

TECHNICAL EXHIBIT
APPLICATION FOR CONSTRUCTION PERMIT
NOVA BROADCASTING COMPANY
RADIO STATION WIBQ
SARASOTA, FLORIDA

October 11, 2002

1220 KHZ 5 KW-D, 13 W-N U DA-D

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Technical Narrative

The technical exhibit of which this narrative is part has been prepared on behalf of Nova Broadcasting Company licensee of AM broadcast station WIBQ at Sarasota, Florida. WIBQ is licensed for unlimited operation on 1220 kilohertz with daytime power of 1.0 kilowatt and secondary nighttime power of 159 watts, operating with different directional antenna patterns during both daytime and nighttime hours. By means of this present application, the licensee proposes to increase daytime power to 5 kilowatts with a different directional antenna pattern from a new site and change secondary nighttime operation utilizing a non-directional antenna from a second site. 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(c), 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 proposal is acceptable for filing under the criteria set forth in 47 CFR 73.37.

The proposed facility will not have a significant environmental impact as defined by 47 CFR 1.1307. The Federal Aviation Administration has not been notified of the proposal as new tower construction is not proposed.

Proposed Transmitter Locations

The proposed WIBQ daytime facility will be co-located with Sarasota, Florida radio station WLSS, which operates on 930 kilohertz. The geographic coordinates of the facility are:

27-21-17 North Latitude
82-23-06 West Longitude

The location of the proposed WIBQ nighttime facility will be co-located with a cellular provider sharing a common tower. The proposed nighttime coordinates are:

27-19-26 North Latitude
82-29-46 West Longitude

Directional Antenna System

A total of four towers will be employed for the daytime directional antenna pattern. As indicated on Figure 1, all radiating elements are 78.4 meters (257 feet) in height and have an overall height of 80.3 meters (263 feet) above ground level. The layout of towers and ground system at the transmitter site is show as Figure 2.

A summary of specifications for the directional antenna array is included herein as Figure 3.

The directional antenna pattern has been calculated in accordance with 47 CFR 73.150 assuming a one-ohm lumped loss resistance at the current loop of each tower in the array. The daytime standard radiation pattern is shown herein as Figure 4 and is tabulated in Figure 5.

Daytime Coverage

The proposed WIBQ daytime field strength contours are depicted on Figure 6 and the existing daytime field strength contours are shown on Figure 7. As indicated on Figure 6, the proposed daytime 5 mV/m contour will completely encompass the city limits of Sarasota. The Sarasota city limits depicted were obtained from a map contained in the TIGER 2000 U.S. census files.

Daytime Allocation Study

A daytime allocation study was made utilizing FCC Figure M-3 as shown on Figure 8. Daytime field strength contours were calculated in accordance with 47 CFR 73.183. Figure 9 is a tabulation of the data employed in the calculation of daytime contours. Based on this analysis, the proposed WIBQ facility will comply with all relevant allocation criteria.

Waiver Request

The 0.025 mV/m interfering contour of co-channel foreign station CDM, completely overlaps the licensed and

proposed 0.5 mV/m contours of WIQB based on Region 2 conductivity data. Station CMDM is notified as operating on 1220 kHz, employing a non-directional antenna with a power of 10 kilowatts both day and night. As shown on Figure 8, sheet 4 of 4, the area of 0.5 mV/m contour for the proposed pattern is greater than the licensed pattern. Therefore, a waiver is requested, if necessary, to allow for increased received overlap from foreign station CMDM for the following reasons:

1. There has been no observance of received interference from CMDM, even during secondary nighttime operation by WIBQ.
2. The majority of the new received theoretical interference is over sparsely populated area located toward the center of the state.
3. Daytime listening in Sarasota on 1220 kHz with WIQB off the air indicates no co-channel station signal. In addition, measurement of the ambient signal strength level, using a field intensity meter indicates no measurable field even on the lowest scale(0.01 mV/m).

Based on this evidence, it is believed that CMDM is not an active Cuban broadcast station.

Secondary Nighttime Operation

As a Class D station, WIBQ is authorized secondary nighttime operation based on the protection of all applicable broadcast stations in the 1210, 1220 and 1230 kilohertz bands. The proposed nighttime operation will utilize an existing grounded tower with a height of 57.3 meters(188 feet) producing a non-directional pattern.

The tower is shunt fed with a radiation efficiency of 302 mV/m at one kilometer.

Nighttime Allocation Study

The limiting station for non-directional operation of WIBQ is Mexican, Class A co-channel station XEB. The limiting point is located on the Yucatan Peninsula at a bearing of 214 degrees, distance of 792.8 kilometers and a vertical angle of 11.8 degrees from the proposed WIBQ location. The maximum radiation permitted from the proposed nighttime location is 33.8 mV/m. Utilizing the before mentioned tower, a power level of 13 watts produces 33.4 mV/m at 11.8 degrees elevation.

Environmental Considerations

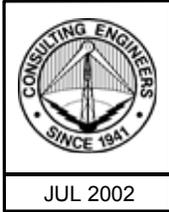
The proposed WIBQ and existing WLSS operations were evaluated together in terms of both the electric and magnetic field components which will be present at the base of each tower. Using Figures 1 through 4 of Supplement A to OET Bulletin 65, the worst case interpolated distance at which the electric and magnetic fields would fall below ANSI guidelines is 2 meters. Accordingly, the areas surrounding the base of each tower will be appropriately restricted with a fence having a minimum radius of 2 meters (7 feet) unless data obtained after construction has been completed indicates otherwise. The fence will assure that persons on the property outside the fenced area will not be exposed to radiofrequency field levels in excess of those recommended by the ANSI. In addition, warning signs will be posted.

The proposed operation is categorically excluded from environmental processing, as it meets all the criteria for such an exclusion as specified in 47 CFR 1.1306. The proposal does not involve construction at a site location as specified under 47 CFR 1.1307(a)(1)-(7) and the human exposure to radiofrequency radiation is predicted to be within the standards specified in 47 CFR 1.1307(b).

