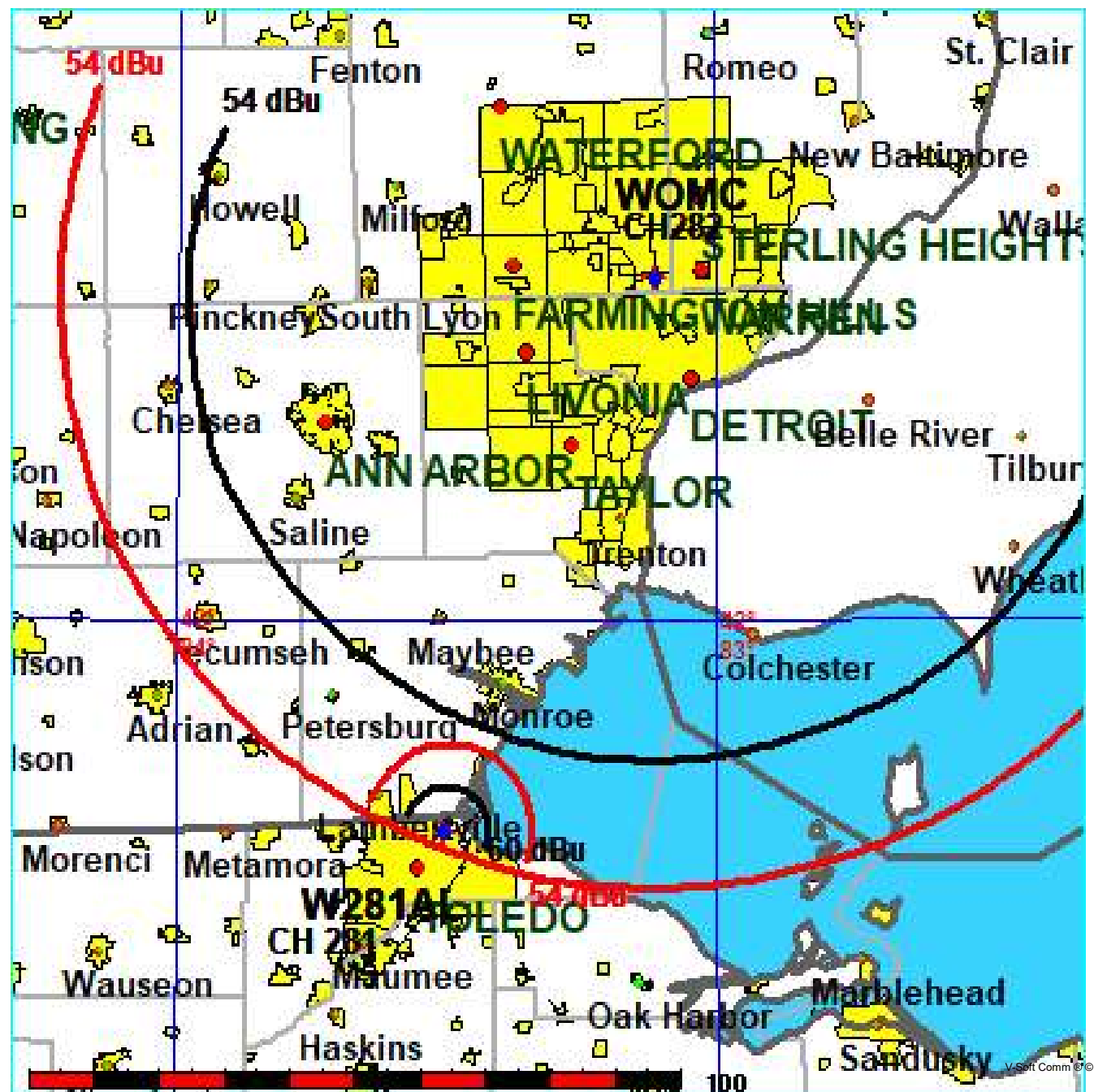


Channel Study

REFERENCE		CH# 281D - 104.1 MHz, Pwr= 0.019 kW, HAAT= 0.0 M, COR= 271 M								DISPLAY DATES	
41 42 52.2 N.		Average Protected F(50-50)= 3.7 km								DATA 12-01-19	
83 30 21.8 W.		Omni-directional								SEARCH 12-12-19	
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*
284B Toledo	WIOT	LIC OH		124.4 304.5	8.13 BMLH20020611AAX	41 40 23.20 83 25 30.80	50.000 165	6.4 345	67.6 Citicasters Licenses, Inc.	-5.1	-60.1*
281D Harbor View	W281AL!	LIC OH		0.0 0.0	0.00 BLFT20150424AAN	41 42 52.20 83 30 21.80	0.019	271	---Reference--- Educational Media Foundati		
282B Detroit	WOMC	LIC MI		20.9 201.2	89.92 BLH19970512KI	42 28 10.10 83 06 53.70	190.000 110	92.5 306	73.1 Entercom License, LLC	-9.4*	3.4
280A Adrian	WLEN	LIC MI		297.9 117.6	45.02 BLH7244	41 54 11.10 83 59 12.70	3.000 91	39.3 325	25.8 Lenawee Broadcasting Compa	-0.3	10.6
279B Pemberville	WCKY-FM	LIC OH		161.2 341.4	67.56 BLH20081201AEL	41 08 20.20 83 14 44.70	50.000 131	5.9 364	65.0 Citicasters Licenses, Inc.	55.0	2.0
278B Detroit	WMUZ-FM	LIC MI		16.3 196.5	76.87 BMLH20150210AAQ	42 22 40.10 83 14 34.70	50.000 142	6.0 336	65.5 Wmuz Radio, Inc.	64.0	10.8
281B Cleveland	WQAL	LIC OH		105.2 286.4	152.75 BLH20050901AAM	41 20 28.20 81 44 23.50	12.000 293	127.8 574	66.9 Entercom License, LLC	18.1	53.3
281L1 Fostoria	WLBj-LP	LIC OH		166.8 346.9	60.96 BLL20150825AAB	41 10 49.90 83 20 22.80	0.075 35	258	32.8 Christopher Center Corpora		32.7

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.
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.

WOMC CH 282 B BLH19970512KI
Lat= 42 28 10.10, Lng= 83 06 53.70
190.0 kW 110 m HAAT, 306 m COR
Prot.= 54 dBu, Intef.= 54 dBu



FMCommander Single Allocation Study - 12-12-2019 - FCC NGDC 30 Sec
W281AL's Overlaps (In= -0.35 km, Out= 10.56 km)

