

Channel Study

REFERENCE	CH#	270D - 101.9 MHz, Pwr= 0.12 kW, HAAT= 252.2 M, COR= 264 M		Average Protected F(50-50)= 17.2 km		Omni-directional		DISPLAY DATES			
30 16 34.0 N.								DATA	10-01-15		
81 33 51.0 W.								SEARCH	10-05-15		
CH CITY	CALL	TYPE	ANT STATE	AZI. <--	DIST FILE #	LAT. LNG.	Pwr(kW) HAAT(M)	INT(km) COR(M)	PRO(km) LICENSEE	*IN* (Overlap	*OUT* in km)
270D Jacksonville Beach	W270CD!	APP	C FL	0.0	0.00	30 16 34.0	0.110	55.3	17.3	-72.6	-72.6
				0.0	BMPFT20150921AAS	81 33 51.0		274	Educational Media Foundati		
270D Jacksonville Beach	W270CD!	CP	C FL	0.0	0.00	30 16 34.0	0.140	54.9	17.2	-72.2	-72.5
				0.0	BMPFT20150619AAM	81 33 51.0		241	Educational Media Foundati		
270C Daytona Beach	WJHM	LIC	NC FL	171.0	152.24	28 55 10.0	92.000	186.5	84.0	-51.3*<	13.3
				351.1	BMLH20081010ATQ	81 19 08.0	483	493	Cbs Radio Stations Inc.		
270D Jacksonville Beach	W270CD!	LIC	C FL	78.7	16.45	30 18 18.0	0.038	20.7	6.2	-21.5	-44.9
				258.8	BLFT20120514AFH	81 23 47.0	71	73	Educational Media Foundati		
268C Brunswick	WSOL-FM	LIC	C GA	344.7	62.65	30 49 16.0	100.000	12.1	82.9	33.3	-21.0*<
				164.7	BMLH20070320AJI	81 44 14.0	446	450	Citicasters Licenses, Inc.		
272D Jacksonville	W272CQ	LIC	C FL	0.0	0.00	30 16 34.0	0.099	0.7	16.3	-18.0*<	-17.0*<
				0.0	BLFT20141027AEY	81 33 51.0		259	Chesapeake-portsmouth Broa		
271D St. Augustine	W271CJ	LIC	DC FL	154.5	52.31	29 51 01.0	0.250	21.3	14.1	14.0	12.7
				334.6	BLFT20140708ABS	81 19 49.0		137	Phillips Broadcasting, Llc		
267D St. Augustine	W267BX	CP	C FL	153.7	47.38	29 53 34.9	0.250	1.1	7.1	29.3	39.5
				333.8	BMPFT20150623AAJ	81 20 45.8		32	Cornerstone Broadcasting C		
267D St. Augustine	W267BX	APP	C FL	153.7	47.38	29 53 34.9	0.038	0.4	6.0	29.9	40.6
				333.8	BMPFT20150901ACN	81 20 45.8		73	Cornerstone Broadcasting C		
273C1 Waycross	WYNR	LIC	CX GA	338.4	105.08	31 09 22.0	97.000	10.1	72.4	77.7	31.9
				158.2	BMLH20140627ABP	81 58 19.0	303	319	Amfm Radio Licenses, L.l.c		
271C3 Watertown	WQLC	LIC	CN FL	268.0	119.51	30 13 58.0	9.000	57.2	38.5	45.0	55.2
				87.4	BLH19920818KB	82 48 18.0	162	199	Dockins Broadcast Group, L		
270C3 Pearson	WPNG	LIC	CX GA	313.6	170.47	31 19 36.0	13.000	107.0	40.0	46.2	75.3
				132.9	BLH20100722CZW	82 51 54.0	140	203	Broadcast South, Llc		
217C3 Folkston	WATY	CP	CX GA	344.7	62.65	30 49 16.0	3.800	34.4	23.1	11.5R	51.2M
				164.7	BMPED20150422AAI	81 44 14.0	151	155	Delmarva Educational Assoc		
217A Palatka	WHIF	LIC	CN FL	182.2	69.24	29 39 07.0	1.700	34.4	23.1	9.5R	59.7M
				2.2	BLE19960329KB	81 35 32.0	97	102	Putnam Radio Ministries, I		
271C0 Tybee Island	WZAT	LIC	C GA	6.1	198.72	32 03 29.0	100.000	118.4	79.8	63.0	93.1
				186.2	BLH20110830ABO	81 20 19.0	405	410	Cumulus Licensing Llc		

