

Channel Study

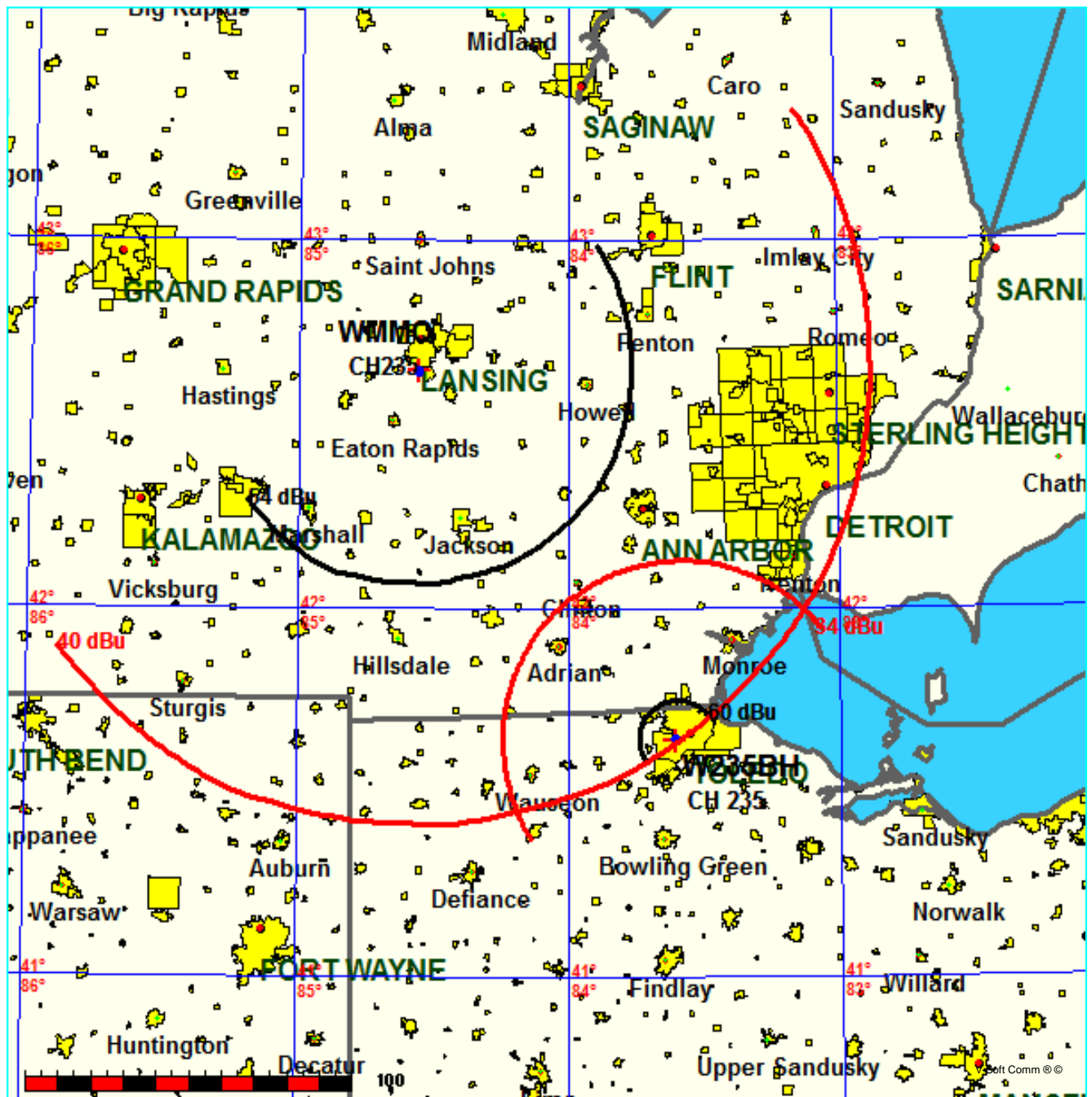
REFERENCE		CH# 235D - 94.9 MHz, Pwr= 0.099 kW, HAAT= 129.2 M, COR= 313 M								DISPLAY DATES	
41 38 49.0 N.		Average Protected F(50-50)= 11.6 km								DATA 05-06-14	
83 36 18.0 W.		Omni-directional								SEARCH 05-07-14	
CH CITY	CALL	TYPE STATE	ANT STATE	AZI. <--	DIST FILE #	LAT. LNG.	Pwr (kW) HAAT(M)	INT(km) COR(M)	PRO(km) LICENSEE	*IN* (Overlap in km)	*OUT*
235D Perrysburg	W235BH	LIC	C OH	0.0 0.0	0.00 BLFT20130823ADC	41 38 49.0 83 36 18.0	0.055 129	33.6 313	10.0 Educational Media Foundati	-45.1* -49.0*	
233B Port Clinton	WXKR	LIC	ZCX OH	120.2 300.4	32.23 BLH20080910ACQ	41 30 03.0 83 16 16.0	30.000 188	5.1 374	60.2 Cumulus Licensing Llc	15.5 -29.4*<	
235B East Lansing	WMMQ	LIC	CN MI	325.0 144.3	136.19 BLH19911106KF	42 38 45.0 84 33 38.0	50.000 150	137.3 421	64.6 Townsquare Media Lansing L	-12.4*< 18.6	
234B Birmingham	WCSX	LIC	CN MI	22.0 202.2	96.75 BMLH19981008KA	42 27 13.0 83 09 50.0	13.500 290	77.4 488	66.0 Greater Boston Radio, Inc.	7.7 6.0	
235A Ada	WONB	LIC	CN OH	191.3 11.1	99.74 BLED19911023KC	40 45 58.0 83 50 14.0	3.000 100	78.8 381	26.0 Ohio Northern University	9.4 34.7	