W281AL CH 281 D

Lat= 41 42 52.20, Lng= 83 30 21.80

0.019 kW 0 m HAAT, 271 m COR

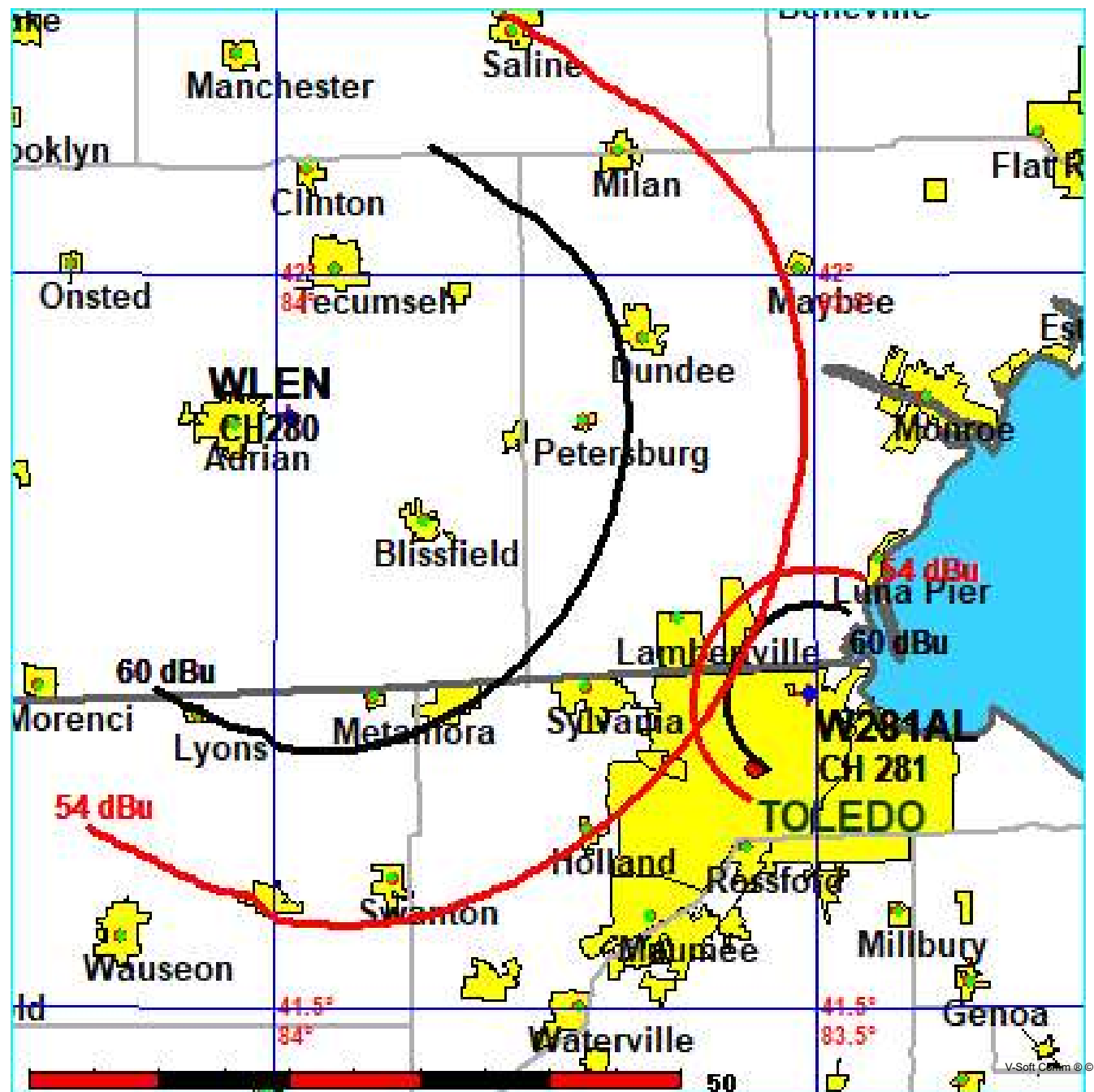
Prot.= 60 dBu, Intef.= 54 dBu

WLEN CH 280 A BLH7244

Lat= 41 54 11.10, Lng= 83 59 12.70

3.0 kW 91 m HAAT, 325 m COR

Prot.= 60 dBu, Intef.= 54 dBu



FMCommander Single Allocation Study - 12-12-2019 - FCC NGDC 30 Sec
W281AL's Overlaps (In= 55.03 km, Out= 2.03 km)

