

Channel Study

REFERENCE CH# 257A - 99.3 MHz, Pwr= 0.9 kW DA, HAAT= 256.0 M, COR= 522.3 M DISPLAY DATES
 40 38 03.0 N. Average Protected F(50-50)= 28.2 km DATA 05-30-13
 84 12 29.0 W. Standard Directional SEARCH 05-30-13

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*
257A Cridersville	WVLO	LIC NCX OH		0.0 0.0	0.00 BLH20121220ACJ	40 38 03.0 84 12 29.0	0.115 256	56.4 522	17.7 Educational Media Foundati	-86.7* -107.0*	
255B Woodburn	WBYR^	LIC CX IN		302.2 121.7	67.28 BLH20080930BKE	40 57 14.0 84 53 07.0	50.000 150	5.8 387	64.1 Pathfinder Communications	32.6 0.0	
256B Dayton	WHKO^	LIC C OH		182.0 1.9	100.02 BMLH20010810AAV	39 44 02.0 84 14 53.0	50.000 150	77.3 413	64.1 Cox Radio, Inc.	5.9 0.4	
257A Van Buren	WCJC<	LIC CX IN		272.2 91.3	120.34 BMLH20120305AAS	40 40 01.0 85 37 49.0	3.000 100	76.3 356	24.5 Hoosier Am/fm, Llc	114.5R 5.8M	
204A Anna	WHJM	LIC VX OH		175.3 355.3	18.60 BLED20060612ABD	40 28 01.8 84 11 24.2	1.000 97	79.4 396	24.6 Radio Maria, Inc.	9.5R 9.1M	
259A Paulding	WKSD<	LIC CN OH		325.8 145.5	57.19 BLH19890823KC	41 03 32.0 84 35 30.0	3.000 100	2.2 320	23.8 First Family Broadcasting,	30.5R 26.7M	
256B1 Fremont	WFRO-FM<	LIC CX OH		48.7 229.5	124.39 BLH20060822AHE	41 21 58.0 83 05 20.0	11.500 111	52.4 301	39.5 Bas Broadcasting, Inc.	95.5R 28.9M	
260B Kettering	WCHD<	LIC CX OH		180.1 0.1	101.28 BMLH20120315ACW	39 43 19.0 84 12 33.0	28.000 200	6.0 467	65.9 Citicasters Licenses, Inc.	68.5R 32.8M	
203A Kenton	WKEN	LIC CX OH		84.8 265.2	50.86 BLED20120504ADB	40 40 25.0 83 36 32.0	0.650 59	79.4 351	24.6 Soaring Eagle Promotions,	9.5R 41.4M	
257A Sturgis	WBET-FM<	LIC C MI		321.7 140.9	161.93 BLH20090925ACG	41 46 11.0 85 25 09.0	4.400 100	80.4 367	25.4 Swick Broadcasting Company	114.5R 47.4M	
259B Columbus	WRKZ<	LIC CN OH		126.0 306.8	124.45 BLH19881128KA	39 58 16.0 83 01 40.0	20.000 239	5.6 484	64.2 North American Broadcastin	68.5R 56.0M	
260B Toledo	WKKO<	LIC ZCX OH		28.6 209.1	131.14 BLH20031224AAU	41 40 05.0 83 27 11.0	50.000 152	6.0 333	65.1 Cumulus Licensing Llc	68.5R 62.6M	

Terrain database is 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= - Zone 1, 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.

