

**Southern Stone Communications, LLC**

**Modify BLFT- 20160906ADZ**

**W231CN**

**Daytona Beach, FL.**

**March - 2020**

**Technical Statement:**

The attached technical statement and related exhibits are prepared by EME Communications for Southern Stone Communications, LLC; Daytona Beach, FL. The purpose is to specify a new antenna site, operating channel, HAGL, HAAT, HAMSL and antenna system. Since the channel change is the 53<sup>rd</sup> IF from the licensed channel, this proposal is considered a minor change.

The applicant proposes to continue to re-broadcast the signal of WHOG-FM, Licensed to Ormond-By-The-Sea, Florida. Attached as exhibit 2 is a plot that shows the proposed will not extend the 60 DBu contour of WHOG-FM.

The applicant proposes to employ a two (2) bay Scala CL-FM-V-2 directional antenna system. The composite antenna pattern will consist of antenna 1 pointing an azimuth of 210 degrees and antenna 2 pointing an azimuth of 330 degrees.

**Interference Study:**

Attached as exhibit 1 is an interference study that show the proposed has overlapping contours with the following facilities:

- 1- WTKS-FM, Cocoa Beach, FL. 3<sup>rd</sup> adjacent therefore 74.1204(d) wavier requested.
- 2- WOMX-FM, Orlando, FL. 2<sup>nd</sup> adjacent located on same supporting structure therefore 74.1204(d) wavier requested.

Both stations are located on the same supporting structure and utilizing the same antenna.

**Proposed Site:**

Tower ID: 1020771

Distance: 0.03 km    Bearing: 233.9 degrees

Coordinates (NAD27): 29-10-24.37 N, 081-09-25.99 W

Status: Constructed

Action Date: 11/24/2015

Construction Date: 04/01/1982

Location: 900 N INDIAN LAKE RD (#302756), DAYTONA, FL

Height (AG): 184.40 m, Elevation: 12.20 m, Structure Height: 167.60 m

Circular Number: 70/7460-1K

FAA Number: 2014-ASO-7838-OE    FAA Chapter: 3, 4, 5, 12

The terrain data employed in all studies is the FCC 30 Sec database provided by V-Soft Communications.

**Interference Concerns to WTKS-FM:**

The protected contour of WTKS-FM and WOMX-FM at the proposed site is 68.01 DBu. By adding the U/D of the proposed operation, the interfering contour is 108.001 DBu.

As demonstrated in the attached V-Soft X-Field output, the interfering contour extends from the tower well above the ground around the supporting structure. Also attached is a Google Earth map that clearly the area within the 108.001 DBu contour is completely unoccupied and has no major roads or running through the contour. The interfering contour comes 31.525 meters (103.402) to ground level at the closest point.

**Conclusion:**

Southern Stone Communications, LLC proposes to re-locate W231CN and re-broadcast WHOG-FM. It is believed this statement and attached exhibits should pass muster with the Commission's staff and therefore be granted.

Clyde Scott, Jr.

EME Communications

293 JC Saunders Road

Moultrie, GA 31768-0349

229-890-2506

EXHIBIT - 1  
Southern Stone Communications, LLC

REFERENCE	CH# 284D - 104.7 MHz, Pwr= 0.02 kW DA, HAAT= 71.1 M, COR= 80 M	DISPLAY DATES
29 10 24.90 N.	Average Protected F(50-50)= 5.81 km	DATA 03-27-20
81 09 25.20 W.	Standard Directional	SEARCH 03-27-20

