

APPLICATION FOR
CONSTRUCTION PERMIT INFORMATION
RADIO STATION WRSO
ORLOVISTA, FLORIDA

810 KHZ 2.5 KW-D 24 W-N DA-D ND-N

May 23, 2016

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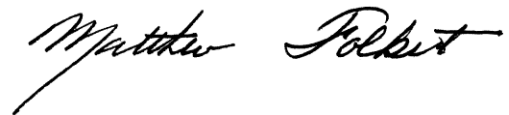
Executive Summary - WRSO

This engineering exhibit supports an application for construction permit for radio station WRSO in Orlovista, Florida. A minor change to modify the daytime and nighttime pattern is proposed.

WRSO is presently licensed to operate fulltime on 810 kilohertz with 20 kilowatts daytime and 400 watts nighttime, utilizing different directional antennas during daytime and nighttime hours. By means of this present application, the licensee proposes to modify the daytime and nighttime patterns from a new transmitter location. The proposed daytime directional pattern will utilize two new towers with a power of 2.5 kilowatts. The proposed secondary nighttime nondirectional pattern will utilize one of the two new daytime towers with a power of 24 watts.

The proposal is classified as a minor change according to 47 CFR 73.3571(a)(2). As a Class D station operating on one of the channels listed in 73.25(b), the proposal satisfies 47 CFR 73.21(a)(3) which permits operation with a nominal power of not less than 0.25 kilowatt nor more than 50 kilowatts at any time.

The Federal Aviation Administration has not been notified of the proposal as the new tower construction is less than 200 feet and TOWAIR determines that the towers do not need registration.



Matthew Folkert

May 23, 2016

Broadcast Facility - WRSO

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 and 73.1650. Information included herein demonstrates compliance with all relevant requirements. The technical equipment proposed, the location of the transmitter, and other technical phases of operation comply with the regulations governing the same, and the requirements of good engineering practice.

Proposed Transmitter Location

The location of the proposed WRSO facility will be at NAD27 coordinates:

28-33-57 North

81-25-10 West

Two new towers will be utilized for the proposed daytime directional pattern and one tower for the proposed nighttime nondirectional pattern.

Directional Antenna Towers

A total of two self-supported, grounded, skirt-fed towers will be employed for the proposed daytime directional antenna pattern. The proposed nighttime nondirectional pattern will use one of the two proposed daytime towers with the unused tower detuned. As a result, the radiating elements and the overall height for the towers are 60.7 meters (199 feet) in height above ground level.

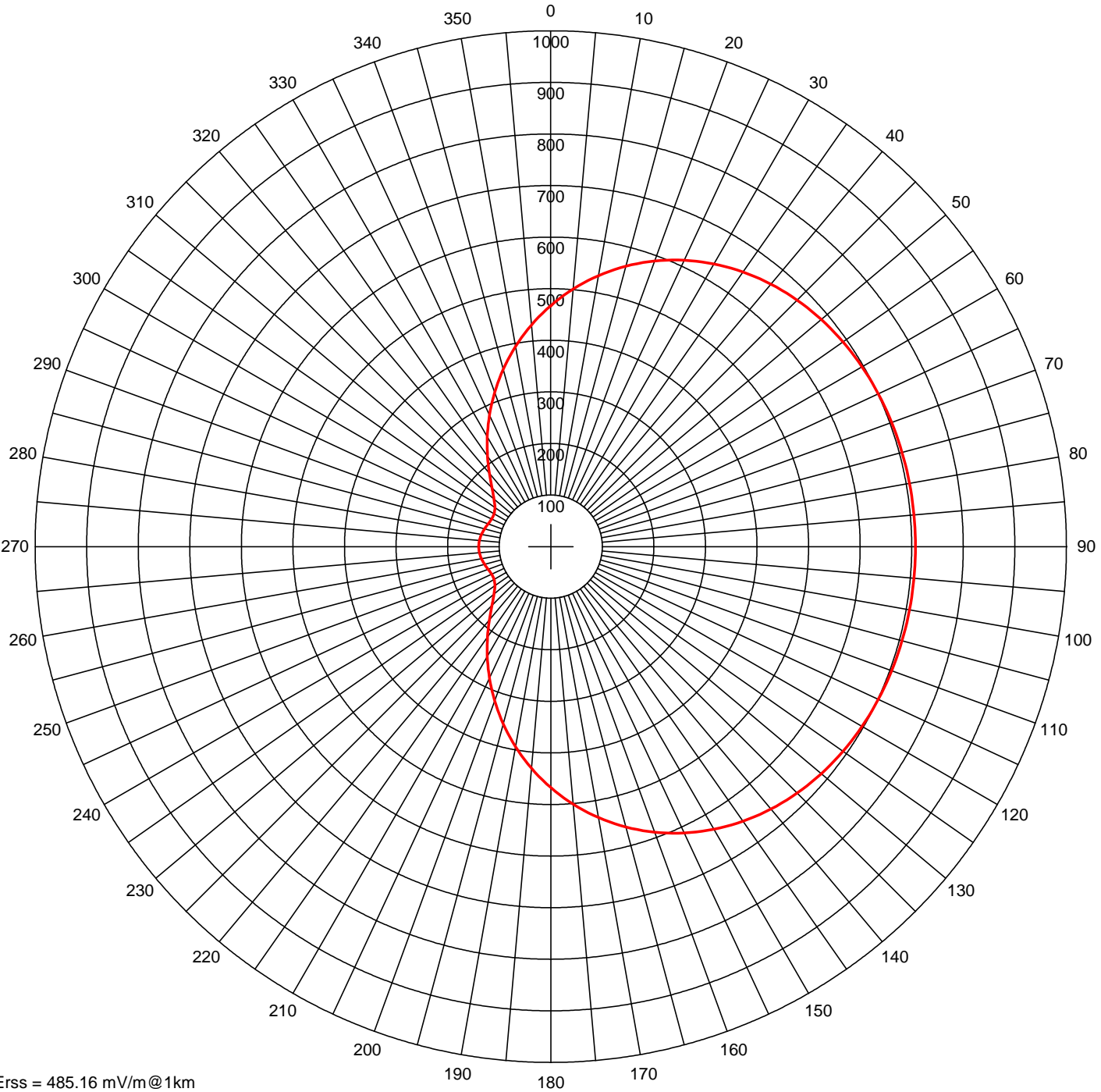
Ground System

The proposed ground system at the transmitter site will consist of 120 equally-spaced buried copper wire radials surrounding the new two towers and extending to a length of 92.5 meters each except where overlap of radials between adjacent towers and site boundaries would occur.

Proposed Antenna Patterns

Polar graphs of the proposed daytime horizontal plane standard directional radiation pattern and the nighttime horizontal plane nondirectional radiation pattern appear on the following pages. Pertinent information with regard to its parameters and characteristics are shown along with the polar graph.

