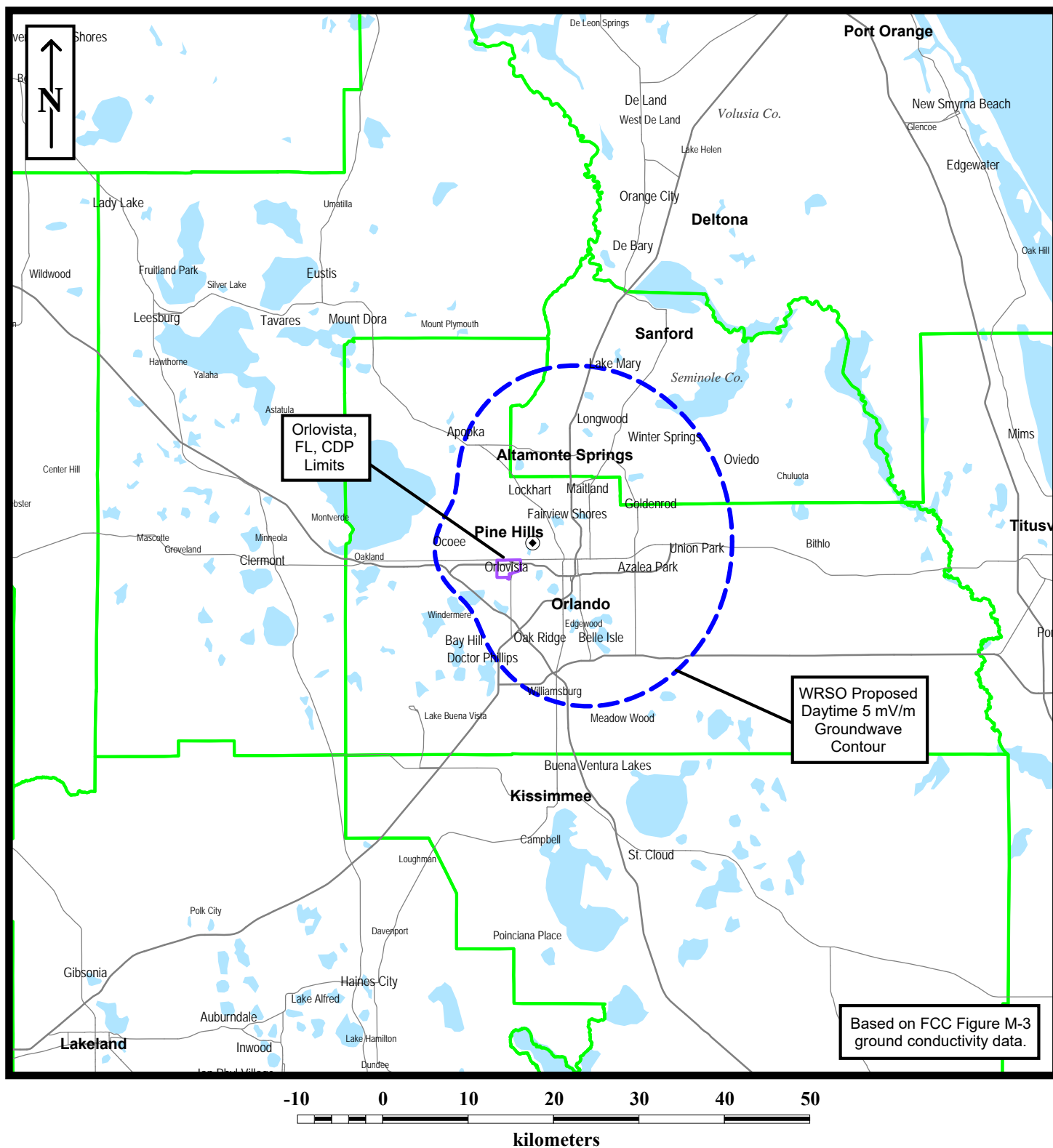
Erss = 44.31 mV/m@1km
Theo RMS: 44.31 mV/m@1km

Theoretical Horizontal Plane Pattern

— Pattern (mV/m @ 1km)
— Pattern X10

#	Field Ratio	Phase (deg)	Spacing (deg)	Orient (deg)	Height (deg)	Ref Swth	TL Swth	A (deg)	B (deg)	C (deg)	D (deg)
1	1.000	0.0	0.0	0.0	90.0	0	0	0.0	0.0	0.0	0.0

Call: WRSO
Freq: 810 kHz
ORLOVISTA, FL, US
Hours: N
Lat: 28-34-12 N
Lng: 081-26-00 W
Power: 0.021 kW
Theo RMS: 305.77 mV/m@1km