Matthew Folkert
du Treil, Lundin & Rackley, Inc.
201 Fletcher Avenue
Sarasota, Florida 34237

(941) 329-6000

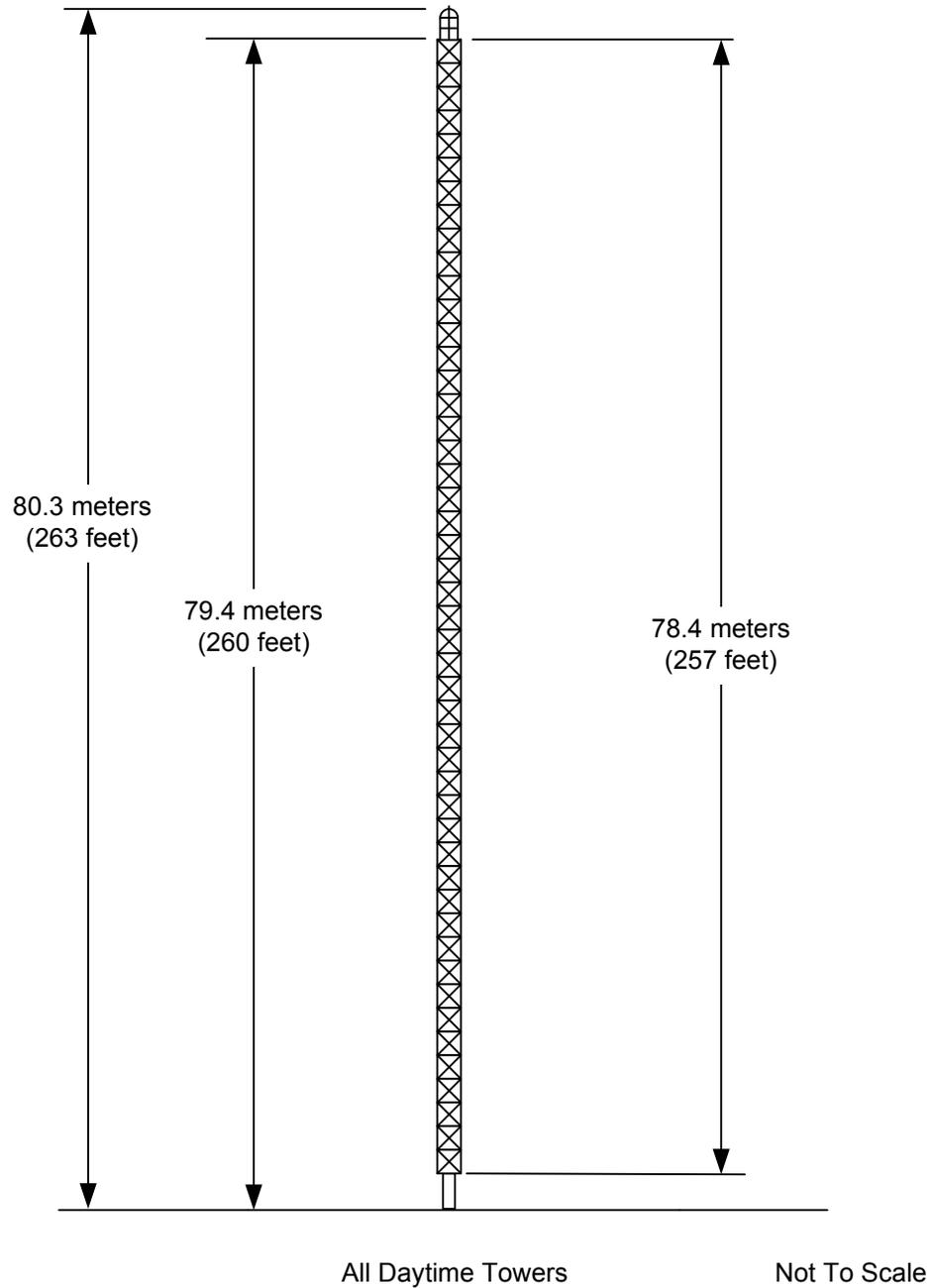
October 11, 2002



Site Coordinates(NAD 27)

