

MINOR CHANGE APPLICATION
6 JOHNSON ROAD LICENSES, INC.
W258CF FM TRANSLATOR STATION
CH 223D - 92.5 MHz - 0.13 kW
KINGSTON, NEW YORK
July 2016

EXHIBIT C1

Clearance Study for W258CF on Channel 223
Using Proposed Site as Reference

REFERENCE		CH# 223D - 92.5 MHz, Fwr= 0.13 kW, HAAT= 53.9 M, COR= 143.9 M								DISPLAY DATES
41 53 13.0 N.		Average Protected F(50-50)= 8.1 km								DATA 07-20-16
73 58 17.0 W.		Omni-directional								SEARCH 07-20-16
CH CITY	CALL	TYPE STATE	ANT	AZI. <--	DIST FILE #	LAT. LNG.	Pwr (kW) HAAT (M)	INT (km) COR (M)	PRO (km) LICENSEE	*OUT* (Overlap in km)
225A Saugerties	WBPM	LIC ZCN NY		340.9 160.9	11.99 BLH19991025AAH	41 59 20.0 74 01 08.0	6.000 88	3.0 214	32.5 6 Johnson Road Licenses, I	-21.3*
221A Poughkeepsie	WRNQ	LIC ZC NY		186.3 6.3	18.76 BLH20000501AAA	41 43 09.0 73 59 47.0	0.520 314	1.0 424	21.6 Cc Licenses, Llc	-3.7*
222B Troy	WFLY	LIC CN NY		358.5 178.5	83.50 BLH19871015KA	42 38 16.0 73 59 55.0	17.000 259	67.3 500	57.5 6 Johnson Road Licenses, I	2.1
223B Waterbury	WWYZ	LIC CN CT		110.7 291.4	100.16 BLH19940916KD	41 33 47.0 72 50 42.0	17.000 268	121.2 368	59.6 Capstar Tx, Llc	2.7
224A Middletown	WRRV	LIC C NY		219.3 39.0	61.64 BLH20010326AAD	41 27 25.0 74 26 24.0	6.000 82	45.6 281	29.6 Townsquare Media Poughkeep	19.9
277A Sharon	WQQQ	LIC NCX CT		83.7 264.0	33.26 BMLH20120508ABX	41 55 08.0 73 34 22.0	1.500 186	9.6 445	6.4 The Ridgefield Broadcastin	9.5R 23.8M

Terrain database is FCC 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= 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)

Incoming contour overlap is ignored.

"*"affixed to 'IN' or 'OUT' values = site inside restricted contour.

« = Station meets FCC minimum distance spacing for its class.

Reference station has protected zone issue: AM tower

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EXHIBIT C2

Interference Study for W258CF on Channel 223 vs WBPM
Using Proposed Site as Reference

As noted on Exhibit C1, the proposed W258CF, on Channel 223, is within the predicted 60 dBu contour of second adjacent station WBPM, Channel 225A, Saugerties, New York. Due to the relationship between W258CF on Channel 223 and WBPM, a 40 db ratio of the protected and interfering contours applies. We have, therefore, calculated the level of signal of WBPM at the proposed W258CF site. Exhibit C3 is a map showing the WBPM contour at the proposed W258CF site. The WBPM contour at the proposed W258CF site is 76.1 dBu (50/50), and the corresponding interfering contour for W258CF is 117.8 dBu (50/10). By utilizing a Shively 6812B-5R-SS 5 bay half wavelength spaced antenna and due to the relatively low power of the proposed W258CF, the 117.8 dBu interfering contour of the proposed W258CF is limited and extends no farther than 0.103 kilometer (103.0 meters) from the antenna. This interference contour, which is tabulated in Exhibit C4, does not reach ground level or any building structure. As such, WBPM will not receive interference from the proposed W258CF on Channel 223.

GRAHAM BROCK, INC.