W281AL CH 281 D

Lat= 41 42 52.20, Lng= 83 30 21.80

0.019 kW 0 m HAAT, 271 m COR

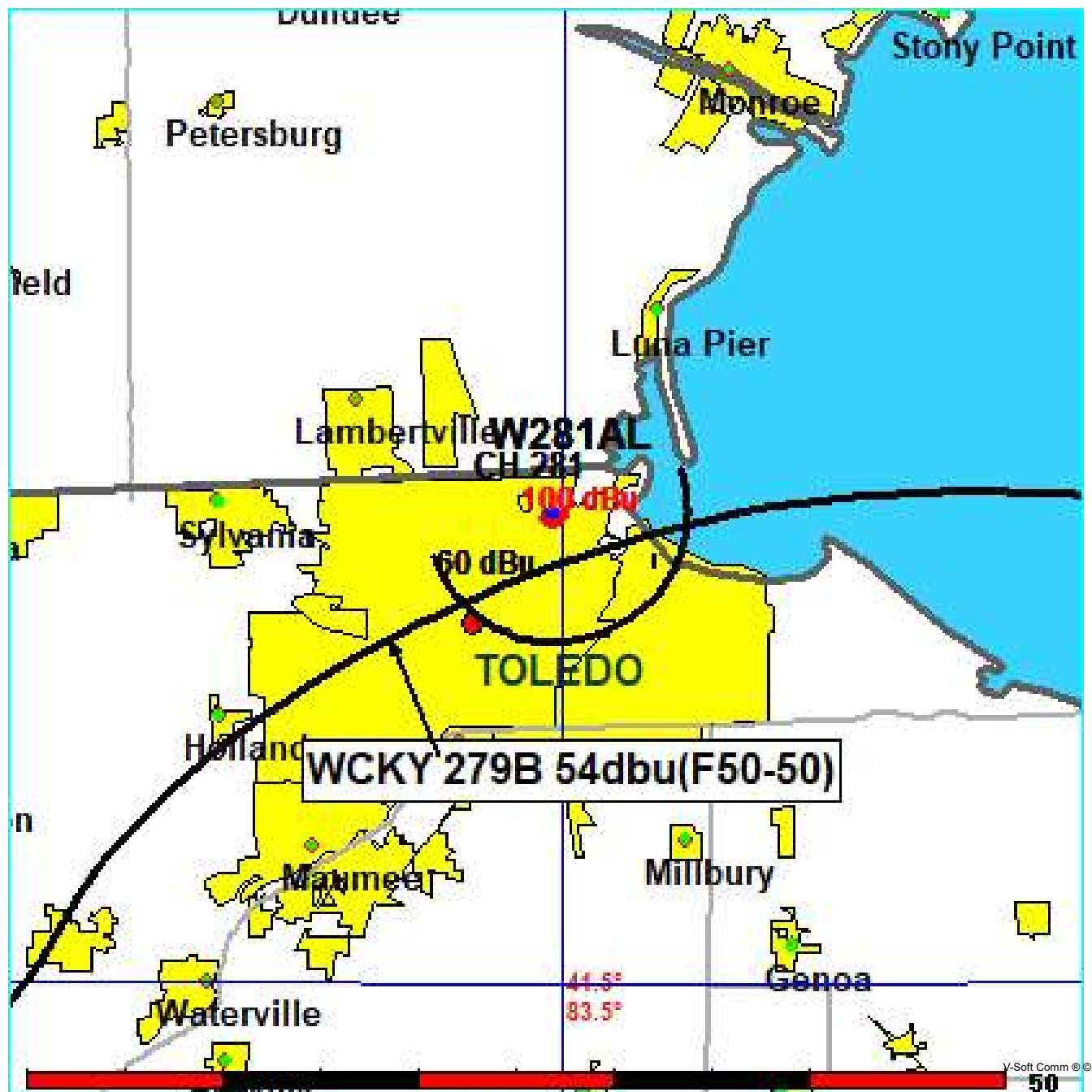
Prot.= 60 dBu, Intef.= 100 dBu

WCKY-FM CH 279 B BLH20081201AEL

Lat= 41 08 20.20, Lng= 83 14 44.70

50.0 kW 131 m HAAT, 364 m COR

Prot.= 54 dBu, Intef.= 100 dBu



Educational Media Foundation

5700 W Oaks Blvd
Rocklin, CA 95765

*Exhibit 13-A
Harbor View, OH*

Compliance with C.F.R. 74.1204

The proposed FM Translator to operate on channel 281 is located within the protected 54dBu contour of third adjacent channel station WIOT, channel 284B, Toledo, OH. 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 W281AL.P:	19 watts
The proposed COR for W281AL.P:	89 meters
WIOT F(50/50) contour at proposed site:	95.8dBu
The F(50/10) contour of proposed W281AL.P:	135.8dBu

The predicted distance to the 135.8dbu interfering contour is 4.96 meters. When taking into account the vertical elevation pattern of the Nicom BKG77 single bay antenna and the height above ground of 89m, it has been determined that the interfering contour of 135.8dbu does not reach the ground. As seen in Exhibit 13-A1, the lowest elevation for this interfering contour is 86.8m above ground at a distance of 3.4m 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 4.96m 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 - A1