27° 21' 17" N

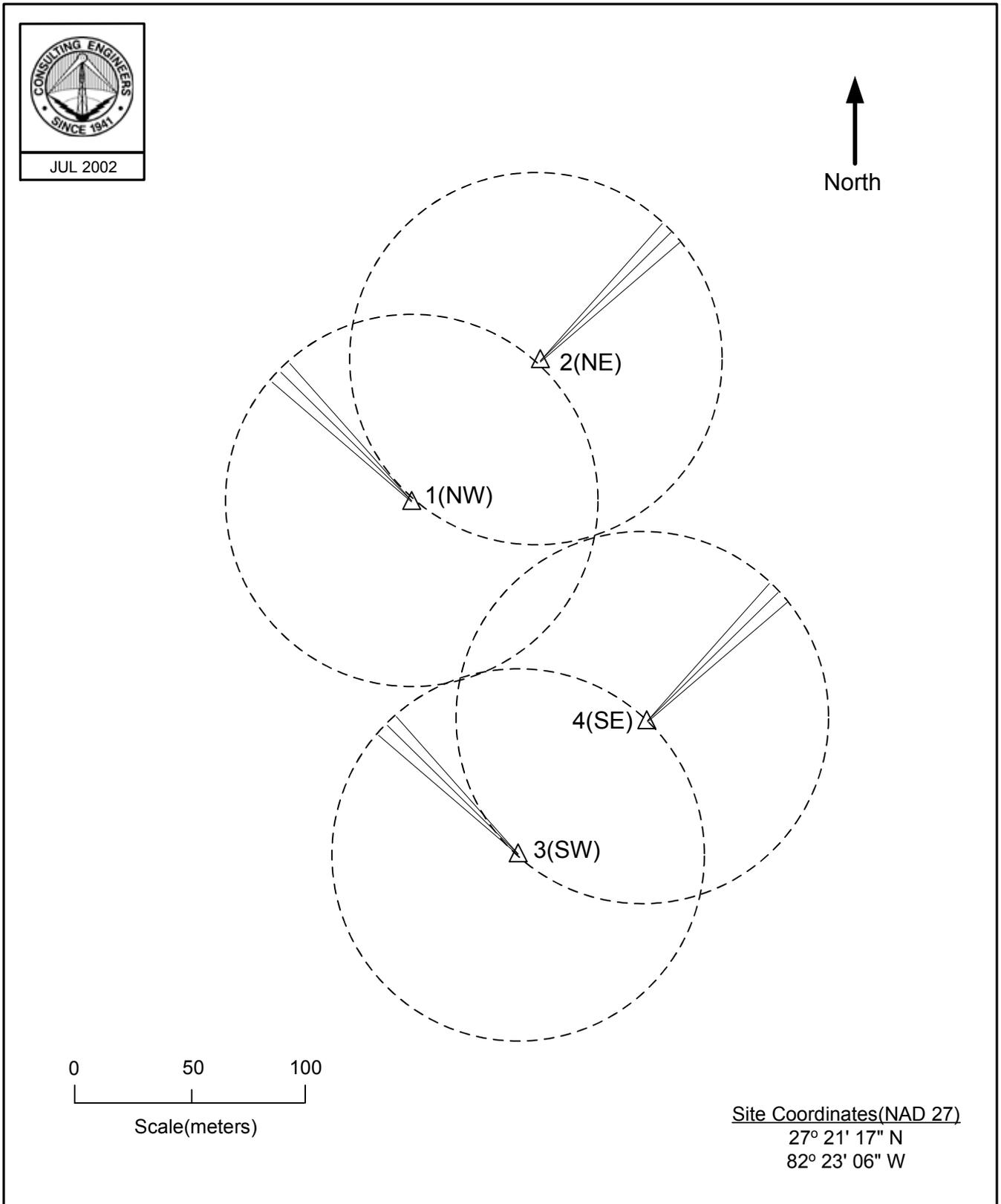
82° 23' 06" W



SKETCH OF ANTENNA ELEMENTS

RADIO STATION WIBQ
SARASOTA, FLORIDA
1220 KHZ 5 KW-D, 13 W-N U DA-D

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



LAYOUT OF TOWERS AND GROUND SYSTEM

RADIO STATION WIBQ
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Specification for Daytime
Directional Antenna System

Frequency: 1220 kHz
Hours of Operation: Unlimited
Power: 5 kW
Number of Towers: 4
Type of Tower: Guyed, Uniform Cross-section,
base-insulated
All Towers - height above
base insulator 78.4 m (257 ft)
All Towers - overall height 80.3 m (263 ft)

Tower Arrangement:

| Tower No. | Spacing (deg.)/ (m) | Orientation (deg. True) |
|--------------|------------------------|----------------------------|
| 1 (NW) | 0.0/0.0 | 0.0 |
| 2 (NE) | 118.1/80.7 | 44.0 |
| 3 (SW) | 236.1/161.3 | 164.0 |
| 4 (SE) | 204.5/139.7 | 134.0 |

Element Field Parameters:

Daytime:

| Tower No. | Field Ratio | Phase (degrees) |
|--------------|----------------|--------------------|
| 1 (NW) | 0.681 | -33.1 |
| 2 (NE) | 0.585 | +53.0 |
| 3 (SW) | 0.881 | -69.8 |
| 4 (SE) | 1.000 | 0.0 |

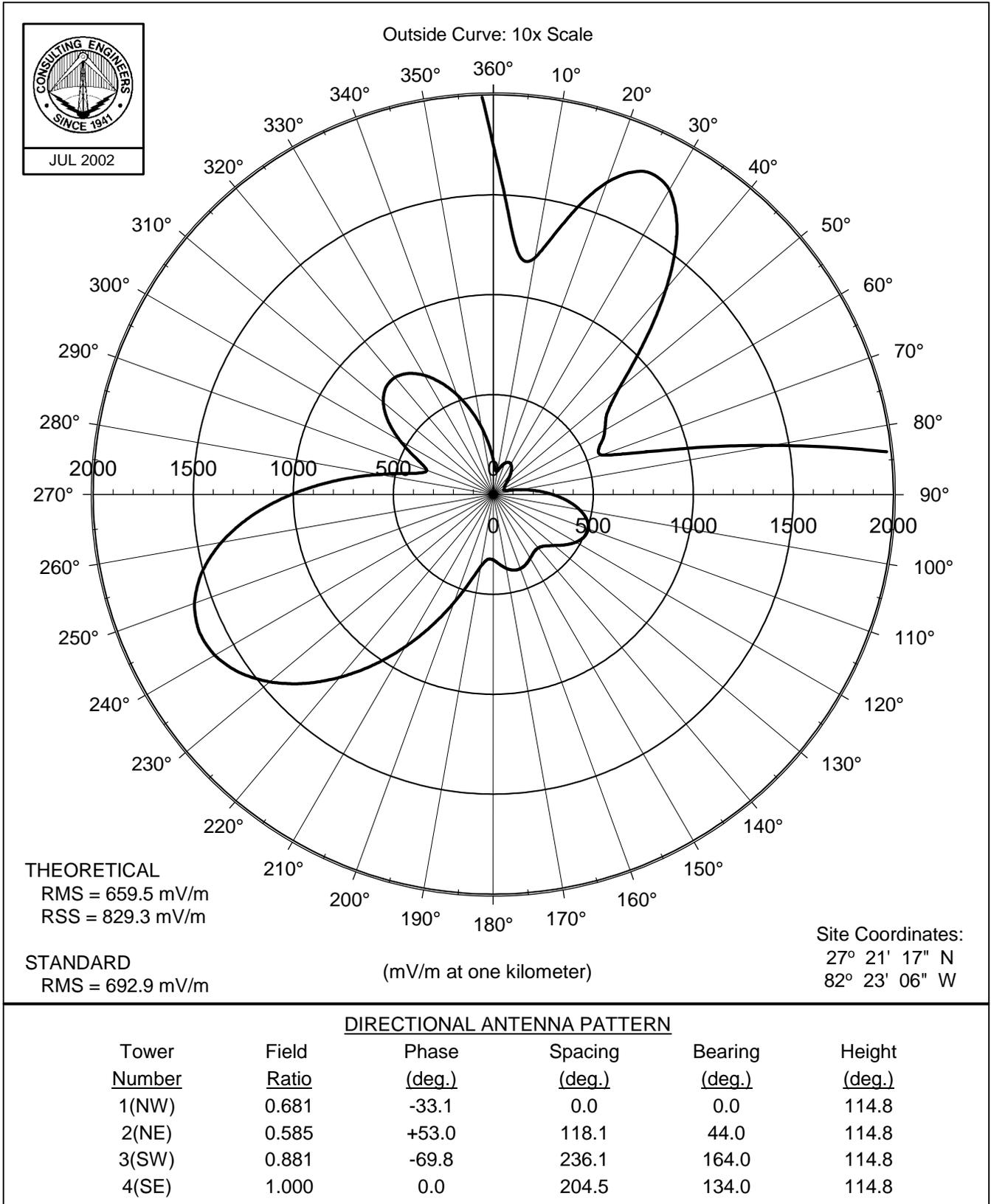
Ground System:

