

Exhibit 13-C
Section 74.1204
Contour Protection to WSRZ-FM

This comprehensive exhibit has been prepared to demonstrate that the W298AV modification will not cause prohibited interference to WSRZ-FM, Channel 300C2, Coral Cove, FL. The WSRZ-FM F(50,50) protected contour at the W298AV application site is 75.65 dBu. Therefore the W298AV F(50,10) interfering contour with respect to WSRZ-FM is the 115.65 dBu contour. Using the FCC's FM propagation curves program, the 115.65 dBu contour was calculated to extend 184 meters from the base of the tower.

Attached is a Google Earth photo with the W298AV tower and the nearest occupied building. The building is a business and is a small square building that is part of a three building attached complex. The other two buildings are unoccupied. The occupied building is approx. 179 meters from the W298AV tower site at it's closest point. The distance from the antenna at 53 meters above ground level to the closest point of the occupied building at 2 meters is approx. 186 meters. Therefore the 184 meter interfering contour does not reach any populated areas.

The proposed transmit antennas for the W298AV modification is a Nicom BKG77 4 bay half wave antenna. Nicom provided the vertical elevation pattern for this antenna model. The half wave four bay antenna reduced downward radiation thereby reducing the distance of the interfering contour towards the ground. See

the attached spreadsheet and charts for the Nicom BKG77 antenna. Although the 115.65 dBu interfering contour for the Nicom BKG77 antenna does reach the ground over a small area around the base of the transmit tower. This area of interference extends 61.8 meters from the tower base and there is no population located in the interference area. The exhibit includes Google Earth photographs that clearly show there are no buildings within 62 meters of the tower base.

It is believed that the proposed modification to W298AV will not cause prohibited interference to WSRZ-FM as no interference reaches the ground where there is population. This is true by simply using the FCC's FM propagation curves program or with the reduced interference calculations using the vertical elevation pattern for the Nicom BKG77 4 bay half wave antenna.

**EXHIBIT 13-C
Section 74.1204**

Proposed operation of W298AV - Englewood, FL
on Channel 298 with 250 watts at 54.8 m HAAT.
Proposed translator operation FCC F(50,10)
115.65 dBu interfering contour with respect to
WSRZ-FM does not cause prohibitive interference.

WSRZ-FM
BLH-20040518AAS
27-09-03 N ~ 82-27-51 W.
ERP: 47 kW - HAAT: 155 m
Frequency: 107.9 MHz
Channel/Class: 300C2
RC-AMSL: 157 m
Horizontal Pattern: Omni

W298AV
BLFT-20080702ABP
26-58-15 N. ~ 82-19-24 W.
ERP: 0.25 kW - HAAT: 54.8 m
Frequency: 107.5 MHz
Channel/Class: 298D
RC-AMSL: 55 m
Horizontal Pattern: Omni

Sarasota
WSRZ-FM FCC F(50,50)
60 dBu Contour

W298AV proposed FCC
F(50,10) 115.65 dBu contour
(See detailed showing that demonstrates
that no population will receive interference)



○ W298AV Tower Site

● Nearest Occupied Building

326 ft

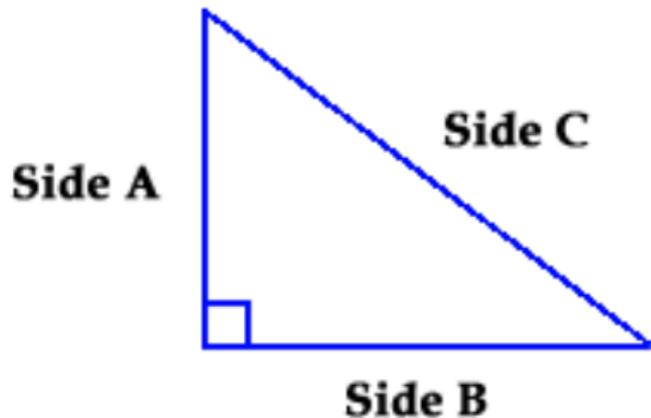
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Google earth

Google earth



Triangle Sides Calculator



Color Code

Entered Values

Calculated Values

| Length of Side A (m) | Length of Side B (m) | Length of Side C (m) |
|----------------------|----------------------|----------------------|
| 53 | 179 | 186.68155 |