PREDICTED PROPOSED DAYTIME 5 MV/M GROUNDWAVE CONTOUR

duTreil, Lundin & Rackley, Inc. Sarasota, Florida

DAYTIME ALLOCATION STUDY - DOMESTIC CO-CHANNEL STATIONS

WRSO

Freq: 810 kHz

Class: D

Latitude: 28-34-12 N

Longitude: 081-26-00 W

Power: 2 kW

RMS: 441.8 mV/m @1km

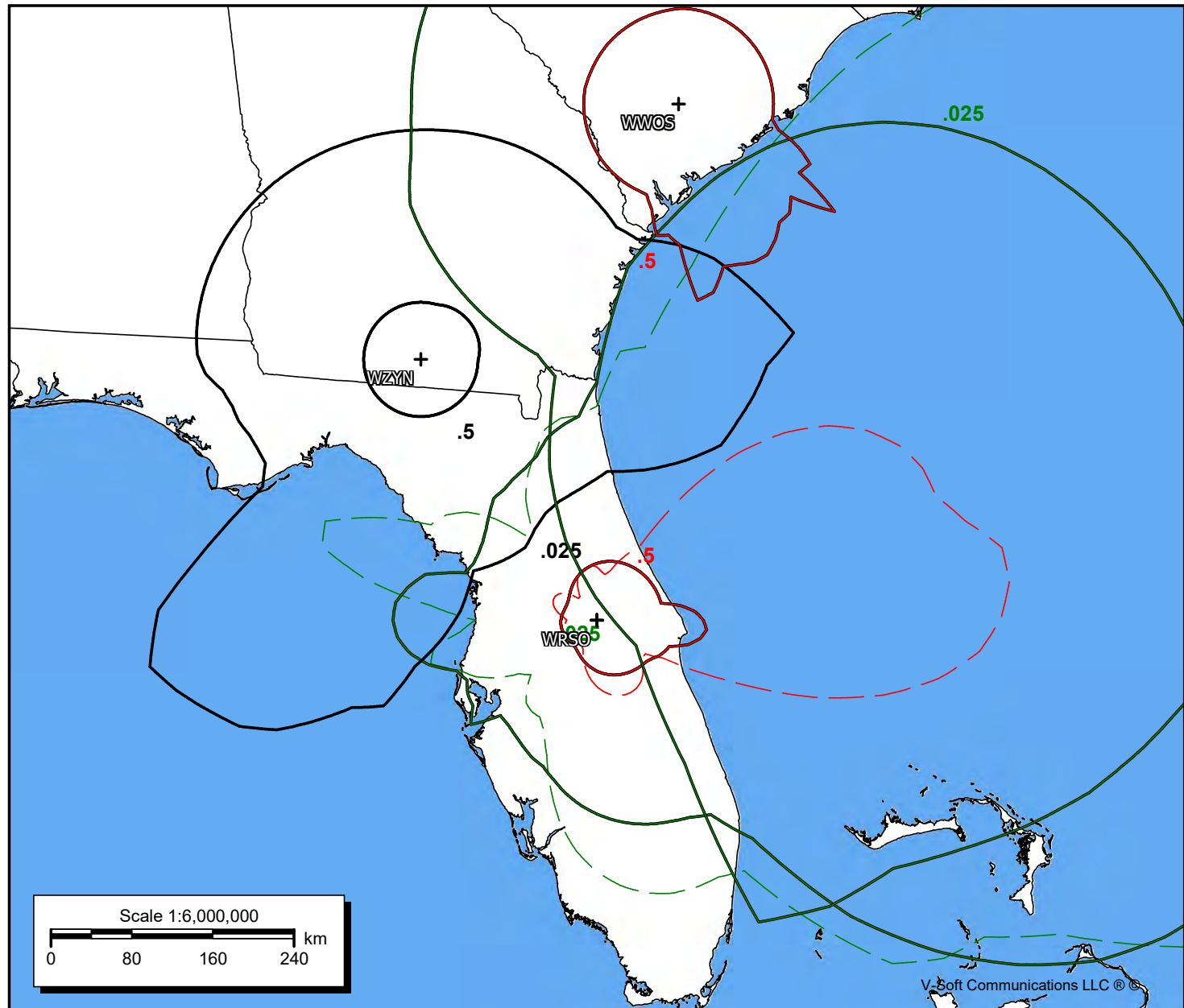
Towers: 2

Aucs: 0

— Causes

— Receives

— No Ix



DAYTIME ALLOCATION STUDY - FIRST-ADJACENT STATION WPLK

WRSO

Freq: 810 kHz

Class: D

Latitude: 28-34-12 N