237A Adrian	WQTE	LIC	CN MI	293.6 113.3	43.99 BLH7225	41 48 15.0 84 05 25.0	3.000 91	2.4 329	25.5 Friends Communications Of	30.4 17.7	
232D Monroe	WERW	APP	CX MI	24.7 204.8	33.24 BPED20140218AGF	41 55 07.0 83 26 14.0	0.078 31	0.6 216	5.5 Monroe Public Access Cable	20.9 27.0	
238B Detroit	WKQI	LIC	C MI	19.9 200.1	97.69 BLH19990920ABM	42 28 23.0 83 11 59.0	100.000 130	7.0 338	71.7 Amfm Radio Licenses, L.l.c	79.0 24.6	
232D Tedrow	W232CM	CP	DC OH	263.8 83.4	46.07 BNPFT20130827ADV	41 36 03.0 84 09 16.0	0.110 40	0.4 268	5.1 Pittsford Educational Broa	34.4 40.3	
235B Medina	WQMX	LIC	CN OH	110.2 291.5	176.47 BLH19880516KC	41 04 58.0 81 38 00.0	16.000 268	124.0 587	63.4 Rubber City Radio Group, I	40.8 58.7	
236B Fort Wayne	WAJI	LIC	CN IN	246.0 64.9	145.76 BLH19900226KE	41 06 13.0 85 11 28.0	39.000 207	82.8 453	69.1 Sarkes Tarzian, Inc.	51.6 52.3	
236B Chatham	CKUE-FM	OP	HN ON	54.1 235.1	151.97 2694	42 26 14.0 82 06 22.0	42.000 134	75.3 320	63.0 Ckue-fm	64.7 63.6	
237A Norwalk	WLKR-FM	LIC	C OH	117.0 297.6	89.01 BMLH20000615AFD	41 16 49.0 82 39 27.0	3.300 91	2.3 312	24.5 Elyria-lorain Broadcasting	75.0 63.8	