Installed about the base of each tower are 120 evenly spaced, buried copper wire radials (#10 AWG), extending 80.6 meters (265 ft) from all towers except where shortened and bonded to transverse copper strap between towers. In addition, copper strap runs from the transmitter and down the line of towers and is bonded to ground at the base of each tower.

Geographic Coordinates of
Center of Antenna Array:

27° 21' 17" North Latitude
82° 23' 06" West Longitude

Figure 4



**PROPOSED DAYTIME HORIZONTAL PLANE
STANDARD RADIATION PATTERN**

RADIO STATION WIBQ
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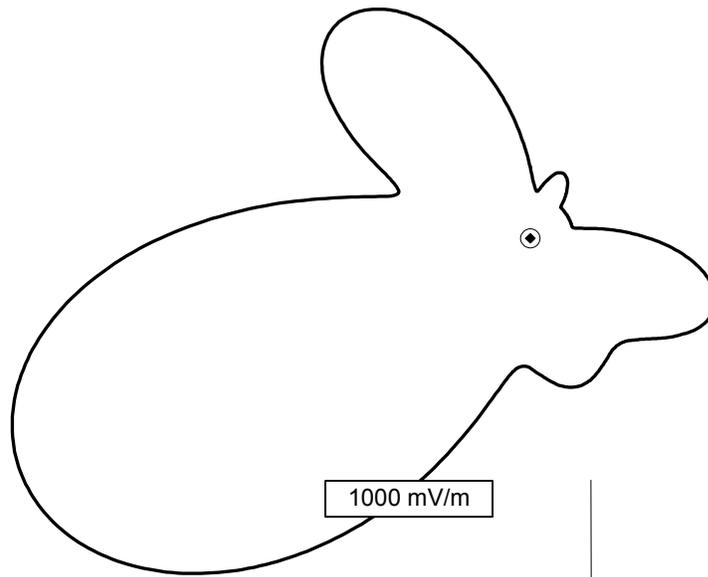
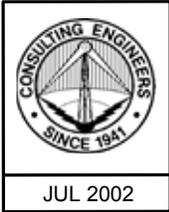
1220 KHZ 5 KW-D, 13 W-N U DA-D

DAYTIME RADIATION PATTERN
(Radiation Values at One Kilometer)

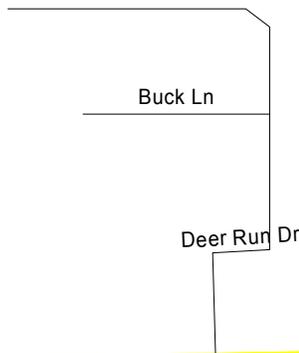
| <u>Tower Number</u> | <u>Field Ratio</u> | <u>Phase (deg.)</u> | <u>Spacing (deg.)</u> | <u>Bearing (deg.)</u> | <u>Height (deg.)</u> |
|---------------------|--------------------|---------------------|-----------------------|-----------------------|----------------------|
| 1 (NW) | 0.681 | -33.1 | 0.0 | 0.0 | 114.8 |
| 2 (NE) | 0.585 | +53.0 | 118.1 | 44.0 | 114.8 |
| 3 (SW) | 0.881 | -69.8 | 236.1 | 164.0 | 114.8 |
| 4 (SE) | 1.000 | +0.0 | 204.5 | 134.0 | 114.8 |

| <u>Input Power (kW)</u> | <u>Loop Loss (ohms)</u> | <u>Theo. RMS (mV/m)</u> | <u>Theo. RSS (mV/m)</u> | <u>Q Factor (mV/m)</u> | <u>Standard RMS (mV/m)</u> |
|-------------------------|-------------------------|-------------------------|-------------------------|------------------------|----------------------------|
| 5.0 | 1.0 | 659.5 | 829.3 | 22.4 | 692.9 |