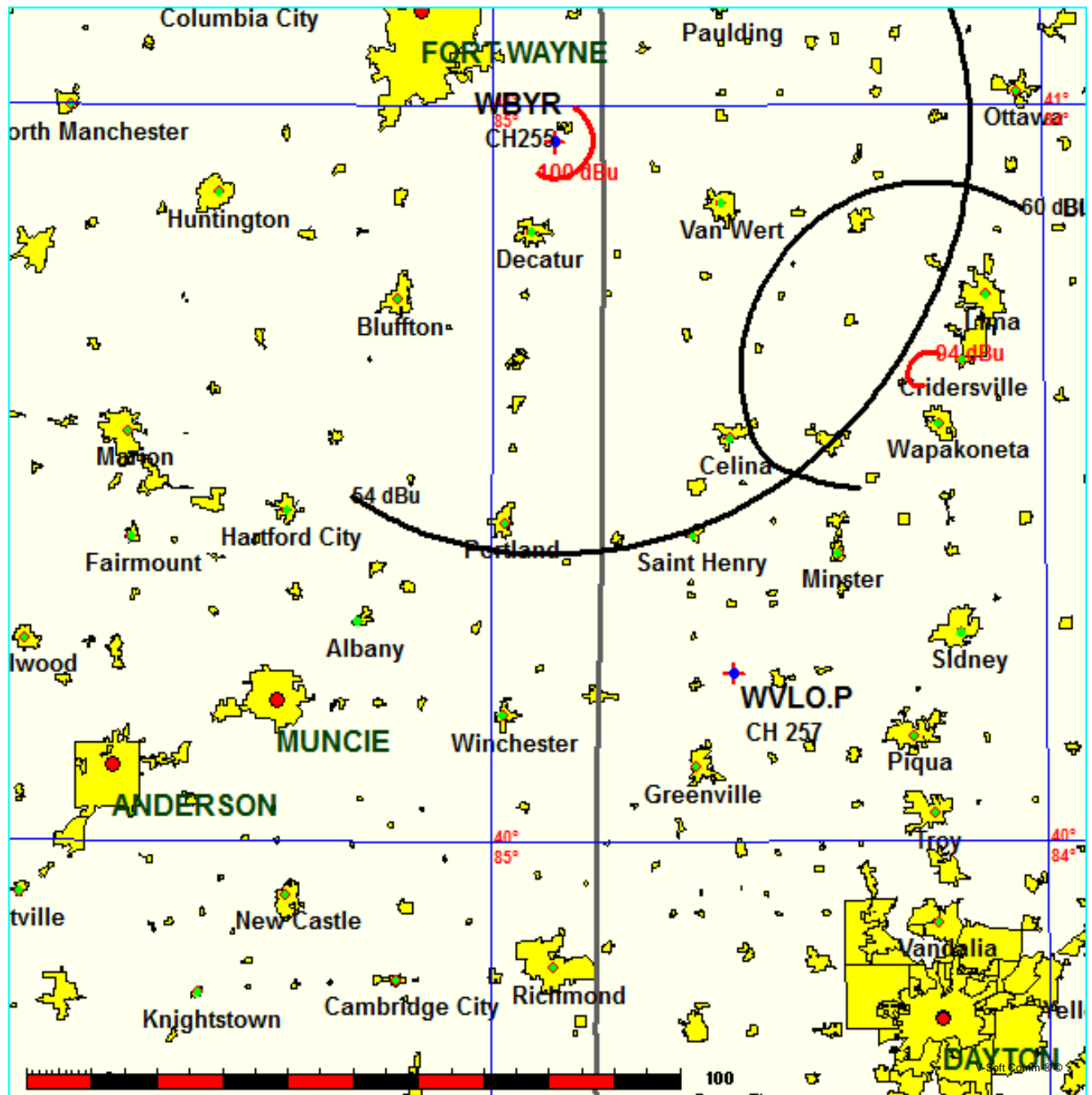
^ = Power and antenna height 'Max classed' as per Sec 73.215 protection requirements

Reference station has protected zone issue:

FMCommander Single Allocation Study - 05-30-2013 - NGDC 30 SEC
WVLO.P's Overlaps (In= 0.0 km, Out= 0.0 km)

WVLO.P CH 257 A DA
Lat= 40 38 03.0, Lng= 84 12 29.0
0.9 kW 256 M HAAT, 522.3 M COR
Prot.= 60 dBu, Intef.= 94 dBu

