

## Channel Study

REFERENCE CH# 202A - 88.3 MHz, Pwr= 1.65 kW, HAAT= 155.3 M, COR= 373.7 M DISPLAY DATES  
 38 43 21.4 N. Average Protected F(50-50)= 25.7 km DATA 02-19-13  
 83 00 05.1 W. Omni-directional SEARCH 02-19-13

CH CITY	CALL	TYPE	ANT STATE	AZI. <--	DIST FILE #	LAT. LNG.	Pwr(kW) HAAT(M)	INT(km) COR(M)	PRO(km) LICENSEE	*IN* (Overlap in km)	*OUT*
202A Portsmouth	WUKV	LIC	CN OH	176.5 356.5	0.04 BLED19920228KB	38 43 20.0 83 00 05.0	1.000 196	81.9 415	29.0 Educational Media Foundati	-104.6*	-99.2*
202A Carlisle	NEW	CP	CX KY	248.5 67.9	100.14 BNPED20071012AQQ	38 23 19.0 84 04 07.0	1.300 81	62.8 332	19.4 Bethesda Christian Broadca	10.2	1.5
205D Piketon	W205CK	LIC	C OH	351.2 171.2	35.18 BLFT20100831AAZ	39 02 09.0 83 03 49.0	0.010 151	0.2 390	8.2 Educational Media Foundati	6.6	24.7
201A Huntington	WMUL	LIC	CX WV	123.5 303.9	59.91 BLED20121018AAX	38 25 26.5 82 25 43.3	1.400 -15	15.6 209	11.0 Marshall University Board	16.5	6.9
201A Blaine	NONE	CP	DCX KY	182.3 2.3	65.00 BNPED20071022AYP	38 08 15.0 83 01 54.0	0.835 190	27.3 457	18.3 Lighthouse Christian Fello	15.1	12.9
201A Point Pleasant	WVRR	LIC	DC WV	79.3 259.9	76.91 BLED20001129AAA	38 50 49.0 82 07 50.0	3.000 88	24.7 293	16.6 Positive Alternative Radio	23.1	16.4
203A Morehead	WBMK	LIC	CX KY	210.3 30.1	70.11 BLED20050511AAY	38 10 38.0 83 24 24.0	0.600 159	28.5 454	19.3 American Family Associatio	21.1	20.5
202D Inez	W202BH	LIC	C KY	156.0 336.3	106.03 BLFT19990713UA	37 50 58.0 82 30 35.0	0.013 100	21.7 375	6.5 Morehead State University	58.8	23.5
203B Charleston	WVPN	LIC	DCX WV	107.8 288.6	123.37 BLED20060622AAJ	38 22 34.3 81 39 24.0	44.000 134	70.8 384	46.7 West Virginia Educational	25.0	35.0
202C2 Lerose	WEBF	LIC	DCX KY	205.6 25.2	136.44 BLED20110621AAC	37 36 47.0 83 40 18.0	7.800 282	81.9 569	29.1 Hour Of Harvest, Inc.	35.6	44.2
202B1 Marietta	WMRT	LIC	CN OH	59.6 240.6	155.49 BLED1479	39 25 07.0 81 26 32.0	9.200 62	85.7 297	24.1 Marietta College	41.8	50.5
201A Grove City	WGV	LIC	DVX OH	353.8 173.7	111.52 BLED20080909ACP	39 43 16.0 83 08 36.0	5.400 83	35.0 327	23.2 American Family Associatio	47.1	43.9
202A Cincinnati	WAIF	LIC	C OH	289.8 108.8	136.25 BLED20120425AAU	39 07 36.0 84 29 06.0	1.600 120	70.5 321	22.9 The Real Stepchild Radio O	45.3	47.4
201B1 Grove City	WGV	APP	CX OH	7.2 187.3	118.57 BPED20130103AAG	39 46 55.6 82 49 38.9	6.700 99	39.7 355	25.8 American Family Associatio	50.2	49.6
202A South Vienna	WOAR	LIC	VX OH	338.9 158.5	144.12 BLED20060803ADL	39 55 54.0 83 36 36.0	1.000 85	56.6 425	16.6 Educational Media Foundati	61.4	50.3
201A Mount Sterling	WAXG	LIC	CN KY	228.8 48.2	111.10 BLED19980617KA	38 03 39.0 83 57 20.0	0.300 53	12.4 337	8.8 American Family Associatio	70.8	60.2
204B Batavia	WOBO	LIC	DEN OH	292.0 111.4	102.26 BLED19880202KB	39 03 43.0 84 05 50.0	15.500 142	3.8 402	37.9 Educational Community Radi	78.5	62.5

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= - Zone 2, 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.  
 < = Contour Overlap