AM Daytime Directional Pattern



Erss = 485.16 mV/m@1km
Theo RMS: 466.49 mV/m@1km
Std RMS: 490.096 mV/m@1km
Q: 15.811 mV/m@1km

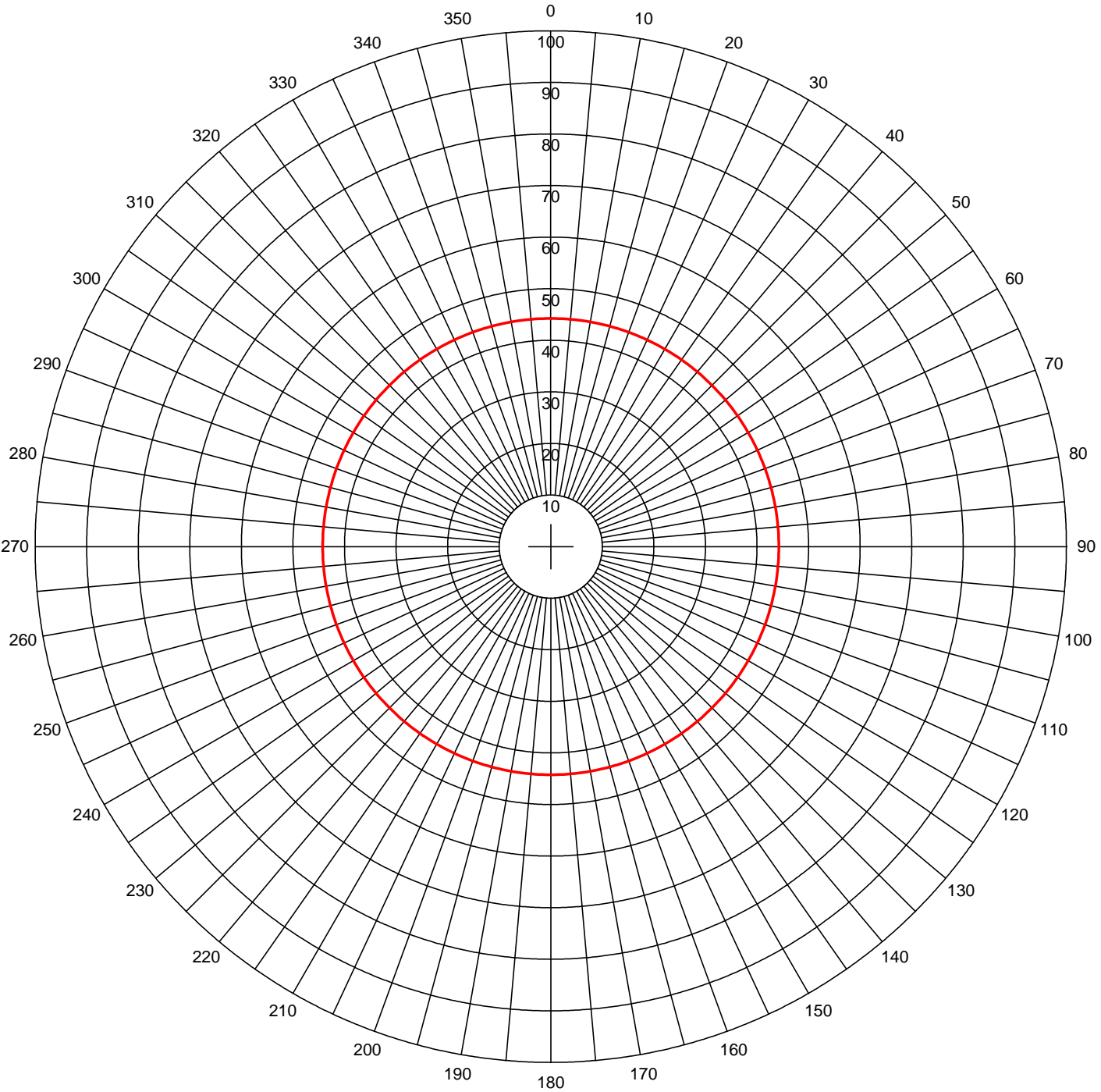
Standard Horizontal Plane Pattern

— Pattern (mV/m @ 1km)
— Pattern X10

#	Field Ratio	Phase (deg)	Spacing (deg)	Orient (deg)	Height (deg)	Ref Switch	TL Switch	A (deg)	B (deg)	C (deg)	D (deg)
1	1.000	0.0	0.0	0.0	59.0	0	0	0.0	0.0	0.0	0.0
2	0.700	-99.8	90.0	90.0	59.0	0	0	0.0	0.0	0.0	0.0

Call: WRSO
Freq: 810 kHz
ORLOVISTA, FL, US
Hours: D
Lat: 28-33-57 N
Lng: 081-25-10 W
Power: 2.5 kW
Theo RMS: 466.49 mV/m@1km
@ 2.5 kW

AM Nighttime Nondirectional Pattern



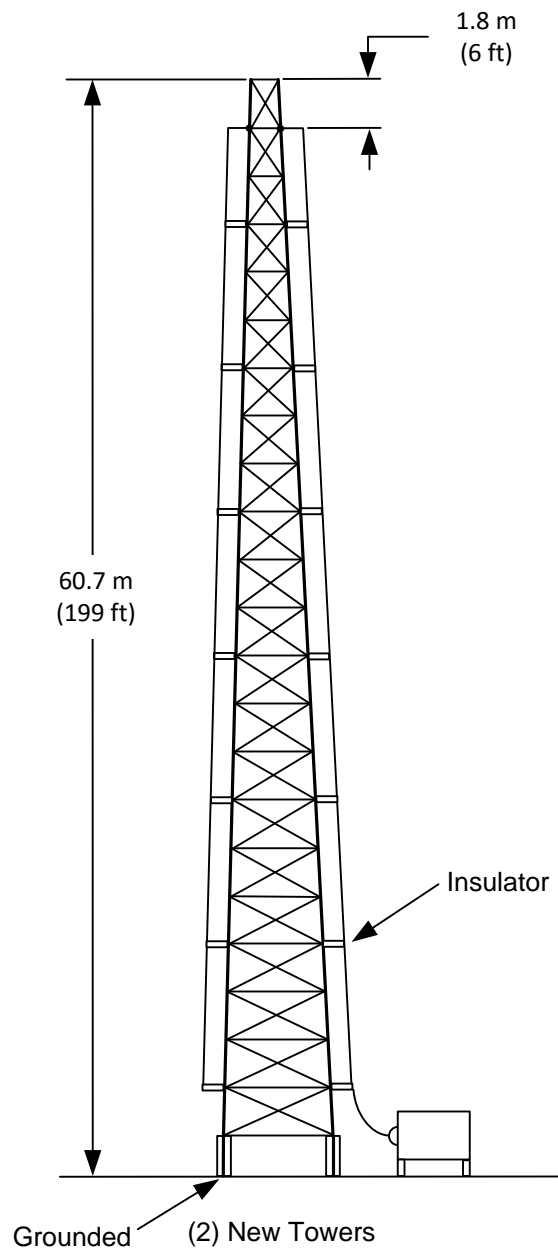
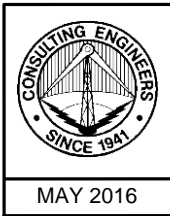
Erss = 44.23 mV/m@1km
Theo RMS: 44.226 mV/m@1km

Theoretical 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	59.0	0	0	0.0	0.0	0.0	0.0

Call: WRSO
Freq: 810 kHz
ORLOVISTA, FL, US
Hours: D
Lat: 28-33-57 N
Lng: 081-25-10 W
Power: 0.024 kW
Theo RMS: 285.48 mV/m@1km