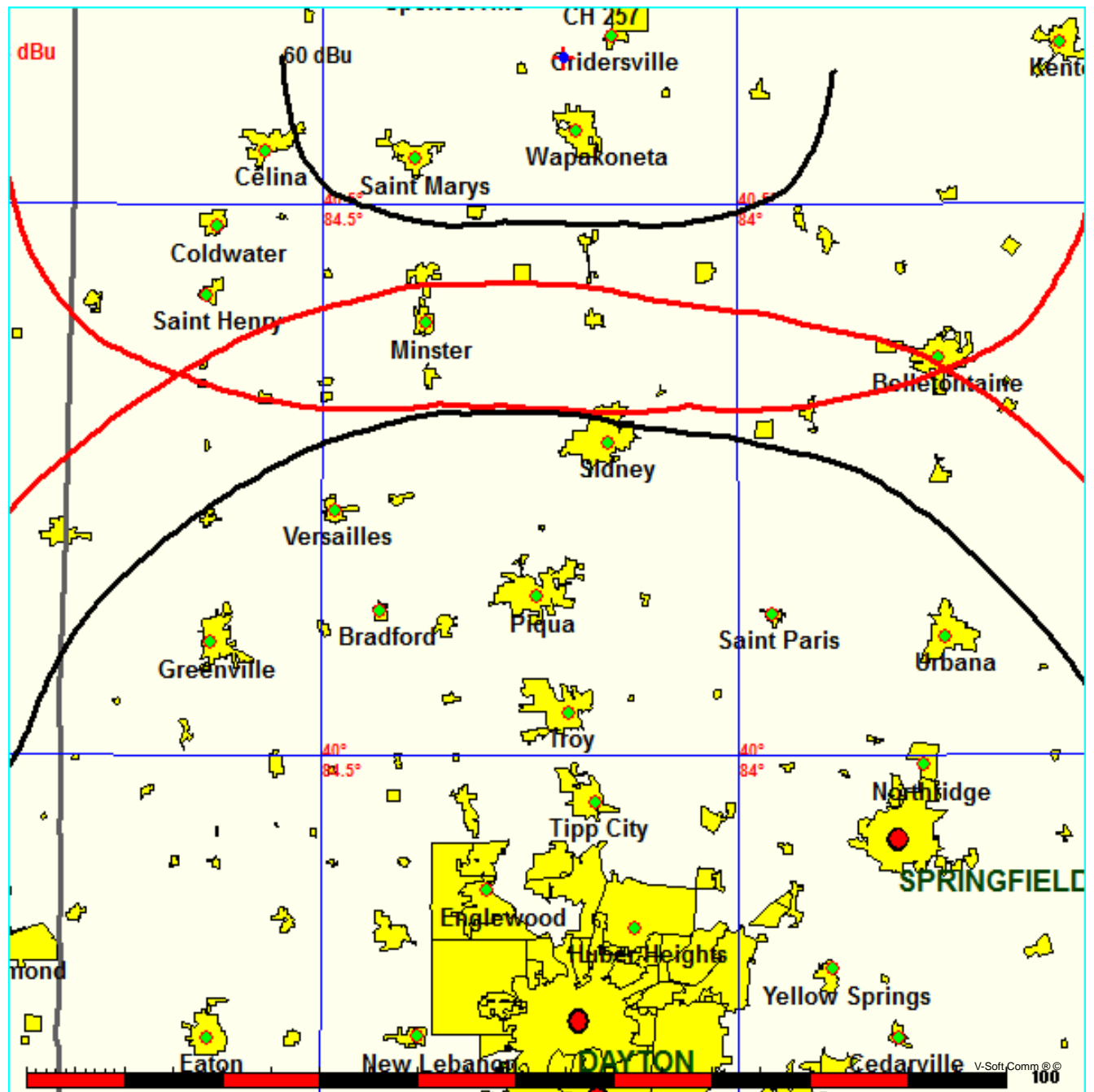
WBYR CH 255 B BLH20080930BKE
Lat= 40 57 14.0, Lng= 84 53 07.0
50.0 kW 138 M HAAT, 375 M COR
Prot.= 54 dBu, Intef.= 100 dBu



FMCommander Single Allocation Study - 05-30-2013 - NGDC 30 SEC
WVLO.P's Overlaps (In= 5.93 km, Out= 0.38 km)

WVLO.P CH 257 A DA
Lat= 40 38 03.0, Lng= 84 12 29.0
0.9 kW 256 M HAAT, 522.3 M COR
Prot.= 60 dBu, Intef.= 48 dBu

WHKO^ CH 256 B BMLH20010810AAV
Lat= 39 44 02.0, Lng= 84 14 53.0
Max CIs: 50.0 kW 150 M HAAT, 413 M COR
Prot.= 54 dBu, Intef.= 54 dBu



WVLO.P vs. WHKO

EMF
05-30-2013 Terrain Data: NGDC 30 SEC FMOver Analysis

WVLO.P

Channel = 257A
Max ERP = 0.9 kW
RCAMSL = 522.3 M
N. Lat. 40 38 03.0
W. Lng. 84 12 29.0
Protected
60 dBu

