

## INTERFERENCE EXHIBIT FOR HOUSTON KHGF-LP.A

The proposed facility is fully spaced to all relevant full power stations except KKBQ and KROI. The instant application seeks a waiver of the minimum distance separation requirement of 47 C.F.R. Section 73.807 for second adjacent facilities. The proposed facility will not interfere with KKBQ or KROI.

As shown by the tabular analysis provided below using V-Soft's X-Field program, no population exists within the predicted region of interference with KKBQ because the region does not extend far enough to reach any populated areas and/or the region exists above ground sufficiently to not interfere with any populated areas or structures. The closest the interfering contour comes to the ground is 36m. There are no affected buildings.

### Tabular Analysis

KHGF-LP.A Houston, TX

74.1204(d) Showing

Translator or LPFM Maximum Licensed ERP = 0.032

Translator or LPFM Antenna Height AG = 41 Meters

KHGF-LP.A Antenna Model = BKG 77 4 5-8

Protected Station's Contour = 80.0698 dBu

Translator's or LPFM's full Interference contour 120.0698

Review Azimuth = 181 Degrees True

Relative Field on the horizon at Review Azimuth = 1.000

Translator/LPFM ERP on the horizon at Review Azimuth = 0.032 kW

Distance between stations = 44.0 km

Protected Station= KKBQ, 100 kW, 605 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	0.0320	039.3627	039.3627	041.000
01.00	0.994	1.0	0.0316	039.1265	039.1206	040.317
02.00	0.977	1.0	0.0305	038.4574	038.4339	039.658
03.00	0.949	1.0	0.0288	037.3552	037.3040	039.045
04.00	0.911	1.0	0.0266	035.8594	035.7721	038.499
05.00	0.863	1.0	0.0238	033.9700	033.8408	038.039
06.00	0.806	1.0	0.0208	031.7263	031.5525	037.684
07.00	0.742	1.0	0.0176	029.2071	028.9894	037.441
08.00	0.671	1.0	0.0144	026.4124	026.1553	037.324
09.00	0.596	1.0	0.0114	023.4602	023.1713	037.330
10.00	0.517	1.0	0.0086	020.3505	020.0414	037.466
11.00	0.434	1.0	0.0060	017.0834	016.7695	037.740
12.00	0.352	1.0	0.0040	013.8557	013.5529	038.119
13.00	0.271	1.0	0.0024	010.6673	010.3939	038.600

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14.00	0.193	1.0	0.0012	007.5970	007.3713	039.162
15.00	0.118	1.0	0.0004	004.6448	004.4865	039.798
16.00	0.049	1.0	0.0001	001.9288	001.8541	040.468
17.00	0.014	1.0	0.0000	000.5511	000.5270	040.839
18.00	0.071	1.0	0.0002	002.7948	002.6580	040.136
19.00	0.119	1.0	0.0005	004.6842	004.4290	039.475
20.00	0.161	1.0	0.0008	006.3374	005.9552	038.832
21.00	0.193	1.0	0.0012	007.5970	007.0924	038.277
22.00	0.217	1.0	0.0015	008.5417	007.9197	037.800
23.00	0.233	1.0	0.0017	009.1715	008.4424	037.416
24.00	0.242	1.0	0.0019	009.5258	008.7022	037.126
25.00	0.243	1.0	0.0019	009.5651	008.6690	036.958
26.00	0.237	1.0	0.0018	009.3290	008.3848	036.910
27.00	0.225	1.0	0.0016	008.8566	007.8913	036.979
28.00	0.208	1.0	0.0014	008.1874	007.2291	037.156
29.00	0.186	1.0	0.0011	007.3215	006.4035	037.450
30.00	0.161	1.0	0.0008	006.3374	005.4883	037.831
31.00	0.132	1.0	0.0006	005.1959	004.4537	038.324
32.00	0.102	1.0	0.0003	004.0150	003.4049	038.872
33.00	0.07	1.0	0.0002	002.7554	002.3109	039.499
34.00	0.038	1.0	0.0000	001.4958	001.2401	040.164
35.00	0.007	1.0	0.0000	000.2755	000.2257	040.842
36.00	0.023	1.0	0.0000	000.9053	000.7324	040.468
37.00	0.051	1.0	0.0001	002.0075	001.6033	039.792
38.00	0.077	1.0	0.0002	003.0309	002.3884	039.134
39.00	0.1	1.0	0.0003	003.9363	003.0591	038.523
40.00	0.12	1.0	0.0005	004.7235	003.6184	037.964
41.00	0.137	1.0	0.0006	005.3927	004.0699	037.462
42.00	0.15	1.0	0.0007	005.9044	004.3878	037.049
43.00	0.16	1.0	0.0008	006.2980	004.6061	036.705
44.00	0.167	1.0	0.0009	006.5736	004.7286	036.434
45.00	0.17	1.0	0.0009	006.6917	004.7317	036.268
46.00	0.17	1.0	0.0009	006.6917	004.6484	036.186
47.00	0.167	1.0	0.0009	006.5736	004.4832	036.192
48.00	0.162	1.0	0.0008	006.3768	004.2669	036.261
49.00	0.154	1.0	0.0008	006.0619	003.9769	036.425
50.00	0.144	1.0	0.0007	005.6682	003.6435	036.658
51.00	0.133	1.0	0.0006	005.2352	003.2946	036.931
52.00	0.12	1.0	0.0005	004.7235	002.9081	037.278
53.00	0.106	1.0	0.0004	004.1724	002.5110	037.668
54.00	0.091	1.0	0.0003	003.5820	002.1055	038.102
55.00	0.075	1.0	0.0002	002.9522	001.6933	038.582
56.00	0.06	1.0	0.0001	002.3618	001.3207	039.042
57.00	0.044	1.0	0.0001	001.7320	000.9433	039.547
58.00	0.028	1.0	0.0000	001.1022	000.5841	040.065
59.00	0.013	1.0	0.0000	000.5117	000.2636	040.561