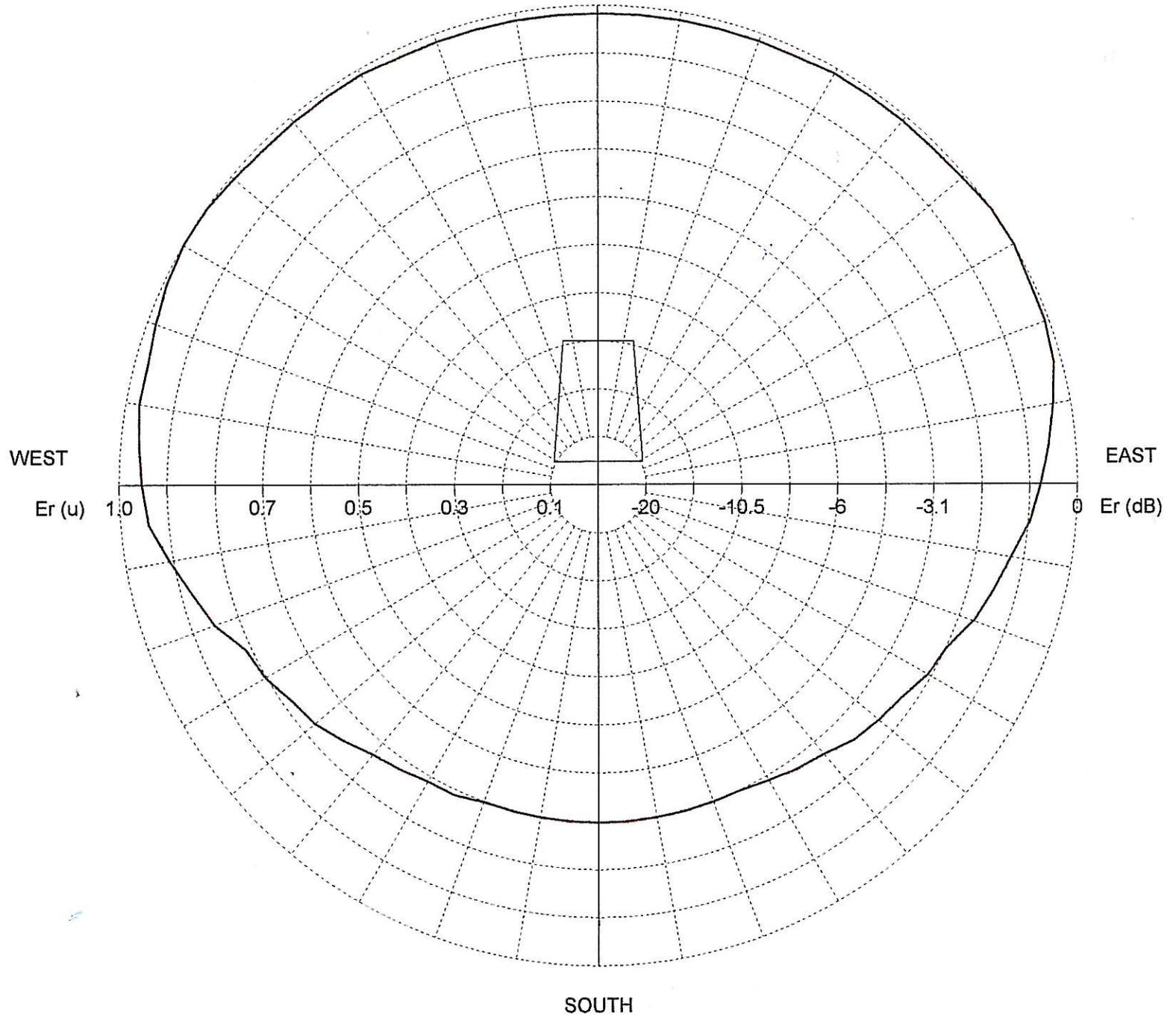
[Back to Calculator](#)

TX station: BKG77/4
Frequency: 98.00 MHz

Site name:

Horizontal diagram

NORTH



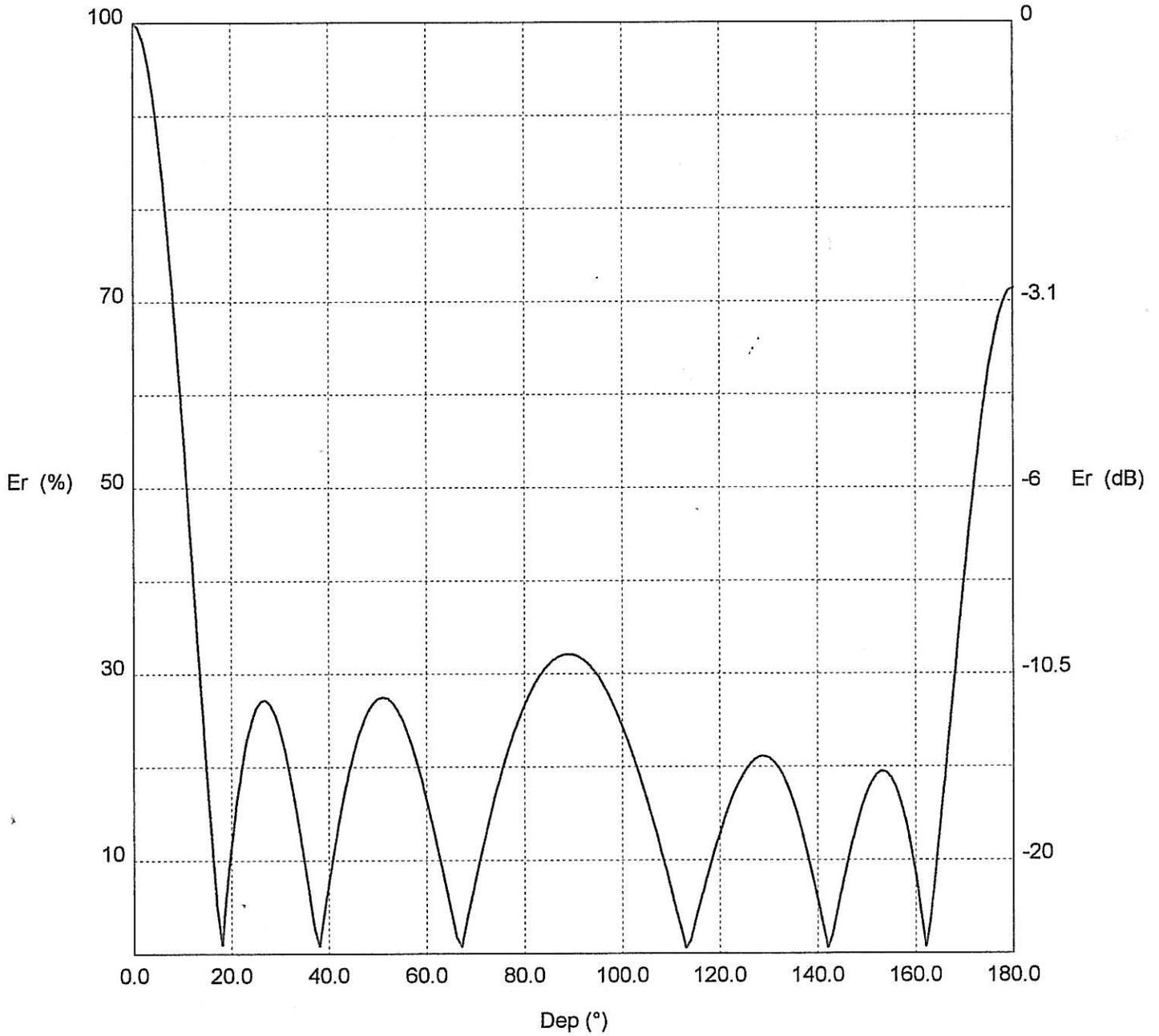
— 0.0° depres. (Total antenna), Gain (dBd): 3.2 ERP T.max (KW): 2.075 ERP E.max (KW): 1.611

TX station: BKG77

Site name:

Frequency: 98.00 MHz

Vertical diagram



— 0.0° Az. (Total antenna)

TX station: BKG77

Site name:

Frequency: 98.00 MHz

Horizontal diagram at 0.0° depres. (Total antenna)

| Az (°) | Er (%) | ERP (KW) | Az (°) | Er (%) | ERP (KW) | Az (°) | Er (%) | ERP (KW) |
|--------|--------|----------|--------|--------|----------|--------|--------|----------|
| 0.0 | 98.3 | 1.56 | 120.0 | 79.2 | 1.01 | 240.0 | 80.2 | 1.04 |
| 10.0 | 98.3 | 1.56 | 130.0 | 76.2 | 0.94 | 250.0 | 85.3 | 1.17 |
| 20.0 | 98.3 | 1.56 | 140.0 | 73.2 | 0.86 | 260.0 | 90.9 | 1.33 |
| 30.0 | 98.8 | 1.57 | 150.0 | 71.0 | 0.81 | 270.0 | 95.3 | 1.46 |
| 40.0 | 98.8 | 1.57 | 160.0 | 70.2 | 0.79 | 280.0 | 97.3 | 1.52 |
| 50.0 | 99.2 | 1.59 | 170.0 | 70.2 | 0.79 | 290.0 | 98.3 | 1.56 |
| 60.0 | 100.0 | 1.61 | 180.0 | 70.2 | 0.79 | 300.0 | 100.0 | 1.61 |
| 70.0 | 99.1 | 1.58 | 190.0 | 70.2 | 0.79 | 310.0 | 99.2 | 1.59 |
| 80.0 | 96.3 | 1.49 | 200.0 | 70.2 | 0.79 | 320.0 | 98.8 | 1.57 |
| 90.0 | 92.3 | 1.37 | 210.0 | 71.2 | 0.82 | 330.0 | 98.8 | 1.57 |
| 100.0 | 87.3 | 1.23 | 220.0 | 73.2 | 0.86 | 340.0 | 98.3 | 1.56 |
| 110.0 | 83.2 | 1.12 | 230.0 | 77.2 | 0.96 | 350.0 | 98.3 | 1.56 |

TX station: BKG77

Site name:

Frequency: 98.00 MHz

Vertical diagram at an azimuth of 0° degrees

| Dep (°) | Er (%) | ERP (KW) | Dep (°) | Er (%) | ERP (KW) | Dep (°) | Er (%) | ERP (KW) |
|---------|--------|----------|---------|--------|----------|---------|--------|----------|
| 0.0 | 100.0 | 1.56 | 60.0 | 16.4 | 0.04 | 120.0 | 13.0 | 0.03 |
| 2.0 | 98.0 | 1.49 | 62.0 | 11.7 | 0.02 | 122.0 | 16.0 | 0.04 |
| 4.0 | 92.2 | 1.32 | 64.0 | 6.8 | 0.01 | 124.0 | 18.5 | 0.05 |
| 6.0 | 82.9 | 1.07 | 66.0 | 1.7 | 0.00 | 126.0 | 20.2 | 0.06 |
| 8.0 | 70.8 | 0.78 | 68.0 | 3.3 | 0.00 | 128.0 | 21.1 | 0.07 |
| 10.0 | 56.7 | 0.50 | 70.0 | 8.2 | 0.01 | 130.0 | 21.0 | 0.07 |
| 12.0 | 41.6 | 0.27 | 72.0 | 12.8 | 0.03 | 132.0 | 19.9 | 0.06 |
| 14.0 | 26.3 | 0.11 | 74.0 | 17.1 | 0.05 | 134.0 | 17.8 | 0.05 |
| 16.0 | 11.8 | 0.02 | 76.0 | 20.8 | 0.07 | 136.0 | 14.6 | 0.03 |
| 18.0 | 1.0 | 0.00 | 78.0 | 24.0 | 0.09 | 138.0 | 10.5 | 0.02 |
| 20.0 | 11.7 | 0.02 | 80.0 | 26.8 | 0.11 | 140.0 | 5.8 | 0.01 |
| 22.0 | 19.7 | 0.06 | 82.0 | 28.9 | 0.13 | 142.0 | 0.6 | 0.00 |
| 24.0 | 24.8 | 0.10 | 84.0 | 30.5 | 0.14 | 144.0 | 4.6 | 0.00 |
| 26.0 | 27.1 | 0.11 | 86.0 | 31.5 | 0.15 | 146.0 | 9.6 | 0.01 |
| 28.0 | 26.7 | 0.11 | 88.0 | 32.0 | 0.16 | 148.0 | 13.9 | 0.03 |
| 30.0 | 23.9 | 0.09 | 90.0 | 32.0 | 0.16 | 150.0 | 17.2 | 0.05 |
| 32.0 | 19.2 | 0.06 | 92.0 | 31.5 | 0.15 | 152.0 | 19.2 | 0.06 |
| 34.0 | 13.1 | 0.03 | 94.0 | 30.5 | 0.14 | 154.0 | 19.4 | 0.06 |
| 36.0 | 6.3 | 0.01 | 96.0 | 28.9 | 0.13 | 156.0 | 17.7 | 0.05 |
| 38.0 | 0.9 | 0.00 | 98.0 | 26.8 | 0.11 | 158.0 | 14.1 | 0.03 |
| 40.0 | 7.8 | 0.01 | 100.0 | 24.2 | 0.09 | 160.0 | 8.4 | 0.01 |
| 42.0 | 14.0 | 0.03 | 102.0 | 21.4 | 0.07 | 162.0 | 0.7 | 0.00 |
| 44.0 | 19.2 | 0.06 | 104.0 | 18.2 | 0.05 | 164.0 | 8.5 | 0.01 |
| 46.0 | 23.3 | 0.08 | 106.0 | 14.7 | 0.03 | 166.0 | 18.8 | 0.05 |
| 48.0 | 26.0 | 0.11 | 108.0 | 10.9 | 0.02 | 168.0 | 29.7 | 0.14 |
| 50.0 | 27.3 | 0.12 | 110.0 | 6.9 | 0.01 | 170.0 | 40.5 | 0.26 |
| 52.0 | 27.4 | 0.12 | 112.0 | 2.7 | 0.00 | 172.0 | 50.6 | 0.40 |
| 54.0 | 26.1 | 0.11 | 114.0 | 1.4 | 0.00 | 174.0 | 59.2 | 0.55 |
| 56.0 | 23.8 | 0.09 | 116.0 | 5.5 | 0.00 | 176.0 | 65.8 | 0.67 |
| 58.0 | 20.4 | 0.06 | 118.0 | 9.4 | 0.01 | 178.0 | 70.0 | 0.76 |