WHKO BMLH20010810AAV
(^ Max Class Parameters)
Channel = 256B
Max ERP = 50 kW
RCAMSL = 413 M
N. Lat. 39 44 02.0
W. Lng. 84 14 53.0
Interfering
54 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)
122.0	000.7535	0236.1	026.1	016.4	050.0000	0145.2	089.9	50.28	
123.0	000.7217	0236.1	025.8	016.1	050.0000	0144.8	089.5	50.37	
124.0	000.6906	0236.2	025.6	015.9	050.0000	0144.4	089.1	50.45	
125.0	000.6602	0236.3	025.3	015.6	050.0000	0144.0	088.8	50.53	
126.0	000.6305	0236.3	025.0	015.4	050.0000	0143.7	088.5	50.61	
127.0	000.6015	0236.5	024.8	015.1	050.0000	0143.4	088.2	50.69	
128.0	000.5731	0236.6	024.5	014.8	050.0000	0143.1	087.9	50.77	
129.0	000.5455	0236.8	024.2	014.6	050.0000	0142.8	087.6	50.84	
130.0	000.5185	0237.0	024.0	014.3	050.0000	0142.5	087.3	50.90	
131.0	000.4974	0236.9	023.7	014.0	050.0000	0142.3	087.0	50.97	
132.0	000.4767	0236.6	023.5	013.8	050.0000	0142.0	086.8	51.03	
133.0	000.4565	0236.2	023.2	013.5	050.0000	0141.7	086.6	51.09	
134.0	000.4367	0236.0	023.0	013.2	050.0000	0141.5	086.3	51.15	
135.0	000.4174	0236.0	022.7	013.0	050.0000	0141.3	086.1	51.20	
136.0	000.3985	0236.3	022.5	012.7	050.0000	0141.1	085.9	51.25	
137.0	000.3800	0236.7	022.3	012.4	050.0000	0141.0	085.7	51.30	
138.0	000.3620	0237.0	022.0	012.1	050.0000	0140.9	085.5	51.35	
139.0	000.3444	0237.2	021.8	011.9	050.0000	0140.8	085.4	51.39	
140.0	000.3272	0237.4	021.5	011.6	050.0000	0140.7	085.2	51.43	
141.0	000.3160	0237.4	021.3	011.3	050.0000	0140.6	085.1	51.48	
142.0	000.3049	0237.3	021.2	011.1	050.0000	0140.5	084.9	51.52	
143.0	000.2940	0237.2	021.0	010.8	050.0000	0140.4	084.7	51.56	
144.0	000.2832	0237.2	020.8	010.5	050.0000	0140.3	084.6	51.60	
145.0	000.2727	0237.1	020.6	010.3	050.0000	0140.2	084.5	51.63	
146.0	000.2624	0236.9	020.4	010.0	050.0000	0140.1	084.4	51.66	
147.0	000.2523	0236.7	020.2	009.7	050.0000	0140.0	084.3	51.69	
148.0	000.2424	0236.7	020.0	009.5	050.0000	0139.9	084.2	51.71	
149.0	000.2327	0236.8	019.8	009.2	050.0000	0139.8	084.1	51.73	
150.0	000.2232	0237.1	019.6	009.0	050.0000	0139.8	084.0	51.75	
151.0	000.2150	0237.5	019.4	008.7	050.0000	0139.8	084.0	51.77	
152.0	000.2070	0237.8	019.3	008.5	050.0000	0139.9	083.9	51.80	
153.0	000.1991	0238.2	019.1	008.2	050.0000	0140.0	083.8	51.82	
154.0	000.1914	0238.6	018.9	007.9	050.0000	0140.1	083.8	51.84	
155.0	000.1839	0238.9	018.7	007.7	050.0000	0140.4	083.8	51.86	
156.0	000.1765	0239.1	018.5	007.4	050.0000	0140.6	083.7	51.87	
157.0	000.1692	0239.2	018.3	007.2	050.0000	0140.9	083.8	51.88	
158.0	000.1621	0239.3	018.1	006.9	050.0000	0141.2	083.8	51.89	
159.0	000.1552	0239.5	017.9	006.7	050.0000	0141.5	083.8	51.90	
160.0	000.1484	0239.7	017.7	006.4	050.0000	0141.8	083.8	51.90	
161.0	000.1463	0239.9	017.7	006.2	050.0000	0142.0	083.7	51.93	
162.0	000.1443	0240.1	017.6	006.0	050.0000	0142.2	083.7	51.97	