CH CITY	CALL	TYPE STATE	ANT --	AZI <--	DIST FILE #	LAT LNG	PWR(kw) HAAT(M)	INT(km) COR(M)	PRO(km) LICENSEE	*IN* (Overlap in km)	*OUT*
284D Daytona Beach	W284AV	LIC FL	___	83.3 263.4	14.60 BLFT20120827AEK	29 11 19.90 81 00 27.20	0.120 87	32.9 90	9.8 Miracle Media Group, LLC	-20.2*	0.2
281C Cocoa Beach	WTKS-FM	LIC FL	___	173.1 353.1	66.34 BMLH20031010ADD	28 34 52.00 81 04 31.20	100.000 487	12.5 500	86.1 Clear Channel Broadcasting	48.6	-20.0*
286C Orlando	WOMX-FM	LIC FL	___	173.1 353.1	66.34 BMLH20030924ABI	28 34 52.00 81 04 31.20	100.000 487	12.5 500	86.1 Entercom License, LLC	48.6	-20.0*
284D Daytona Beach	W231CN	CP FL	D___	0.0 93.4	0.00 BPFT20170406AAX	29 10 24.90 81 09 25.20	0.020	33	---Reference--- Southern Stone Communicati		
283C Atlantic Beach	WOKV-FM	LIC FL	___	342.3 162.1	128.76 BMLH20130124ABI	30 16 34.90 81 33 52.30	100.000 309	105.6 315	72.8 Cox Radio, Inc.	17.5	48.0
284C1 Tampa	WRBQ-FM	LIC FL	N___	221.6 41.1	183.89 BLH20100122AAR	27 55 54.90 82 24 03.90	100.000 174	158.4 181	61.1 Beasley Media Group Licens	19.8	104.0
283D Altamonte Springs	W283AN	LIC FL	___	204.9 24.8	69.48 BLFT20120904AAI	28 36 23.00 81 27 24.30	0.221 153	24.3 182	16.2 Clear Channel Broadcasting	39.4	45.2
285D Palatka	W285FR	CP FL	___	321.7 141.5	67.87 BNPFT20171220ACM	29 39 07.90 81 35 31.30	0.250	16.3 84	11.3 Natkim Radio, LLC	45.9	48.5
283D Wildwood	W283DK	CP FL	D___	240.8 60.4	89.71 BNPFT20180501AAN	28 46 39.00 81 57 38.30	0.250	18.3 113	12.4 Villages Communications, I	66.0	70.1
284D Kissimmee	W284DM	CP FL	D___	194.1 14.0	92.40 BNPFT20180509ABN	28 22 02.00 81 23 12.30	0.250	11.3 115	3.5 Relevant Radio, Inc.	75.4	67.9
284L1 Ocala	WITG-LP	LIC FL	___	271.2 90.7	95.14 BMLL20101025ABK	29 11 16.90 82 08 13.30	0.074 35	60	70.2 Witg, Inc.		72.9
283D Cocoa	W283DJ	CP FL	___	157.6 337.7	99.53 BMPFT20190128AAV	28 20 44.00 80 46 07.10	0.250	13.1 58	9.3 321 Corporation	81.6	84.1

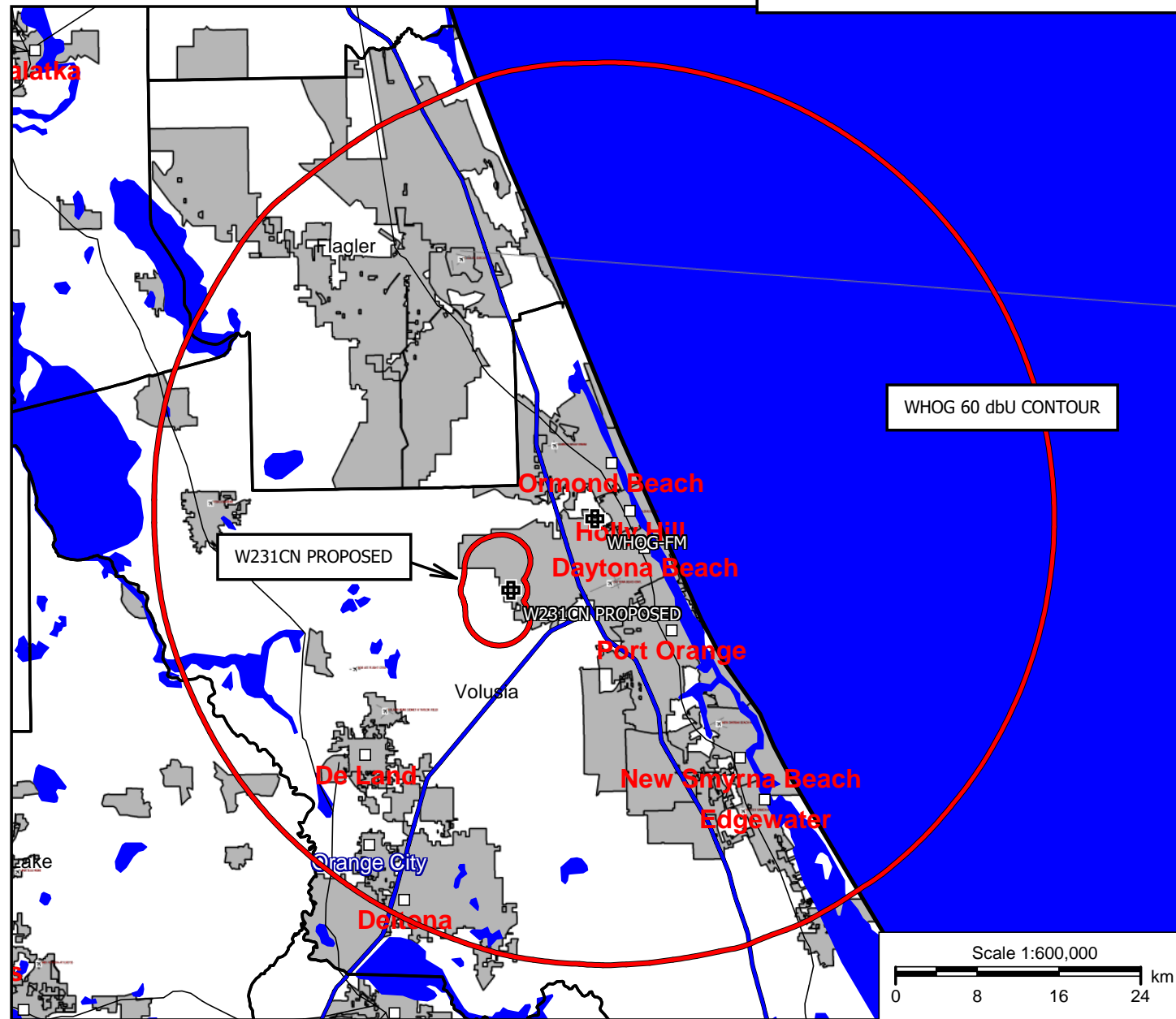
Terrain database is FCC NGDC 30 Sec , R= 73.215 qualifying spacings or FCC minimum Spacings in KM, M= Margin in KM  
In & Out distances between contours are shown at closest points. Reference zone= East Zone, Co to 3rd adjacent.  
Ant Column: (D= DA Standard, Z= DA 73.215, N= Not DA 73.215, \_= Omni), Polarization (C,H,V,E), Beamtilt(Y,N,X)  
"\*"affixed to 'IN' or 'OUT' values = site inside restricted contour.