Site Center of Array
Coordinates(NAD 27)
28° 33' 57" N
81° 25' 10" W

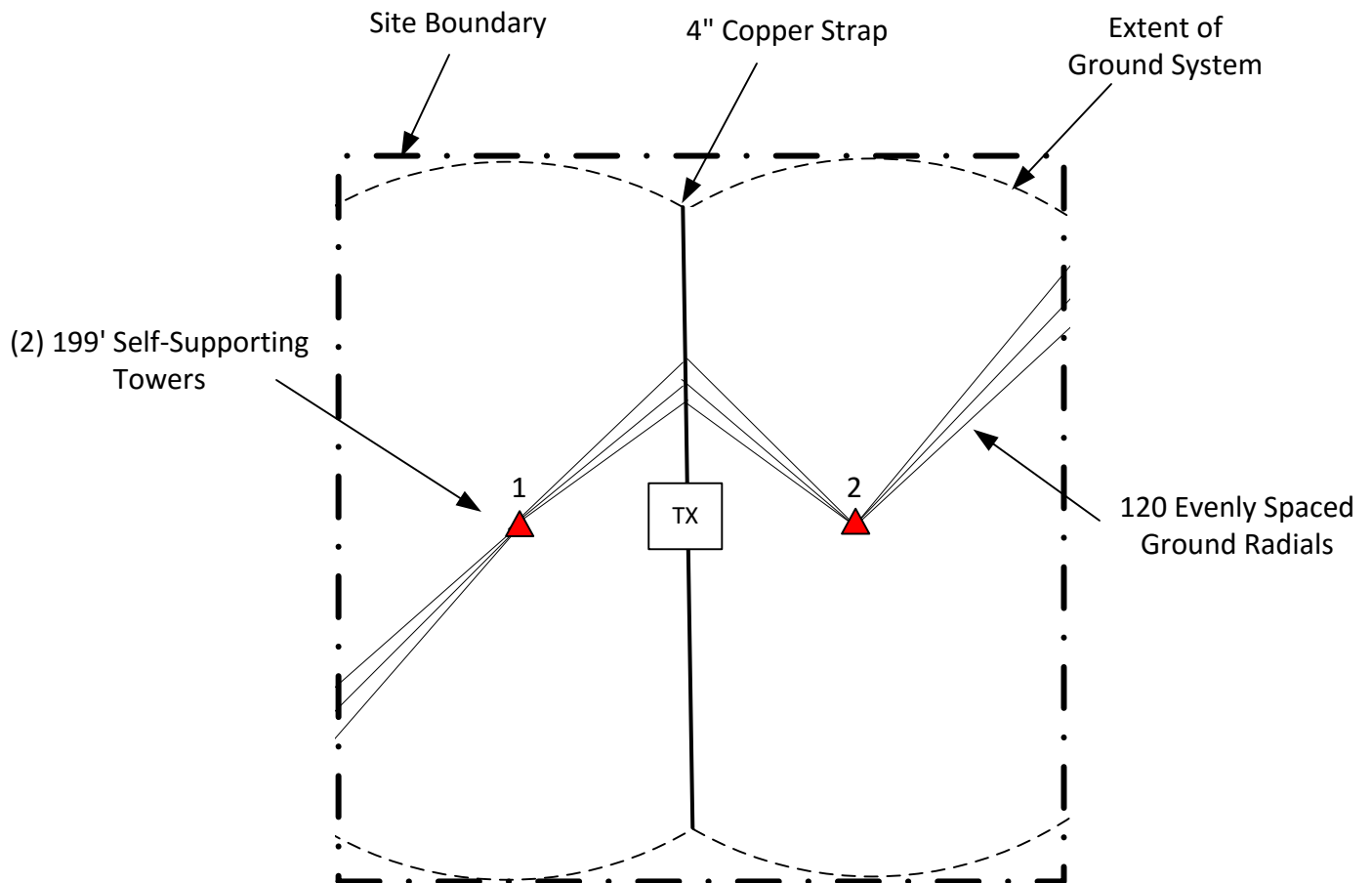
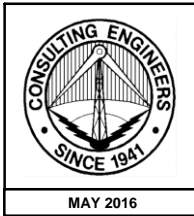
Not To Scale

3604 West New Hampshire St.
Orlando, FL

SKETCH OF ANTENNA ELEMENTS

RADIO STATION WRSO
ORLOVISTA, FLORIDA
810 KHZ 2.5 KW D DA

du Treil, Lundin & Rackley, Inc. Sarasota, Florida



Site Coordinates(NAD 27)

28° 33' 57" N

81° 25' 10" W

0 100 200
Scale
(feet)

ANTENNA SITE PLAT

RADIO STATION WRSO
ORLOVISTA, FLORIDA
810 KHZ 2.5 KW-D 24 W-N DA-D ND-N

du Treil, Lundin & Rackley, Inc. Sarasota, Florida

TOWAIR Determination Results

Tower 1

A routine check of the coordinates, heights, and structure type you provided indicates that this structure does not require registration.

*** NOTICE ***

TOWAIR's findings are not definitive or binding, and we cannot guarantee that the data in TOWAIR are fully current and accurate. In some instances, TOWAIR may yield results that differ from application of the criteria set out in 47 C.F.R. Section 17.7 and 14 C.F.R. Section 77.13. A positive finding by TOWAIR recommending notification should be given considerable weight. On the other hand, a finding by TOWAIR recommending either for or against notification is not conclusive. It is the responsibility of each ASR participant to exercise due diligence to determine if it must coordinate its structure with the FAA. TOWAIR is only one tool designed to assist ASR participants in exercising this due diligence, and further investigation may be necessary to determine if FAA coordination is appropriate.

DETERMINATION Results

PASS SLOPE(100:1): NO FAA REQ-RWY MORE THAN 10499 MTRS & 7807.75 MTRS (7.80780 KM) AWAY

Type	C/R	Latitude	Longitude	Name	Address	Lowest Elevation (m)	Runway Length (m)
AIRP	R	28-32-56.00N	081-20-29.00W	EXECUTIVE	ORANGE ORLANDO, FL	31.7	1830.0

Your Specifications

NAD83 Coordinates

Latitude	28-33-58.5 north
Longitude	081-25-07.4 west

Measurements (Meters)

Overall Structure Height (AGL)	60.7
Support Structure Height (AGL)	60.7
Site Elevation (AMSL)	33.5

Structure Type

LTOWER - Lattice Tower

[Tower Construction Notifications](#)

Notify Tribes and Historic Preservation Officers of your plans to build a tower.

CLOSE WINDOW

TOWAIR Determination Results

Tower 2

A routine check of the coordinates, heights, and structure type you provided indicates that this structure does not require registration.

*** NOTICE ***

TOWAIR's findings are not definitive or binding, and we cannot guarantee that the data in TOWAIR are fully current and accurate. In some instances, TOWAIR may yield results that differ from application of the criteria set out in 47 C.F.R. Section 17.7 and 14 C.F.R. Section 77.13. A positive finding by TOWAIR recommending notification should be given considerable weight. On the other hand, a finding by TOWAIR recommending either for or against notification is not conclusive. It is the responsibility of each ASR participant to exercise due diligence to determine if it must coordinate its structure with the FAA. TOWAIR is only one tool designed to assist ASR participants in exercising this due diligence, and further investigation may be necessary to determine if FAA coordination is appropriate.

DETERMINATION Results

PASS SLOPE(100:1): NO FAA REQ-RWY MORE THAN 10499 MTRS & 7896.75 MTRS (7.89679 KM) AWAY

Type	C/R	Latitude	Longitude	Name	Address	Lowest Elevation (m)	Runway Length (m)
AIRP	R	28-32-56.00N	081-20-29.00W	EXECUTIVE	ORANGE ORLANDO, FL	31.7	1830.0

Your Specifications

NAD83 Coordinates

Latitude	28-33-58.5 north
Longitude	081-25-10.8 west

Measurements (Meters)

Overall Structure Height (AGL)	60.7
Support Structure Height (AGL)	60.7
Site Elevation (AMSL)	33.5