163.0	000.1423	0240.3	017.6	005.8	050.0000	0142.4	083.6	51.99
164.0	000.1403	0240.5	017.5	005.6	050.0000	0142.5	083.5	52.02
165.0	000.1383	0240.8	017.5	005.4	050.0000	0142.6	083.5	52.04
166.0	000.1363	0241.2	017.4	005.2	050.0000	0142.6	083.4	52.06
167.0	000.1344	0241.6	017.4	005.0	050.0000	0142.6	083.4	52.07
168.0	000.1324	0241.9	017.3	004.8	050.0000	0142.6	083.3	52.08
169.0	000.1305	0242.1	017.2	004.6	050.0000	0142.7	083.3	52.09
170.0	000.1286	0242.4	017.2	004.4	050.0000	0142.7	083.3	52.10
171.0	000.1270	0242.9	017.1	004.2	050.0000	0142.7	083.2	52.11
172.0	000.1255	0243.5	017.1	004.0	050.0000	0142.8	083.2	52.12
173.0	000.1239	0243.9	017.1	003.7	050.0000	0142.9	083.2	52.13
174.0	000.1224	0244.3	017.0	003.5	050.0000	0142.9	083.2	52.14
175.0	000.1209	0244.7	017.0	003.3	050.0000	0143.0	083.2	52.14
176.0	000.1194	0245.0	016.9	003.1	050.0000	0143.0	083.2	52.14
177.0	000.1179	0245.2	016.9	002.9	050.0000	0143.1	083.2	52.14
178.0	000.1164	0245.6	016.8	002.7	050.0000	0143.1	083.2	52.14
179.0	000.1149	0246.0	016.8	002.5	050.0000	0143.1	083.2	52.13
180.0	000.1134	0246.4	016.8	002.3	050.0000	0143.1	083.3	52.12
181.0	000.1134	0246.5	016.8	002.1	050.0000	0143.2	083.3	52.13
182.0	000.1134	0246.5	016.8	001.9	050.0000	0143.3	083.3	52.13
183.0	000.1134	0246.5	016.8	001.7	050.0000	0143.3	083.3	52.13
184.0	000.1134	0246.9	016.8	001.5	050.0000	0143.3	083.3	52.14
185.0	000.1134	0247.3	016.8	001.3	050.0000	0143.4	083.3	52.14
186.0	000.1134	0247.5	016.8	001.1	050.0000	0143.4	083.3	52.13
187.0	000.1134	0247.6	016.8	000.9	050.0000	0143.4	083.3	52.13
188.0	000.1134	0247.7	016.8	000.7	050.0000	0143.5	083.3	52.12
189.0	000.1134	0248.1	016.8	000.5	050.0000	0143.5	083.4	52.11
190.0	000.1134	0248.4	016.8	000.3	050.0000	0143.5	083.4	52.11
191.0	000.1153	0248.7	016.9	000.1	050.0000	0143.6	083.4	52.12
192.0	000.1173	0248.9	017.0	359.9	050.0000	0143.6	083.3	52.13
193.0	000.1192	0249.1	017.1	359.7	050.0000	0143.7	083.3	52.13
194.0	000.1212	0249.2	017.2	359.5	050.0000	0143.7	083.3	52.14
195.0	000.1232	0249.3	017.2	359.3	050.0000	0143.7	083.3	52.14
196.0	000.1252	0249.4	017.3	359.1	050.0000	0143.7	083.3	52.13
197.0	000.1272	0249.5	017.4	358.9	050.0000	0143.7	083.3	52.13
198.0	000.1293	0249.7	017.5	358.6	050.0000	0143.8	083.4	52.12
199.0	000.1313	0249.8	017.6	358.4	050.0000	0143.9	083.4	52.12
200.0	000.1334	0249.9	017.6	358.2	050.0000	0144.0	083.4	52.11
201.0	000.1392	0250.0	017.8	358.0	050.0000	0144.1	083.4	52.14
202.0	000.1452	0250.1	018.0	357.7	050.0000	0144.2	083.3	52.16
203.0	000.1512	0250.2	018.2	357.5	050.0000	0144.2	083.3	52.17
204.0	000.1574	0250.3	018.4	357.2	050.0000	0144.3	083.2	52.19
205.0	000.1637	0250.4	018.6	357.0	050.0000	0144.4	083.2	52.20
206.0	000.1701	0250.6	018.8	356.7	050.0000	0144.5	083.2	52.20
207.0	000.1767	0250.7	019.0	356.4	050.0000	0144.5	083.2	52.20
208.0	000.1834	0250.8	019.2	356.2	050.0000	0144.6	083.2	52.20
209.0	000.1902	0250.8	019.4	355.9	050.0000	0144.6	083.3	52.20
210.0	000.1971	0250.8	019.5	355.7	050.0000	0144.6	083.3	52.18
211.0	000.2070	0250.9	019.8	355.4	050.0000	0144.6	083.3	52.18
212.0	000.2171	0251.0	020.0	355.1	050.0000	0144.6	083.3	52.18
213.0	000.2275	0251.1	020.2	354.8	050.0000	0144.6	083.3	52.17
214.0	000.2381	0251.3	020.5	354.5	050.0000	0144.7	083.4	52.16
215.0	000.2490	0251.5	020.7	354.2	050.0000	0144.8	083.4	52.15
216.0	000.2601	0251.6	020.9	353.9	050.0000	0145.1	083.5	52.14
217.0	000.2715	0251.7	021.2	353.7	050.0000	0145.5	083.6	52.14
218.0	000.2830	0251.8	021.4	353.4	050.0000	0145.9	083.7	52.12
219.0	000.2949	0251.8	021.6	353.1	050.0000	0146.3	083.8	52.10
220.0	000.3070	0251.8	021.8	352.8	050.0000	0146.5	083.9	52.07
221.0	000.3224	0251.7	022.1	352.5	050.0000	0146.7	084.1	52.05
222.0	000.3382	0251.8	022.3	352.2	050.0000	0147.0	084.2	52.02
223.0	000.3544	0251.8	022.6	351.9	050.0000	0147.3	084.3	51.99
224.0	000.3709	0251.9	022.8	351.6	050.0000	0147.5	084.5	51.96
225.0	000.3879	0252.1	023.0	351.3	050.0000	0147.7	084.7	51.91