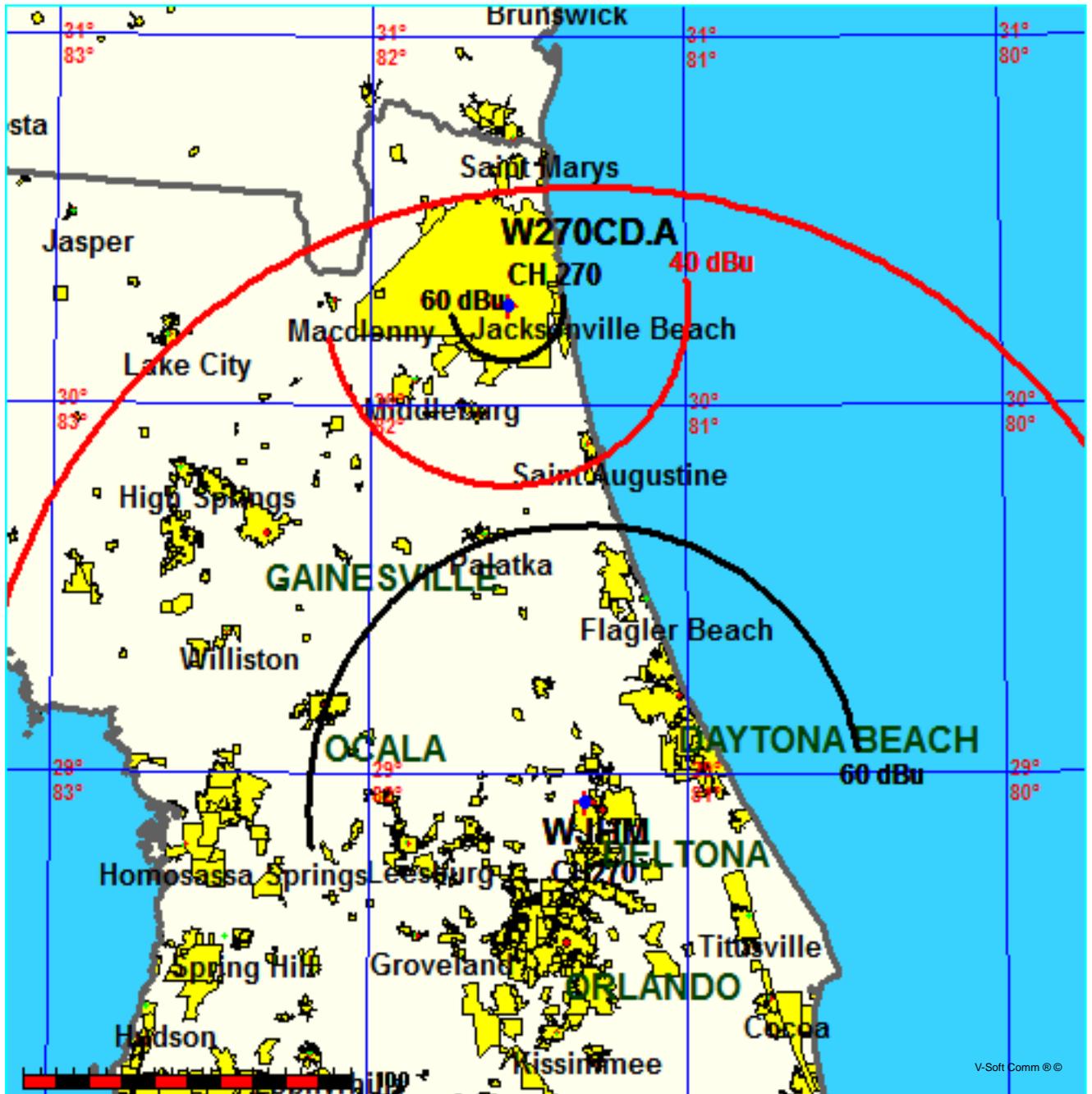
Terrain database is GLOBE 30 Sec, R= 73.215 qualifying spacings or FCC minimum spacings in KM, M= Margin in KM
 Contour distances are on direct line to and from reference station. Reference Zone= East Zone, Co to 3rd adjacent.
 All separation margins (if shown) include rounding. Call signs with exclamation marks need not be protected.
 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.
 < = Station meets FCC minimum distance spacing for its class.
 < = Contour Overlap