Structure Type

LTOWER - Lattice Tower

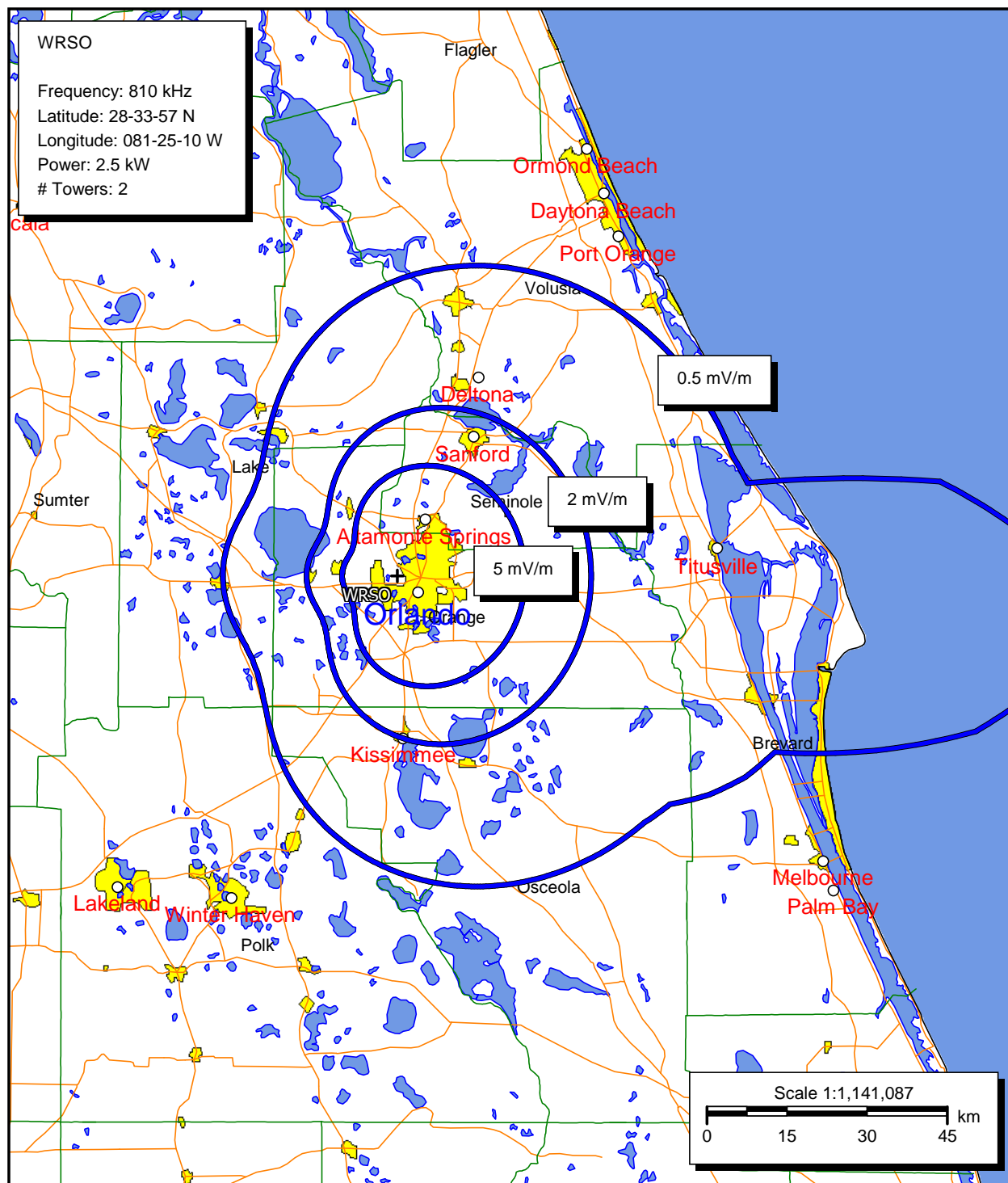
[Tower Construction Notifications](#)

Notify Tribes and Historic Preservation Officers of your plans to build a tower.

CLOSE WINDOW

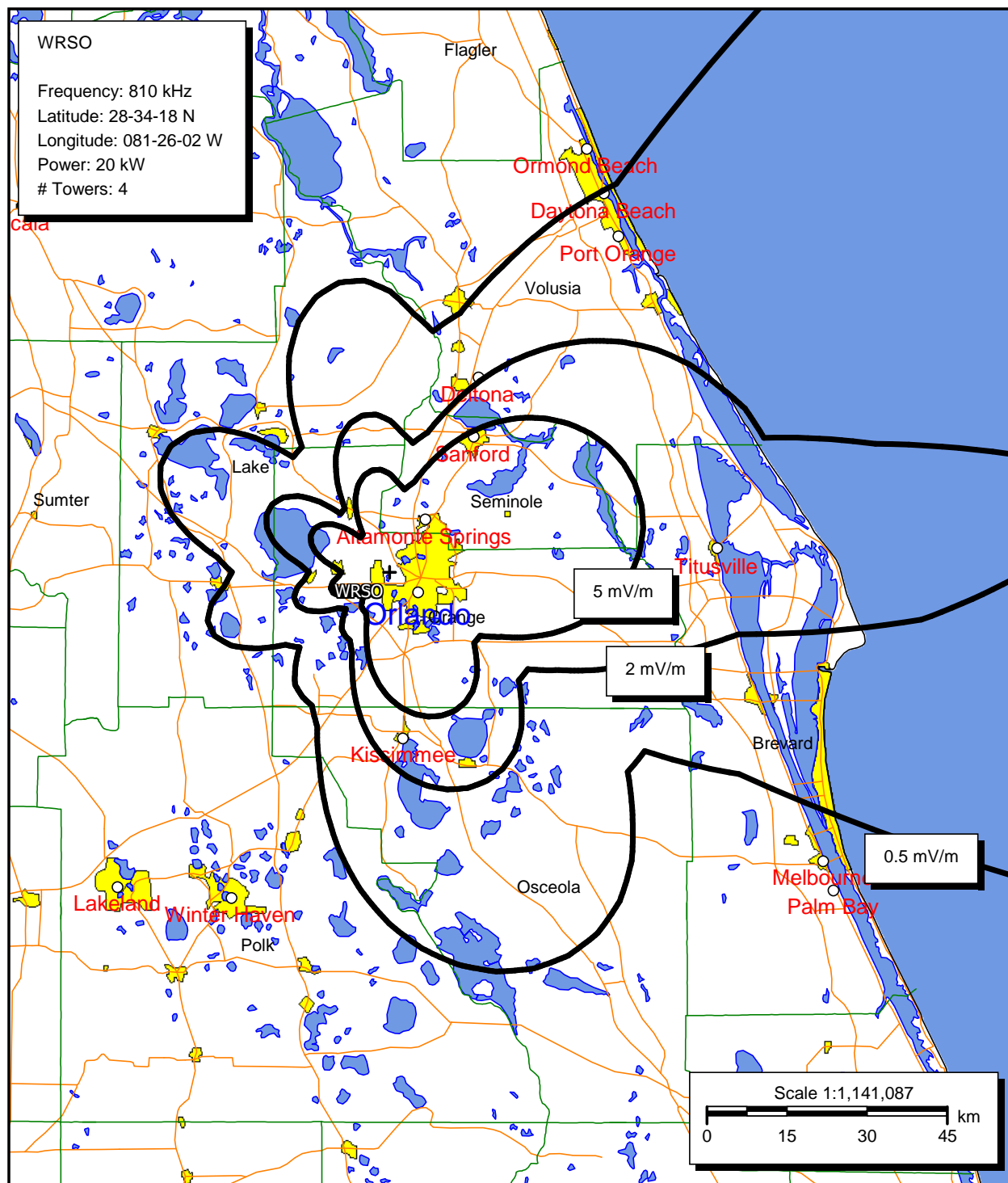
Principal Community Coverage and Service Contours - WRSO

The proposed facility complies with the community coverage requirements of 47 C.F.R. Section 73.24(i). The daytime 5.0 mV/m contour encompass the entire principal community to be served. Maps showing the proposed and existing daytime field strength service contours appear on the following pages.



Proposed Daytime Field Strength Contours

du Treil, Lundin & Rackley, Inc. Sarasota, Florida



Existing Daytime Field Strength Contours

Allocation Requirements - WRSO

The proposed facility complies with the requirements of 47 C.F.R. Section 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(included in BP-20130429ACX). 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 made using FCC Figure M-3 conductivities to depict the 0.1 mV/m groundwave contour of the Class A stations requiring study on the proposed frequency. The following figures support a conclusion that this proposal comports with all interference protection requirements.