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60.00	0.001	1.0	0.0000	000.0394	000.0197	040.966
61.00	0.015	1.0	0.0000	000.5904	000.2863	040.484
62.00	0.027	1.0	0.0000	001.0628	000.4990	040.062
63.00	0.039	1.0	0.0000	001.5351	000.6969	039.632
64.00	0.05	1.0	0.0001	001.9681	000.8628	039.231
65.00	0.059	1.0	0.0001	002.3224	000.9815	038.895
66.00	0.068	1.0	0.0001	002.6767	001.0887	038.555
67.00	0.075	1.0	0.0002	002.9522	001.1535	038.282
68.00	0.081	1.0	0.0002	003.1884	001.1944	038.044
69.00	0.086	1.0	0.0002	003.3852	001.2131	037.840
70.00	0.089	1.0	0.0003	003.5033	001.1982	037.708
71.00	0.093	1.0	0.0003	003.6607	001.1918	037.539
72.00	0.095	1.0	0.0003	003.7395	001.1556	037.444
73.00	0.096	1.0	0.0003	003.7788	001.1048	037.386
74.00	0.096	1.0	0.0003	003.7788	001.0416	037.368
75.00	0.096	1.0	0.0003	003.7788	000.9780	037.350
76.00	0.095	1.0	0.0003	003.7395	000.9047	037.372
77.00	0.094	1.0	0.0003	003.7001	000.8323	037.395
78.00	0.092	1.0	0.0003	003.6214	000.7529	037.458
79.00	0.089	1.0	0.0003	003.5033	000.6685	037.561
80.00	0.086	1.0	0.0002	003.3852	000.5878	037.666
81.00	0.085	1.0	0.0002	003.3458	000.5234	037.695
82.00	0.083	1.0	0.0002	003.2671	000.4547	037.765
83.00	0.081	1.0	0.0002	003.1884	000.3886	037.835
84.00	0.078	1.0	0.0002	003.0703	000.3209	037.947
85.00	0.076	1.0	0.0002	002.9916	000.2607	038.020
86.00	0.076	1.0	0.0002	002.9916	000.2087	038.016
87.00	0.075	1.0	0.0002	002.9522	000.1545	038.052
88.00	0.075	1.0	0.0002	002.9522	000.1030	038.050
89.00	0.074	1.0	0.0002	002.9128	000.0508	038.088
90.00	0.074	1.0	0.0002	002.9128	000.0000	038.087

## INTERFERENCE EXHIBIT FOR HOUSTON KHGF-LP.A

As shown by the tabular analysis provided below using V-Soft's X-Field program, no population exists within the predicted region of interference with KROI because the region does not extend far enough to reach any populated areas and/or the region exists above ground sufficiently to not interfere with any populated areas or structures. The closest the interfering contour comes to the ground is 6m approximately 33m from the tower. There are no affected buildings.