Educational Media Foundation

FMCommander Single Allocation Study - 10-05-2015 - GLOBE 30 Sec
W270CD.A's Overlaps (In= -51.33 km, Out= 13.34 km)

W270CD.A CH 270 D
Lat= 30 16 34.0, Lng= 81 33 51.0
0.12 kW 252.2 M HAAT, 264 M COR
Prot.= 60 dBu, Intef.= 40 dBu

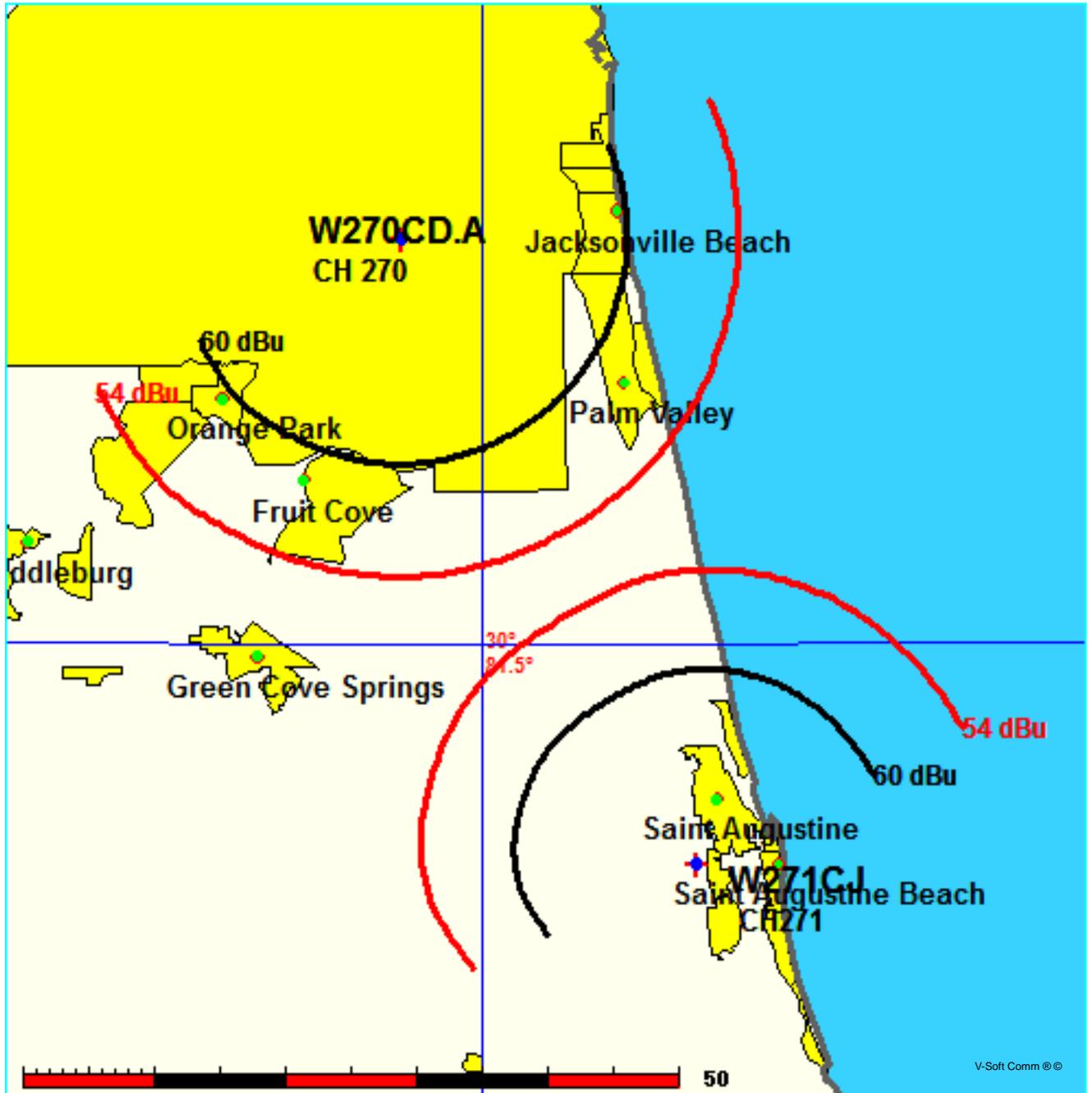
WJHM CH 270 C 73.215 N BMLH20081010ATQ
Lat= 28 55 10.0, Lng= 81 19 08.0
92.0 kW 483 M HAAT, 493 M COR
Prot.= 60 dBu, Intef.= 40 dBu