**W231CN PROPOSED**

Latitude: 29-10-23.97 N  
Longitude: 081-09-25.99 W  
ERP: 0.02 kW  
Channel: 284  
Frequency: 104.7 MHz  
AMSL Height: 80.0 m  
Elevation: 11.0 m  
Horiz. Pattern: Directional  
Vert. Pattern: No  
Prop Model: None

**WHOG-FM**

BLH20150928AEN  
Latitude: 29-14-10.97 N  
Longitude: 081-04-22 W  
ERP: 48.00 kW  
Channel: 239  
Frequency: 95.7 MHz  
AMSL Height: 103.0 m  
Elevation: 9.0 m  
Horiz. Pattern: Omni  
Vert. Pattern: No  
Prop Model: None

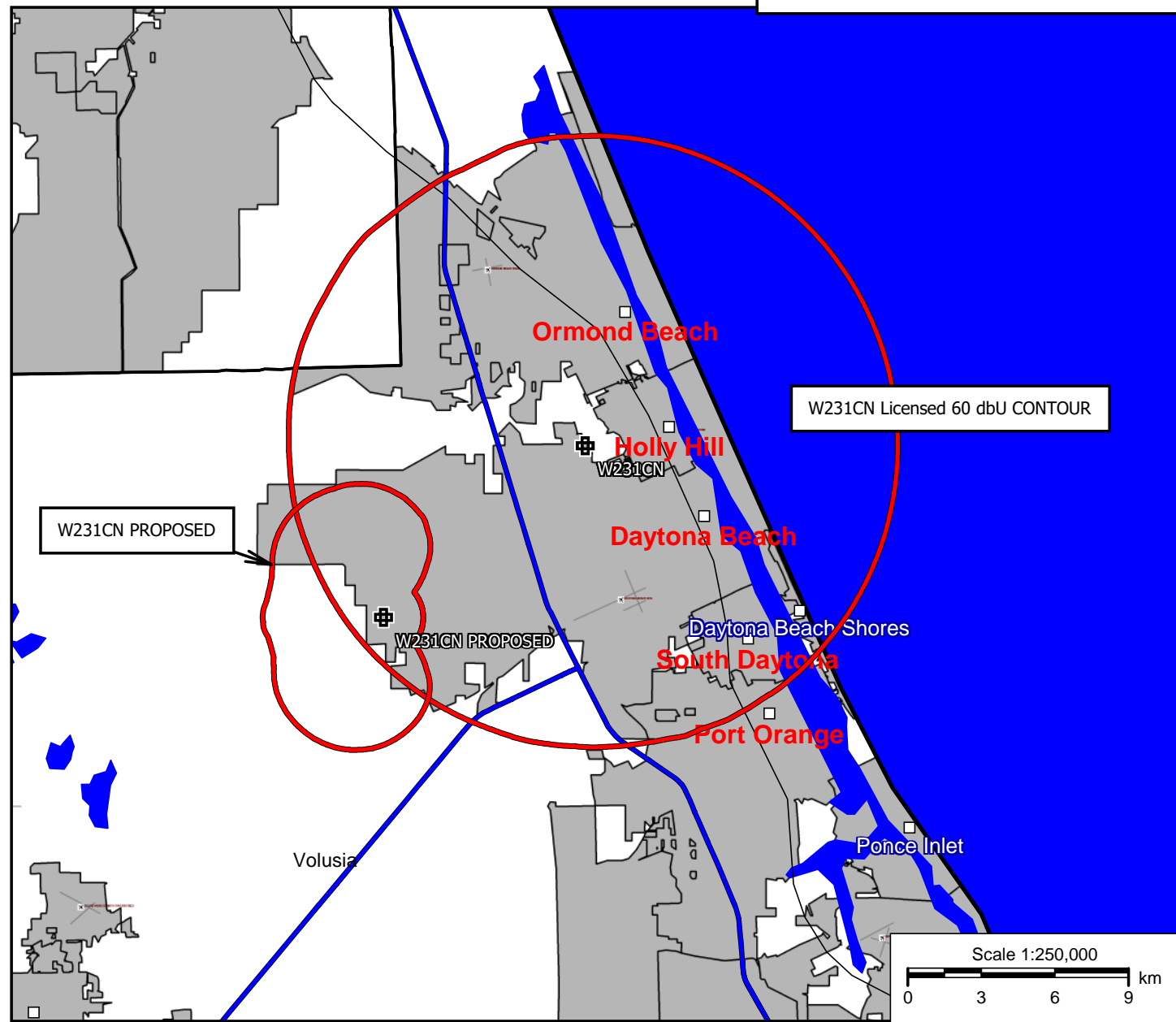


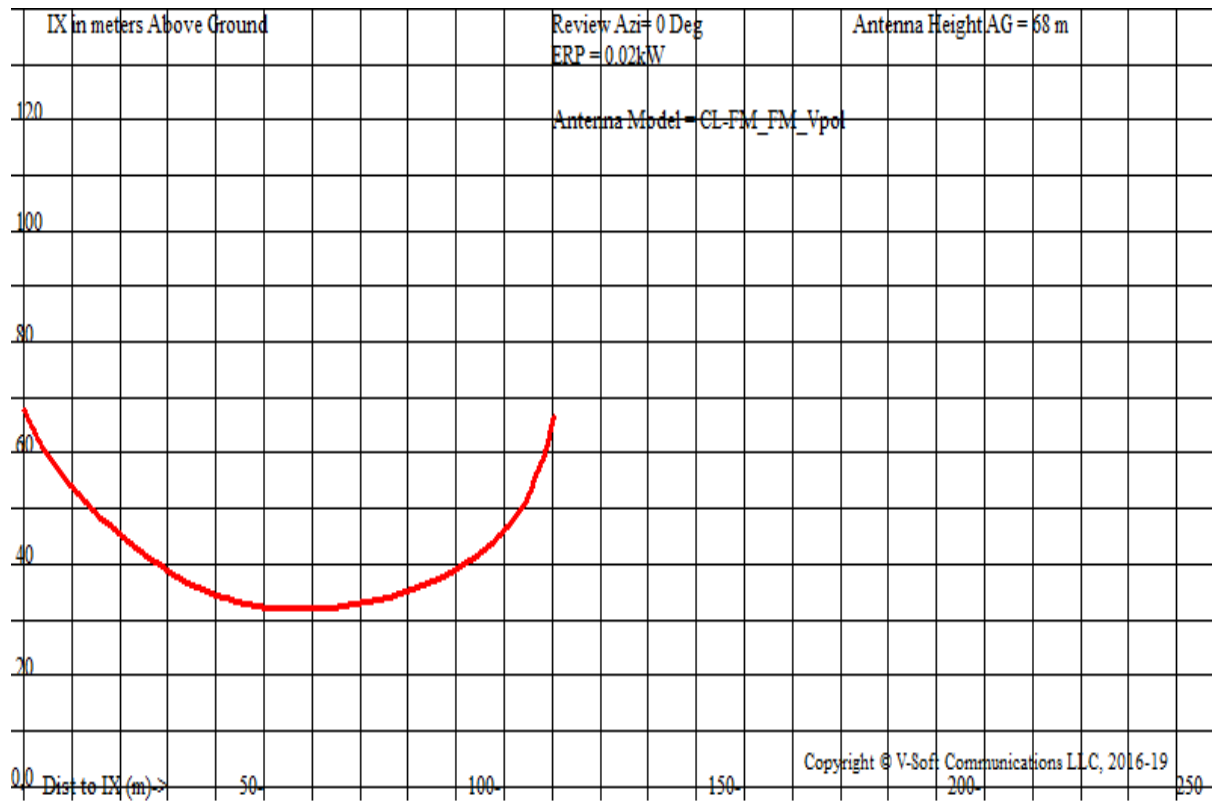
**W231CN PROPOSED**

Latitude: 29-10-23.97 N  
Longitude: 081-09-25.99 W  
ERP: 0.02 kW  
Channel: 284  
Frequency: 104.7 MHz  
AMSL Height: 80.0 m  
Elevation: 11.0 m  
Horiz. Pattern: Directional  
Vert. Pattern: No  
Prop Model: None

**W231CN**

BLFT20160906ADZ  
Latitude: 29-14-10.97 N  
Longitude: 081-04-22 W  
ERP: 0.25 kW  
Channel: 231  
Frequency: 94.1 MHz  
AMSL Height: 98.0 m  