BROADCAST TECHNICAL CONSULTANTS

W258CF - Kingston, NY - Proposed

Latitude: 41-53-13 N - Longitude: 073-58-17 W
Channel: 223 - Frequency: 92.5 MHz
ERP: 0.13 kW - AMSL Height: 143.9 m

WBPM - Saugerties, NY - BLH19991025AAH

Latitude: 41-59-20 N - Longitude: 074-01-08 W
Channel: 225 - Frequency: 92.9 MHz
ERP: 6.00 kW - AMSL Height: 214.0 m

W258CF

EXHIBIT C3

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■ W258CF Proposed 117.8 dBu (50/10)

■ WBPM 77.8 dBu (50/50)

Scale 1:48,000

0 0.67 1.33 2.0 km

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EXHIBIT C4

Interference Study for W258CF on Channel 223 vs WBPM
Using Proposed Site as Reference

W258CF Kingston, NY
 74.1204(d) Showing
 Translator or LPFM Maximum Licensed ERP = 0.13
 Translator or LPFM Antenna Height AG = 83.8 Meters
 W258CF Antenna Model = Shively 6812B-5R-SS

Protected Station's Contour = 77.8 dBu
 Translator's or LPFM's full Interference contour 117.8

Review Azimuth = 0 Degrees True
 Relative Field on the horizon at Review Azimuth = 1.000
 Translator/LPFM ERP on the horizon at Review Azimuth = 0.13 kW
 Distance between stations = 12.0 km
 Protected Station= WBPM, 6 kW, 214 M Meters COR AMSL

Depression Angle From Horizon (Deg)	Vertical Relative Field	Horizontal Relative Field	ERP (kw)	Dist to IX Contour Along Dep. Angle (m)	Dist to IX Contour From Tower Base (m)	Height IX Above Ground (m)
00.00	1.0	1.0	0.1300	103.0319	103.0319	083.800
05.00	0.924	1.0	0.1110	095.2015	094.8392	075.503
10.00	0.719	1.0	0.0672	074.0799	072.9545	070.936
15.00	0.443	1.0	0.0255	045.6431	044.0879	071.987
20.00	0.167	1.0	0.0036	017.2063	016.1687	077.915
25.00	0.049	1.0	0.0003	005.0486	004.5756	081.666
30.00	0.174	1.0	0.0039	017.9275	015.5257	074.836
35.00	0.21	1.0	0.0057	021.6367	017.7237	071.390
40.00	0.179	1.0	0.0042	018.4427	014.1279	071.945
45.00	0.114	1.0	0.0017	011.7456	008.3054	075.495
50.00	0.042	1.0	0.0002	004.3273	002.7816	080.485
55.00	0.016	1.0	0.0000	001.6485	000.9455	082.450
60.00	0.054	1.0	0.0004	005.5637	002.7819	078.982
65.00	0.072	1.0	0.0007	007.4183	003.1351	077.077
70.00	0.075	1.0	0.0007	007.7274	002.6429	076.539
75.00	0.067	1.0	0.0006	006.9031	001.7867	077.132
80.00	0.055	1.0	0.0004	005.6668	000.9840	078.219
85.00	0.04	1.0	0.0002	004.1213	000.3592	079.694
90.00	0.025	1.0	0.0001	002.5758	000.0000	081.224

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EXHIBIT C5

Interference Study for W258CF on Channel 223 vs WRNQ
Using Proposed Site as Reference

As noted on Exhibit C1, the proposed W258CF, on Channel 223, is within the predicted 60 dBu contour of second adjacent station WRNQ, Channel 221A, Poughkeepsie, New York. Due to the relationship between W258CF and WRNQ, a 40 db ratio of the protected and interfering contours applies. We have, therefore, calculated the level of signal of WRNQ at the proposed W258CF site. Exhibit C5 is a map showing the WRNQ contour at the proposed W258CF site. The WRNQ contour at the proposed W258CF site is 62.5 dBu (50/50), and the corresponding interfering contour for W258CF is 102.5 dBu (50/10). By utilizing a Shively 6812B-5R-SS 5 bay half wavelength spaced antenna and due to the relatively low power of the proposed W258CF, the 102.5 dBu interfering contour of the proposed W258CF is limited and extends no farther than 0.6 kilometer (599.8 meters) from the antenna. This interference contour, which is tabulated in Exhibit C7, does not reach ground level or any building structure. As such, WRNQ will not receive interference from the proposed W258CF on Channel 223.