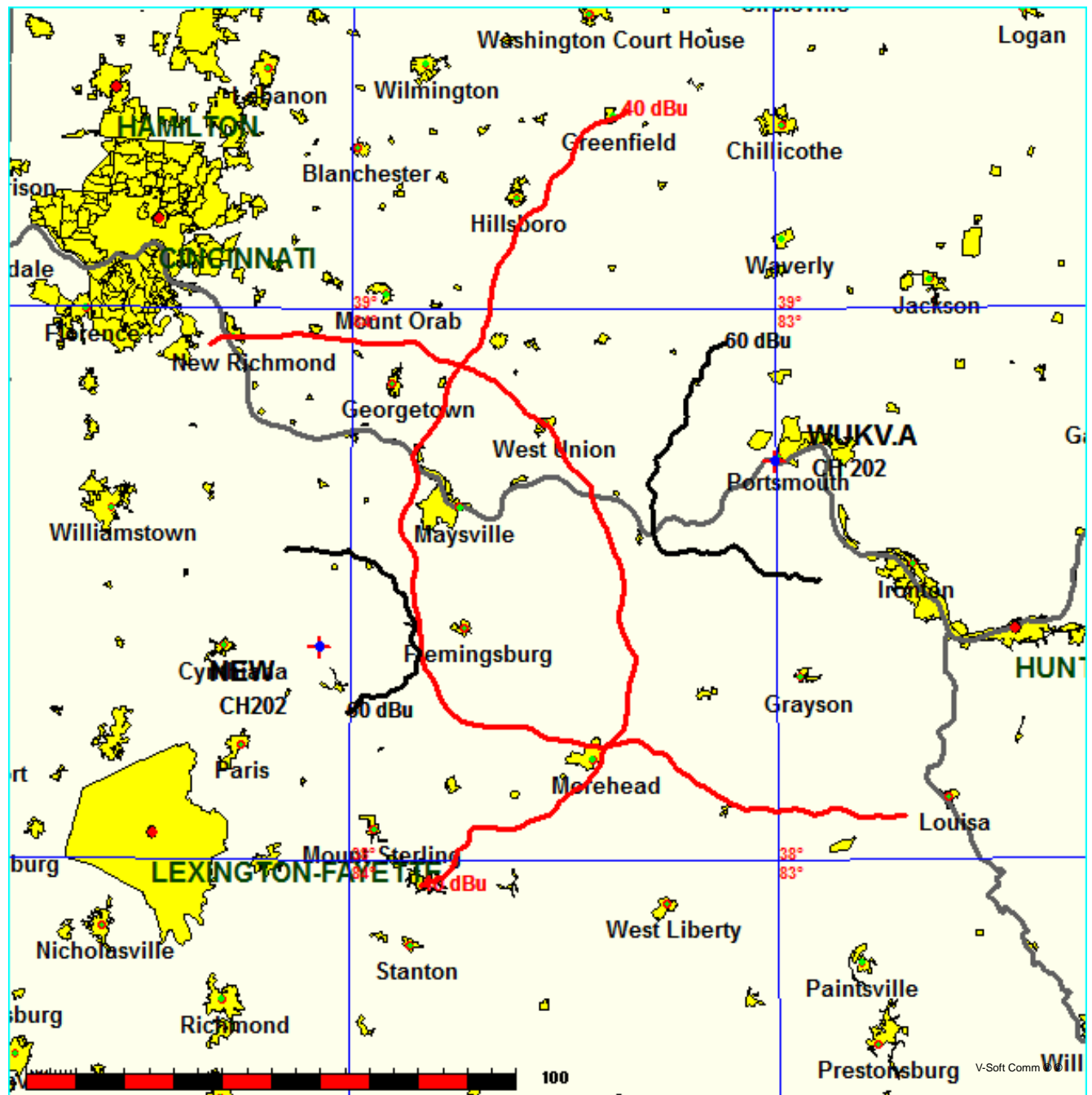
FMCommander Single Allocation Study - 11-01-2012 - NGDC 30 SEC  
WUKV.A's Overlaps (In= 10.24 km, Out= 1.59 km)

WUKV.A CH 202 A

Lat= 38 43 21.1, Lng= 83 00 05.4  
1.65 kW 154.5 M HAAT, 373 M COR  
Prot.= 60 dBu, Intef.= 40 dBu

NEW CH 202 A BNPED20071012AQQ

Lat= 38 23 19.0, Lng= 84 04 07.0  
1.3 kW 81 M HAAT, 332 M COR  
Prot.= 60 dBu, Intef.= 40 dBu