Elevation: 9.0 m  
Horiz. Pattern: Omni  
Vert. Pattern: No  
Prop Model: None



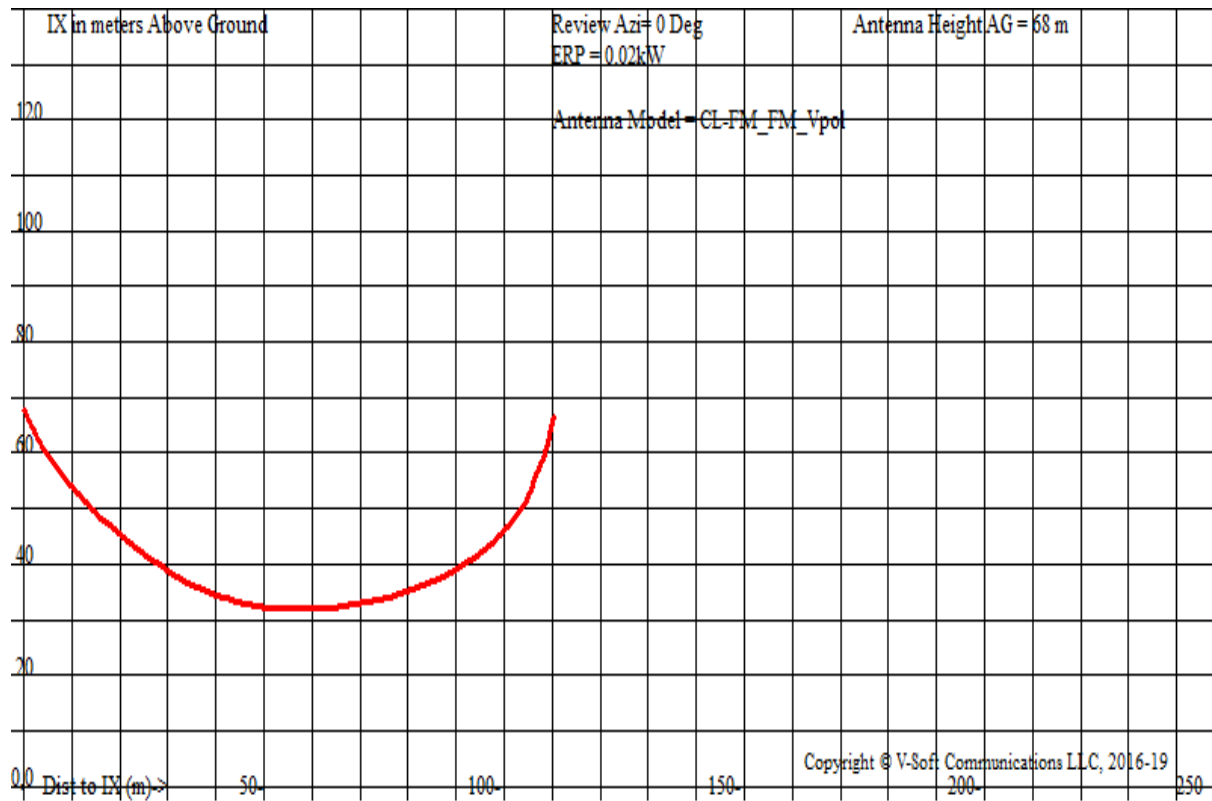


W231CN.C , , Showing Protection to WTKS-FM , Channel: 281  
 Geographic Coordinates: N. 29 10 24.90 W. 81 09 25.20  
 74.1204(d) Study - Using FCC 30 SEC Terrain Database  
 Translator or LPFM Maximum Licensed ERP = 0.02 kW, Channel: 284  
 Translator or LPFM Antenna Height AG = 68 meters  
 W231CN.C Antenna Model = CL-FM\_FM\_Vpol