Exhibit C8 is a tabulation of the proposed new translator's interference and service contours.

GRAHAM BROCK, INC.

BROADCAST TECHNICAL CONSULTANTS

W258CF - Kingston, NY - Proposed

Latitude: 41-53-13 N - Longitude: 073-58-17 W

Channel: 223 - Frequency: 92.5 MHz

ERP: 0.13 kW - AMSL Height: 143.9 m

WRNQ - Poughkeepsie, NY - BLH20000501AAA

Latitude: 41-43-09 N - Longitude: 073-59-47 W

Channel: 221 - Frequency: 92.1 MHz

ERP: 0.52 kW - AMSL Height: 424.0 m

W258CF

EXHIBIT C6

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■ W258CF Proposed 102.5 dBu (50/10)

■ WRNQ 62.5 dBu (50/50)

Scale 1:48,000

0 0.67 1.33 2.0 km

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EXHIBIT C7

Interference Study for W258CF vs WRNQ on Channel 223
Using Proposed Site as Reference

W258CF Kingston, NY
 74.1204(d) Showing
 Translator or LPFM Maximum Licensed ERP = 0.13
 Translator or LPFM Antenna Height AG = 84.16 Meters
 W258CF Antenna Model = Shively 6812B-5R-SS

Protected Station's Contour = 62.5 dBu
 Translator's or LPFM's full Interference contour 102.5

Review Azimuth = 0 Degrees True
 Relative Field on the horizon at Review Azimuth = 1.000
 Translator/LPFM ERP on the horizon at Review Azimuth = 0.13 kW
 Distance between stations = 18.8 km
 Protected Station= WRNQ, .52 kW, 424 M Meters COR AMSL

Depression Angle From Horizon(Deg)	Vertical Relative Field	Horizontal Relative Field	ERP (kw)	Dist to IX Contour Along Dep. Angle(m)	Dist to IX Contour From Tower Base(m)	Height IX Above Ground (m)
00.00	1.0	1.0	0.1300	599.7520	599.7520	084.160
05.00	0.924	1.0	0.1110	554.1708	552.0620	035.861
10.00	0.719	1.0	0.0672	431.2216	424.6704	009.279
15.00	0.443	1.0	0.0255	265.6901	256.6369	015.394
20.00	0.167	1.0	0.0036	100.1586	094.1183	049.904
25.00	0.049	1.0	0.0003	029.3878	026.6344	071.740
30.00	0.174	1.0	0.0039	104.3568	090.3757	031.982
35.00	0.21	1.0	0.0057	125.9479	103.1705	011.919
40.00	0.179	1.0	0.0042	107.3556	082.2392	015.153
45.00	0.114	1.0	0.0017	068.3717	048.3461	035.814
50.00	0.042	1.0	0.0002	025.1896	016.1916	064.864
55.00	0.016	1.0	0.0000	009.5960	005.5041	076.299
60.00	0.054	1.0	0.0004	032.3866	016.1933	056.112
65.00	0.072	1.0	0.0007	043.1821	018.2496	045.024
70.00	0.075	1.0	0.0007	044.9814	015.3845	041.891
75.00	0.067	1.0	0.0006	040.1834	010.4002	045.346
80.00	0.055	1.0	0.0004	032.9864	005.7280	051.675
85.00	0.04	1.0	0.0002	023.9901	002.0909	060.261
90.00	0.025	1.0	0.0001	014.9938	000.0000	069.166

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EXHIBIT C8

N. Lat. = 41° 53' 13" - Protected and Interfering Contour Data
W. Lng. = 73° 58' 17" - W258CF FM Translator, Kingston, New York