Longitude: 081-26-00 W

Power: 2 kW

RMS: 441.8 mV/m @1km

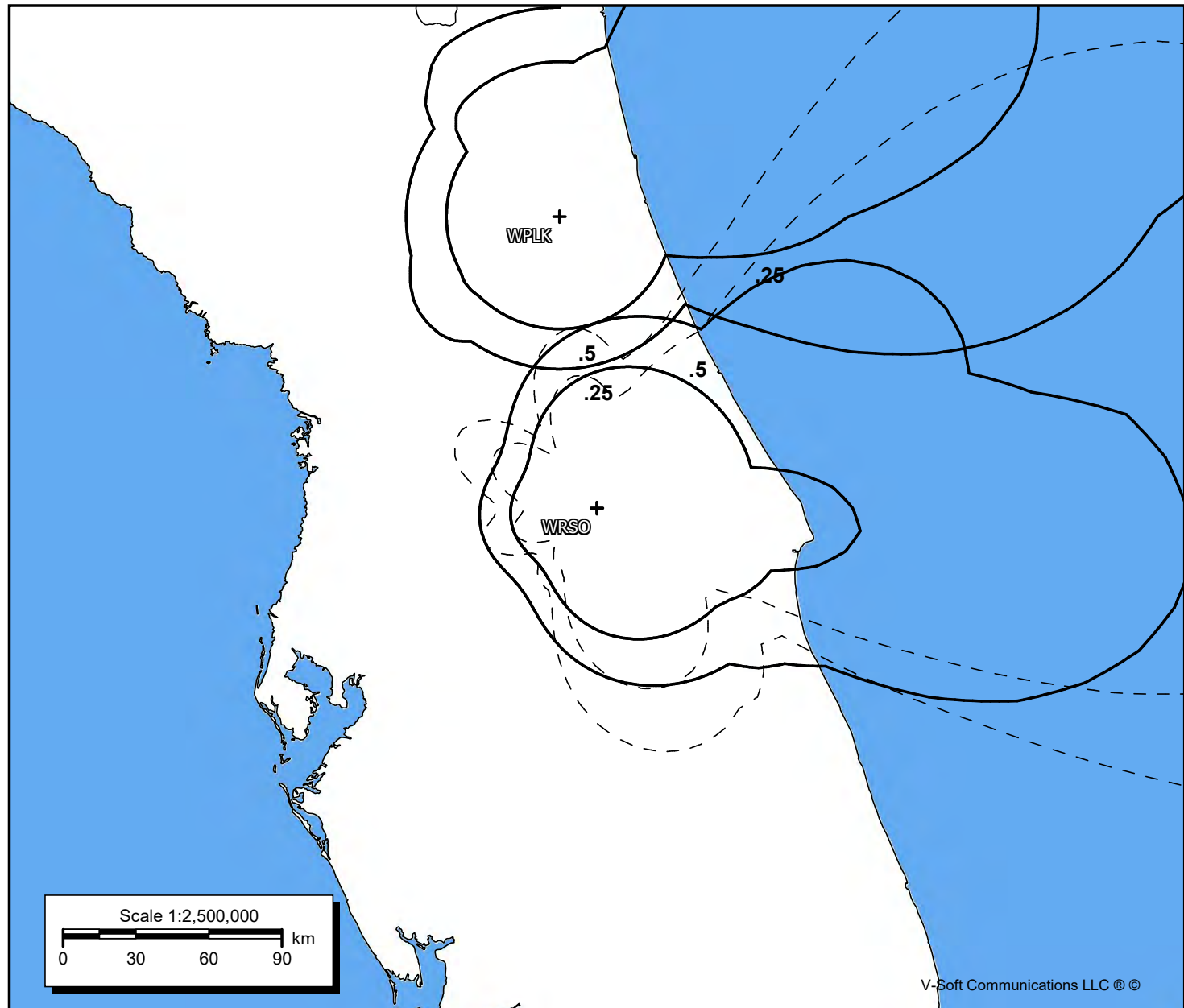
Towers: 2

Augs: 0

— Causes

— Receives

— No Ix



DAYTIME ALLOCATION STUDY - FIRST-ADJACENT STATION WWBA (LIC)

WRSO

Freq: 810 kHz

Class: D

Latitude: 28-34-12 N

Longitude: 081-26-00 W

Power: 2 kW

RMS: 441.8 mV/m @1km

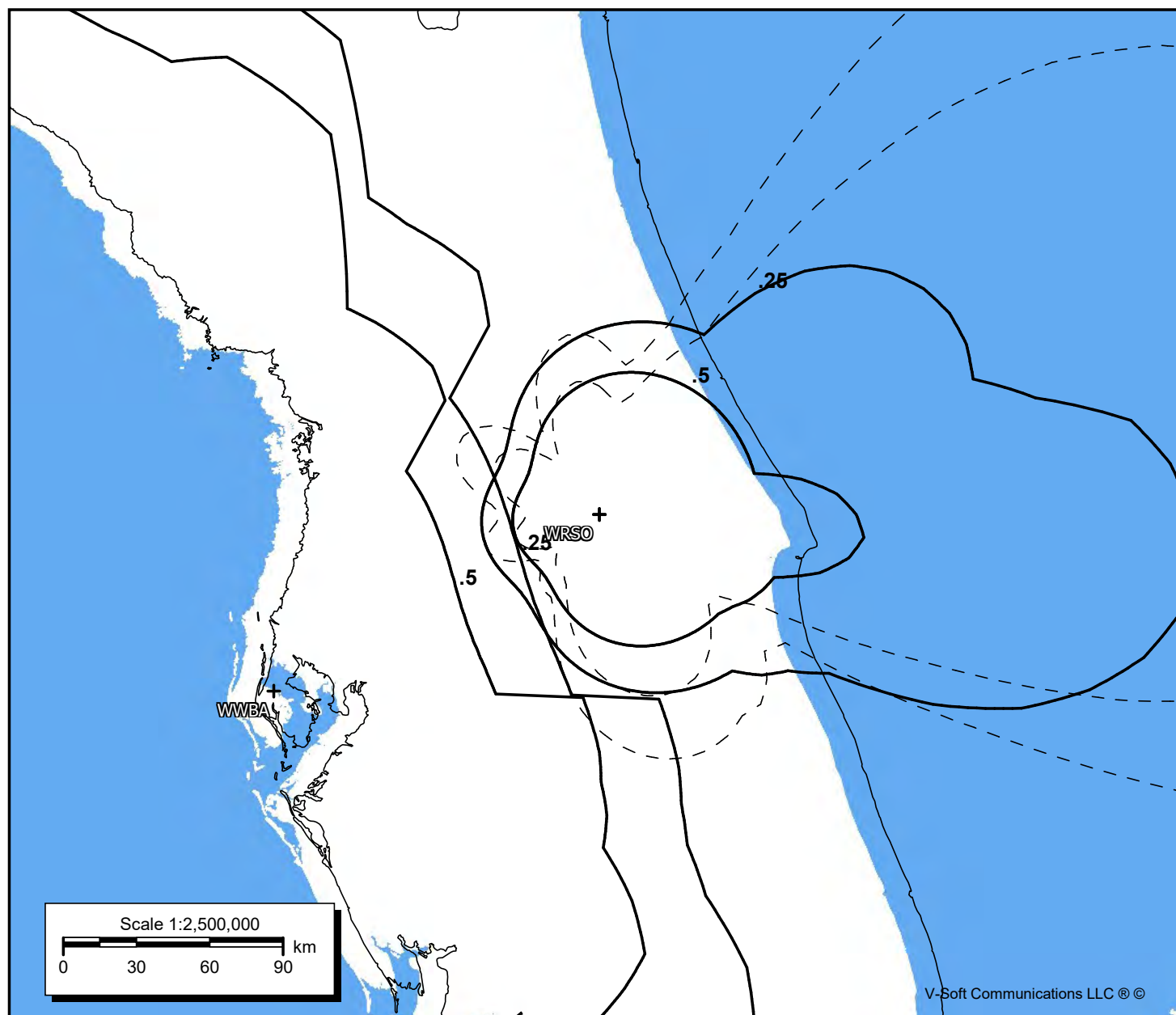
Towers: 2

AUs: 0

— Causes

— Receives

— No Ix



DAYTIME ALLOCATION STUDY - FIRST-ADJACENT STATION WWBA (CP)