Interference Received from Co-Channel Station WQIZ

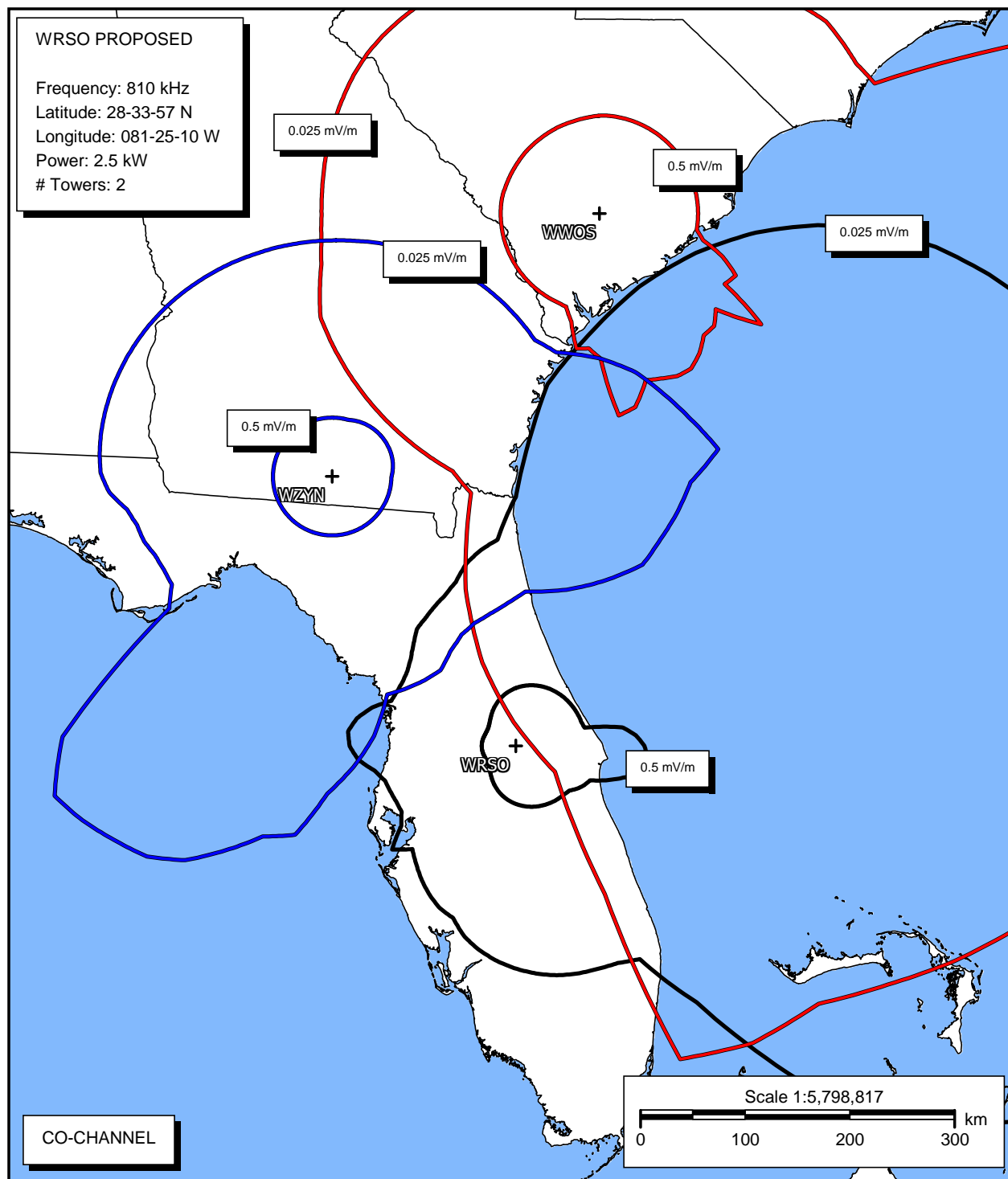
In a previous application that was granted, BMP-20050624AAQ, it was noted that field strength measurements failed to detect any signal from WQIZ in the vicinity of the proposed WRSO(formerly WEUS) service area. Additionally, the overlap is the result of a long salt-water path between WQIZ and the Florida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

Agreement Regarding Bahaman Station, C6B3, Freeport

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

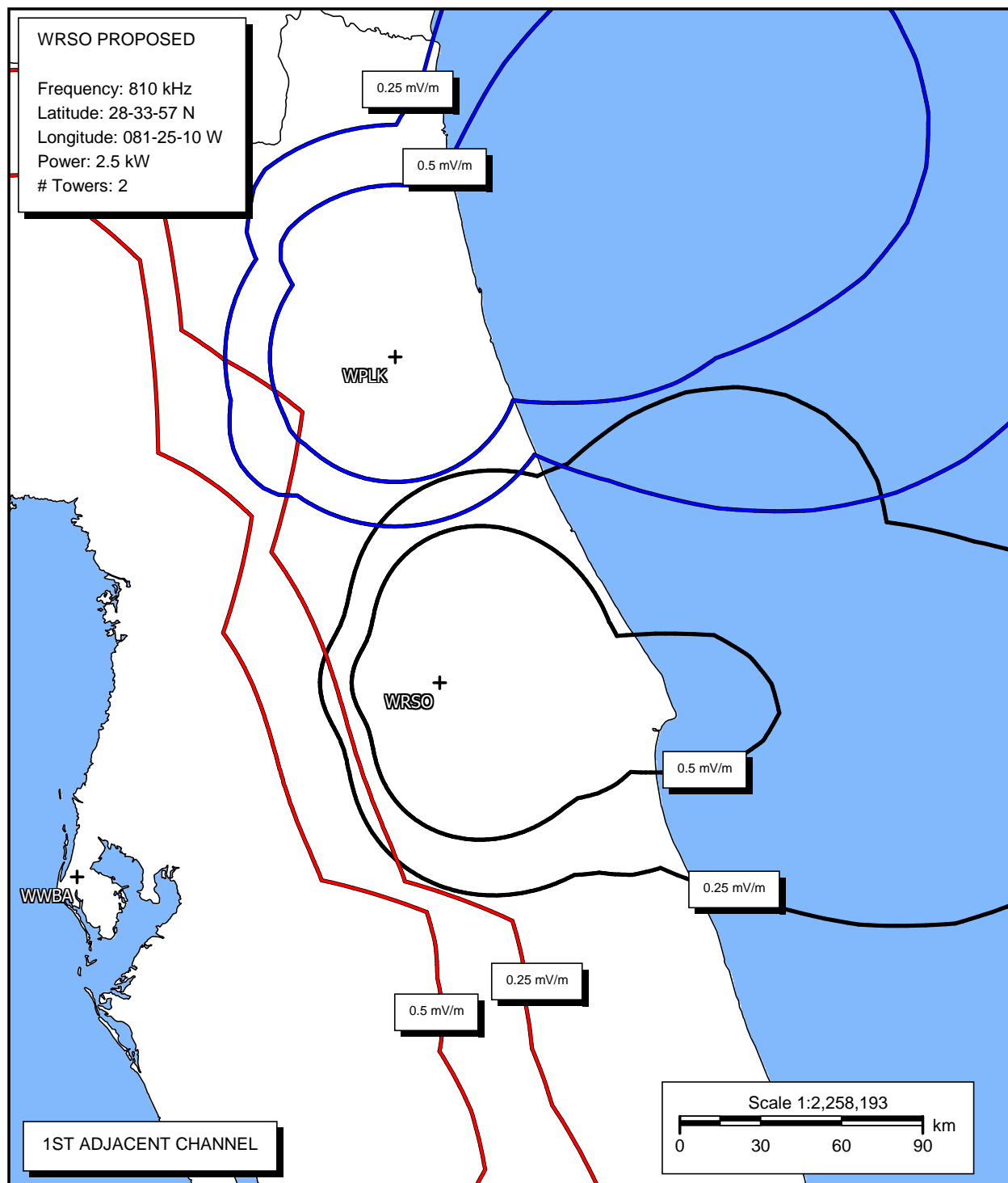
.Allocation Study Data

Maps showing the field strength contours requiring study and tabulations of pertinent data regarding the daytime and critical hours studies appear on the following pages.



