



Section 74.1204 Clearance to WNGA (FM) (License)

New Translator

Channel 287D - 105.3 MHz

0.051 kW ERP (DA) - 1378 m COR AMSL

Scaly, North Carolina

Bromo Communications, Inc.

March 2013

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FM Over Calculation

03-27-2013 Terrain Data: USGS 03 SEC FMOver Analysis

WNGA BLH20050323ACD

Channel = 286A
Max ERP = 1.7 kW
RCAMSL = 857 M
N. Lat. 34 44 55.0
W. Lng. 83 43 43.0

New Translator
(Proposed)

Channel = 287D
Max ERP = 0.051 kW
RCAMSL = 1378 M
N. Lat. 35 02 06.0
W. Lng. 83 16 23.0

Protected
60 dBu

Interfering
54 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
020.0	001.7000	-0068.1	011.5	241.0	000.0080	0544.8	043.1	40.80	
021.0	001.7000	-0076.0	011.5	240.8	000.0082	0542.5	043.0	40.89	
022.0	001.7000	-0080.7	011.5	240.5	000.0084	0539.9	042.8	40.98	
023.0	001.7000	-0086.3	011.5	240.3	000.0085	0537.5	042.7	41.07	
024.0	001.7000	-0097.8	011.5	240.1	000.0087	0535.4	042.6	41.17	
025.0	001.7000	-0114.0	011.5	239.9	000.0089	0533.5	042.5	41.27	
026.0	001.7000	-0129.8	011.5	239.7	000.0091	0532.3	042.4	41.38	
027.0	001.7000	-0136.9	011.5	239.4	000.0093	0531.7	042.2	41.50	
028.0	001.7000	-0143.9	011.5	239.2	000.0095	0532.1	042.1	41.64	
029.0	001.7000	-0142.9	011.5	239.0	000.0097	0533.6	042.0	41.80	
030.0	001.7000	-0134.1	011.5	238.7	000.0099	0536.3	041.9	41.98	
031.0	001.7000	-0122.3	011.5	238.5	000.0101	0539.0	041.8	42.16	
032.0	001.7000	-0117.4	011.5	238.2	000.0103	0541.7	041.8	42.34	
033.0	001.7000	-0123.8	011.5	238.0	000.0105	0544.2	041.7	42.52	
034.0	001.7000	-0122.2	011.5	237.7	000.0107	0546.7	041.6	42.69	
035.0	001.7000	-0123.3	011.5	237.5	000.0110	0548.8	041.5	42.85	
036.0	001.7000	-0128.4	011.5	237.2	000.0112	0550.8	041.4	43.01	
037.0	001.7000	-0131.8	011.5	237.0	000.0114	0552.3	041.4	43.16	
038.0	001.7000	-0130.2	011.5	236.7	000.0117	0553.6	041.3	43.30	
039.0	001.7000	-0131.9	011.5	236.4	000.0119	0554.2	041.2	43.43	
040.0	001.7000	-0134.4	011.5	236.2	000.0122	0554.1	041.2	43.54	
041.0	001.7000	-0126.6	011.5	235.9	000.0124	0553.5	041.1	43.64	
042.0	001.7000	-0109.7	011.5	235.6	000.0127	0553.2	041.1	43.75	
043.0	001.7000	-0091.1	011.5	235.3	000.0129	0553.0	041.0	43.85	
044.0	001.7000	-0076.7	011.5	235.1	000.0132	0553.0	041.0	43.95	
045.0	001.7000	-0065.2	011.5	234.8	000.0135	0553.1	040.9	44.06	
046.0	001.7000	-0054.5	011.5	234.5	000.0138	0553.0	040.9	44.16	
047.0	001.7000	-0038.3	011.5	234.2	000.0140	0552.0	040.9	44.24	
048.0	001.7000	-0020.2	011.5	233.9	000.0143	0550.4	040.9	44.31	
049.0	001.7000	0000.8	011.5	233.7	000.0146	0548.4	040.8	44.36	
050.0	001.7000	0017.8	011.5	233.4	000.0149	0546.0	040.8	44.41	
051.0	001.7000	0026.9	011.5	233.1	000.0152	0543.3	040.8	44.45	
052.0	001.7000	0038.1	012.8	232.8	000.0155	0540.7	039.5	45.01	
053.0	001.7000	0049.9	014.7	232.5	000.0159	0537.1	037.6	45.85	