WRSO

Freq: 810 kHz

Class: D

Latitude: 28-34-12 N

Longitude: 081-26-00 W

Power: 2 kW

RMS: 441.8 mV/m @1km

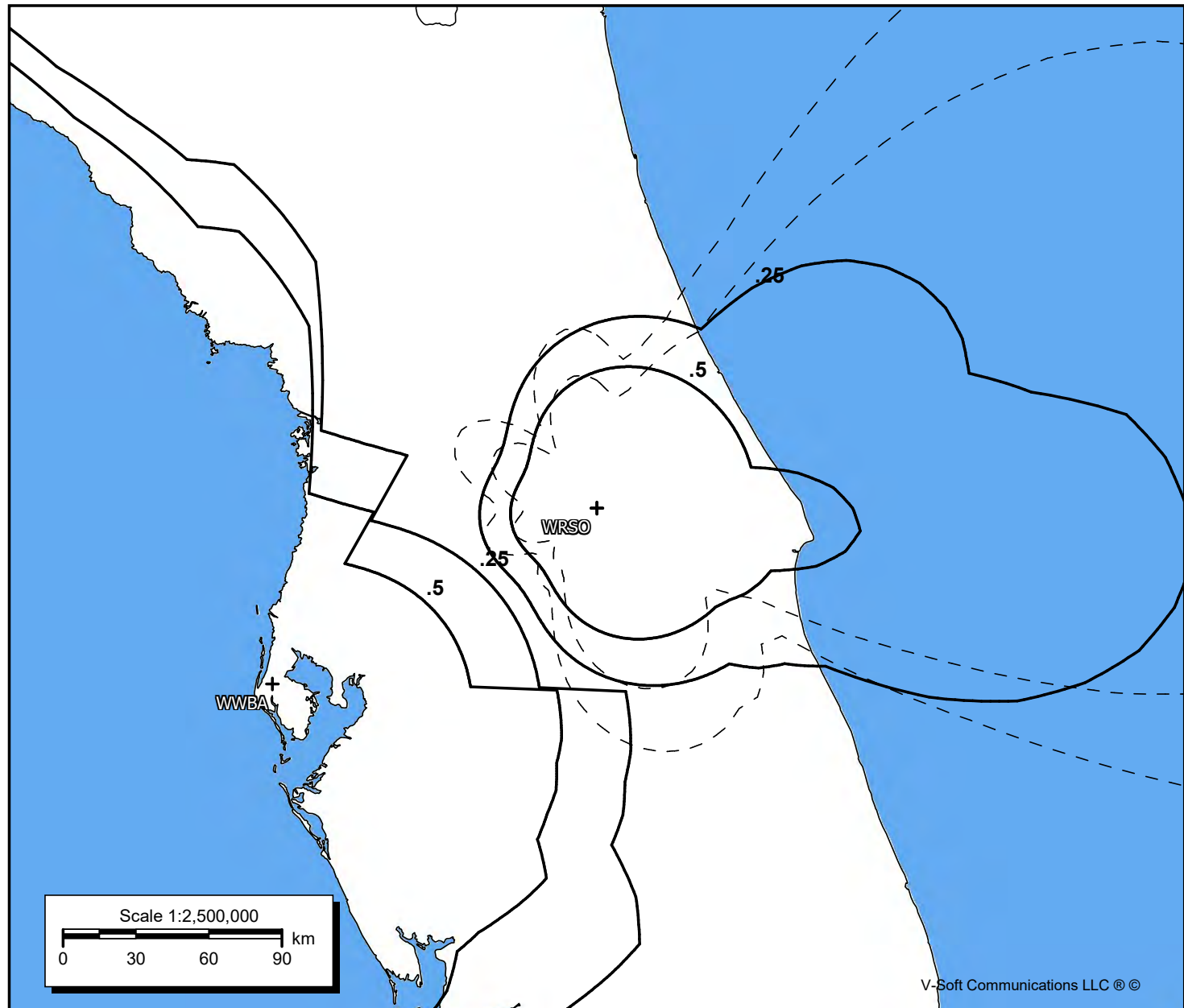
Towers: 2

Augs: 0

— Causes

— Receives

— No Ix



DAYTIME ALLOCATION STUDY - SECOND-ADJACENT STATION WLBE

WRSO

Freq: 810 kHz

Class: D

Latitude: 28-34-12 N

Longitude: 081-26-00 W

Power: 2 kW

RMS: 441.8 mV/m @1km

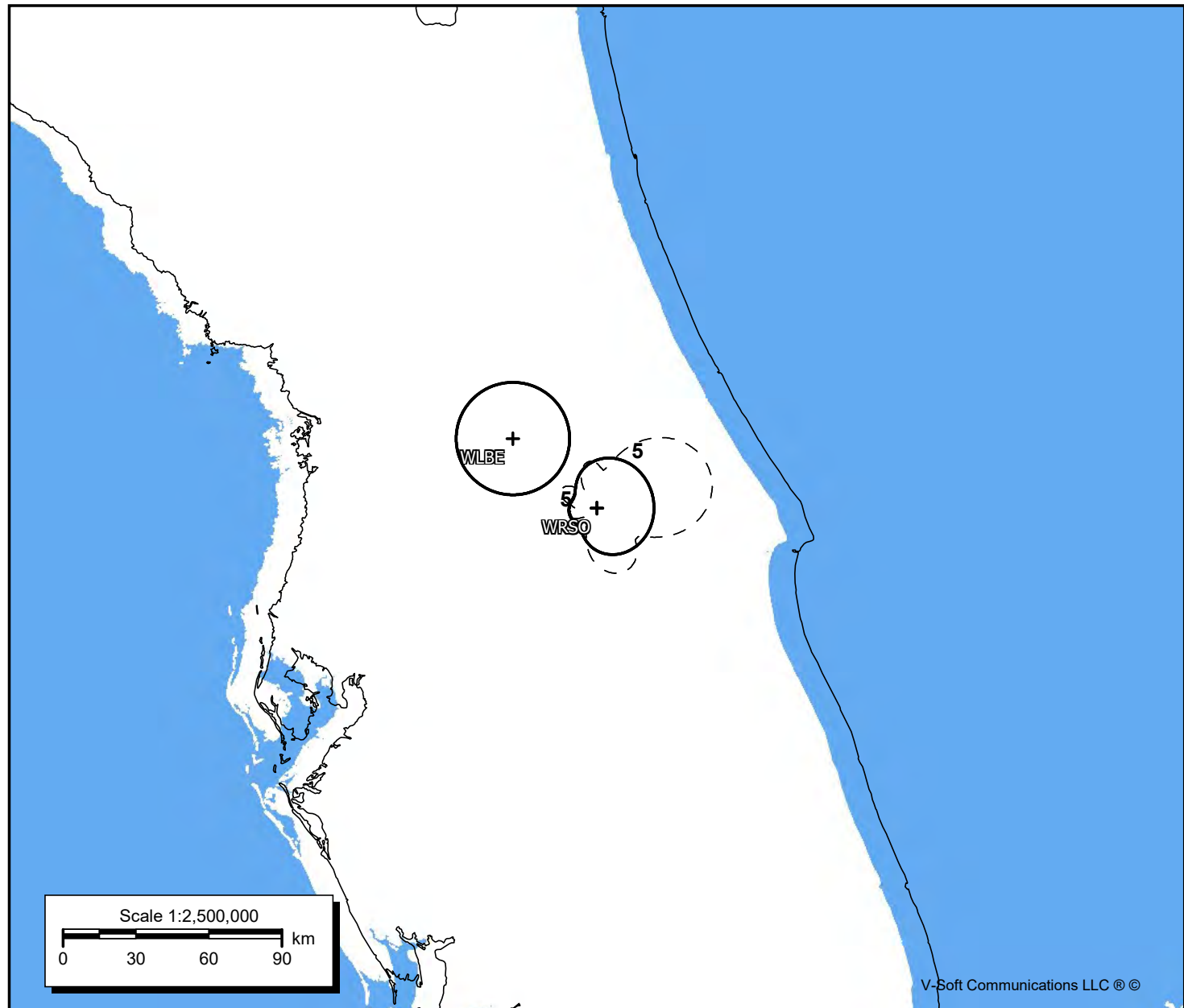
Towers: 2

Augs: 0

— Causes

— Receives

— No Ix



DAYTIME ALLOCATION STUDY - BAHAMAS CO-CHANNEL (C6B3)

WRSO

Freq: 810 kHz

Class: D

Latitude: 28-34-12 N

Longitude: 081-26-00 W

Power: 2 kW

RMS: 441.8 mV/m @1km

