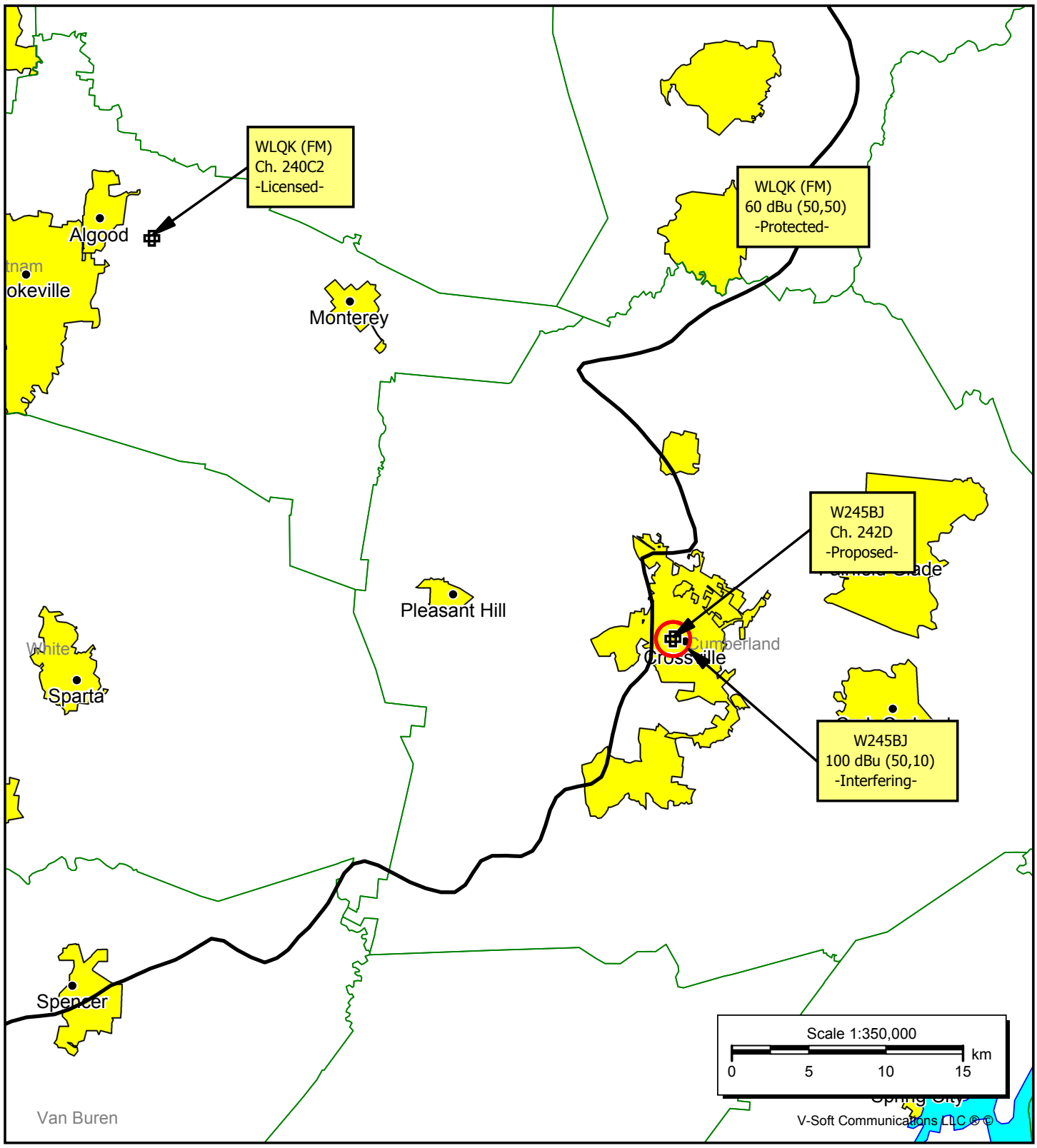

Section 74.1204 Clearance to WLQK (FM)
Translator W245BJ
Seeks Channel 242D - 96.3 MHz
0.250 kW ERP - 609 m COR AMSL
Crossville, Tennessee

Bromo Communications, Inc.
January 2021

§74.1204 Clearance to WLQK (FM)
Translator W245BJ

Seeks Channel 242D – 96.3 MHz
0.250 kW ERP – 609 m COR AMSL
Crossville, Tennessee
January 2021