| <u>Azimuth (mV/m)</u> | <u>Field (mV/m)</u> |
|-----------------------|---------------------|-----------------------|---------------------|-----------------------|---------------------|-----------------------|---------------------|
| 0 | 175 | 90 | 298 | 180 | 326 | 270 | 1010 |
| 5 | 126 | 95 | 375 | 185 | 326 | 275 | 792 |
| 10 | 120 | 100 | 440 | 190 | 367 | 280 | 579 |
| 15 | 143 | 105 | 484 | 195 | 453 | 285 | 411 |
| 20 | 166 | 110 | 505 | 200 | 575 | 290 | 354 |
| 25 | 178 | 115 | 502 | 205 | 720 | 295 | 422 |
| 30 | 176 | 120 | 477 | 210 | 878 | 300 | 537 |
| 35 | 160 | 125 | 439 | 215 | 1038 | 305 | 642 |
| 40 | 134 | 130 | 397 | 220 | 1194 | 310 | 718 |
| 45 | 106 | 135 | 364 | 225 | 1336 | 315 | 759 |
| 50 | 81.7 | 140 | 349 | 230 | 1458 | 320 | 765 |
| 55 | 69.1 | 145 | 353 | 235 | 1551 | 325 | 740 |
| 60 | 64.3 | 150 | 369 | 240 | 1607 | 330 | 689 |
| 65 | 58.9 | 155 | 386 | 245 | 1622 | 335 | 617 |
| 70 | 57.8 | 160 | 395 | 250 | 1589 | 340 | 532 |
| 75 | 84.1 | 165 | 391 | 255 | 1508 | 345 | 438 |
| 80 | 141 | 170 | 375 | 260 | 1380 | 350 | 343 |
| 85 | 216 | 175 | 349 | 265 | 1211 | 355 | 252 |



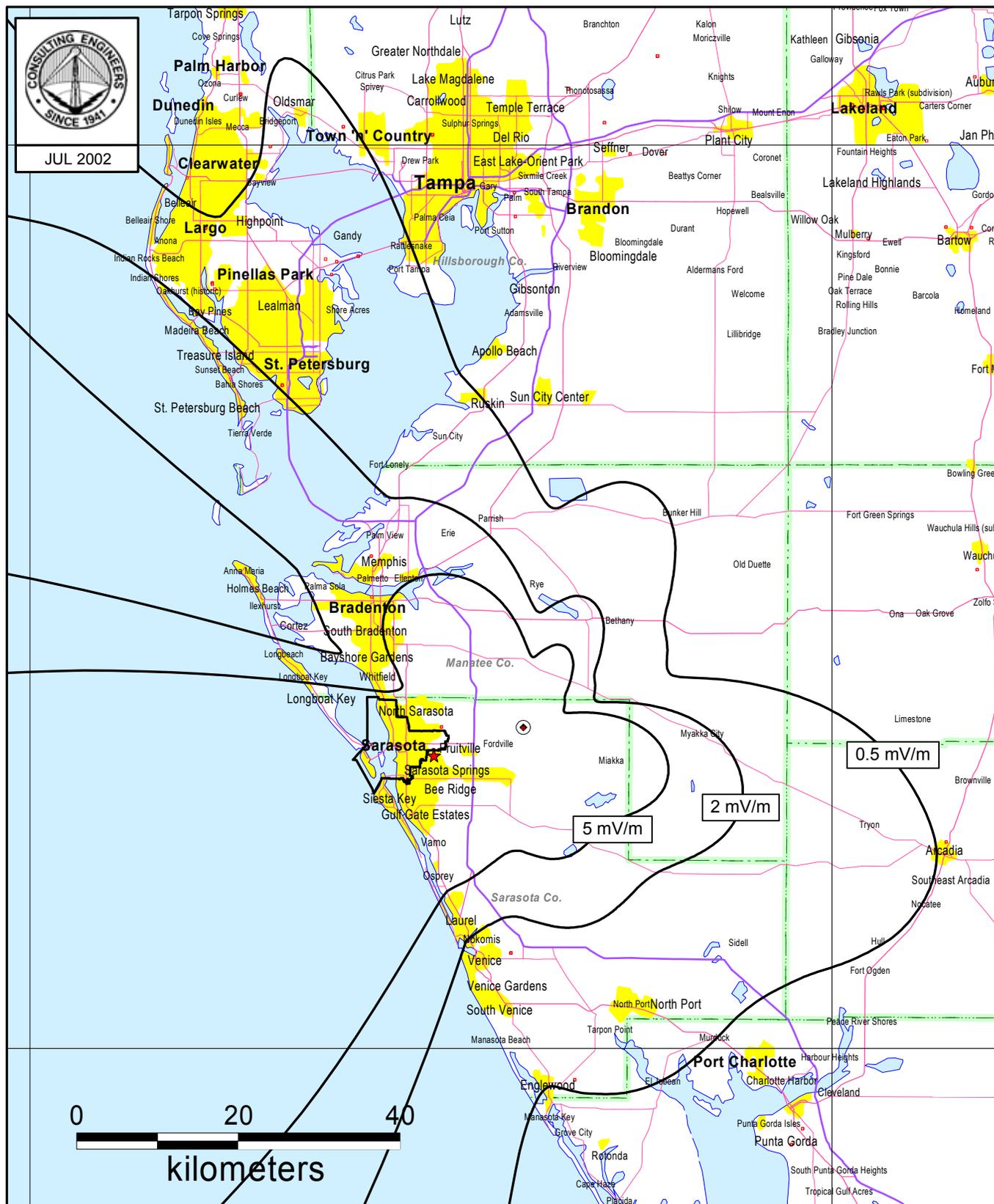
1000 mV/m



PROPOSED DAYTIME FIELD STRENGTH CONTOURS

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SARASOTA, FLORIDA
1220 KHZ 5 KW-D, 13 W-N U DA-D