Daytime Allocation Study - Sheet 1

du Treil, Lundin & Rackley, Inc. Sarasota, Florida

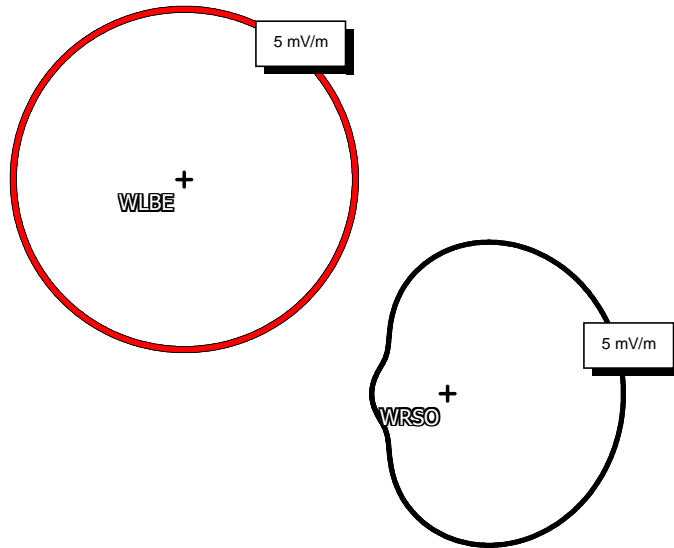


Daytime Allocation Study - Sheet 2

du Treil, Lundin & Rackley, Inc. Sarasota, Florida

WRSO PROPOSED

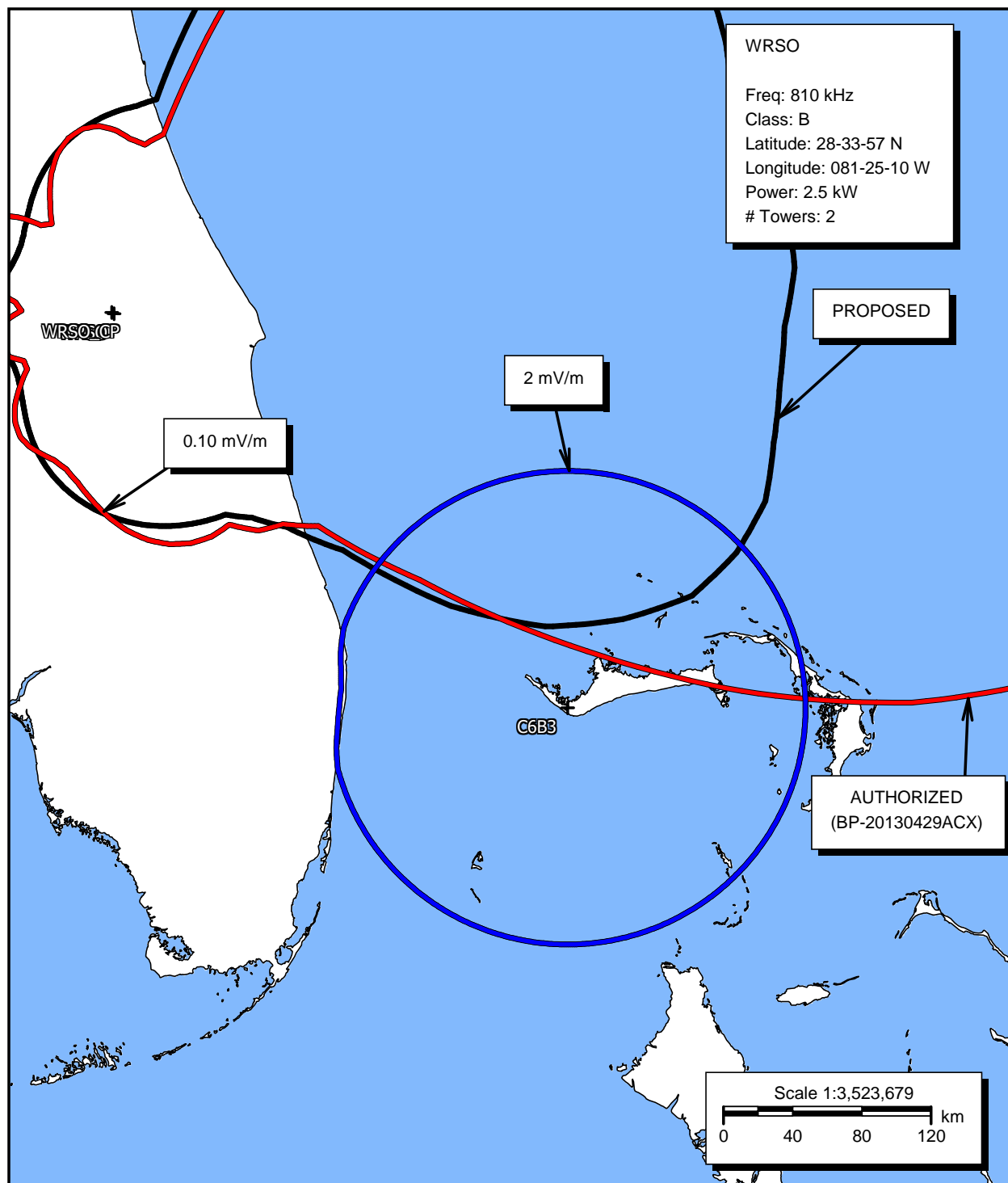
Frequency: 810 kHz
Latitude: 28-33-57 N
Longitude: 081-25-10 W
Power: 2.5 kW
Towers: 2



2ND ADJACENT CHANNEL

Daytime Allocation Study - Sheet 3

du Treil, Lundin & Rackley, Inc. Sarasota, Florida



Daytime Allocation Study - Sheet 4

du Treil, Lundin & Rackley, Inc. Sarasota, Florida

Tabulation of Data Employed in the Calculation of Groundwave Contours

Reference Station: WRSO, 810 kHz

Location: 28-33-57 N, 081-25-10 W

790 kHz

46.2 km WLBE L 28-49-42 N 081-47-10 W 5.0 kW DAN - 297.7 mV/m@1km
28.7 mi Azi: 309.0 Class: B Sched: U File #: BL19970821KC
Location: LEESBURG-EUSTIS, FL, US

800 kHz

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

810 kHz

311.3 km WZYN L 30-52-29 N 083-15-06 W 2.5 kW NDD - 305.4 mV/m@1km
193.4 mi Azi: 324.8 Class: D Sched: D File #: BL20151123CUN
Location: HAHIRA, GA, US

514.5 km WWOS L 33-08-51 N 080-33-47 W 5.0 kW ND - 309.0 mV/m@1km
319.7 mi Azi: 9.4 Class: D Sched: D File #: BML20150820CNP
Location: ST. GEORGE, SC, US

346.7 km C6B3 26-32-00 N 078-45-00 W 1.0 kW ND1 - 300.0 mV/m@1km
215.4 mi Azi: 131.0 Class: C Sched: U File #:
Location: FREEPORT, , BF

820 kHz

152.2 km WWBA L 27-54-30 N 082-46-51 W 50.0 kW DA2 - 2012.2 mV/m@1km
94.6 mi Azi: 240.6 Class: B Sched: U File #: BL19870219AA
Location: LARGO, FL, US

Nighttime Allocation Study

Call: WRSO
 Freq: 810 kHz
 ORLOVISTA, FL, US
 Hours: N
 Lat: 28-33-57 N
 Lng: 081-25-10 W
 Power: 0.024 kW
 Theo RMS: 285.48 mV/m @ 1km @ 1kW

#	Field Ratio	Phase (deg)	Spacing (deg)	Orient (deg)	Height (deg)	Ref Switch	TL Switch	A (deg)	B (deg)	C (deg)	D (deg)
1	1.000	0.0	0.0	0.0	59.0	0	0	0.0	0.0	0.0	0.0