FM Over Calculation

01-06-2021 Terrain Data: GLOBE 30 Sec FMOver Analysis

WLQK BLH20120614AAD	W245BJ (Proposed)
Channel = 240C2	Channel = 242D
Max ERP = 27 kW	Max ERP = 0.25 kW
RCAMSL = 570 m	RCAMSL = 608.99 m
N. Lat. 36 11 03.20	N. Lat. 35 57 01.00
W. Lng. 85 24 39.90	W. Lng. 85 02 09.00

Protected 60 dBu				Interfering 100 dBu					
Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
068.0	027.0000	0161.2	048.1	014.1	000.2500	0071.5	045.3	36.97	
069.0	027.0000	0154.5	047.3	013.8	000.2500	0071.6	044.1	37.40	
070.0	027.0000	0149.4	046.6	013.7	000.2500	0071.7	043.1	37.80	
071.0	027.0000	0147.8	046.4	014.0	000.2500	0071.5	042.3	38.08	
072.0	027.0000	0149.4	046.6	014.9	000.2500	0071.3	041.7	38.27	
073.0	027.0000	0151.0	046.8	015.7	000.2500	0071.5	041.1	38.51	
074.0	027.0000	0152.5	047.0	016.6	000.2500	0071.4	040.5	38.73	
075.0	027.0000	0152.2	047.0	017.1	000.2500	0071.0	039.8	38.97	
076.0	027.0000	0152.0	046.9	017.7	000.2500	0071.0	039.1	39.26	
077.0	027.0000	0151.9	046.9	018.4	000.2500	0071.6	038.4	39.61	
078.0	027.0000	0150.5	046.7	018.7	000.2500	0072.5	037.6	40.03	
079.0	027.0000	0148.1	046.4	018.9	000.2500	0073.1	036.7	40.47	
080.0	027.0000	0144.1	045.9	018.8	000.2500	0072.7	035.8	40.83	
081.0	027.0000	0138.8	045.2	018.4	000.2500	0071.7	034.7	41.16	
082.0	027.0000	0133.1	044.4	017.8	000.2500	0071.1	033.7	41.54	
083.0	027.0000	0126.3	043.5	017.0	000.2500	0071.1	032.6	42.03	
084.0	027.0000	0119.9	042.7	016.1	000.2500	0071.5	031.6	42.54	
085.0	027.0000	0116.1	042.1	015.7	000.2500	0071.5	030.7	42.97	
086.0	027.0000	0116.9	042.2	016.4	000.2500	0071.4	030.1	43.31	
087.0	027.0000	0118.2	042.4	017.2	000.2500	0071.0	029.4	43.61	
088.0	027.0000	0119.0	042.5	017.9	000.2500	0071.1	028.8	44.00	
089.0	027.0000	0117.8	042.4	018.1	000.2500	0071.3	028.0	44.47	
090.0	027.0000	0115.4	042.0	017.9	000.2500	0071.1	027.2	44.95	
091.0	027.0000	0113.1	041.7	017.7	000.2500	0071.0	026.4	45.46	
092.0	027.0000	0110.8	041.4	017.4	000.2500	0071.0	025.6	45.99	
093.0	027.0000	0106.3	040.7	016.3	000.2500	0071.5	024.8	46.65	
094.0	027.0000	0100.4	039.8	014.5	000.2500	0071.3	023.9	47.27	
095.0	027.0000	0094.1	038.7	012.2	000.2500	0072.4	023.1	48.02	
096.0	027.0000	0088.0	037.6	009.5	000.2500	0067.2	022.3	47.97	
097.0	027.0000	0082.6	036.5	006.8	000.2500	0066.2	021.6	48.39	
098.0	027.0000	0079.2	035.8	004.9	000.2500	0065.7	021.0	48.80	
099.0	027.0000	0076.3	035.2	003.1	000.2500	0061.1	020.5	48.70	

