

Channel Study

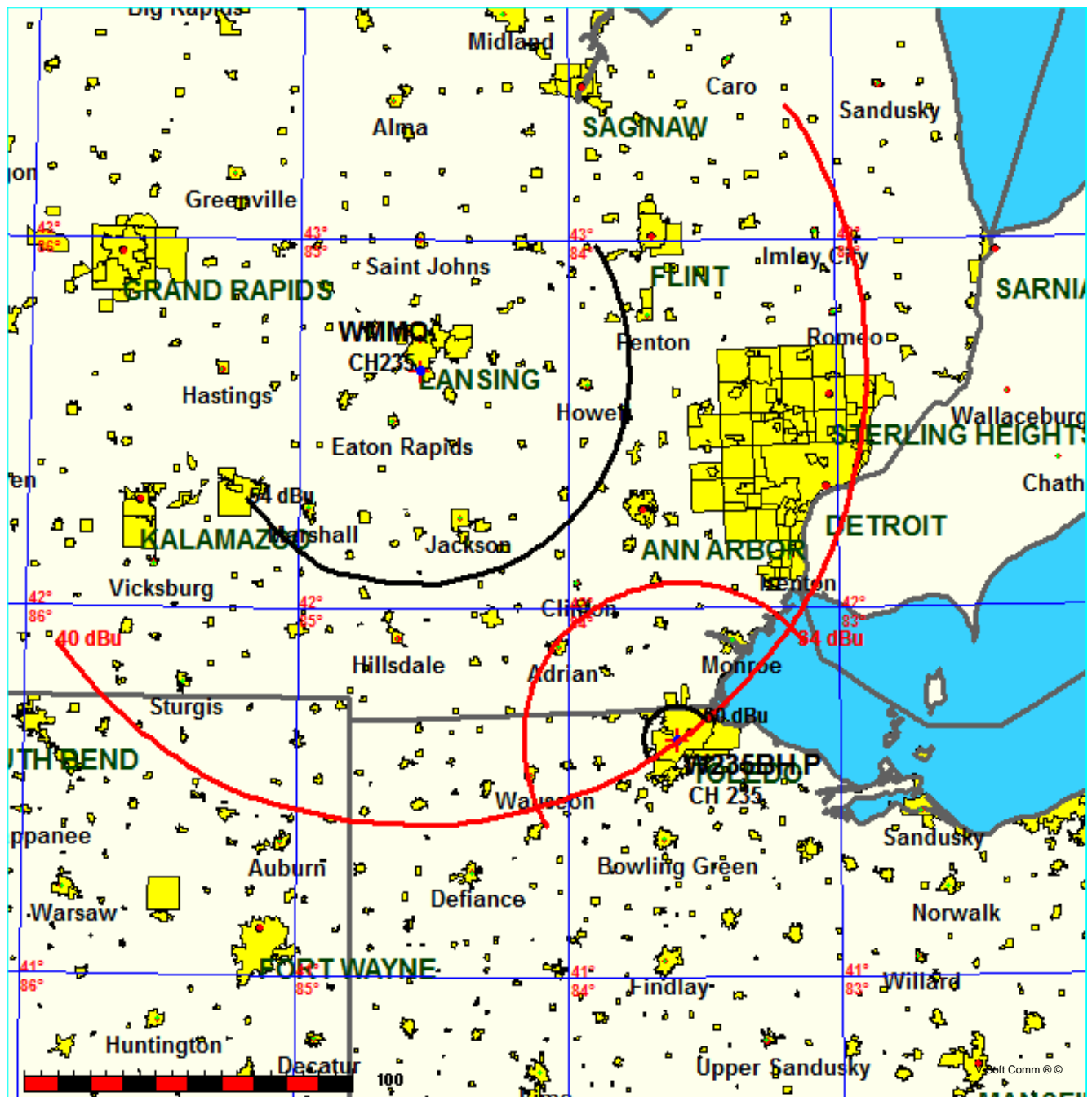
REFERENCE		CH# 235D - 94.9 MHz, Pwr= 0.055 kW, HAAT= 128.5 M, COR= 313 M								DISPLAY DATES	
41 38 49.0 N.		Average Protected F(50-50)= 10.0 km								DATA 12-14-12	
83 36 18.0 W.		Omni-directional								SEARCH 12-19-12	
CH CITY	CALL	TYPE STATE	ANT STATE	AZI. <--	DIST FILE #	LAT. LNG.	Pwr(kW) HAAT(M)	INT(km) COR(M)	PRO(km) LICENSEE	*IN* (Overlap in km)	*OUT*
235D Perrysburg	W235BH	LIC	C OH	159.0 339.0	10.54 BLFT20090218ABF	41 33 30.0 83 33 34.0	0.025 79	22.2 265	6.6 Educational Media Foundati	-21.7*	-30.3
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	17.0	-29.0*<
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 Radio License Holding Cbc,	-10.9*<	25.2
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.	9.2	9.4
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	11.0	40.1
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	31.9	17.9
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	80.6	24.9
232D Tedrow	633812	APP	C OH	264.2 83.8	50.45 BNPFT20030312AXS	41 36 00.0 84 12 26.0	0.250 22	1.1 250	7.1 Pittsford Educational Broa	39.6	42.8
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	42.3	65.3
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.	53.1	55.7
238D Baird	631280	APP	C OH	182.7 2.7	67.97 BNPFT20030313BEM	41 02 08.0 83 38 36.0	0.120 31	0.8 269	6.4 Educational Media Foundati	57.2	61.1
238D Baird	998650	APP	C OH	182.7 2.7	67.97 BNPFT20030807AGT	41 02 08.0 83 38 36.0	0.120 31	0.8 269	6.4 Educational Media Foundati	57.2	61.1
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	76.6	64.0