Call Letters	Ct	St	City	SWFF (100uV/m)	Req Prot (mV/m)	Permis (mV/m)	Cur Rad (mV/m)	Margin (mV/m)
WGY (205)	US	NY	SCHENECTADY	56.47	0.500	44.27S	43.73	0.54
WCKA	US	AL	JACKSONVILLE	75.44	2.843	188.44	43.42	145.02
50% = 11.372, 25% = 11.372; WGY=11.37								
C6B3-B	BF		FREEPORT	62.47	2.820	225.70	38.18	187.52
50% = 2.837, 25% = 3.24; WGY=2.84 WRSO=1.30 WCKA=0.86								
XERB1/O	MX	QR	COZUMEL	58.33	3.064	262.60	43.67	218.93
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								
TGMM-B (40)	GT		RADIOMOPAN	20.35	1.291	317.02S	43.78	273.24
50% = 2.581, 25% = 2.982; XEOE/A=2.12 XEIC/A=1.47 XEIN/A=0.95 WGY=0.88								
WSJC=0.74								
WSJC	US	MS	MAGEE	57.07	3.920	343.47	43.73	299.74
50% = 15.154, 25% = 15.68; WCKA=10.33 WHB=8.31 WGY=7.34 WBAP=4.03								
WKVM	US	PR	SAN JUAN	19.11	1.314	344.00	44.16	299.84
50% = 5.258, 25% = 5.258; WGY=4.09 CX14-A=3.31								
KGO (120)	US	CA	SAN FRANCISCO	6.83	0.500	366.11S	44.16	321.95
XEMQ1/O	MX	YC	MERIDA	47.84	3.662	382.69	43.82	338.87
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								
XE/O	MX	QR	FELIPE CARRILLO	45.81	3.617	394.84	43.84	351.00
50% = 7.235, 25% = 8.014; XEOE/A=5.88 XEIC/A=4.21 XEIN/A=2.72 WGY=2.12								
CMMB-D	CU		GUANTANAMO	20.69	1.836	443.75	43.76	399.98
50% = 3.672, 25% = 3.863; WKVM=3.67 WGY=1.20								
XEIC/A	MX	CA	CAMPECHE	35.64	3.252	456.28	43.96	412.32
50% = 6.504, 25% = 7.789; XEOE/A=6.50 XEIN/A=3.22 WHB=2.04 WGY=1.96								
WPLK	US	FL	PALATKA	371.67	3.357	451.56	27.21	424.35
50% = 11.858, 25% = 13.427; XEROK/A=9.37 WJAT=7.26 WDSC=3.79 WPJM=3.59								
WSHO=3.52								

Call Letters	Ct St City	SWFF (100uV/m)	Req Prot (mV/m)	Permis (mV/m)	Cur Rad (mV/m)	Margin (mV/m)
WHB	US MO KANSAS CITY	18.13	1.909	526.57	44.16	482.41
50% = 7.268, 25% = 7.637; WGY=6.41 WBAP=3.43 XEROK/A=2.35						
WWBA	US FL LARGO	341.77	3.646	533.44	30.91	502.53
50% = 14.07, 25% = 14.585; WBAP=14.07 HJED-A=3.84						
YSAX-D (45)	ES SAN SALVADOR	10.70	1.273	595.28S	44.04	551.24
50% = 2.547, 25% = 3.106; XEOE/A=2.55 XEIC/A=1.22 XEIN/A=1.00 WKVM=0.81						
KYTY	US TX SOMERSET	20.95	3.324	793.38	44.15	749.23
50% = 11.613, 25% = 13.296; KXOI=7.45 WBAP=6.97 XEROK/A=5.55 WHB=5.32 WGY=3.70						
XEFW/O	MX TA TAMPICO	14.69	2.379	809.95	44.13	765.82
50% = 5.16, 25% = 7.123; XEOE/A=3.84 XEIN/A=2.49 XEIC/A=2.38 WHB=2.38 XEMAX/A=2.06 KYTY=2.03 KGO=1.95 XERSV1/A=1.78 XEAGR/A=1.77						
XEFW1/O	MX TA TAMPICO	14.69	2.379	809.95	44.13	765.82
50% = 5.16, 25% = 7.123; XEOE/A=3.84 XEIN/A=2.49 XEIC/A=2.38 WHB=2.38 XEMAX/A=2.06 KYTY=2.03 KGO=1.95 XERSV1/A=1.78 XEAGR/A=1.77						
XEFW/O	MX VE CD. CUAUHEMOC	14.68	2.388	813.68	44.13	769.55
50% = 5.194, 25% = 7.136; XEOE/A=3.87 XEIN/A=2.51 XEIC/A=2.39 WHB=2.36 XEMAX/A=2.06 KYTY=2.01 KGO=1.95 XEAGR/A=1.77 XERSV1/A=1.77						
WBAP (100)	US TX FORT WORTH	30.58	0.500	817.55G	44.08	773.47
XERI/O	MX TA REYNOSA	17.99	3.001	833.86	44.11	789.75
50% = 6.002, 25% = 8.194; WHB=4.59 KYTY=3.87 WSJC=2.79 XERSV1/A=2.30 KXOI=2.24 WGY=2.14 WCKA=2.06 KGO=2.05						
XEOE/A	MX CS TAPACHULA	12.55	2.465	982.36	44.14	938.22
50% = 4.93, 25% = 5.285; XEIN/A=3.87 XEIC/A=3.06 XEAGR/A=1.38 WGY=1.31						
YSFA-B (40)	ES SAN VICENTE	6.73	1.444	1072.97S	44.11	1028.86
50% = 2.888, 25% = 3.301; XEOE/A=2.89 XEIC/A=1.14 XEIN/A=1.12						
KLVZ	US CO BRIGHTON	8.65	1.952	1128.48	44.16	1084.32
50% = 6.076, 25% = 7.808; XEROK/A=4.51 KXOI=4.07 KGO=2.67 WGY=2.62 WHB=2.29 WBAP=2.19						
KXOI	US TX CRANE	14.38	3.592	1248.83	44.16	1204.67
50% = 12.372, 25% = 14.678; XEROK/A=12.37 WBAP=5.80 KGO=3.98 WHB=3.59						
XEHT/O	MX TL HUAMANTLA	10.96	3.058	1394.54	44.15	1350.39
50% = 6.116, 25% = 7.591; XEOE/A=5.28 XEIN/A=3.09 XEIC/A=2.46 XEAGR/A=2.33 XEMAX/A=2.29 KGO=1.86						
XEHT1/O	MX TL HUAMANTLA	10.95	3.068	1400.47	44.15	1356.32
50% = 6.136, 25% = 7.608; XEOE/A=5.30 XEIN/A=3.10 XEIC/A=2.47 XEAGR/A=2.33 XEMAX/A=2.29 KGO=1.86						
XEIN/A	MX CS CINTALAPA	13.93	4.201	1508.06	44.14	1463.93
50% = 8.402, 25% = 9.039; XEOE/A=8.40 XEIC/A=3.33						
WJAT	US GA SWAINSBORO	136.51	4.245	1554.96	42.04	1512.92
50% = 14.175, 25% = 16.982; XEROK/A=9.94 WPJM=7.78 WDSC=6.45 WPLK=6.11 WDEH=5.33 WKBC=4.66						



Nighttime Allocation Study - Sheet 1



Nighttime Allocation Study - Sheet 2

Critical Hours Study

Critical Hours Radiation Report

Call: WRSO
Freq: 810 kHz
ORLOVISTA, FL, US
Hours: D
Lat: 28-33-57 N
Lng: 081-25-10 W
Power: 2.5 kW
Theo RMS: 466.49 mV/m @ 1km @ 2.5 kW

#	Field Ratio	Phase (deg)	Spacing (deg)	Orient (deg)	Height (deg)	Ref Swrch	TL Swrch	A (deg)	B (deg)	C (deg)	D (deg)
1	1.000	0.0	0.0	0.0	59.0	0	0	0.0	0.0	0.0	0.0
2	0.700	-99.8	90.0	90.0	59.0	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 Swrch	TL Swrch	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.