KM
 Terrain database is NGDC 30 SEC, R= 73.215 qualifying spacings or FCC minimum spacings in KM, M= Margin in
 Contour distances are on direct line to and from reference station. 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 protected contour.
 < = Contour Overlap

FMCommander Single Allocation Study - 05-16-2014 - NGDC 30 SEC
W235BH's Overlaps (In= -12.35 km, Out= 18.64 km)

W235BH CH 235 D
Lat= 41 38 49.0, Lng= 83 36 18.0
0.099 kW 129.2 M HAAT, 313 M COR
Prot.= 60 dBu, Intef.= 34 dBu

WMMQ CH 235 B BLH19911106KF
Lat= 42 38 45.0, Lng= 84 33 38.0
50.0 kW 150 M HAAT, 421 M COR
Prot.= 54 dBu, Intef.= 40 dBu



FMCommander Single Allocation Study - 05-16-2014 - NGDC 30 SEC
W235BH's Overlaps (In= 7.69 km, Out= 6.0 km)

W235BH CH 235 D

Lat= 41 38 49.0, Lng= 83 36 18.0

0.099 kW 129.2 M HAAT, 313 M COR

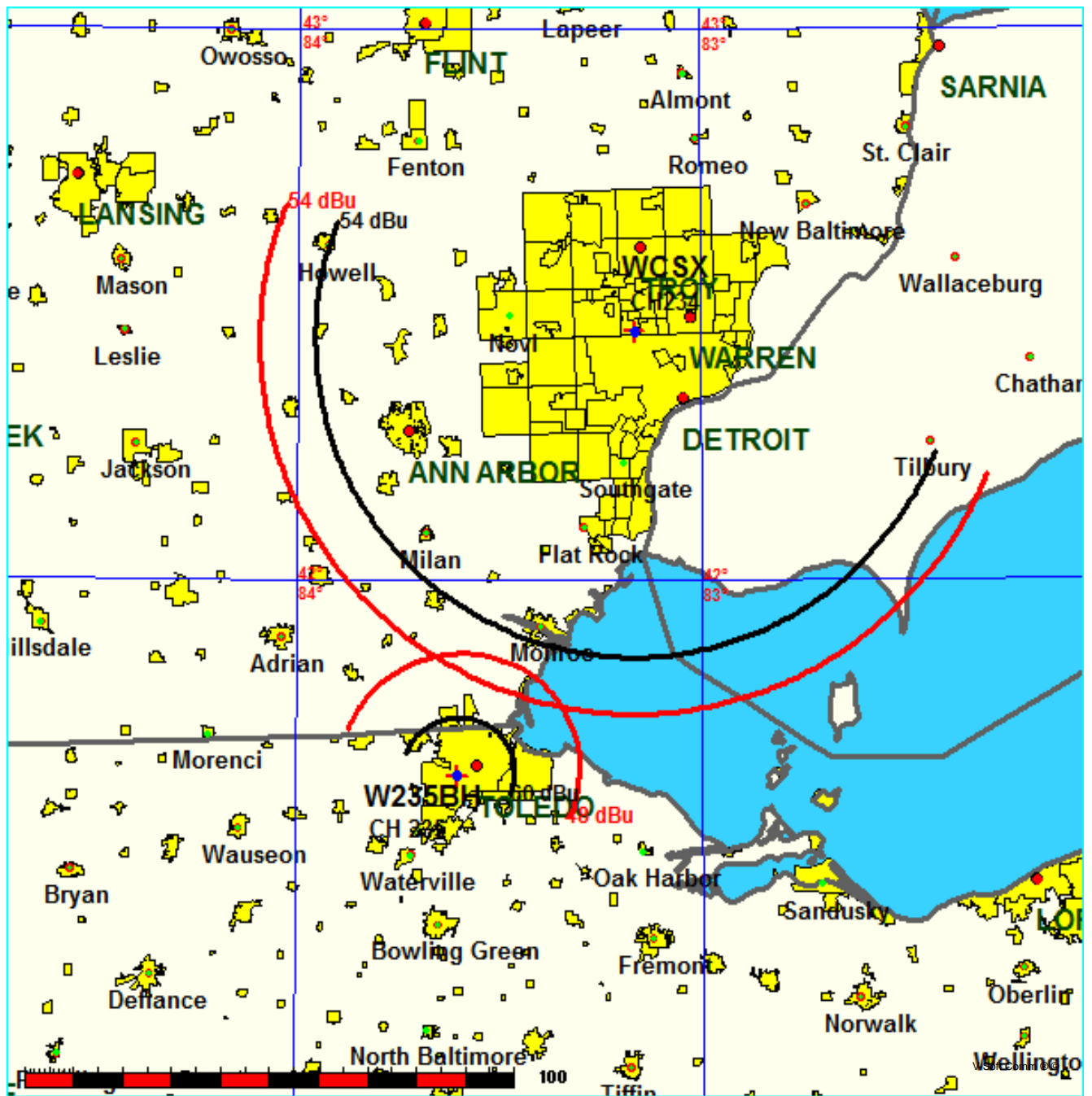
Prot.= 60 dBu, Intef.= 48 dBu

WCSX CH 234 B BMLH19981008KA

Lat= 42 27 13.0, Lng= 83 09 50.0

13.5 kW 290 M HAAT, 488 M COR

Prot.= 54 dBu, Intef.= 54 dBu



Educational Media Foundation

5700 W Oaks Blvd
Rocklin, CA 95765

*Exhibit 13-A
Perrysburg, OH*

Compliance with C.F.R. 74.1204

The proposed FM Translator is located within the protected 60dBu contour of second adjacent channel station WXKR, channel 233B, Port Clinton, 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 W235BH.P:	99 watts
The proposed COR for W235BH.P:	126 meters
WXKR F(50/50) contour at proposed site:	68.1dBu
The F(50/10) contour of proposed W235BH.P:	108.1dBu