**NEW vs. WUKV.P**

02-19-2013      Terrain Data: NGDC 30 SEC      FMOver Analysis

NEW    BNPED20071012AQQ

WUKV. A

Channel = 202A  
Max ERP = 1.3 kW  
RCAMSL = 332 M  
N. Lat. 38 23 19.0  
W. Lng. 84 04 07.0  
Protected  
60 dBu

Channel = 202A  
Max ERP = 1.65 kW  
RCAMSL = 373.7 M  
N. Lat. 38 43 21.4  
W. Lng. 83 00 05.1  
Interfering  
40 dBu

Azi muth (degrees)	ERP (kW)	HAAT (m)	Di st (km)	Azi muth (degrees)	ERP (kW)	HAAT (m)	Di st (km)	Actual (dBu)	I X (km)
050.0	001.3000	0098.2	019.7	252.8	001.6500	0163.7	081.6	38.71	
051.0	001.3000	0096.6	019.5	252.5	001.6500	0165.1	081.6	38.76	
052.0	001.3000	0095.3	019.4	252.3	001.6500	0166.4	081.6	38.82	
053.0	001.3000	0094.4	019.3	252.0	001.6500	0167.6	081.6	38.87	
054.0	001.3000	0093.9	019.2	251.8	001.6500	0168.7	081.6	38.93	
055.0	001.3000	0094.5	019.3	251.6	001.6500	0169.6	081.4	39.02	
056.0	001.3000	0095.8	019.4	251.4	001.6500	0170.4	081.2	39.13	
057.0	001.3000	0097.7	019.6	251.2	001.6500	0171.2	080.9	39.25	
058.0	001.3000	0099.8	019.9	251.0	001.6500	0172.0	080.6	39.37	
059.0	001.3000	0100.7	020.0	250.7	001.6500	0172.8	080.4	39.46	
060.0	001.3000	0100.0	019.9	250.5	001.6500	0173.5	080.5	39.49	
061.0	001.3000	0098.2	019.7	250.2	001.6500	0174.1	080.6	39.47	
062.0	001.3000	0096.2	019.5	250.0	001.6500	0174.6	080.8	39.44	
063.0	001.3000	0095.0	019.3	249.7	001.6500	0174.9	080.8	39.42	
064.0	001.3000	0094.7	019.3	249.5	001.6500	0175.2	080.8	39.44	
065.0	001.3000	0095.0	019.4	249.2	001.6500	0175.5	080.8	39.47	
066.0	001.3000	0095.3	019.4	249.0	001.6500	0175.8	080.7	39.50	
067.0	001.3000	0095.4	019.4	248.8	001.6500	0176.2	080.7	39.52	
068.0	001.3000	0095.5	019.4	248.5	001.6500	0176.5	080.7	39.54	
069.0	001.3000	0095.5	019.4	248.3	001.6500	0176.9	080.7	39.55	
070.0	001.3000	0095.3	019.4	248.0	001.6500	0177.3	080.7	39.56	
071.0	001.3000	0095.2	019.4	247.8	001.6500	0177.7	080.8	39.56	
072.0	001.3000	0095.2	019.4	247.5	001.6500	0178.0	080.8	39.57	
073.0	001.3000	0096.0	019.5	247.3	001.6500	0178.4	080.7	39.60	
074.0	001.3000	0097.2	019.6	247.1	001.6500	0178.8	080.6	39.65	
075.0	001.3000	0098.0	019.7	246.8	001.6500	0179.4	080.6	39.69	
076.0	001.3000	0098.2	019.7	246.6	001.6500	0180.0	080.6	39.70	
077.0	001.3000	0098.1	019.7	246.3	001.6500	0180.7	080.7	39.71	
078.0	001.3000	0097.7	019.6	246.1	001.6500	0181.5	080.8	39.70	
079.0	001.3000	0096.6	019.5	245.9	001.6500	0182.3	081.0	39.67	
080.0	001.3000	0095.3	019.4	245.7	001.6500	0183.0	081.2	39.63	
081.0	001.3000	0094.1	019.2	245.5	001.6500	0183.8	081.5	39.60	
082.0	001.3000	0092.6	019.1	245.3	001.6500	0184.6	081.7	39.55	
083.0	001.3000	0090.5	018.8	245.1	001.6500	0185.3	082.0	39.47	
084.0	001.3000	0088.4	018.6	244.9	001.6500	0185.9	082.4	39.39	
085.0	001.3000	0087.8	018.5	244.7	001.6500	0186.8	082.6	39.37	
086.0	001.3000	0088.7	018.6	244.5	001.6500	0187.8	082.6	39.40	
087.0	001.3000	0089.8	018.8	244.3	001.6500	0188.8	082.6	39.44	
088.0	001.3000	0091.4	019.0	244.0	001.6500	0190.0	082.5	39.50	
089.0	001.3000	0094.1	019.3	243.7	001.6500	0191.5	082.4	39.60	
090.0	001.3000	0097.3	019.6	243.4	001.6500	0193.0	082.3	39.72	