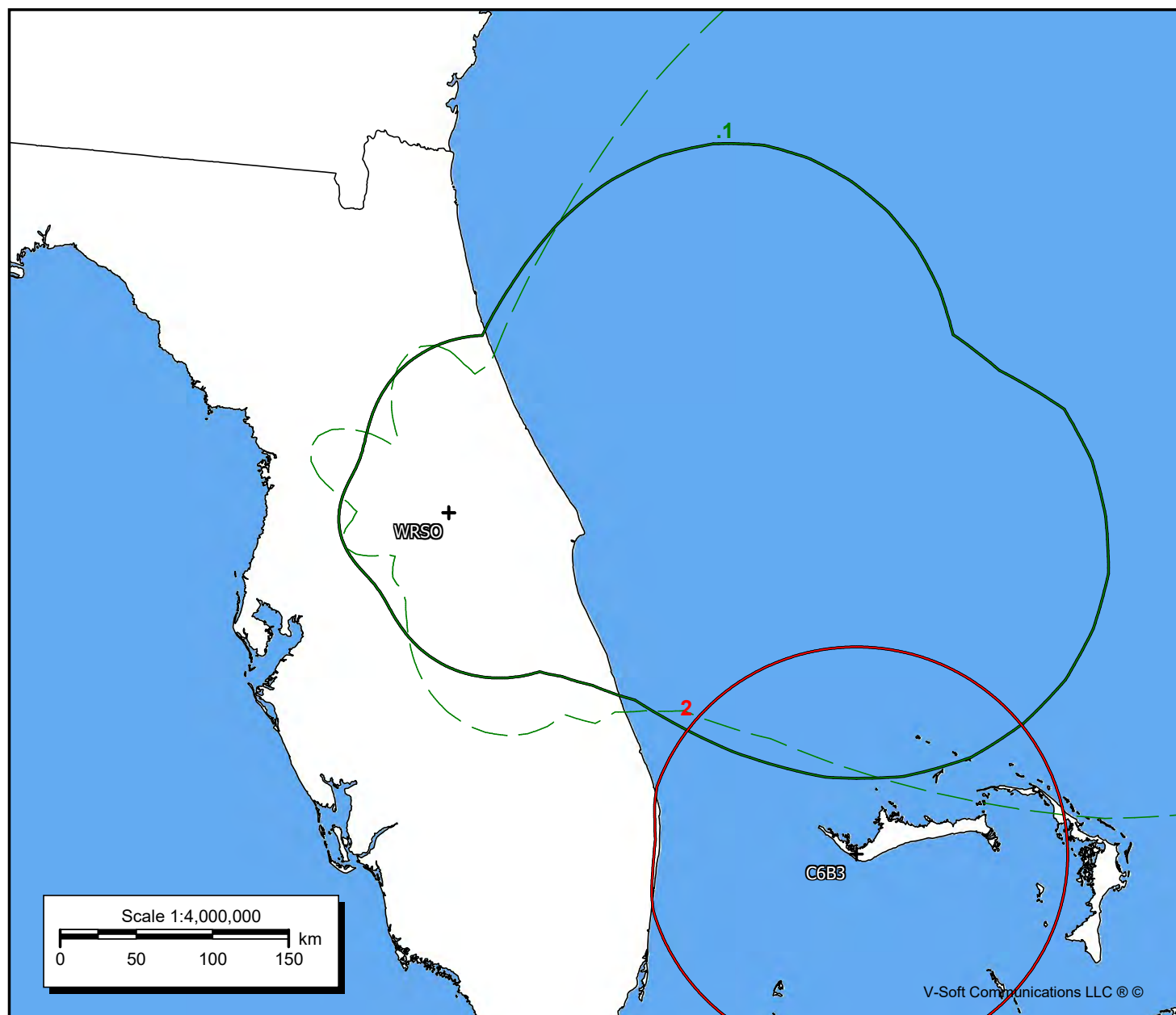
Towers: 2

Aucs: 0

— Causes

— Receives

— No Ix



TABULATION OF DATA EMPLOYED IN THE CALCULATION OF GROUNDWAVE CONTOURS WRSO, ORLOVISTA, FLORIDA, 810 kHz

Reference Station: WRSO, 810 kHz
Location: 28-34-12 N, 081-26-00 W

*** 790 kHz (-2) ***
44.8 km WLBE L 28-49-42 N 081-47-10 W 5.0 kW DAN - 297.7 mV/m@1km
27.8 mi Azi: 309.6 Class: B Sched: U File #: BL19970821KC
Location: LEESBURG-EUSTIS, FL, US

*** 800 kHz (-1) ***
120.9 km WPLK L 29-39-07 N 081-35-32 W 1.0 kW ND1 - 309.0 mV/m@1km
75.1 mi Azi: 352.6 Class: B Sched: U File #: BL19901031AC
Location: PALATKA, FL, US