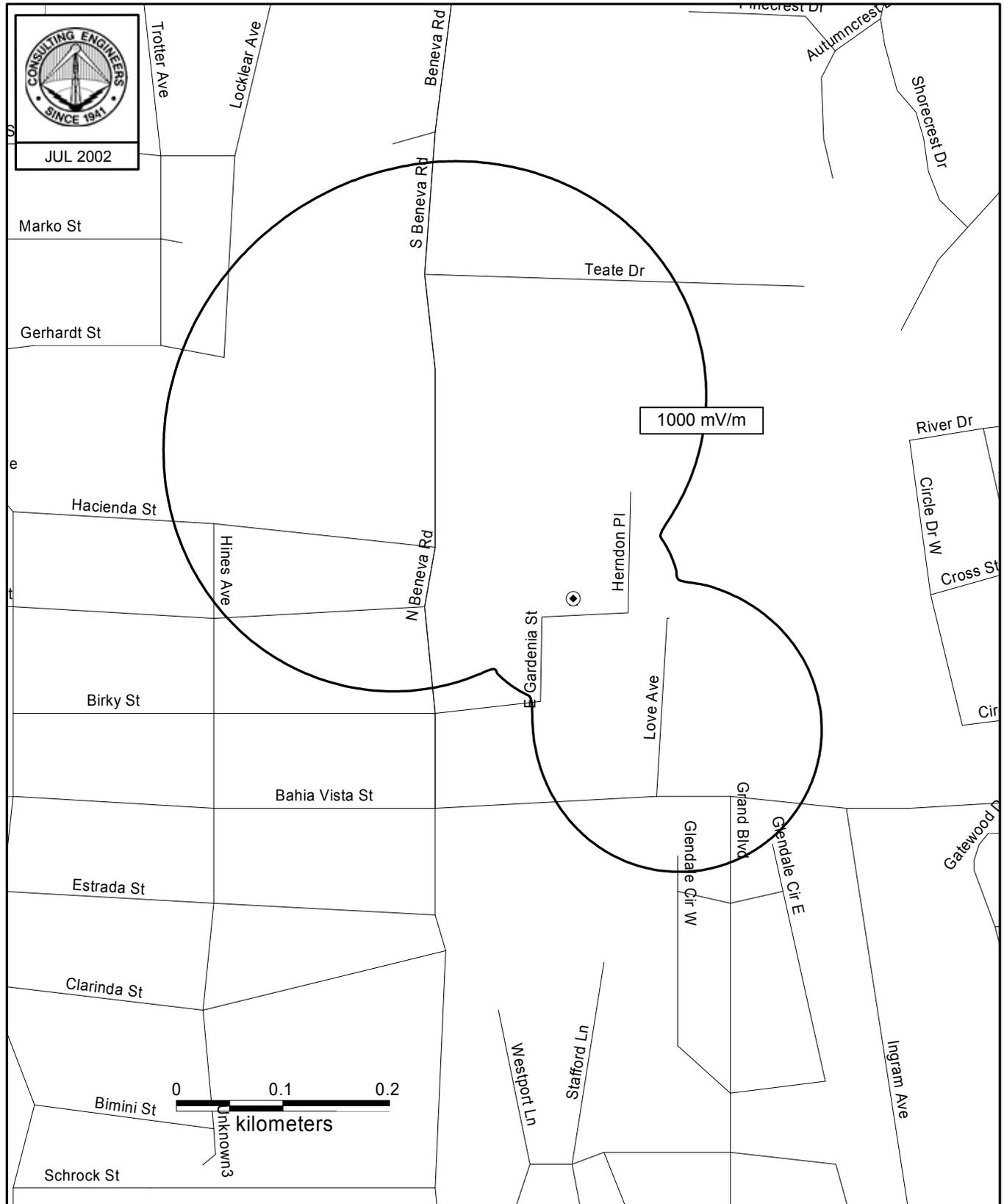
du Treil, Lundin & Rackley, Inc. Sarasota, Florida



PROPOSED DAYTIME FIELD STRENGTH CONTOURS

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SARASOTA, FLORIDA
1220 KHZ 5 KW-D, 13 W-N U DA-D