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.
All separation margins (if shown) include rounding
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 - 08-08-2012 - NGDC 30 SEC
W235BH.P's Overlaps (In= -10.86 km, Out= 25.17 km)

W235BH.P CH 235 D
Lat= 41 38 49.0, Lng= 83 36 18.0
0.055 kW 128.5 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



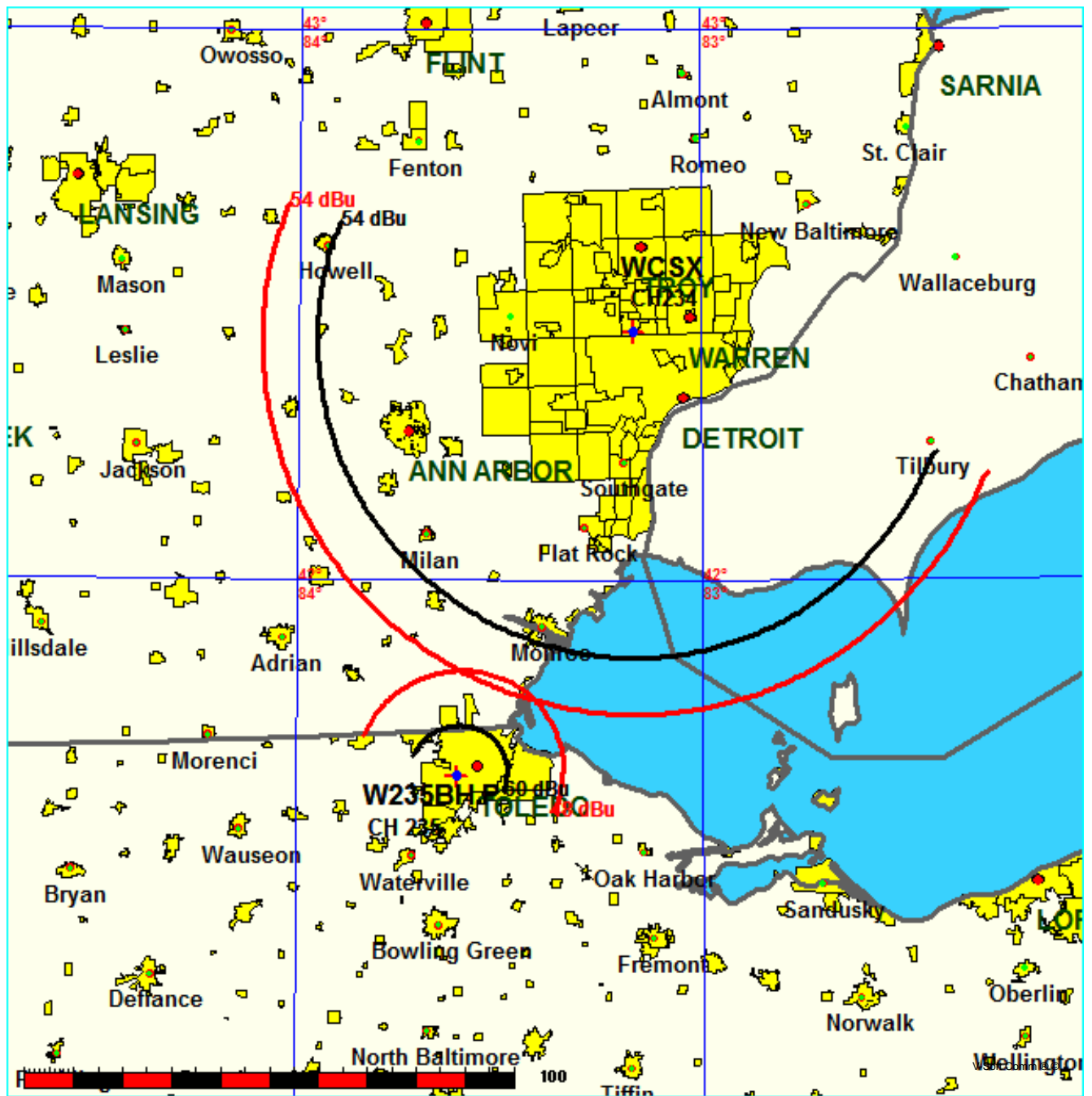
FMCommander Single Allocation Study - 08-08-2012 - NGDC 30 SEC
W235BH.P's Overlaps (In= 9.23 km, Out= 9.43 km)

W235BH.P CH 235 D

Lat= 41 38 49.0, Lng= 83 36 18.0
0.055 kW 128.5 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



Compliance with C.F.R. 74.1204

The proposed FM Translator is located within the protected 54dBu 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:	55 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

By taking into account the vertical elevation pattern for the Jampro JLCP 2 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 65.195M above ground.