226.0	000.4052	0252.2	023.3	351.0	050.0000	0147.8	084.8	51.86
227.0	000.4229	0252.5	023.5	350.7	050.0000	0147.8	085.0	51.80
228.0	000.4410	0252.8	023.8	350.5	050.0000	0147.7	085.2	51.73
229.0	000.4595	0253.1	024.0	350.2	050.0000	0147.6	085.5	51.66
230.0	000.4783	0253.4	024.3	349.9	050.0000	0147.4	085.7	51.58
231.0	000.5034	0253.7	024.6	349.6	050.0000	0147.3	085.9	51.51
232.0	000.5292	0254.0	024.9	349.3	050.0000	0147.3	086.2	51.44
233.0	000.5556	0254.5	025.2	349.0	050.0000	0147.3	086.4	51.36
234.0	000.5826	0255.1	025.5	348.7	050.0000	0147.2	086.7	51.28
235.0	000.6103	0256.0	025.8	348.4	050.0000	0147.1	087.0	51.19
236.0	000.6387	0257.1	026.1	348.1	050.0000	0146.9	087.3	51.09
237.0	000.6677	0258.5	026.5	347.7	050.0000	0146.7	087.6	51.00
238.0	000.6973	0259.9	026.8	347.4	050.0000	0146.6	087.9	50.90
239.0	000.7275	0261.0	027.1	347.1	050.0000	0146.5	088.3	50.79
240.0	000.7585	0261.8	027.4	346.9	050.0000	0146.4	088.6	50.68
241.0	000.7721	0262.5	027.6	346.7	050.0000	0146.4	089.0	50.56

05-30-2013 Terrain Data: NGDC 30 SEC FMOver Analysis

WHKO BMLH20010810AAV
(^ Max Class Parameters)
Channel = 256B
Max ERP = 50 kW
RCAMSL = 413 M
N. Lat. 39 44 02.0
W. Lng. 84 14 53.0
Protected
54 dBu

WVLO.P
Channel = 257A
Max ERP = 0.9 kW
RCAMSL = 522.3 M
N. Lat. 40 38 03.0
W. Lng. 84 12 29.0
Interfering
48 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)
302.0	050.0000	0119.7	060.6	218.9	000.2942	0251.8	087.1	32.79	
303.0	050.0000	0120.9	060.7	219.2	000.2972	0251.8	086.2	33.15	
304.0	050.0000	0122.2	061.0	219.4	000.2997	0251.8	085.1	33.51	
305.0	050.0000	0123.8	061.2	219.6	000.3024	0251.8	084.1	33.89	
306.0	050.0000	0125.4	061.5	219.8	000.3051	0251.8	083.0	34.26	
307.0	050.0000	0127.0	061.7	220.1	000.3079	0251.8	082.0	34.64	
308.0	050.0000	0128.5	061.9	220.3	000.3109	0251.8	080.9	35.03	
309.0	050.0000	0129.8	062.1	220.4	000.3134	0251.8	079.8	35.42	
310.0	050.0000	0131.1	062.3	220.6	000.3157	0251.8	078.8	35.80	
311.0	050.0000	0132.2	062.5	220.7	000.3176	0251.7	077.7	36.19	
312.0	050.0000	0133.1	062.6	220.8	000.3190	0251.7	076.6	36.57	
313.0	050.0000	0133.9	062.8	220.8	000.3200	0251.7	075.5	36.94	
314.0	050.0000	0134.6	062.9	220.9	000.3206	0251.7	074.4	37.32	
315.0	050.0000	0135.3	063.0	220.9	000.3208	0251.7	073.3	37.69	
316.0	050.0000	0135.8	063.0	220.9	000.3206	0251.7	072.2	38.06	
317.0	050.0000	0136.2	063.1	220.9	000.3201	0251.7	071.1	38.42	
318.0	050.0000	0136.6	063.2	220.8	000.3191	0251.7	070.0	38.78	
319.0	050.0000	0136.9	063.2	220.7	000.3176	0251.7	068.9	39.14	
320.0	050.0000	0137.1	063.2	220.6	000.3158	0251.8	067.8	39.49	
321.0	050.0000	0137.3	063.3	220.4	000.3135	0251.8	066.7	39.83	
322.0	050.0000	0137.5	063.3	220.3	000.3111	0251.8	065.6	40.18	
323.0	050.0000	0137.9	063.3	220.1	000.3085	0251.8	064.5	40.52	
324.0	050.0000	0138.3	063.4	219.9	000.3059	0251.8	063.4	40.87	
325.0	050.0000	0138.7	063.5	219.7	000.3035	0251.8	062.3	41.23	
326.0	050.0000	0139.2	063.5	219.5	000.3008	0251.8	061.3	41.59	
327.0	050.0000	0139.6	063.6	219.2	000.2977	0251.8	060.2	41.96	
328.0	050.0000	0139.9	063.6	218.9	000.2942	0251.8	059.1	42.32	