**Educational Media Foundation**  
5700 West Oaks Boulevard  
Rocklin, CA 95765

*Exhibit 18-A1*  
*Portsmouth, OH*

091.0	001.3000	0100.4	019.9	243.1	001.6500	0194.6	082.1	39.82
092.0	001.3000	0103.6	020.3	242.7	001.6500	0196.1	082.0	39.92
093.0	001.3000	0104.1	020.3	242.5	001.6500	0197.2	082.1	39.92
094.0	001.3000	0103.2	020.2	242.3	001.6500	0198.1	082.4	39.87
095.0	001.3000	0102.1	020.1	242.2	001.6500	0198.8	082.7	39.81
096.0	001.3000	0100.5	019.9	242.0	001.6500	0199.4	083.0	39.72
097.0	001.3000	0100.0	019.9	241.8	001.6500	0200.2	083.3	39.68
098.0	001.3000	0100.0	019.9	241.7	001.6500	0201.0	083.5	39.65
099.0	001.3000	0099.5	019.8	241.5	001.6500	0201.7	083.7	39.59
100.0	001.3000	0100.2	019.9	241.3	001.6500	0202.5	083.9	39.57
101.0	001.3000	0100.8	020.0	241.1	001.6500	0203.2	084.1	39.55
102.0	001.3000	0101.6	020.0	240.8	001.6500	0203.9	084.2	39.52
103.0	001.3000	0101.8	020.1	240.7	001.6500	0204.4	084.4	39.47
104.0	001.3000	0102.7	020.2	240.4	001.6500	0204.9	084.6	39.43
105.0	001.3000	0102.8	020.2	240.3	001.6500	0205.2	084.9	39.37
106.0	001.3000	0101.3	020.0	240.2	001.6500	0205.4	085.2	39.26
107.0	001.3000	0097.5	019.6	240.2	001.6500	0205.3	085.7	39.09
108.0	001.3000	0093.4	019.2	240.3	001.6500	0205.2	086.3	38.91
109.0	001.3000	0090.2	018.8	240.3	001.6500	0205.1	086.8	38.76
110.0	001.3000	0089.0	018.7	240.2	001.6500	0205.3	087.1	38.66
111.0	001.3000	0089.5	018.7	240.1	001.6500	0205.5	087.3	38.60
112.0	001.3000	0090.6	018.9	239.9	001.6500	0205.8	087.5	38.55
113.0	001.3000	0091.0	018.9	239.7	001.6500	0206.0	087.8	38.48
114.0	001.3000	0090.4	018.8	239.6	001.6500	0206.0	088.1	38.39
115.0	001.3000	0089.5	018.7	239.6	001.6500	0206.1	088.4	38.29
116.0	001.3000	0087.6	018.5	239.6	001.6500	0206.1	088.8	38.17
117.0	001.3000	0085.7	018.3	239.6	001.6500	0206.1	089.2	38.05
118.0	001.3000	0083.3	018.0	239.6	001.6500	0206.0	089.6	37.91
119.0	001.3000	0080.9	017.7	239.7	001.6500	0206.0	090.0	37.78
120.0	001.3000	0078.7	017.5	239.7	001.6500	0206.0	090.4	37.66
121.0	001.3000	0076.6	017.2	239.8	001.6500	0205.9	090.8	37.54
122.0	001.3000	0075.0	017.0	239.8	001.6500	0205.9	091.2	37.43
123.0	001.3000	0074.3	016.9	239.8	001.6500	0205.9	091.5	37.33
124.0	001.3000	0074.4	016.9	239.7	001.6500	0206.0	091.7	37.26
125.0	001.3000	0073.7	016.8	239.7	001.6500	0206.0	092.0	37.16
126.0	001.3000	0072.0	016.6	239.7	001.6500	0206.0	092.4	37.05
127.0	001.3000	0069.4	016.3	239.8	001.6500	0205.9	092.8	36.93

Educational Media Foundation

FMCommander Single Allocation Study - 02-19-2013 - NGDC 30 SEC  
WUKV.A's Overlaps (In= 16.46 km, Out= 6.85 km)

WUKV.A CH 202 A  
Lat= 38 43 21.4, Lng= 83 00 05.1  
1.65 kW 155.3 M HAAT, 373.7 M COR  
Prot.= 60 dBu, Intef.= 54 dBu

WMUL CH 201 A BLED20121018AAX  
Lat= 38 25 26.5, Lng= 82 25 43.3  
1.4 kW -15 M HAAT, 209 M COR  
Prot.= 60 dBu, Intef.= 54 dBu