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)	
152.35	289.00	3683.6 / 2288.9	0.0	129.51	12041.0	11911.5	** Clipped at 0.11
mV/m							
146.65	290.00	3667.0 / 2278.6	0.0	128.81	12016.8	11887.9	**
135.92	291.00	3618.4 / 2248.4	0.0	128.17	11934.9	11806.7	**
125.59	292.00	3580.5 / 2224.8	0.0	127.58	11879.8	11752.3	**
116.92	293.00	3570.0 / 2218.3	0.0	127.06	11893.0	11766.0	**
108.00	294.00	3572.5 / 2219.8	0.0	126.64	11938.6	11812.0	**
98.48	295.00	3601.8 / 2238.0	0.0	126.32	12051.2	11924.8	**
85.90	296.00	3643.1 / 2263.7	0.0	126.11	12193.8	12067.7	**
70.01	297.00	3678.5 / 2285.7	0.0	126.04	12322.0	12196.0	**
53.81	298.00	3708.5 / 2304.4	0.0	126.12	12452.4	12326.3	**
47.32	299.00	3690.3 / 2293.0	0.0	126.36	12432.4	12306.1	**
41.57	300.00	3683.4 / 2288.8	0.0	126.79	12456.5	12329.7	**
34.31	301.00	3701.6 / 2300.0	0.0	127.40	12577.4	12449.9	**
25.57	302.00	3744.4 / 2326.7	0.0	128.23	12866.6	12738.3	**
7.39	303.00	3880.8 / 2411.4	0.0	129.27	13590.5	13461.2	**

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)	
152.35	289.00	3683.6 / 2288.9	16093.44	9557.31	12041.0	** Clipped at 0.11 mV/m
146.65	290.00	3667.0 / 2278.6	16093.44	9518.15	12016.8	**
135.92	291.00	3618.4 / 2248.4	16093.44	9386.12	11934.9	**
125.59	292.00	3580.5 / 2224.8	16093.44	9297.32	11879.8	**
116.92	293.00	3570.0 / 2218.3	16093.44	9318.59	11893.0	**
108.00	294.00	3572.5 / 2219.8	16093.44	9392.15	11938.6	**
98.48	295.00	3601.8 / 2238.0	16093.44	9573.63	12051.2	**
85.90	296.00	3643.1 / 2263.7	16093.44	9803.68	12193.8	**
70.01	297.00	3678.5 / 2285.7	16093.44	10010.48	12322.0	**
53.81	298.00	3708.5 / 2304.4	16093.44	10220.78	12452.4	**
47.32	299.00	3690.3 / 2293.0	16093.44	10188.59	12432.4	**
41.57	300.00	3683.4 / 2288.8	16093.44	10227.41	12456.5	**
34.31	301.00	3701.6 / 2300.0	16093.44	10422.33	12577.4	**
25.57	302.00	3744.4 / 2326.7	16093.44	10888.78	12866.6	**
7.39	303.00	3880.8 / 2411.4	16093.44	12056.44	13590.5	**

** 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: U
Lat: 42-47-37 N
Lng: 074-00-36 W
Power: 50.0 kW
Theo RMS: 383.02 mV/m @ 1km @ 1kW

#	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	182.9	0	0	0.0	0.0	0.0	0.0

Permissible radiation calculated using FCC 73.190 curves.

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)	
265.48	12.00	1591.9 / 989.1	4.9	544.37	5078.1	4533.7	
253.58	13.00	1540.1 / 957.0	5.3	550.23	4614.3	4064.1	
245.01	14.00	1507.3 / 936.6	5.6	555.97	4301.0	3745.1	
237.88	15.00	1483.7 / 922.0	5.8	561.59	4062.1	3500.5	
231.72	16.00	1467.5 / 911.9	5.9	567.10	3881.1	3314.0	
225.97	17.00	1455.3 / 904.3	6.0	572.49	3732.3	3159.8	
220.52	18.00	1446.7 / 899.0	6.1	577.76	3614.8	3037.1	
215.37	19.00	1444.1 / 897.3	6.1	582.91	3540.3	2957.4	
210.14	20.00	1442.8 / 896.5	6.1	587.94	3473.4	2885.4	
204.87	21.00	1440.4 / 895.0	6.2	592.85	3409.1	2816.2	
199.51	22.00	1446.6 / 898.9	6.1	597.63	3383.2	2785.6	
193.97	23.00	1453.1 / 902.9	6.1	602.29	3366.6	2764.3	
188.71	24.00	1455.1 / 904.1	6.0	606.82	3325.7	2718.9	
184.38	25.00	1449.3 / 900.5	6.1	611.23	3241.1	2629.8	
180.82	26.00	1440.7 / 895.2	6.2	615.52	3154.8	2539.3	
166.22	27.00	1524.6 / 947.3	5.5	619.68	3553.9	2934.2	Clipped at 0.10 mV/m
157.17	28.00	1554.6 / 966.0	5.2	623.72	3658.6	3034.9	Clipped at 0.10 mV/m
147.51	29.00	1589.1 / 987.4	5.0	627.63	3781.8	3154.1	Clipped at 0.11 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)		
265.48	12.00	1591.9	/ 989.1	8213.91	3156.17	5078.1		
253.58	13.00	1540.1	/ 957.0	7495.72	2848.28	4614.3		
245.01	14.00	1507.3	/ 936.6	7012.48	2639.20	4301.0		
237.88	15.00	1483.7	/ 922.0	6644.91	2479.04	4062.1		
231.72	16.00	1467.5	/ 911.9	6367.81	2356.96	3881.1		
225.97	17.00	1455.3	/ 904.3	6140.82	2256.16	3732.3		
220.52	18.00	1446.7	/ 899.0	5963.07	2175.57	3614.8		
215.37	19.00	1444.1	/ 897.3	5853.10	2122.74	3540.3		
210.14	20.00	1442.8	/ 896.5	5754.36	2075.32	3473.4		
204.87	21.00	1440.4	/ 895.0	5652.58	2034.04	3409.1		
199.51	22.00	1446.6	/ 898.9	5610.50	2018.14	3383.2		
193.97	23.00	1453.1	/ 902.9	5584.64	2007.18	3366.6		
188.71	24.00	1455.1	/ 904.1	5520.28	1980.70	3325.7		
184.38	25.00	1449.3	/ 900.5	5384.30	1927.48	3241.1		
180.82	26.00	1440.7	/ 895.2	5247.26	1872.37	3154.8		
166.22	27.00	1524.6	/ 947.3	5908.72	2110.63	3553.9	Clipped at 0.10	mV/m
157.17	28.00	1554.6	/ 966.0	6090.36	2168.17	3658.6	Clipped at 0.10	mV/m
147.51	29.00	1589.1	/ 987.4	6305.70	2234.85	3781.8	Clipped at 0.11	mV/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 dark ink, appearing to read "Edwin", with a long horizontal flourish 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;

Blanketing - WRSO

The provisions of 47 CFR 73.24(g) require that the population within the 1,000 mV/m contour not exceed 300 persons. At the proposed location, during daytime hours, the proposed 1,000 mV/m contour encompasses 0 persons. Thus, the requirements of 47 CFR 73.24(g) are met.

WRSO PROPOSED

Frequency: 810 kHz
Latitude: 28-33-57 N
Longitude: 081-25-10 W
Power: 2.5 kW
Towers: 2

1000 mV/m
Daytime

WRSO +

Scale 1:13,765

0 0.3 0.6 0.9 km

Blanketing

du Treil, Lundin & Rackley, Inc. Sarasota, Florida

Environmental Protection - WRSO

The proposed facility is not excluded from environmental processing under the requirements of 47 C.F.R. Section 1.1306. Therefore, a Preliminary Environmental Assessment, as prepared by Bio-Tech Consulting Incorporated, is included in the appropriate section of FCC Form 301. The proposed facility will comply with the maximum permissible radiofrequency electromagnetic exposure limits for controlled and uncontrolled environments.

The proposed WRSO operation will be evaluated in terms of both the electric and magnetic field components which will be present at the base of each tower. Using Figures 1 through 4 of Supplement A to OET Bulletin 65, the worst case interpolated distances at which the electric and magnetic fields would fall below ANSI guidelines will be calculated before construction. The areas surrounding the base of each tower will be appropriately restricted with a fence having the required minimum radius unless field measurement data indicates otherwise. The fences will assure that persons on the property outside the fenced areas will not be exposed to radiofrequency field levels in excess of those recommended by the ANSI. In addition, warning signs will be posted.