329.0	050.0000	0140.4	063.7	218.6	000.2904	0251.8	058.0	42.68
330.0	050.0000	0140.9	063.8	218.3	000.2865	0251.8	057.0	43.04
331.0	050.0000	0141.4	063.9	217.9	000.2822	0251.8	055.9	43.40
332.0	050.0000	0141.7	063.9	217.5	000.2773	0251.8	054.9	43.74
333.0	050.0000	0142.0	064.0	217.0	000.2719	0251.7	053.8	44.07
334.0	050.0000	0142.5	064.0	216.6	000.2664	0251.7	052.8	44.39
335.0	050.0000	0143.1	064.1	216.1	000.2609	0251.6	051.8	44.72
336.0	050.0000	0143.8	064.2	215.5	000.2550	0251.6	050.8	45.03
337.0	050.0000	0144.5	064.3	215.0	000.2487	0251.5	049.8	45.33
338.0	050.0000	0145.2	064.4	214.4	000.2420	0251.4	048.8	45.61
339.0	050.0000	0145.8	064.5	213.7	000.2347	0251.2	047.8	45.87
340.0	050.0000	0146.2	064.5	212.9	000.2268	0251.1	046.8	46.10
341.0	050.0000	0146.5	064.6	212.1	000.2182	0251.0	045.9	46.30
342.0	050.0000	0146.5	064.6	211.2	000.2089	0250.9	045.1	46.47
343.0	050.0000	0146.4	064.6	210.2	000.1992	0250.8	044.2	46.62
344.0	050.0000	0146.2	064.5	209.2	000.1914	0250.8	043.4	46.79
345.0	050.0000	0146.1	064.5	208.1	000.1839	0250.8	042.7	46.95
346.0	050.0000	0146.1	064.5	206.9	000.1763	0250.7	041.9	47.09
347.0	050.0000	0146.5	064.6	205.8	000.1688	0250.5	041.2	47.24
348.0	050.0000	0146.9	064.6	204.6	000.1611	0250.4	040.4	47.36
349.0	050.0000	0147.3	064.7	203.3	000.1532	0250.2	039.7	47.45
350.0	050.0000	0147.5	064.7	202.0	000.1449	0250.1	039.1	47.50
351.0	050.0000	0147.8	064.8	200.6	000.1367	0250.0	038.5	47.53
352.0	050.0000	0147.2	064.7	199.0	000.1314	0249.8	038.0	47.56
353.0	050.0000	0146.3	064.6	197.4	000.1280	0249.6	037.6	47.62
354.0	050.0000	0145.0	064.4	195.7	000.1246	0249.3	037.3	47.63
355.0	050.0000	0144.6	064.3	194.1	000.1213	0249.2	037.0	47.66
356.0	050.0000	0144.6	064.3	192.4	000.1181	0249.0	036.7	47.70
357.0	050.0000	0144.4	064.3	190.7	000.1147	0248.7	036.4	47.69
358.0	050.0000	0144.1	064.2	188.9	000.1134	0248.0	036.2	47.71
359.0	050.0000	0143.7	064.2	187.2	000.1134	0247.6	036.1	47.76
000.0	050.0000	0143.6	064.2	185.4	000.1134	0247.4	036.0	47.81
001.0	050.0000	0143.4	064.1	183.6	000.1134	0246.8	035.9	47.82
002.0	050.0000	0143.2	064.1	181.8	000.1134	0246.5	035.9	47.81
003.0	050.0000	0143.0	064.1	180.1	000.1134	0246.4	036.0	47.78
004.0	050.0000	0142.8	064.1	178.3	000.1159	0245.7	036.1	47.79
005.0	050.0000	0142.6	064.0	176.5	000.1186	0245.1	036.2	47.79
006.0	050.0000	0142.2	064.0	174.8	000.1212	0244.7	036.5	47.75
007.0	050.0000	0141.2	063.8	173.2	000.1237	0244.0	036.9	47.63
008.0	050.0000	0140.1	063.7	171.6	000.1261	0243.3	037.3	47.48
009.0	050.0000	0139.8	063.6	170.0	000.1286	0242.4	037.7	47.36
010.0	050.0000	0140.1	063.7	168.4	000.1317	0242.0	038.0	47.28
011.0	050.0000	0140.4	063.7	166.8	000.1347	0241.6	038.4	47.19
012.0	050.0000	0140.8	063.8	165.3	000.1377	0240.9	038.9	47.06
013.0	050.0000	0141.3	063.9	163.8	000.1406	0240.4	039.3	46.93
014.0	050.0000	0142.2	064.0	162.3	000.1436	0240.2	039.8	46.80
015.0	050.0000	0143.3	064.1	160.9	000.1466	0239.9	040.2	46.66
016.0	050.0000	0144.6	064.3	159.4	000.1523	0239.6	040.7	46.58
017.0	050.0000	0146.4	064.6	158.0	000.1624	0239.3	041.2	46.63
018.0	050.0000	0148.1	064.8	156.6	000.1724	0239.1	041.8	46.64
019.0	050.0000	0149.2	064.9	155.3	000.1817	0238.9	042.5	46.57
020.0	050.0000	0149.7	065.0	154.1	000.1903	0238.6	043.2	46.43
021.0	050.0000	0150.4	065.1	153.0	000.1989	0238.2	044.0	46.27
022.0	050.0000	0151.7	065.3	151.9	000.2078	0237.8	044.7	46.13
023.0	050.0000	0153.5	065.5	150.8	000.2170	0237.4	045.4	45.99
024.0	050.0000	0155.6	065.8	149.6	000.2268	0237.0	046.2	45.85
025.0	050.0000	0157.7	066.1	148.6	000.2370	0236.7	047.0	45.70
026.0	050.0000	0159.8	066.3	147.5	000.2470	0236.7	047.8	45.54
027.0	050.0000	0161.7	066.6	146.6	000.2565	0236.8	048.7	45.35
028.0	050.0000	0163.5	066.8	145.7	000.2653	0237.0	049.6	45.13
029.0	050.0000	0165.0	067.0	144.9	000.2735	0237.1	050.6	44.88
030.0	050.0000	0166.2	067.1	144.2	000.2808	0237.1	051.6	44.59
031.0	050.0000	0166.8	067.2	143.6	000.2870	0237.2	052.6	44.26