The predicted distance to the 108.1dbu interfering contour is 274.7 meters. Taking into account the vertical elevation pattern of the BKG77 two bay half-waved spaced antenna and the height above ground of 126M, it has been determined that the interfering contour of 108.1dbu does not reach the ground. As seen in Exhibit 13-A1, the lowest elevation for this interfering contour is 46.368M above ground at a distance of 188.4 meters from the antenna.

As can be seen in Exhibit 13–A2 there are no surrounding structures which are tall enough to enter the interference aperture within the 274.7 meter radius from the base of the tower.

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
W235BH
Perrysburg, OH

ERP (kw): 0.099
Height of Antenna above Ground (m): 126
Translator's IX Contour: 108.1
Antenna Type: Nicom 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	1.000	0.0990	274.6740	126.000
5	0.988	0.0966	271.3779	102.348
10	0.952	0.0897	261.4897	80.593
15	0.881	0.0768	241.9878	63.369
20	0.791	0.0619	217.2672	51.690
25	0.686	0.0466	188.4264	46.368
30	0.577	0.0330	158.4869	46.757
35	0.463	0.0212	127.1741	53.056
40	0.354	0.0124	97.2346	63.499
45	0.256	0.0065	70.3166	76.279
50	0.174	0.0030	47.7933	89.388
55	0.104	0.0011	28.5661	102.600
60	0.061	0.0004	16.7551	111.490
65	0.028	0.0001	7.6909	119.030
70	0.007	0.0000	1.9227	124.193
75	0.008	0.0000	2.1974	123.877
80	0.009	0.0000	2.4721	123.565
85	0.009	0.0000	2.4721	123.537
90	0.009	0.0000	2.4721	123.528



Google earth

feet
meters

1000

500



Yellow Pin - NAD27

41 38' 48.5" N

83 36' 17.9" W

Yellow Marker: 274m at zero degrees true north