FMCommander Single Allocation Study - 10-05-2015 - GLOBE 30 Sec
W270CD.A's Overlaps (In= 13.96 km, Out= 12.73 km)

W270CD.A CH 270 D
Lat= 30 16 34.0, Lng= 81 33 51.0
0.12 kW 252.2 M HAAT, 264 M COR
Prot.= 60 dBu, Intef.= 54 dBu

W271CJ CH 271 D DA BLFT20140708ABS
Lat= 29 51 01.0, Lng= 81 19 49.0
0.25 kW 0 M HAAT, 137 M COR
Prot.= 60 dBu, Intef.= 54 dBu



Educational Media Foundation

5700 W Oaks Blvd
Rocklin, CA 95765

*Exhibit 13-A
Jacksonville Beach, FL*

Compliance with C.F.R. 74.1204

The proposed FM Translator is located within the protected 60dBu contour of second adjacent channel station WSOL-FM, channel 268C, Brunswick, GA. According to 74.1204(a)(3), in order to protect second and third adjacent facilities, the difference in dBu between the two facilities must not exceed 40dBu.

The proposed ERP for W270CD.P:	120 watts
The proposed COR for W270CD.P:	255 meters
WSOL-FM F(50/50) contour at proposed site:	68.2dBu
The F(50/10) contour of proposed W270CD.P:	108.2dBu

The predicted distance to the 108.2dbu interfering contour is 298.9 meters. Taking into account the vertical elevation pattern of the Nicom BKG77 two bay halfwaved spaced antenna and the height above ground of 255M, it has been determined that the interfering contour of 108.2dbu does not reach the ground. As seen in Exhibit 13-A1, the lowest elevation for this interfering contour is 168.3M above ground at a distance of 205m from the antenna.

As can be seen in Exhibit 13–A2 there are no surrounding structures which are tall enough to enter the interfering contour within the 298.9m distance from the antenna.

Therefore, EMF respectfully requests a waiver of C.F.R. 74.1204 based on no population within the area of predicted interference.