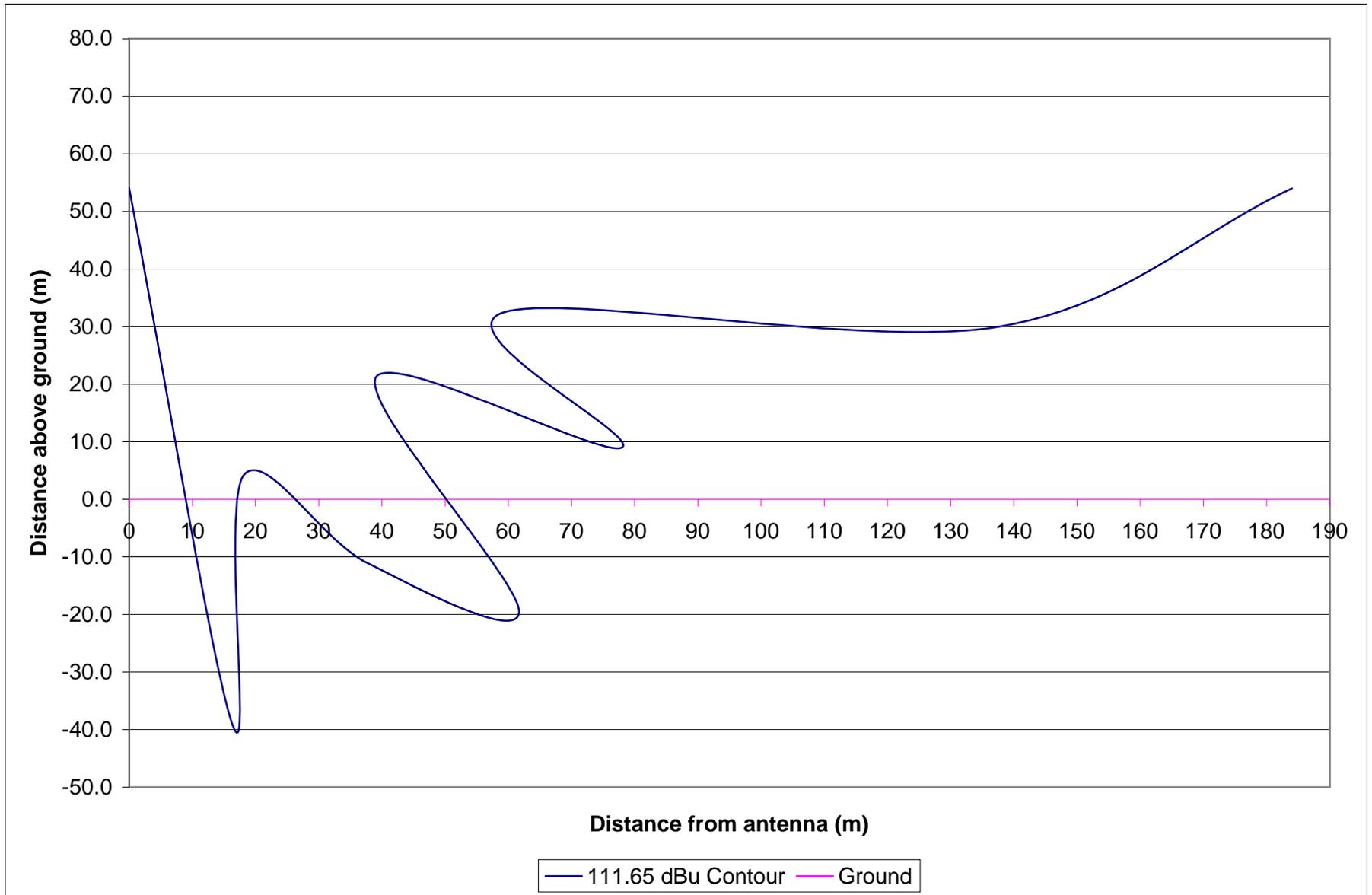
| Angle of Elevation (Degrees) | Relative Field | ERP (dBk) | 111.65 dBu Contour* (Meters) |
|------------------------------|----------------|-----------|------------------------------|
| 0 | 1 | -6.021 | 184 |
| 10 | 0.567 | -8.508 | 139 |
| 20 | 0.117 | -15.377 | 63 |
| 30 | 0.239 | -12.292 | 90 |
| 40 | 0.078 | -17.213 | 51 |
| 50 | 0.273 | -11.675 | 96 |
| 60 | 0.164 | -13.873 | 75 |
| 70 | 0.082 | -16.99 | 53 |
| 80 | 0.268 | -11.74 | 95 |
| 90 | 0.32 | -10.97 | 104 |