74.1204(d) Showing
W281AL
Harbor View, OH

ERP (kw): 0.019
Height of Antenna Above Ground (m): 89
Translator's IX Contour: 135.8
Antenna Type: Nic BKG77-1

<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	1.000	0.0190	4.9588	89.000
5	0.999	0.0190	4.9538	88.568
10	0.982	0.0183	4.8695	88.154
15	0.954	0.0173	4.7307	87.776
20	0.918	0.0160	4.5522	87.443
25	0.872	0.0144	4.3241	87.173
30	0.818	0.0127	4.0538	86.973
35	0.758	0.0109	3.7588	86.844
40	0.691	0.0091	3.4265	86.797
45	0.616	0.0072	3.0546	86.840
50	0.538	0.0055	2.6678	86.956
55	0.465	0.0041	2.3058	87.111
60	0.391	0.0029	1.9389	87.321
65	0.313	0.0019	1.5521	87.593
70	0.239	0.0011	1.1852	87.886
75	0.176	0.0006	0.8727	88.157
80	0.129	0.0003	0.6397	88.370
85	0.103	0.0002	0.5108	88.491
90	0.104	0.0002	0.5157	88.484

K274BL Proposed Location

Cavell, Moritz & Associates

Yellow Pin Marker NAD83
41-42-52.2 N 83-30-21.8 W
Red Line Marker: 89m at zero
degrees true north

Legend
Line Measure



Google Earth

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100 m