Protected Station's Contour = 68.0135 dBu  
 Translator's or LPFM's full Interference contour 108.0135

Review Azimuth = 0 Degrees True  
 Relative Field on the horizontal at Review Azimuth = 0.822  
 Translator/LPFM ERP on the horizontal at Review Azimuth = 0.014 kW  
 Distance between stations = 66.3 km  
 Protected Station= WTKS-FM, 100 kW, 500 M meters COR AMSL

Depression Angle From Horiz. (Deg)	Vertical Relative Field	Horizontal Relative Field	ERP (kw)	Dist to IX Contour Along Dep. Angle(m)	Dist to IX Contour From Tower Base(m)	Height IX Above Ground (m)
00.0	1.0	0.82	0.0164	113.0514	113.0514	068.000
05.0	0.980	0.82	0.0158	110.7904	110.3688	058.344
10.0	0.950	0.82	0.0148	107.3988	105.7672	049.350
15.0	0.895	0.82	0.0132	101.1810	097.7333	041.812
20.0	0.820	0.82	0.0111	092.7021	087.1115	036.294
25.0	0.735	0.82	0.0089	083.0928	075.3076	032.883
30.0	0.645	0.82	0.0068	072.9181	063.1490	031.541
35.0	0.563	0.82	0.0052	063.5914	052.0910	031.525
40.0	0.470	0.82	0.0036	053.1342	040.7031	033.846
45.0	0.360	0.82	0.0021	040.6985	028.7782	039.222
50.0	0.250	0.82	0.0010	028.2628	018.1670	046.349
55.0	0.155	0.82	0.0004	017.5230	010.0508	053.646
60.0	0.085	0.82	0.0001	009.6094	004.8047	059.678
65.0	0.045	0.82	0.0000	005.0873	002.1500	063.389
70.0	0.020	0.82	0.0000	002.2610	000.7733	065.875
75.0	0.010	0.82	0.0000	001.1305	000.2926	066.908
80.0	0.010	0.82	0.0000	001.1305	000.1963	066.887
85.0	0.010	0.82	0.0000	001.1305	000.0985	066.874
90.0	0.010	0.82	0.0000	001.1305	000.0000	066.869



W231CN.C , , Showing Protection to WOMX-FM , Channel: 286  
 Geographic Coordinates: N. 29 10 24.90 W. 81 09 25.20  
 74.1204(d) Study - Using FCC 30 SEC Terrain Database  
 Translator or LPFM Maximum Licensed ERP = 0.02 kW, Channel: 284  
 Translator or LPFM Antenna Height AG = 68 meters  
 W231CN.C Antenna Model = CL-FM\_FM\_Vpol

Protected Station's Contour = 68.0135 dBu  
 Translator's or LPFM's full Interference contour 108.0135

