

# Educational Media Foundation

5700 West Oaks Boulevard ♦ Rocklin ♦ California ♦ 95765

Exhibit 13

Detroit, MI

## Channel Study

REFERENCE		CH# 228D - 93.5 MHz, Pwr= 0.099 kW DA, HAAT= 124.3 M, COR= 314 M								DISPLAY DATES	
42 24 22.0 N.		Average Protected F(50-50)= 11.4 km								DATA 03-27-13	
83 06 44.0 W.		Standard Directional								SEARCH 03-27-13	
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*
230C1 Windsor	CKLW	OPE	?CN ON	159.2 339.2	27.96	42 10 15.0 82 59 29.0	100.000 200	8.2 383	77.2	15.6	-50.8*
226B Detroit	WDRQ	LIC	DCN MI	314.9 134.8	10.26 BLH19860613KB	42 28 16.0 83 12 03.0	26.500 204	4.5 412	56.9	2.1	-46.8*
228D Detroit	W228CJ	LIC	C MI	100.1 280.1	10.59 BLFT20120620ABG	42 23 22.0 82 59 08.0	0.040	14.2 223	4.4	-14.9*	-32.3
228A Howell	WHMI-FM	LIC	CN MI	293.1 112.6	73.73 BLH19980911KF	42 39 47.0 83 56 23.0	5.200 108	81.7 388	25.4	-12.2*	35.0
228D Riverview	641526	APP	C MI	195.8 15.8	28.16 BNPFT20030317EBC	42 09 44.0 83 12 20.0	0.019 100	22.9 278	6.9	0.2	4.7
230D Detroit	W284BQ	CP	DV MI	312.9 132.8	6.81 BPFT20110407ABE	42 26 52.0 83 10 23.0	0.250	0.2 208	3.0	2.9	3.8
228B1 Bowling Green	WRQN	LIC	NCX OH	203.4 23.0	114.68 BLH20061002BGR	41 27 28.0 83 39 33.0	7.000 121	93.5 315	38.2	16.2	56.5
228C1 London	CBCLFM«	OPE	?CN ON	66.4 247.5	156.35	42 57 20.0 81 21 20.0	100.000 231	167.5 488	82.1	132.5R	23.9M
229D New Baltimore	637945	APP	C MI	41.4 221.7	46.28 BNPFT20030317HRL	42 43 02.9 82 44 15.3	0.019 92	9.8 278	7.0	29.6	29.7
225A1 Chatham	NEW«	OPE	HN ON	90.0 270.6	76.38	42 24 08.0 82 11 03.0	0.250 65	1.1 247	15.9	16.5R	59.9M
225A1 Chatham	AL4535«		ON	90.0 270.6	76.38	42 24 08.0 82 11 03.0	0.250 100	1.1 278	18.0	16.5R	59.9M
229A Frankenmuth	WRCL	LIC	CX MI	340.4 160.1	106.15 BLH20110114AAU	43 18 19.4 83 33 05.4	3.500 133	40.0 355	26.2	61.5	73.2
231B Jackson	WVIC	LIC	CN MI	269.8 88.8	127.99 BLH19830711AJ	42 23 32.0 84 40 00.0	40.000 168	6.0 457	65.5	117.0	62.2

Terrain database is NGDC 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  
 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.  
 « = Station meets FCC minimum distance spacing for its class.  
 Reference station has protected zone issue:

**Compliance with C.F.R. 74.1204**

The proposed FM Translator is located within the protected 60 dBu contour of second adjacent channel station WDRQ, channel 226B, Detroit, MI. 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 K228CJ:	99 watts
The proposed COR for K228CJ:	119 meters
WDRQ F(50/50) contour at proposed site:	87 dBu
The F(50/10) contour of proposed K228CJ	127 dBu

The predicted distance to the 127 dbu interfering contour is 31 meters. The area of overlap does not reach the 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 are tall enough to enter the 31 meter aperture.