EXHIBIT 13-A
 74.1204(d) Showing
 W270CD
 Jacksonville Beach, FL

ERP (kw): 0.12
Height of Antenna above Ground (m): 255
Translator's IX Contour: 108.2
Antenna Type: BKG77-2HW

<u>Depression Angle from Horizon</u>	<u>Antenna Relative Field</u>	<u>ERP (kw) from the Antenna RF</u>	<u>Dist. To IX Contour (m)</u>	<u>Height IX Contour Above Ground (m)</u>
0	1	0.1200	298.9445	255.000
5	0.988	0.1171	295.3572	229.258
10	0.952	0.1088	284.5952	205.581
15	0.881	0.0931	263.3701	186.835
20	0.791	0.0751	236.4651	174.124
25	0.686	0.0565	205.0760	168.331
30	0.577	0.0400	172.4910	168.755
35	0.463	0.0257	138.4113	175.611
40	0.354	0.0150	105.8264	186.976
45	0.256	0.0079	76.5298	200.885
50	0.174	0.0036	52.0163	215.153
55	0.104	0.0013	31.0902	229.532
60	0.061	0.0004	18.2356	239.207
65	0.028	0.0001	8.3704	247.414
70	0.007	0.0000	2.0926	253.034
75	0.008	0.0000	2.3916	252.690
80	0.009	0.0000	2.6905	252.350
85	0.009	0.0000	2.6905	252.320
90	0.009	0.0000	2.6905	252.309

Educational Media Foundation

5700 W Oaks Blvd
Rocklin, CA 95765

*Exhibit 13-A
Jacksonville Beach, FL*

Compliance with C.F.R. 74.1204

The proposed FM Translator is co-located at a distance of 5 meters above second adjacent translator W272CQ, channel 272D, Jacksonville, FL. According to 74.1204(a)(3), in order to protect second and third adjacent facilities, the difference in dBu between the two facilities must not exceed 40dBu.

The proposed ERP for W270CD.P:	120 watts
The proposed COR for W270CD.P:	255 meters
W272CQ F(50/50) contour at proposed site:	142.9dBu
The F(50/10) contour of proposed W270CD.P:	182.9dBu

The predicted distance to the 182.9dbu interfering contour is .055 meters. Taking into account the vertical elevation pattern of the Nicom BKG77 two bay halfwaved spaced antenna and the height above ground of 255M, it has been determined that the interfering contour of 182.9dbu does not reach the ground. As seen in Exhibit 13-A1, the lowest elevation for this interfering contour is 254.98M above ground at a distance of .03m from the antenna.