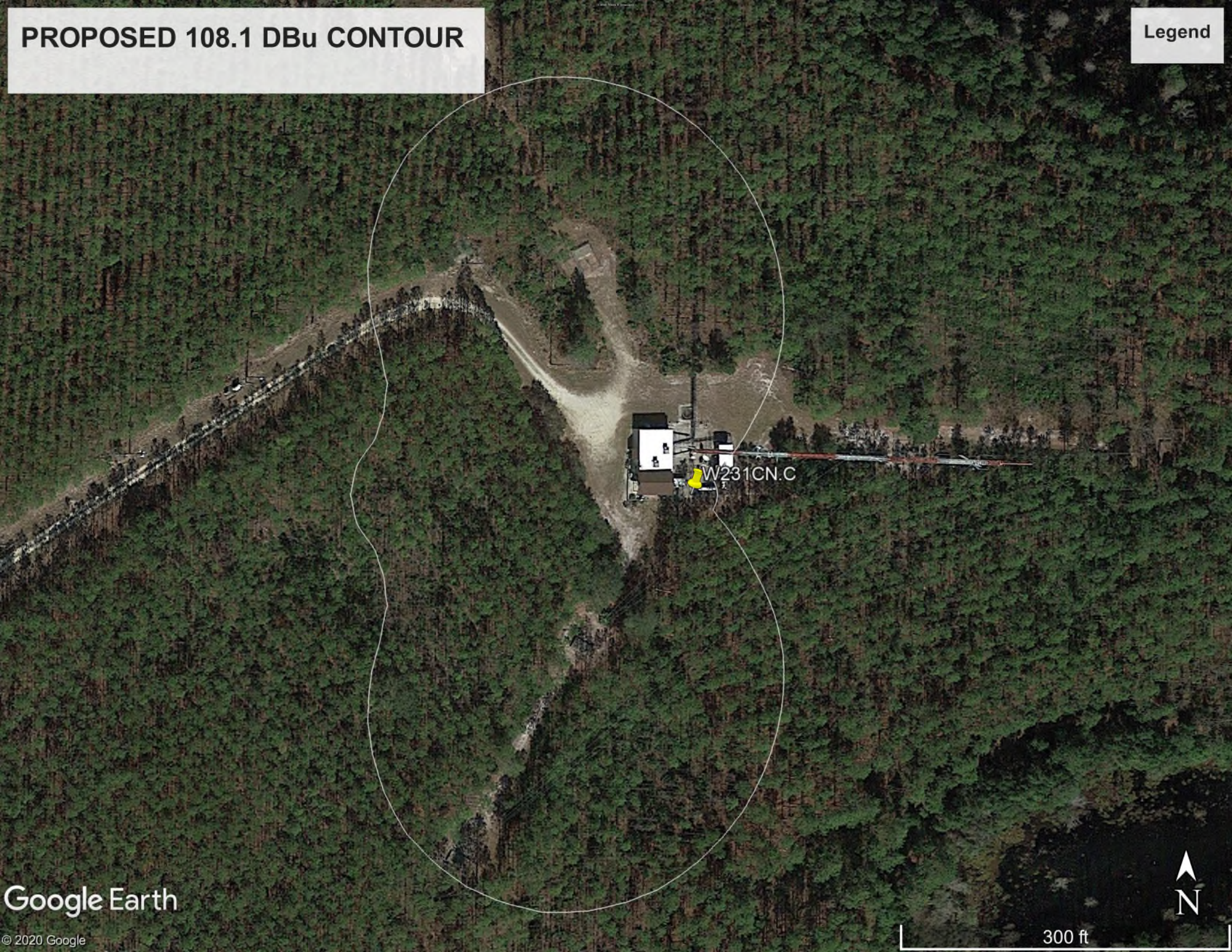
Review Azimuth = 0 Degrees True  
 Relative Field on the horizontal at Review Azimuth = 0.822  
 Translator/LPFM ERP on the horizontal at Review Azimuth = 0.014 kW  
 Distance between stations = 66.3 km  
 Protected Station= WOMX-FM, 100 kW, 500 M meters COR AMSL

Depression Angle From Horiz. (Deg)	Vertical Relative Field	Horizontal Relative Field	ERP (kw)	Dist to IX Contour Along Dep. Angle(m)	Dist to IX Contour From Tower Base(m)	Height IX Above Ground (m)
00.0	1.0	0.82	0.0164	113.0514	113.0514	068.000
05.0	0.980	0.82	0.0158	110.7904	110.3688	058.344
10.0	0.950	0.82	0.0148	107.3988	105.7672	049.350
15.0	0.895	0.82	0.0132	101.1810	097.7333	041.812
20.0	0.820	0.82	0.0111	092.7021	087.1115	036.294
25.0	0.735	0.82	0.0089	083.0928	075.3076	032.883
30.0	0.645	0.82	0.0068	072.9181	063.1490	031.541
35.0	0.563	0.82	0.0052	063.5914	052.0910	031.525
40.0	0.470	0.82	0.0036	053.1342	040.7031	033.846
45.0	0.360	0.82	0.0021	040.6985	028.7782	039.222
50.0	0.250	0.82	0.0010	028.2628	018.1670	046.349
55.0	0.155	0.82	0.0004	017.5230	010.0508	053.646
60.0	0.085	0.82	0.0001	009.6094	004.8047	059.678
65.0	0.045	0.82	0.0000	005.0873	002.1500	063.389
70.0	0.020	0.82	0.0000	002.2610	000.7733	065.875
75.0	0.010	0.82	0.0000	001.1305	000.2926	066.908
80.0	0.010	0.82	0.0000	001.1305	000.1963	066.887
85.0	0.010	0.82	0.0000	001.1305	000.0985	066.874
90.0	0.010	0.82	0.0000	001.1305	000.0000	066.869