KHGF-LP.A Houston, TX

74.1204(d) Showing

Translator or LPFM Maximum Licensed ERP = 0.032

Translator or LPFM Antenna Height AG = 41 Meters

KHGF-LP.A Antenna Model = BKG 77 4 5-8

Protected Station's Contour = 62.99577 dBu

Translator's or LPFM's full Interference contour 102.99577

Review Azimuth = 181 Degrees True

Relative Field on the horizon at Review Azimuth = 1.000

Translator/LPFM ERP on the horizon at Review Azimuth = 0.032 kW

Distance between stations = 65.0 km

Protected Station= KROI, 22 kW, 537.4 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	0.0320	281.0519	281.0519	041.000
01.00	0.994	1.0	0.0316	279.3656	279.3230	036.124
02.00	0.977	1.0	0.0305	274.5877	274.4204	031.417
03.00	0.949	1.0	0.0288	266.7182	266.3527	027.041
04.00	0.911	1.0	0.0266	256.0383	255.4146	023.140
05.00	0.863	1.0	0.0238	242.5478	241.6248	019.861
06.00	0.806	1.0	0.0208	226.5278	225.2869	017.321
07.00	0.742	1.0	0.0176	208.5405	206.9861	015.585
08.00	0.671	1.0	0.0144	188.5858	186.7505	014.754
09.00	0.596	1.0	0.0114	167.5069	165.4446	014.796
10.00	0.517	1.0	0.0086	145.3038	143.0963	015.768
11.00	0.434	1.0	0.0060	121.9765	119.7355	017.726
12.00	0.352	1.0	0.0040	098.9303	096.7684	020.431
13.00	0.271	1.0	0.0024	076.1651	074.2130	023.867
14.00	0.193	1.0	0.0012	054.2430	052.6318	027.877
15.00	0.118	1.0	0.0004	033.1641	032.0341	032.416
16.00	0.049	1.0	0.0001	013.7715	013.2381	037.204
17.00	0.014	1.0	0.0000	003.9347	003.7628	039.850
18.00	0.071	1.0	0.0002	019.9547	018.9780	034.834
19.00	0.119	1.0	0.0005	033.4452	031.6230	030.111

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20.00	0.161	1.0	0.0008	045.2494	042.5205	025.524
21.00	0.193	1.0	0.0012	054.2430	050.6402	021.561
22.00	0.217	1.0	0.0015	060.9883	056.5473	018.153
23.00	0.233	1.0	0.0017	065.4851	060.2793	015.413
24.00	0.242	1.0	0.0019	068.0146	062.1344	013.336
25.00	0.243	1.0	0.0019	068.2956	061.8968	012.137
26.00	0.237	1.0	0.0018	066.6093	059.8680	011.800
27.00	0.225	1.0	0.0016	063.2367	056.3443	012.291
28.00	0.208	1.0	0.0014	058.4588	051.6160	013.555
29.00	0.186	1.0	0.0011	052.2757	045.7213	015.656
30.00	0.161	1.0	0.0008	045.2494	039.1871	018.375
31.00	0.132	1.0	0.0006	037.0988	031.7999	021.893
32.00	0.102	1.0	0.0003	028.6673	024.3112	025.809
33.00	0.07	1.0	0.0002	019.6736	016.4997	030.285
34.00	0.038	1.0	0.0000	010.6800	008.8541	035.028
35.00	0.007	1.0	0.0000	001.9674	001.6116	039.872
36.00	0.023	1.0	0.0000	006.4642	005.2296	037.200
37.00	0.051	1.0	0.0001	014.3336	011.4474	032.374
38.00	0.077	1.0	0.0002	021.6410	017.0533	027.676
39.00	0.1	1.0	0.0003	028.1052	021.8418	023.313
40.00	0.12	1.0	0.0005	033.7262	025.8358	019.321
41.00	0.137	1.0	0.0006	038.5041	029.0594	015.739
42.00	0.15	1.0	0.0007	042.1578	031.3293	012.791
43.00	0.16	1.0	0.0008	044.9683	032.8877	010.332
44.00	0.167	1.0	0.0009	046.9357	033.7627	008.396
45.00	0.17	1.0	0.0009	047.7788	033.7847	007.215
46.00	0.17	1.0	0.0009	047.7788	033.1900	006.631
47.00	0.167	1.0	0.0009	046.9357	032.0100	006.673
48.00	0.162	1.0	0.0008	045.5304	030.4658	007.164
49.00	0.154	1.0	0.0008	043.2820	028.3955	008.335
50.00	0.144	1.0	0.0007	040.4715	026.0146	009.997
51.00	0.133	1.0	0.0006	037.3799	023.5239	011.950
52.00	0.12	1.0	0.0005	033.7262	020.7639	014.423
53.00	0.106	1.0	0.0004	029.7915	017.9290	017.207
54.00	0.091	1.0	0.0003	025.5757	015.0330	020.309
55.00	0.075	1.0	0.0002	021.0789	012.0904	023.733
56.00	0.06	1.0	0.0001	016.8631	009.4297	027.020
57.00	0.044	1.0	0.0001	012.3663	006.7352	030.629
58.00	0.028	1.0	0.0000	007.8695	004.1702	034.326
59.00	0.013	1.0	0.0000	003.6537	001.8818	037.868
60.00	0.001	1.0	0.0000	000.2811	000.1405	040.757
61.00	0.015	1.0	0.0000	004.2158	002.0438	037.313
62.00	0.027	1.0	0.0000	007.5884	003.5625	034.300
63.00	0.039	1.0	0.0000	010.9610	004.9762	031.234
64.00	0.05	1.0	0.0001	014.0526	006.1603	028.370
65.00	0.059	1.0	0.0001	016.5821	007.0079	025.972