As can be seen in Exhibit 13–A2, there are no regularly occupied structures at the base of the tower and there are no structures which could be tall enough to enter the 65.195 meter aperture.

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.P
Perrysburg, OH

ERP (kw): 0.055
Height of Antenna above Ground (m): 126
Translator's IX Contour: 108.1
Antenna Type: Jampro JLCP-2H

<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	0.0550	204.7299	126.000
5	0.984	0.0533	201.4543	108.442
10	0.939	0.0485	192.2414	92.618
15	0.863	0.0410	176.6819	80.271
20	0.782	0.0336	160.0988	71.243
25	0.693	0.0264	141.8778	66.040
30	0.594	0.0194	121.6096	65.195
35	0.478	0.0126	97.8609	69.869
40	0.378	0.0079	77.3879	76.256
45	0.289	0.0046	59.1670	84.163
50	0.216	0.0026	44.2217	92.124
55	0.146	0.0012	29.8906	101.515
60	0.094	0.0005	19.2446	109.334
65	0.056	0.0002	11.4649	115.609
70	0.030	0.0000	6.1419	120.229
75	0.013	0.0000	2.6615	123.429
80	0.004	0.0000	0.8189	125.194
85	0.001	0.0000	0.2047	125.796
90	0.001	0.0000	0.2047	125.795



Google earth

feet
meters |—————| 1000
|—————| 400



NAD 27

41-38-49 N

83-36-18 W

Marker: 205M at true north