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
100.0	027.0000	0074.2	034.8	001.6	000.2500	0058.0	019.9	48.73	
101.0	027.0000	0072.2	034.4	000.1	000.2500	0055.5	019.4	48.78	
102.0	027.0000	0068.8	033.6	357.6	000.2500	0053.0	019.0	48.72	
103.0	027.0000	0064.1	032.6	354.0	000.2500	0049.0	018.7	48.20	
104.0	027.0000	0059.1	031.4	350.0	000.2500	0047.5	018.6	47.98	
105.0	027.0000	0054.0	030.1	345.8	000.2500	0048.8	018.7	48.14	
106.0	027.0000	0050.4	029.1	342.4	000.2500	0053.4	018.8	48.91	
107.0	027.0000	0049.7	028.9	341.0	000.2500	0055.8	018.5	49.55	
108.0	027.0000	0051.7	029.5	341.4	000.2500	0055.2	017.8	50.09	
109.0	027.0000	0056.6	030.8	343.9	000.2500	0050.4	016.6	50.29	
110.0	027.0000	0063.2	032.4	347.5	000.2500	0048.3	015.3	51.05	
111.0	027.0000	0069.1	033.7	350.7	000.2500	0047.4	014.1	52.02	
112.0	027.0000	0074.3	034.8	353.7	000.2500	0048.9	013.0	53.75	
113.0	027.0000	0080.0	036.0	357.2	000.2500	0052.8	011.9	56.08	
114.0	027.0000	0085.3	037.0	000.6	000.2500	0056.3	010.9	58.29	
115.0	027.0000	0089.2	037.8	003.0	000.2500	0060.9	010.0	60.46	
116.0	027.0000	0092.8	038.5	005.2	000.2500	0066.2	009.1	62.64	
117.0	027.0000	0096.6	039.1	007.8	000.2500	0065.7	008.3	64.18	
118.0	027.0000	0101.3	039.9	011.7	000.2500	0072.2	007.4	66.84	
119.0	027.0000	0104.3	040.4	013.9	000.2500	0071.5	006.5	68.84	
120.0	027.0000	0103.8	040.3	011.3	000.2500	0071.6	005.9	70.73	
121.0	027.0000	0098.4	039.4	000.5	000.2500	0056.2	005.6	69.54	
122.0	027.0000	0092.3	038.4	347.8	000.2500	0048.1	005.7	67.75	
123.0	027.0000	0090.0	037.9	340.0	000.2500	0056.2	005.6	69.57	
124.0	027.0000	0093.5	038.6	338.0	000.2500	0054.1	004.7	72.35	
125.0	027.0000	0098.3	039.4	336.2	000.2500	0051.8	003.7	76.36	
126.0	027.0000	0102.9	040.2	331.5	000.2500	0044.8	002.7	80.63	
127.0	027.0000	0106.2	040.7	319.0	000.2500	0045.5	001.9	86.76	
128.0	027.0000	0109.7	041.2	294.0	000.2500	0043.7	001.4	97.89	
129.0	027.0000	0113.5	041.8	255.2	000.2500	0054.2	001.3	98.30	
130.0	027.0000	0117.4	042.3	227.5	000.2500	0047.3	001.8	87.88	
131.0	027.0000	0119.2	042.6	220.0	000.2500	0037.8	002.6	79.66	
132.0	027.0000	0119.1	042.6	220.6	000.2500	0039.7	003.3	75.47	
133.0	027.0000	0118.8	042.5	221.6	000.2500	0043.9	004.1	72.92	
134.0	027.0000	0119.8	042.6	220.3	000.2500	0038.6	004.8	68.80	
135.0	027.0000	0122.3	043.0	217.6	000.2500	0035.3	005.6	65.44	
136.0	027.0000	0125.8	043.4	214.6	000.2500	0032.6	006.4	62.38	
137.0	027.0000	0129.6	043.9	212.0	000.2500	0028.4	007.3	59.57	
138.0	027.0000	0133.8	044.5	209.6	000.2500	0025.9	008.2	57.63	
139.0	027.0000	0138.2	045.1	207.7	000.2500	0023.6	009.1	55.86	
140.0	027.0000	0141.2	045.5	207.2	000.2500	0023.4	010.0	54.27	
141.0	027.0000	0140.7	045.4	209.2	000.2500	0025.4	010.7	53.06	
142.0	027.0000	0137.7	045.0	212.7	000.2500	0029.2	011.3	52.09	
143.0	027.0000	0135.2	044.7	215.5	000.2500	0034.5	011.9	52.19	
144.0	027.0000	0135.7	044.7	216.3	000.2500	0035.4	012.7	51.25	
145.0	027.0000	0138.9	045.2	215.6	000.2500	0034.7	013.6	49.87	
146.0	027.0000	0143.7	045.8	214.3	000.2500	0032.0	014.5	48.01	
147.0	027.0000	0148.1	046.4	213.4	000.2500	0030.2	015.5	46.60	
148.0	027.0000	0150.7	046.8	213.5	000.2500	0030.4	016.4	45.89	
149.0	027.0000	0150.0	046.7	214.9	000.2500	0033.4	017.1	46.05	
150.0	027.0000	0146.2	046.2	217.5	000.2500	0035.3	017.6	46.08	
151.0	027.0000	0142.9	045.7	219.8	000.2500	0037.2	018.2	46.05	
152.0	027.0000	0142.5	045.7	220.8	000.2500	0040.6	018.9	46.24	
153.0	027.0000	0145.8	046.1	220.5	000.2500	0039.4	019.8	45.23	
154.0	027.0000	0149.4	046.6	220.2	000.2500	0038.2	020.8	44.19	
155.0	027.0000	0150.4	046.7	220.7	000.2500	0040.2	021.6	44.02	
156.0	027.0000	0147.7	046.4	222.5	000.2500	0047.6	022.2	45.12	
157.0	027.0000	0143.1	045.7	224.8	000.2500	0050.8	022.7	45.34	
158.0	027.0000	0137.5	045.0	227.3	000.2500	0047.8	023.1	44.43	