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

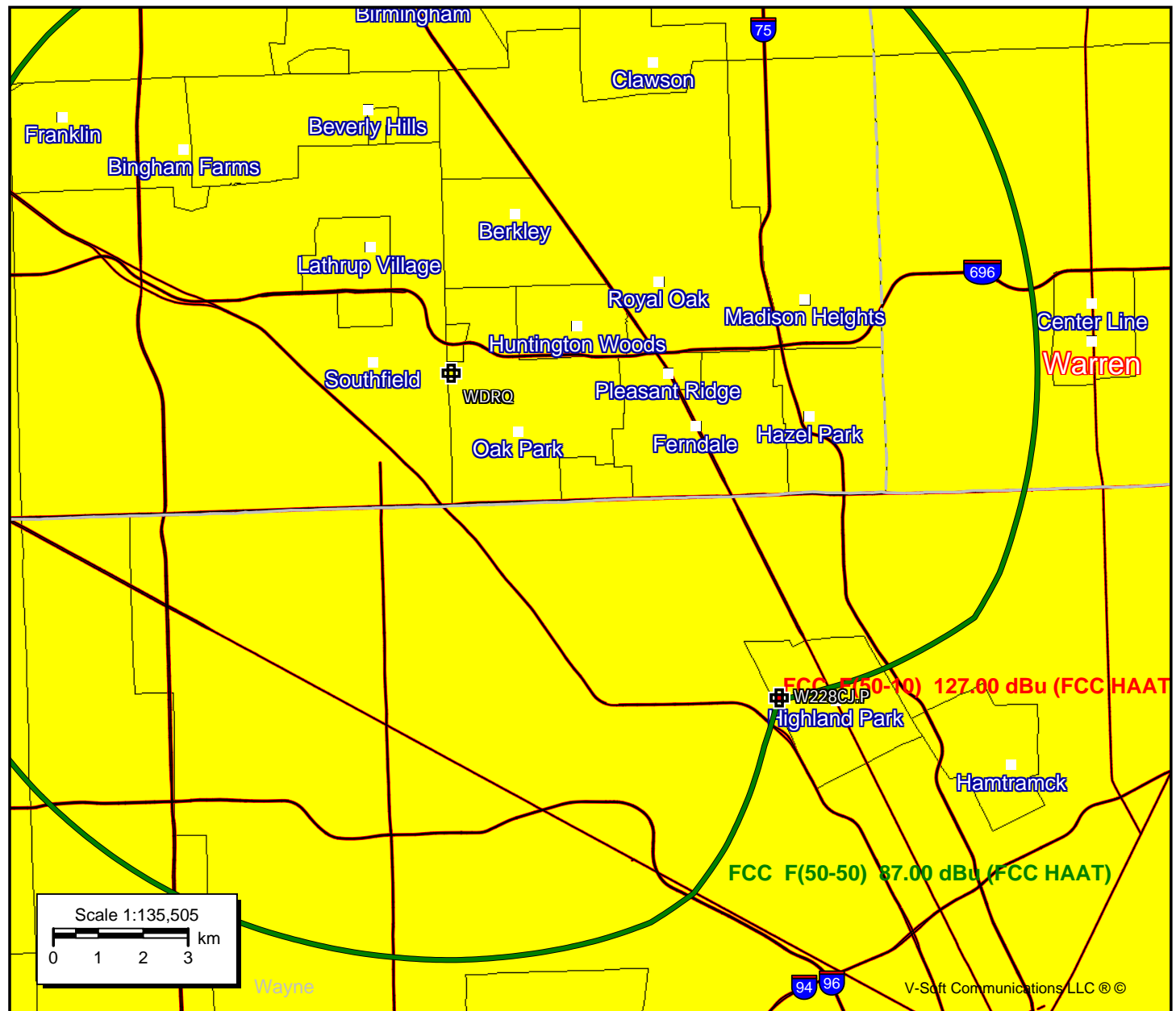
## Exhibit 13-A1

### W228CJ.P

Latitude: 42-24-22 N  
Longitude: 083-06-44 W  
ERP: 0.099 kW  
Channel: 228  
Frequency: 93.5 MHz  
AMSL Height: 314.0 m  
Horiz. Pattern: Directional  
Prop Model: None

### WDRQ

BLH19860613KB  
Latitude: 42-28-16 N  
Longitude: 083-12-03 W  
ERP: 26.50 kW  
Channel: 226  
Frequency: 93.1 MHz  
AMSL Height: 412.0 m  
Horiz. Pattern: Directional  
Prop Model: None