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66.00	0.068	1.0	0.0001	019.1115	007.7734	023.541
67.00	0.075	1.0	0.0002	021.0789	008.2362	021.597
68.00	0.081	1.0	0.0002	022.7652	008.5280	019.892
69.00	0.086	1.0	0.0002	024.1705	008.6619	018.435
70.00	0.089	1.0	0.0003	025.0136	008.5552	017.495
71.00	0.093	1.0	0.0003	026.1378	008.5096	016.286
72.00	0.095	1.0	0.0003	026.6999	008.2507	015.607
73.00	0.096	1.0	0.0003	026.9810	007.8885	015.198
74.00	0.096	1.0	0.0003	026.9810	007.4370	015.064
75.00	0.096	1.0	0.0003	026.9810	006.9832	014.938
76.00	0.095	1.0	0.0003	026.6999	006.4593	015.093
77.00	0.094	1.0	0.0003	026.4189	005.9430	015.258
78.00	0.092	1.0	0.0003	025.8568	005.3759	015.708
79.00	0.089	1.0	0.0003	025.0136	004.7728	016.446
80.00	0.086	1.0	0.0002	024.1705	004.1972	017.197
81.00	0.085	1.0	0.0002	023.8894	003.7371	017.405
82.00	0.083	1.0	0.0002	023.3273	003.2465	017.900
83.00	0.081	1.0	0.0002	022.7652	002.7744	018.404
84.00	0.078	1.0	0.0002	021.9220	002.2915	019.198
85.00	0.076	1.0	0.0002	021.3599	001.8616	019.721
86.00	0.076	1.0	0.0002	021.3599	001.4900	019.692
87.00	0.075	1.0	0.0002	021.0789	001.1032	019.950
88.00	0.075	1.0	0.0002	021.0789	000.7356	019.934
89.00	0.074	1.0	0.0002	020.7978	000.3630	020.205
90.00	0.074	1.0	0.0002	020.7978	000.0000	020.202

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## INTERFERENCE EXHIBIT FOR HOUSTON KHGF-LP.A

The instant application is short to K223CW. K223CW applied and was licensed subsequent to KHGF-LP's permit and moved within the minimum spacing requirement for KHGF-LP, protecting KHGF-LP's permit but not its maximum facility.

The instant application moves KHGF-LP away from K223CW. Figure 1 shows contour protection of K223CW based upon the interference contour of KHGF-LP's current permit. This requires an Effective Radiated Power of the instant application of 32 watts, rather than the 57 watts possible based upon KHGF's Height Above Average Terrain of 39.5m.

Figure 1