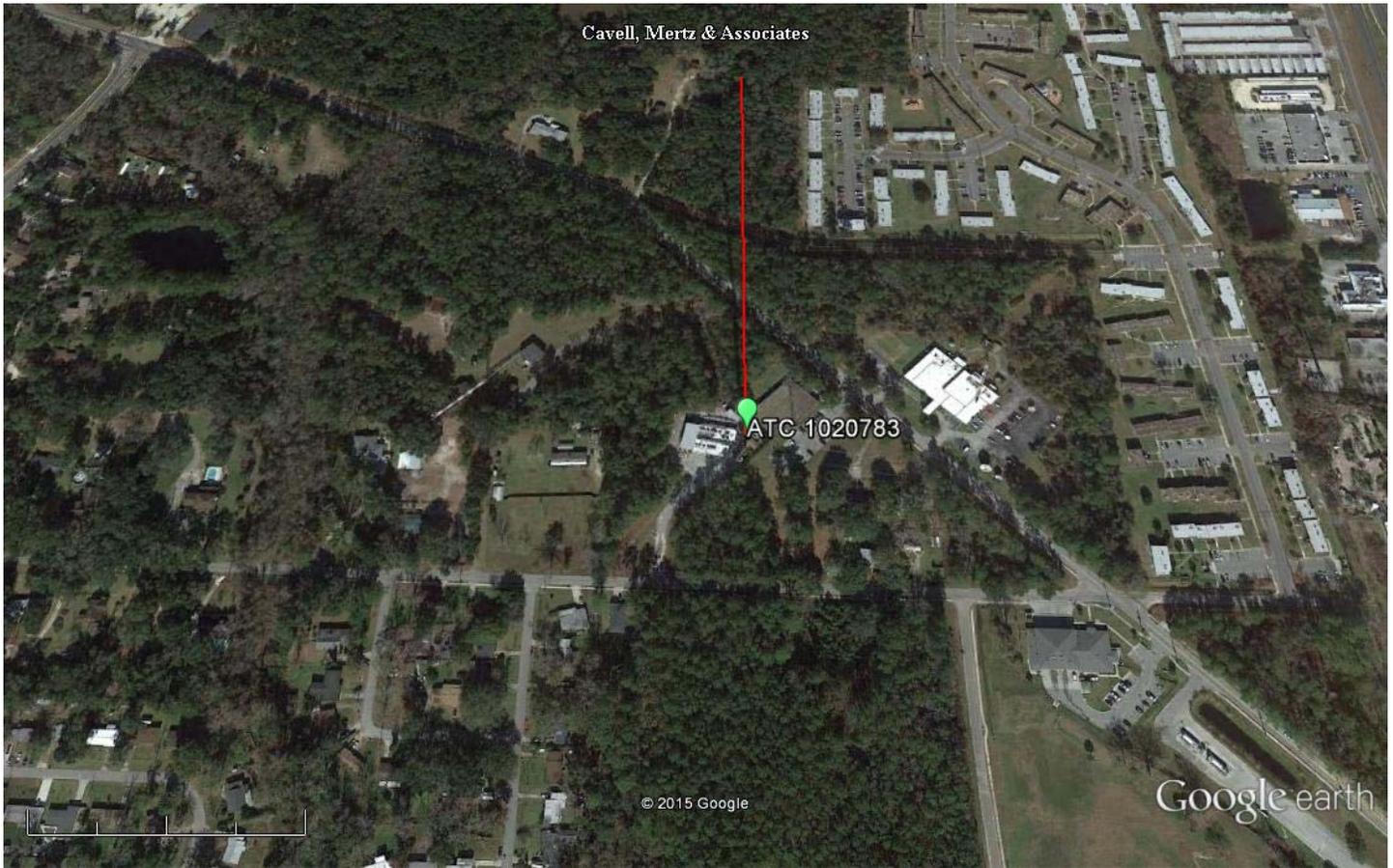
As can be seen in Exhibit 13–A2 there are no surrounding structures which are tall enough to enter the interfering contour within the .055m distance from the antenna.

Therefore, EMF respectfully requests a waiver of C.F.R. 74.1204 based on no population within the area of predicted interference.

EXHIBIT 13-A
 74.1204(d) Showing
 W270CD
 Jacksonville Beach, FL

ERP (kw): 0.12
Height of Antenna above Ground (m): 255
Translator's IX Contour: 182.9
Antenna Type: BKG77-2HW

<u>Depression Angle from Horizon</u>	<u>Antenna Relative Field</u>	<u>ERP (kw) from the Antenna RF</u>	<u>Dist. To IX Contour (m)</u>	<u>Height IX Contour Above Ground (m)</u>
0	1	0.1200	0.0550	255.000
5	0.988	0.1171	0.0544	254.995
10	0.952	0.1088	0.0524	254.991
15	0.881	0.0931	0.0485	254.987
20	0.791	0.0751	0.0435	254.985
25	0.686	0.0565	0.0377	254.984
30	0.577	0.0400	0.0318	254.984
35	0.463	0.0257	0.0255	254.985
40	0.354	0.0150	0.0195	254.987
45	0.256	0.0079	0.0141	254.990
50	0.174	0.0036	0.0096	254.993
55	0.104	0.0013	0.0057	254.995
60	0.061	0.0004	0.0034	254.997
65	0.028	0.0001	0.0015	254.999
70	0.007	0.0000	0.0004	255.000
75	0.008	0.0000	0.0004	255.000
80	0.009	0.0000	0.0005	255.000
85	0.009	0.0000	0.0005	255.000
90	0.009	0.0000	0.0005	255.000



Google earth



Green Pin Marker:

NAD 27

30 16' 34.1" N 81 33' 51.4" W

Red Line Marker: 290m at zero degrees true north