*** 810 kHz (CO) ***
310.2 km WZYN L 30-52-29 N 083-15-06 W 2.5 kW NDD - 305.4 mV/m@1km
192.7 mi Azi: 325.0 Class: D Sched: D File #: BL20151123CUN
Location: HAHIRA, GA, US
348.1 km C6B3 26-32-00 N 078-45-00 W 1.0 kW ND1 - 300.0 mV/m@1km
216.3 mi Azi: 131.0 Class: C Sched: U File #:
Location: FREEPORT, , BF
514.3 km WWOS L 33-08-51 N 080-33-47 W 5.0 kW NDD - 309.0 mV/m@1km
319.5 mi Azi: 9.5 Class: D Sched: D File #: BL20170418ABW
Location: WALTERBORO, SC, US

*** 820 kHz (+1) ***
151.2 km WWBA L 27-54-30 N 082-46-51 W 50.0 kW DA2 - 2012.2 mV/m@1km
94.0 mi Azi: 240.7 Class: B Sched: U File #: BL19870219AA
Location: LARGO, FL, US
151.3 km WWBA C 27-54-29 N 082-46-55 W 10.0 kW DA2 - 942.9 mV/m@1km
94.0 mi Azi: 240.7 Class: B Sched: U File #: BP20220225AAJ
Location: LARGO, FL, FL, US

(Field strength measurements for WWBA from FCC File No. BP-20130429ACX were employed in the study. These are summarized as follows:
Azimuth: 40°; Span: ±10°; Distance: 145.0 km; Conductivity: 2.0 mS/m
Azimuth: 60°; Span: ±10°; Distance: 134.6 km; Conductivity: 2.0 mS/m
Azimuth: 80°; Span: ±10°; Distance: 133.3 km; Conductivity: 2.0 mS/m



The Broadcasting Corporation of The Bahamas

**Radio Bahamas ZNS-1 1540 AM – ZNS-2 1240 AM
ZNS-3 810 AM – Power 104.5 FM – ZNS Channel 13**

June 6, 2013

Ann Gallagher
Federal Communications Commission
International Bureau
445 12 Street, SW
Washington, D.C. 20554

Dear Ann Gallagher

RE: INCREASE POWER PROPOSAL –STATION WRSO 810

Please be advised that we have reviewed the proposal regarding the power increase for Station WRSO, 810 AM, Orlovista, Florida using a five (5) tower array and a proposed power of 20 KW days and 1 KW nights at their same transmitter location.

We understand that the proposed power increase will not significantly affect ZNS 810 AM radio facility and we therefore have no objection to the proposed power increase.

Sincerely,

A handwritten signature in black ink, appearing to read 'Edwin', with a long horizontal line extending to the right.

Mr. Edwin Lightbourn,
GENERAL MANAGER

cc: Executive Chairman, BCB Rev. Dr. William Thompson;
Ms. Kathleen Riviere-Smith CEO, Utilities Regulation & Competition Authority;

Call Letters	Ct	St	City	SWFF (100uV/m)	Req Prot (mV/m)	Permis (mV/m)	Cur Rad (mV/m)	Margin (mV/m)
WGY (204)	US	NY	SCHENECTADY	56.59	0.500	44.18S	43.77	0.40
WCKA 50% = 11.376, 25% = 11.376; WGY=11.38	US	AL	JACKSONVILLE	75.61	2.844	188.07	43.39	144.69
C6B3-B 50% = 2.838, 25% = 3.24; WGY=2.84 WRSO=1.30 WCKA=0.86	BF		FREEPORT	62.30	2.819	226.27	37.15	189.12
XERB1/O 50% = 6.128, 25% = 7.548; XEOE/A=4.90 XEIC/A=3.68 WGY=2.38 XEIN/A=2.27 WSJC=2.20 WCKA=1.95	MX	QR	COZUMEL	58.37	3.064	262.47	43.70	218.77
TGMM-B (40) 50% = 2.581, 25% = 2.982; XEOE/A=2.12 XEIC/A=1.47 XEIN/A=0.95 WGY=0.88 WSJC=0.74	GT		RADIOMOPAN	20.37	1.291	316.85S	43.83	273.02
WSJC 50% = 15.155, 25% = 15.681; WCKA=10.33 WHB=8.31 WGY=7.34 WBAP=4.03	US	MS	MAGEE	57.20	3.920	342.67	43.77	298.90
WKVM 50% = 5.258, 25% = 5.258; WGY=4.09 CX14-A=3.31	US	PR	SAN JUAN	19.08	1.314	344.45	44.31	300.14
KGO (141)	US	CA	SAN FRANCISCO	7.05	0.500	354.55S	44.31	310.24
XEMQ1/O 50% = 7.323, 25% = 8.816; XEOE/A=5.54 XEIC/A=4.78 XEIN/A=2.80 WSJC=2.49 WGY=2.25 WHB=2.24	MX	YC	MERIDA	47.89	3.662	382.27	43.88	338.39
XE/O 50% = 7.235, 25% = 8.014; XEOE/A=5.88 XEIC/A=4.21 XEIN/A=2.72 WGY=2.12	MX	QR	FELIPE CARRILLO	45.84	3.617	394.56	43.91	350.66
CMMB-D 50% = 3.672, 25% = 3.863; WKVM=3.67 WGY=1.20	CU		GUANTANAMO	20.64	1.836	444.70	43.81	400.89
XEIC/A 50% = 6.504, 25% = 7.789; XEOE/A=6.50 XEIN/A=3.22 WHB=2.04 WGY=1.96	MX	CA	CAMPECHE	35.68	3.252	455.73	44.05	411.68
WPLK 50% = 11.858, 25% = 13.39; XEROK/A=9.37 WJAT=7.26 WDSC=3.79 WSHO=3.52 WPJM=3.45	US	FL	PALATKA	372.35	3.347	449.51	25.01	424.49
WHB 50% = 7.269, 25% = 7.638; WGY=6.41 WBAP=3.43 XEROK/A=2.35	US	MO	KANSAS CITY	18.15	1.910	525.97	44.30	481.67
WWBA 50% = 14.07, 25% = 14.585; WBAP=14.07 HJED-A=3.84	US	FL	LARGO	342.78	3.646	531.86	28.84	503.02
WWBA 50% = 14.071, 25% = 14.586; WBAP=14.07 HJED-A=3.84	US	FL	LARGO, FL	342.67	3.647	532.09	28.90	503.19
YSAX-D (42) 50% = 2.57, 25% = 3.134; XEOE/A=2.57 XEIC/A=1.24 XEIN/A=1.02 WKVM=0.79	ES		SAN SALVADOR	10.86	1.285	591.73S	44.15	547.58