CONTOUR DISTANCE CALCUATIONS SPREADSHEET DATA

| Θ ($^{\circ}$) | Θ (radians) | R (m) |
|-------------------------|--------------------|-------|
| 0 | 0 | 184 |
| 10 | 0.175 | 139 |
| 20 | 0.349 | 63 |
| 30 | 0.524 | 90 |
| 40 | 0.698 | 51 |
| 50 | 0.873 | 96 |
| 60 | 1.047 | 75 |
| 70 | 1.222 | 53 |
| 80 | 1.396 | 95 |
| 90 | 1.571 | 104 |

| x' | y' | $y = 54 - y'$ | Gnd |
|-------|------|---------------|-----|
| 184 | 0 | 54.0 | 0 |
| 136.9 | 24.1 | 29.9 | 0 |
| 59.2 | 21.5 | 32.5 | 0 |
| 77.9 | 45 | 9 | 0 |
| 39.1 | 32.8 | 21.2 | 0 |
| 61.7 | 73.5 | -19.5 | 0 |
| 37.5 | 65.0 | -11.0 | 0 |
| 18.1 | 49.8 | 4.2 | 0 |
| 16.5 | 93.6 | -39.6 | 0 |
| 0.0 | 104 | 54 | 0 |

W298AV Englewood, FL
Section 74.1204 Contour Protection to WSRZ-FM
(111.65 dBu F(50,10) interfering contour shown)



The W298AV interfering contour with respect to WSRZ-FM does not touch the ground beyond 61.8 meters from the tower base.
The nearest occupied building is 179 meters from the tower base.



Google earth