032.0	050.0000	0167.0	067.2	143.2	000.2923	0237.2	053.7	43.90
033.0	050.0000	0167.0	067.2	142.7	000.2971	0237.3	054.8	43.53
034.0	050.0000	0167.1	067.2	142.3	000.3016	0237.3	055.9	43.16
035.0	050.0000	0167.2	067.2	141.9	000.3057	0237.4	057.0	42.77
036.0	050.0000	0167.3	067.2	141.6	000.3094	0237.4	058.2	42.38
037.0	050.0000	0167.3	067.2	141.3	000.3127	0237.4	059.3	41.99
038.0	050.0000	0167.2	067.2	141.0	000.3156	0237.4	060.4	41.60
039.0	050.0000	0167.0	067.2	140.8	000.3180	0237.4	061.6	41.20
040.0	050.0000	0166.8	067.2	140.6	000.3202	0237.4	062.7	40.80
041.0	050.0000	0166.6	067.1	140.5	000.3221	0237.4	063.9	40.42
042.0	050.0000	0166.3	067.1	140.3	000.3236	0237.4	065.1	40.03
043.0	050.0000	0165.9	067.1	140.2	000.3248	0237.4	066.2	39.65
044.0	050.0000	0165.6	067.0	140.1	000.3258	0237.4	067.4	39.26
045.0	050.0000	0165.5	067.0	140.0	000.3269	0237.4	068.6	38.88
046.0	050.0000	0165.8	067.0	139.9	000.3286	0237.4	069.7	38.50
047.0	050.0000	0166.3	067.1	139.8	000.3304	0237.4	070.9	38.13
048.0	050.0000	0166.8	067.2	139.7	000.3319	0237.4	072.1	37.76
049.0	050.0000	0167.2	067.2	139.7	000.3329	0237.4	073.2	37.38
050.0	050.0000	0167.5	067.2	139.6	000.3334	0237.3	074.4	37.00
051.0	050.0000	0167.8	067.3	139.6	000.3337	0237.3	075.6	36.62
052.0	050.0000	0168.2	067.3	139.6	000.3339	0237.3	076.7	36.23
053.0	050.0000	0168.5	067.4	139.6	000.3337	0237.3	077.9	35.85
054.0	050.0000	0168.7	067.4	139.7	000.3330	0237.4	079.1	35.45
055.0	050.0000	0168.8	067.4	139.7	000.3319	0237.4	080.3	35.06
056.0	050.0000	0168.9	067.4	139.8	000.3307	0237.4	081.4	34.66
057.0	050.0000	0169.3	067.4	139.9	000.3297	0237.4	082.6	34.27
058.0	050.0000	0170.1	067.5	139.9	000.3290	0237.4	083.8	33.88
059.0	050.0000	0171.0	067.6	139.9	000.3282	0237.4	085.0	33.50
060.0	050.0000	0171.7	067.7	140.0	000.3270	0237.4	086.2	33.10
061.0	050.0000	0171.9	067.7	140.1	000.3256	0237.4	087.3	32.71