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)
054.0	001.7000	0060.0	016.3	232.0	000.0164	0532.7	036.1	46.58	
055.0	001.7000	0071.6	017.8	231.4	000.0171	0529.0	034.5	47.36	
056.0	001.7000	0085.4	019.6	230.6	000.0179	0528.5	032.8	48.34	
057.0	001.7000	0095.8	020.8	229.7	000.0189	0530.6	031.7	49.15	
058.0	001.7000	0106.7	021.9	228.7	000.0200	0531.5	030.6	49.94	
059.0	001.7000	0109.8	022.2	227.9	000.0208	0530.2	030.4	50.23	
060.0	001.7000	0114.5	022.7	227.0	000.0218	0527.6	030.0	50.57	
061.0	001.7000	0121.4	023.2	226.0	000.0230	0522.8	029.6	50.96	
062.0	001.7000	0136.3	024.4	224.6	000.0247	0511.2	028.6	51.63	
063.0	001.7000	0151.3	025.5	223.0	000.0266	0492.6	027.6	52.21	
064.0	001.7000	0161.6	026.3	221.5	000.0285	0467.0	027.1	52.40	
065.0	001.7000	0170.3	026.9	220.1	000.0304	0445.1	026.7	52.53	
066.0	001.7000	0177.9	027.5	218.7	000.0320	0437.6	026.4	52.77	
067.0	001.7000	0185.4	028.0	217.2	000.0337	0418.2	026.2	52.69	
068.0	001.7000	0194.6	028.6	215.6	000.0356	0390.2	025.9	52.43	
069.0	001.7000	0201.7	029.1	214.0	000.0375	0381.3	025.8	52.51	
070.0	001.7000	0215.9	030.1	211.8	000.0404	0380.0	025.3	53.15	
071.0	001.7000	0229.7	031.1	209.4	000.0431	0344.9	024.9	52.81	
072.0	001.7000	0240.7	031.8	207.3	000.0446	0336.7	024.7	52.86	
073.0	001.7000	0248.0	032.3	205.6	000.0459	0325.5	024.8	52.62	
074.0	001.7000	0251.4	032.5	204.4	000.0468	0330.5	025.1	52.64	
075.0	001.7000	0256.9	032.8	203.0	000.0478	0340.6	025.3	52.85	
076.0	001.7000	0258.7	032.9	202.0	000.0486	0349.9	025.7	52.89	
077.0	001.7000	0259.8	033.0	201.2	000.0492	0357.9	026.1	52.87	
078.0	001.7000	0265.6	033.4	199.8	000.0501	0375.7	026.4	53.21	
079.0	001.7000	0269.2	033.6	198.8	000.0497	0390.7	026.8	53.30	
080.0	001.7000	0269.7	033.6	198.2	000.0495	0401.1	027.3	53.22	
081.0	001.7000	0275.7	034.0	196.9	000.0491	0420.6	027.7	53.44	
082.0	001.7000	0284.7	034.5	195.5	000.0486	0450.2	028.0	53.84	
083.0	001.7000	0293.6	035.0	194.1	000.0482	0467.2	028.4	53.89	
084.0	001.7000	0298.3	035.2	193.2	000.0479	0483.7	028.8	53.86	
085.0	001.7000	0299.2	035.3	192.7	000.0478	0492.4	029.4	53.67	
086.0	001.7000	0297.7	035.2	192.5	000.0477	0495.9	030.0	53.39	
087.0	001.7000	0297.7	035.2	192.2	000.0476	0501.4	030.6	53.16	
088.0	001.7000	0297.9	035.2	191.9	000.0475	0506.4	031.2	52.94	
089.0	001.7000	0302.1	035.4	191.2	000.0473	0513.5	031.8	52.78	
090.0	001.7000	0308.9	035.8	190.4	000.0470	0522.3	032.3	52.67	
091.0	001.7000	0314.6	036.1	189.7	000.0466	0531.3	032.9	52.53	
092.0	001.7000	0318.0	036.3	189.2	000.0461	0537.0	033.5	52.32	
093.0	001.7000	0323.9	036.6	188.6	000.0455	0541.5	034.1	52.07	
094.0	001.7000	0325.5	036.7	188.3	000.0452	0542.3	034.7	51.78	
095.0	001.7000	0328.2	036.8	188.0	000.0449	0542.8	035.3	51.48	
096.0	001.7000	0331.0	037.0	187.7	000.0447	0543.4	036.0	51.18	
097.0	001.7000	0332.7	037.1	187.6	000.0445	0543.8	036.6	50.89	
098.0	001.7000	0338.5	037.4	187.1	000.0440	0545.6	037.3	50.60	
099.0	001.7000	0346.9	037.8	186.5	000.0434	0548.7	037.9	50.31	
100.0	001.7000	0347.8	037.9	186.5	000.0434	0548.8	038.6	50.03	
101.0	001.7000	0343.4	037.7	186.9	000.0438	0546.7	039.2	49.76	
102.0	001.7000	0342.9	037.6	187.0	000.0439	0546.1	039.9	49.49	
103.0	001.7000	0348.7	037.9	186.7	000.0436	0547.7	040.6	49.21	
104.0	001.7000	0356.0	038.3	186.3	000.0432	0550.2	041.3	48.93	
105.0	001.7000	0364.2	038.7	185.9	000.0428	0553.8	042.0	48.67	
106.0	001.7000	0367.9	038.9	185.8	000.0428	0554.6	042.7	48.40	
107.0	001.7000	0364.0	038.7	186.2	000.0432	0550.8	043.3	48.12	
108.0	001.7000	0360.1	038.5	186.6	000.0436	0548.0	044.0	47.87	
109.0	001.7000	0358.4	038.4	186.9	000.0438	0546.6	044.6	47.62	
110.0	001.7000	0362.5	038.6	186.8	000.0438	0546.9	045.3	47.36	
111.0	001.7000	0368.7	038.9	186.7	000.0436	0547.6	046.0	47.09	

At no point on the WNGA (FM) 60 dBu (protected) contour does this proposal deliver more than 54 dBu (interfering).