HAAT and Distance to Contour,
FCC, FM 2-10 Mi, 51 pts Method - FCC 30 SEC

Azi.	AV EL	HAAT	ERP kW	dBk	Field	117.8-F1	102.5-F1	100-F1	60-F5	54-F1	40-F1
000	48.7	95.2	0.1300	-8.86	1.000	0.10	0.60	0.80	10.74	15.26	36.48
010	27.8	116.1	0.1300	-8.86	1.000	0.10	0.60	0.80	11.79	17.34	40.26
020	37.7	106.2	0.1300	-8.86	1.000	0.10	0.60	0.80	11.31	16.41	38.62
030	54.5	89.4	0.1300	-8.86	1.000	0.10	0.60	0.80	10.42	14.57	35.25
040	66.2	77.7	0.1300	-8.86	1.000	0.10	0.60	0.80	9.74	13.57	32.50
050	87.4	56.5	0.1300	-8.86	1.000	0.10	0.60	0.80	8.33	11.79	27.58
060	107.8	36.1	0.1300	-8.86	1.000	0.10	0.60	0.80	6.54	9.37	21.88
070	116.6	27.3	0.1300	-8.86	1.000	0.10	0.60	0.80	6.01	8.58	19.99
080	115.5	28.4	0.1300	-8.86	1.000	0.10	0.60	0.80	6.01	8.58	19.99
090	115.0	28.9	0.1300	-8.86	1.000	0.10	0.60	0.80	6.01	8.58	19.99
100	120.9	23.0	0.1300	-8.86	1.000	0.10	0.60	0.80	6.01	8.58	19.99
110	113.5	30.4	0.1300	-8.86	1.000	0.10	0.60	0.80	6.05	8.63	20.11
120	99.7	44.2	0.1300	-8.86	1.000	0.10	0.60	0.80	7.25	10.41	24.31
130	94.8	49.1	0.1300	-8.86	1.000	0.10	0.60	0.80	7.68	10.99	25.66
140	87.9	56.0	0.1300	-8.86	1.000	0.10	0.60	0.80	8.28	11.74	27.45
150	76.3	67.6	0.1300	-8.86	1.000	0.10	0.60	0.80	9.10	12.74	30.08
160	56.4	87.5	0.1300	-8.86	1.000	0.10	0.60	0.80	10.31	14.40	34.81
170	41.9	102.0	0.1300	-8.86	1.000	0.10	0.60	0.80	11.09	15.98	37.84
180	96.3	47.6	0.1300	-8.86	1.000	0.10	0.60	0.80	7.55	10.83	25.28
190	118.2	25.7	0.1300	-8.86	1.000	0.10	0.60	0.80	6.01	8.58	19.99
200	139.9	4.0	0.1300	-8.86	1.000	0.10	0.60	0.80	6.01	8.58	19.99
210	124.2	19.7	0.1300	-8.86	1.000	0.10	0.60	0.80	6.01	8.58	19.99
220	88.6	55.3	0.1300	-8.86	1.000	0.10	0.60	0.80	8.22	11.67	27.27
230	98.3	45.6	0.1300	-8.86	1.000	0.10	0.60	0.80	7.37	10.58	24.70
240	60.9	83.0	0.1300	-8.86	1.000	0.10	0.60	0.80	10.06	14.02	33.79
250	72.7	71.2	0.1300	-8.86	1.000	0.10	0.60	0.80	9.34	13.04	30.92
260	77.5	66.4	0.1300	-8.86	1.000	0.10	0.60	0.80	9.03	12.65	29.81
270	77.3	66.6	0.1300	-8.86	1.000	0.10	0.60	0.80	9.03	12.66	29.84
280	99.7	44.2	0.1300	-8.86	1.000	0.10	0.60	0.80	7.26	10.41	24.32
290	115.7	28.2	0.1300	-8.86	1.000	0.10	0.60	0.80	6.01	8.58	19.99
300	125.6	18.3	0.1300	-8.86	1.000	0.10	0.60	0.80	6.01	8.58	19.99
310	108.6	35.3	0.1300	-8.86	1.000	0.10	0.60	0.80	6.47	9.27	21.64
320	97.7	46.2	0.1300	-8.86	1.000	0.10	0.60	0.80	7.42	10.65	24.87
330	93.3	50.6	0.1300	-8.86	1.000	0.10	0.60	0.80	7.82	11.17	26.07
340	84.9	59.0	0.1300	-8.86	1.000	0.10	0.60	0.80	8.52	12.02	28.15
350	59.0	84.9	0.1300	-8.86	1.000	0.10	0.60	0.80	10.16	14.18	34.22

AMSL= 143.9