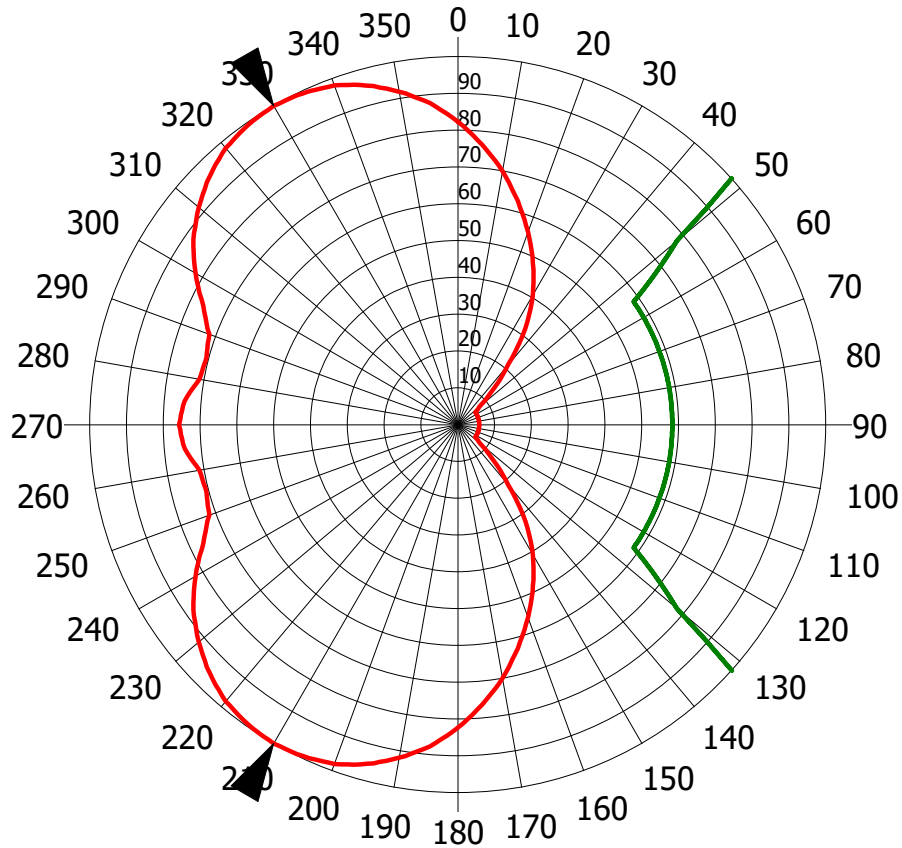
# PROPOSED 108.1 DBu CONTOUR

Legend





# W231CN PROPOSED



Azi	Rel	dBk	kW	dB	Azi	Rel	dBk	kW	dB
0	0.822	-18.69	0.014	-1.70	180	0.822	-18.69	0.014	-1.70
10	0.699	-20.10	0.010	-3.11	190	0.918	-17.73	0.017	-0.74
20	0.557	-22.07	0.006	-5.08	200	0.981	-17.16	0.019	-0.17
30	0.408	-24.78	0.003	-7.79	210	1.000	-16.99	0.020	0.00
40	0.214	-30.40	0.001	-13.41	220	0.981	-17.16	0.019	-0.17
50	0.078	-39.18	0.000	-22.19	230	0.918	-17.73	0.017	-0.74
60	0.058	-41.68	0.000	-24.69	240	0.822	-18.69	0.014	-1.70
70	0.058	-41.68	0.000	-24.69	250	0.718	-19.86	0.010	-2.87
80	0.058	-41.68	0.000	-24.69	260	0.713	-19.93	0.010	-2.94
90	0.058	-41.68	0.000	-24.69	270	0.757	-19.40	0.011	-2.41
100	0.058	-41.68	0.000	-24.69	280	0.713	-19.93	0.010	-2.94
110	0.058	-41.68	0.000	-24.69	290	0.718	-19.86	0.010	-2.87
120	0.058	-41.68	0.000	-24.69	300	0.822	-18.69	0.014	-1.70
130	0.078	-39.18	0.000	-22.19	310	0.918	-17.73	0.017	-0.74
140	0.214	-30.40	0.001	-13.41	320	0.981	-17.16	0.019	-0.17
150	0.408	-24.78	0.003	-7.79	330	1.000	-16.99	0.020	0.00
160	0.557	-22.07	0.006	-5.08	340	0.981	-17.16	0.019	-0.17
170	0.699	-20.10	0.010	-3.11	350	0.918	-17.73	0.017	-0.74

Rotation Angle = 0