CRITICAL HOURS ALLOCATION STUDY

WRSO, ORLOVISTA, FLORIDA, 810 kHz

Critical Hours Radiation Report

Call: WRSO
Freq: 810 kHz
ORLOVISTA, FL, US
Hours: D
Lat: 28-34-12 N
Lng: 081-26-00 W
Power: 2.0 kW
Theo RMS: 441.80 mV/m @ 1km @ 2.0 kW

#	Field Ratio	Phase (deg)	Spacing (deg)	Orient (deg)	Height (deg)	Ref Swtch	TL Swtch	A (deg)	B (deg)	C (deg)	D (deg)
1	1.000	0.0	0.0	0.0	90.0	0	0	0.0	0.0	0.0	0.0
2	0.650	-105.0	90.0	81.6	90.0	0	0	0.0	0.0	0.0	0.0

Interpolation factors for 810 kHz:

K(500) = 0.380
K(1000) = 0.620
K(1600) = 0.000

Call: KGO
Freq: 810 kHz
SAN FRANCISCO, CA, US
Hours: U
Lat: 37-31-35 N
Lng: 122-06-02 W
Power: 50.0 kW
Theo RMS: 2487.08 mV/m @ 1km @ 50.0 kW
of Augmentations: 13

#	Field Ratio	Phase (deg)	Spacing (deg)	Orient (deg)	Height (deg)	Ref Swtch	TL Swtch	A (deg)	B (deg)	C (deg)	D (deg)
1	1.000	171.6	0.0	0.0	90.0	0	0	0.0	0.0	0.0	0.0
2	1.672	10.1	125.0	340.0	90.0	0	0	0.0	0.0	0.0	0.0
3	1.000	-171.6	250.0	340.0	90.0	0	0	0.0	0.0	0.0	0.0

Permissible radiation calculated using FCC 73.190 curves.
Calculations performed using distance to the class A station's 0.1 mV/m contour.

Class A Azimuth (deg)	Reference Azimuth (deg)	Distance to 0.1 mV (km)/(mi)	Max Vert Angle (deg)	Max Rad Below Ang (mV/m@1km)	Permiss Radiation (mV/m@1km)	Margin (mV/m@1km)
150.64	289.00	3667.1 / 2278.6	0.0	147.96	11979.5	11831.5 **
148.31	290.00	3679.3 / 2286.2	0.0	147.20	12050.3	11903.1 **
136.00	291.00	3618.0 / 2248.1	0.0	146.54	11894.3	11747.7 **
125.55	292.00	3579.0 / 2223.9	0.0	145.99	11811.3	11665.3 **
117.22	293.00	3573.4 / 2220.4	0.0	145.58	11833.9	11688.3 **
107.91	294.00	3570.1 / 2218.4	0.0	145.31	11866.8	11721.5 **
98.45	295.00	3601.3 / 2237.7	0.0	145.20	12008.7	11863.5 **
85.84	296.00	3641.9 / 2263.0	0.0	145.26	12185.0	12039.7 **
69.94	297.00	3677.3 / 2285.0	0.0	145.50	12350.2	12204.7 **
53.48	298.00	3708.9 / 2304.6	0.0	145.95	12509.4	12363.5 **
47.14	299.00	3689.9 / 2292.8	0.0	146.61	12501.5	12354.9 **
41.54	300.00	3682.0 / 2287.9	0.0	147.49	12533.2	12385.7 **
34.25	301.00	3700.5 / 2299.4	0.0	148.60	12656.9	12508.3 **
25.63	302.00	3742.5 / 2325.5	0.0	149.96	12876.1	12726.1 **
6.64	303.00	3885.6 / 2414.4	0.0	151.56	13510.5	13358.9 **

Class A Azimuth (deg)	Reference Azimuth (deg)	Distance to 0.1 mV (km)/(mi)	K(500) Value (mV/m@1km)	K(1000) Value (mV/m@1km)	Permiss Radiation (mV/m@1km)	
150.64	289.00	3667.1 / 2278.6	16093.44	9458.05	11979.5	**
148.31	290.00	3679.3 / 2286.2	16093.44	9572.18	12050.3	**
136.00	291.00	3618.0 / 2248.1	16093.44	9320.58	11894.3	**
125.55	292.00	3579.0 / 2223.9	16093.44	9186.74	11811.3	**
117.22	293.00	3573.4 / 2220.4	16093.44	9223.22	11833.9	**
107.91	294.00	3570.1 / 2218.4	16093.44	9276.26	11866.8	**
98.45	295.00	3601.3 / 2237.7	16093.44	9505.09	12008.7	**
85.84	296.00	3641.9 / 2263.0	16093.44	9789.43	12185.0	**
69.94	297.00	3677.3 / 2285.0	16093.44	10055.88	12350.2	**

CRITICAL HOURS ALLOCATION STUDY

WRSO, ORLOVISTA, FLORIDA, 810 kHz

53.48	298.00	3708.9 /	2304.6	16093.44	10312.77	12509.4	**
47.14	299.00	3689.9 /	2292.8	16093.44	10300.03	12501.5	**
41.54	300.00	3682.0 /	2287.9	16093.44	10351.05	12533.2	**
34.25	301.00	3700.5 /	2299.4	16093.44	10550.66	12656.9	**
25.63	302.00	3742.5 /	2325.5	16093.44	10904.13	12876.1	**
6.64	303.00	3885.6 /	2414.4	16093.44	11927.37	13510.5	**

** Indicates that the distance and/or azimuth was out of the range of the 73.190 permissible radiation graphs. The calculated permissible radiation is invalid.