Google earth

feet  
meters

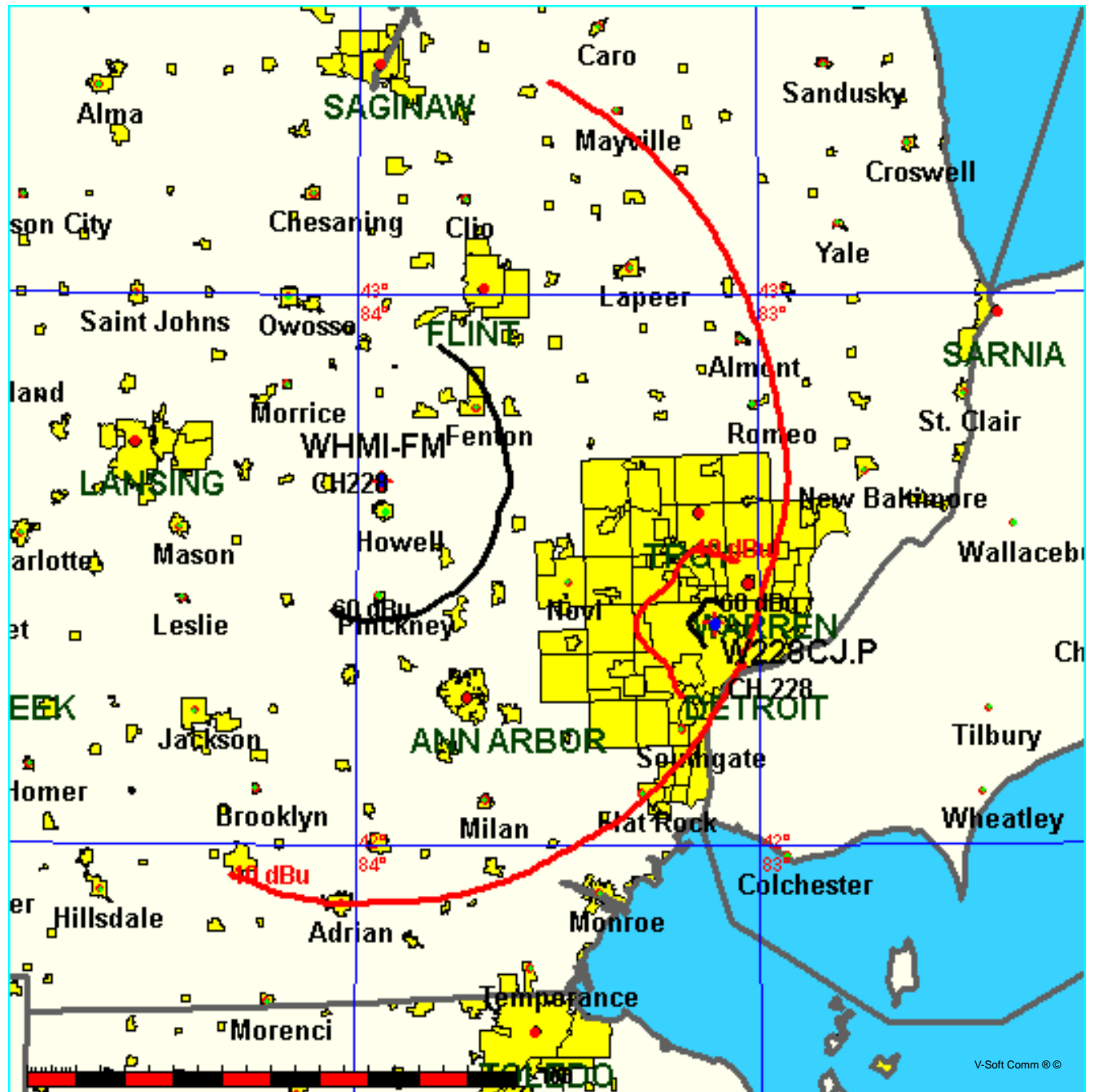


Exhibit 13-B

FMCommander Single Allocation Study - 03-28-2013 - NGDC 30 SEC  
W228CJ.P's Overlaps (In= -12.23 km, Out= 34.96 km)

W228CJ.P CH 228 D DA  
Lat= 42 24 22.0, Lng= 83 06 44.0  
0.099 kW 124.3 M HAAT, 314 M COR  
Prot.= 60 dBu, Intef.= 40 dBu

WHMI-FM CH 228 A BLH19980911KF  
Lat= 42 39 47.0, Lng= 83 56 23.0  
5.2 kW 108 M HAAT, 388 M COR  
Prot.= 60 dBu, Intef.= 40 dBu



FMCommander Single Allocation Study - 03-28-2013 - NGDC 30 SEC  
W228CJ.P's Overlaps (In= 0.18 km, Out= 4.71 km)

W228CJ.P CH 228 D DA  
Lat= 42 24 22.0, Lng= 83 06 44.0  
0.099 kW 124.3 M HAAT, 314 M COR  
Prot.= 60 dBu, Intef.= 40 dBu

641526 CH 228 D BNPFT20030317EBC  
Lat= 42 09 44.0, Lng= 83 12 20.0  
0.019 kW 99.7 M HAAT, 278 M COR  
Prot.= 60 dBu, Intef.= 40 dBu