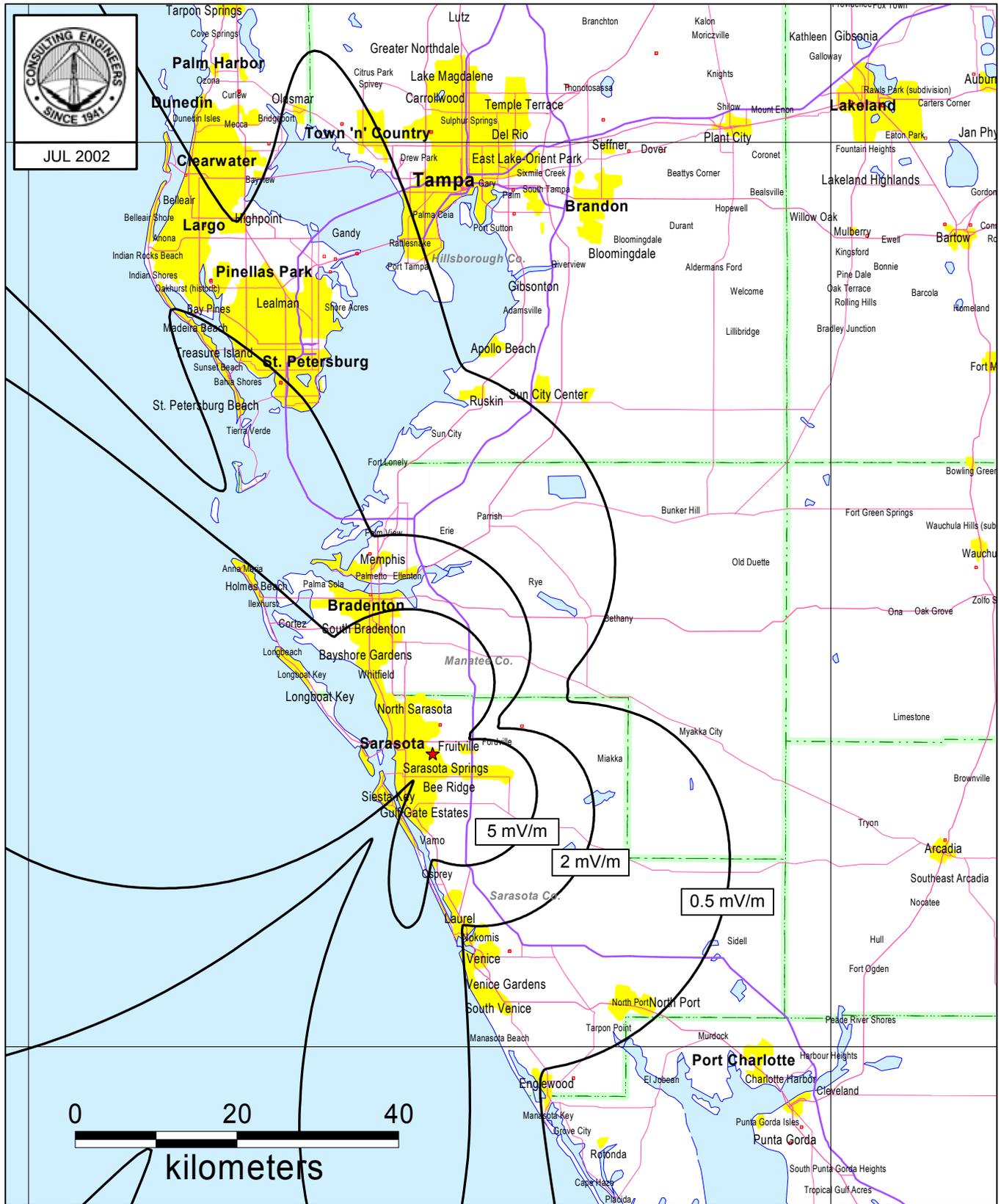
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EXISTING DAYTIME FIELD STRENGTH CONTOURS

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EXISTING DAYTIME FIELD STRENGTH CONTOURS

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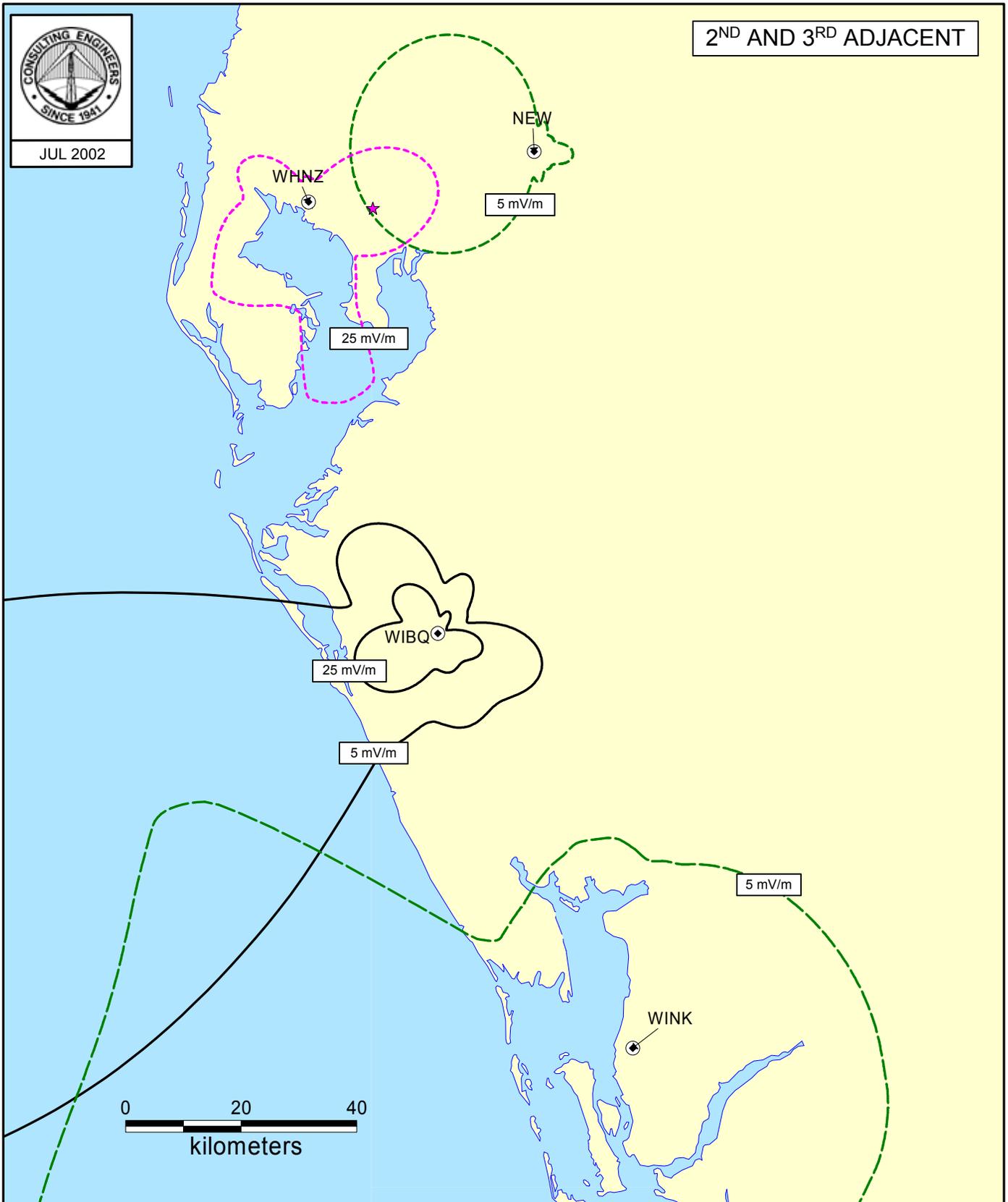
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DAYTIME ALLOCATION STUDY