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
159.0	027.0000	0130.8	044.1	230.0	000.2500	0044.1	023.5	43.37	
160.0	027.0000	0124.4	043.2	232.5	000.2500	0050.7	024.0	44.32	
161.0	027.0000	0120.0	042.7	234.3	000.2500	0056.6	024.5	44.90	
162.0	027.0000	0119.7	042.6	234.9	000.2500	0058.3	025.2	44.65	
163.0	027.0000	0122.7	043.0	234.6	000.2500	0057.4	026.1	43.95	
164.0	027.0000	0128.6	043.8	233.6	000.2500	0054.5	027.1	42.86	
165.0	027.0000	0134.6	044.6	232.6	000.2500	0051.0	028.1	41.64	
166.0	027.0000	0139.1	045.2	232.1	000.2500	0049.3	029.0	40.77	
167.0	027.0000	0143.7	045.8	231.6	000.2500	0047.6	030.0	39.94	
168.0	027.0000	0147.2	046.3	231.5	000.2500	0047.3	030.9	39.41	
169.0	027.0000	0152.3	047.0	231.1	000.2500	0046.1	032.0	38.71	
170.0	027.0000	0155.3	047.4	231.2	000.2500	0046.3	032.9	38.38	
171.0	027.0000	0156.6	047.5	231.7	000.2500	0047.7	033.7	38.30	
172.0	027.0000	0152.9	047.1	233.0	000.2500	0052.6	034.2	38.92	
173.0	027.0000	0148.6	046.5	234.5	000.2500	0057.3	034.6	39.45	
174.0	027.0000	0143.5	045.8	236.1	000.2500	0060.6	035.0	39.73	
175.0	027.0000	0141.9	045.6	237.1	000.2500	0061.4	035.6	39.58	
176.0	027.0000	0144.9	046.0	237.1	000.2500	0061.4	036.5	39.21	
177.0	027.0000	0148.1	046.4	237.2	000.2500	0061.4	037.4	38.84	
178.0	027.0000	0151.1	046.8	237.3	000.2500	0061.4	038.3	38.48	
179.0	027.0000	0153.2	047.1	237.5	000.2500	0061.4	039.1	38.15	
180.0	027.0000	0155.3	047.4	237.8	000.2500	0061.3	040.0	37.81	
181.0	027.0000	0158.3	047.8	238.0	000.2500	0061.2	040.9	37.45	
182.0	027.0000	0161.7	048.2	238.2	000.2500	0061.1	041.8	37.09	
183.0	027.0000	0164.7	048.5	238.4	000.2500	0060.9	042.7	36.74	
184.0	027.0000	0170.5	049.2	238.4	000.2500	0060.9	043.8	36.37	
185.0	027.0000	0176.4	049.8	238.4	000.2500	0060.9	044.9	36.00	
186.0	027.0000	0182.2	050.3	238.5	000.2500	0060.8	045.9	35.64	
187.0	027.0000	0187.1	050.7	238.8	000.2500	0060.5	046.8	35.30	

At no point on the WLQK (FM) 60 dBu (protected) contour does the proposed W245BJ deliver more than 100 dBu (interfering).