 Call: WGY
 Freq: 810 kHz
 SCHENECTADY, NY, US
 Hours: D
 Lat: 42-47-32 N
 Lng: 074-00-44 W
 Power: 50.0 kW
 Theo RMS: 383.00 mV/m @ 1km @ 1kW

#	Field Ratio	Phase (deg)	Spacing (deg)	Orient (deg)	Height (deg)	Ref Swtch	TL Swtch	A (deg)	B (deg)	C (deg)	D (deg)
1	1.000	0.0	0.0	0.0	182.9	0	0	0.0	0.0	0.0	0.0

Permissible radiation calculated using FCC 73.190 curves.
 Calculations performed using distance to the class A station's 0.1 mV/m contour.

Class A Azimuth (deg)	Reference Azimuth (deg)	Distance to 0.1 mV (km)/ (mi)	Max Vert Angle (deg)	Max Rad Below Ang (mV/m@1km)	Permiss Radiation (mV/m@1km)	Margin (mV/m@1km)			
266.09	12.00	1594.3 /	990.6	4.9	552.14	5093.1	4540.9		
253.97	13.00	1541.4 /	957.8	5.3	557.02	4589.3	4032.3		
245.34	14.00	1508.2 /	937.1	5.6	561.79	4271.1	3709.3		
238.17	15.00	1484.3 /	922.3	5.8	566.45	4037.3	3470.8		
232.00	16.00	1468.1 /	912.2	5.9	570.99	3865.1	3294.1		
226.22	17.00	1455.6 /	904.5	6.0	575.41	3723.9	3148.5		
220.75	18.00	1446.7 /	898.9	6.1	579.72	3609.3	3029.5		
215.60	19.00	1443.9 /	897.2	6.1	583.91	3532.6	2948.7		
210.39	20.00	1443.0 /	896.6	6.1	587.99	3467.7	2879.7		
205.11	21.00	1440.1 /	894.8	6.2	591.94	3394.3	2802.4		
199.75	22.00	1446.2 /	898.6	6.1	595.78	3369.3	2773.5		
194.21	23.00	1453.0 /	902.8	6.1	599.51	3348.2	2748.7		
188.73	24.00	1457.8 /	905.9	6.0	603.12	3318.2	2715.1		
184.46	25.00	1450.6 /	901.4	6.1	606.62	3228.1	2621.5		
180.67	26.00	1444.1 /	897.3	6.1	610.00	3144.6	2534.6		
166.54	27.00	1523.7 /	946.8	5.5	613.27	3501.7	2888.4	Clipped at 0.11	mV/m
157.42	28.00	1554.0 /	965.6	5.2	616.43	3611.9	2995.5	Clipped at 0.10	mV/m
148.70	29.00	1583.7 /	984.1	5.0	619.48	3720.2	3100.7	Clipped at 0.12	mV/m

Class A Azimuth (deg)	Reference Azimuth (deg)	Distance to 0.1 mV (km)/ (mi)	K(500) Value (mV/m@1km)	K(1000) Value (mV/m@1km)	Permiss Radiation (mV/m@1km)			
266.09	12.00	1594.3 /	990.6	8296.16	3129.91	5093.1		
253.97	13.00	1541.4 /	957.8	7517.03	2794.87	4589.3		
245.34	14.00	1508.2 /	937.1	7021.80	2585.11	4271.1		
238.17	15.00	1484.3 /	922.3	6655.91	2432.32	4037.3		
232.00	16.00	1468.1 /	912.2	6385.31	2320.45	3865.1		
226.22	17.00	1455.6 /	904.5	6162.42	2229.30	3723.9		
220.75	18.00	1446.7 /	898.9	5980.81	2155.72	3609.3		
215.60	19.00	1443.9 /	897.2	5859.02	2106.75	3532.6		
210.39	20.00	1443.0 /	896.6	5755.19	2065.65	3467.7		
205.11	21.00	1440.1 /	894.8	5637.13	2019.68	3394.3		
199.75	22.00	1446.2 /	898.6	5596.16	2004.50	3369.3		
194.21	23.00	1453.0 /	902.8	5561.08	1991.92	3348.2		
188.73	24.00	1457.8 /	905.9	5511.41	1974.05	3318.2		
184.46	25.00	1450.6 /	901.4	5363.93	1919.12	3228.1		
180.67	26.00	1444.1 /	897.3	5226.90	1868.43	3144.6		
166.54	27.00	1523.7 /	946.8	5807.10	2088.65	3501.7	Clipped at 0.11	mV/m
157.42	28.00	1554.0 /	965.6	5986.10	2156.79	3611.9	Clipped at 0.10	mV/m
148.70	29.00	1583.7 /	984.1	6161.81	2223.78	3720.2	Clipped at 0.12	mV/m

RF HAZARD STATEMENT

RADIO STATION WRSO
ORLOVISTA, FLORIDA
810 kHz, 2 kW, DA-D (0.021 kW-N)

This statement was prepared for AM broadcast station WRSO, Orlovista, Florida (810 kHz). This statement concerns an evaluation of compliance with Section 1.1307(b) of the FCC Rules* regarding human exposure to radio frequency (RF) energy.

The proposed WRSO facility will operate with a two-tower directional antenna system with a nominal power level of 2 kW. Both antenna tower elements have an electrical height of 90° (0.25 wavelength).

Both towers are enclosed by fences that are located no less than 2 meters from the respective bases of each tower. Supplement A of the FCC OET Bulletin No. 65 was employed to determine the minimum distance for compliance with the RF exposure requirements.† Pursuant to Table 2 of Supplement A, for antenna with a height of 0.25 wavelength, with a transmitter power of 5 kW, the minimum distance for compliance with the FCC RF exposure standard is 2 meters. Therefore, the WRSO antenna system is compliant with the FCC RF exposure requirements. In the event that personnel need to enter the fenced area, the power level shall be reduced or terminated as necessary to prevent human exposure to radio frequency energy in excess of FCC specified levels.

* See Rules of the United States Federal Communications Commission (FCC), generally at Title 47 of the Code of Federal Regulations (Telecommunication).

† See FCC Office of Engineering and Technology Bulletin No. 65, *Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields*, Edition 97-01, released August, 1997, and *Supplement A: Additional Information for Radio and Television Broadcast Stations*