RADIO STATION WIBQ
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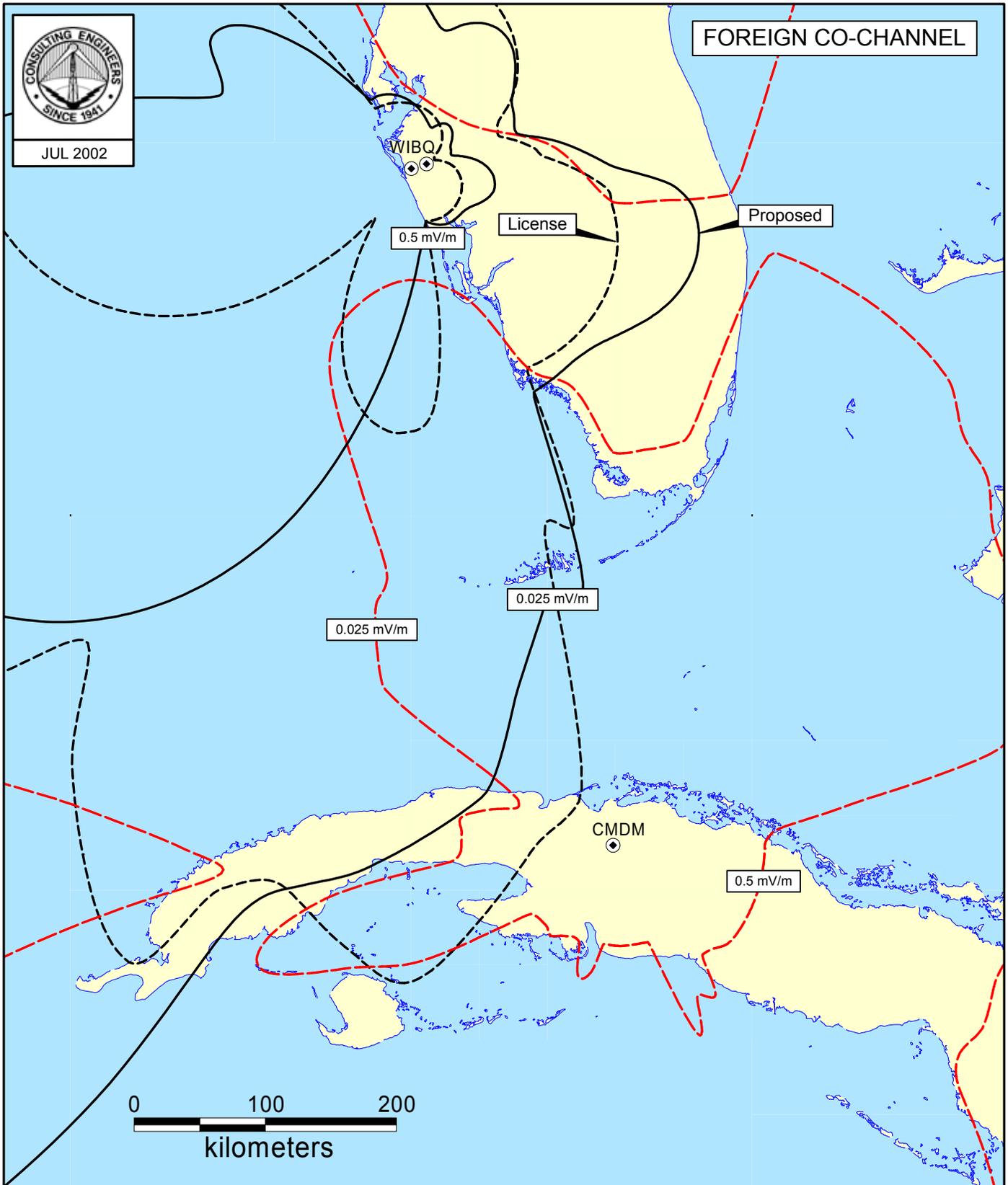
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Tabulation of Data Employed in
Calculation of Groundwave Contours

Call: WIBQ(License)
Sarasota, Florida
Coordinates: 27-19-27 North 82-29-47 West
Frequency: 1220 kHz

FCC M3 conductivity employed along all azimuths

Call: WIBQ(Proposed)
Sarasota, Florida
Coordinates: 27-21-17 North 82-23-06 West
Frequency: 1220 kHz

FCC M3 conductivity employed along all azimuths

Call: WOTS
Kissimmee, Florida
Coordinates: 28-19-27 North 81-23-44 West
Frequency: 1220 kHz

FCC M3 conductivity employed along all azimuths

Call: WJAX
Jacksonville, Florida
Coordinates: 30-19-30 North 81-34-15 West
Frequency: 1220 kHz

FCC M3 conductivity employed along all azimuths

Call: WONN
Lakeland, Florida
Coordinates: 28-02-23 North 81-57-39 West
Frequency: 1230 kHz

FCC M3 conductivity employed along all azimuths

Call: WHNZ(CP)
Tampa, Florida
Coordinates: 28-01-14 North 82-36-34 West
Frequency: 1250 kHz

FCC M3 conductivity employed along all azimuths

Call: WINK
Pine Island Center, Florida
Coordinates: 26-42-52 North 82-02-46 West
Frequency: 1200 kHz

FCC M3 conductivity employed along all azimuths

Call: NEW
Thonotosassa, Florida
Coordinates: 28-05-55 North 82-13-03 West
Frequency: 1200 kHz

FCC M3 conductivity employed along all azimuths

Call: CMDM
C Espana, Cuba
Coordinates: 22-48-00 North 81-01-00 West
Frequency: 1220 kHz

Region 2 conductivity employed along all azimuths