



REC Networks
11541 Riverton Wharf Rd.
Mardela Springs, MD 21837
844.REC.LPFM/202.621.2355
recnet.com

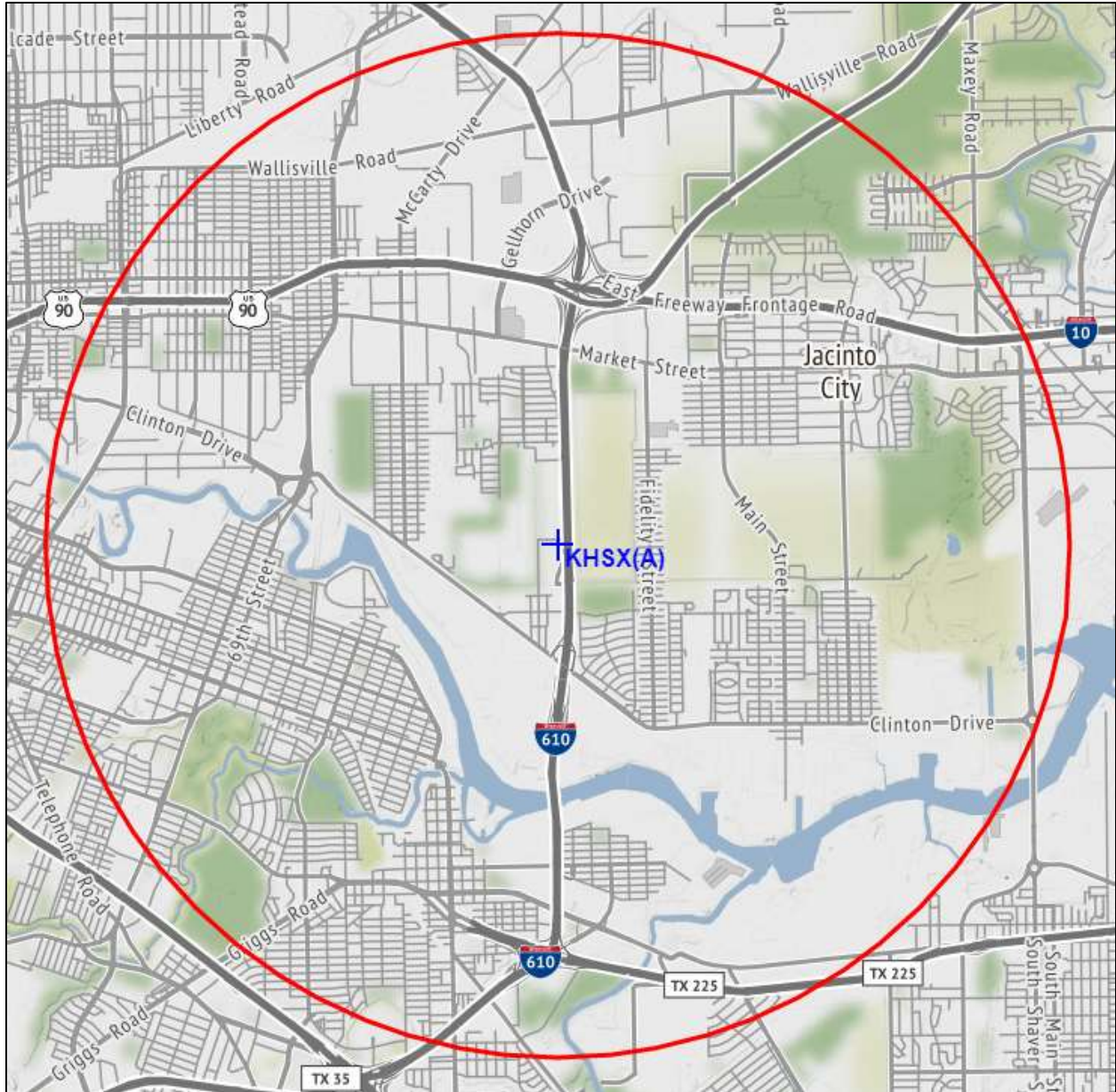
Minor modification for KHSX-LP

HOUSTON, TX

HIS SANCTUARY MINISTRIES USA INTL. INC.

BNPL-20131113BQN

PROPOSED 60dBu F(50,50) SERVICE CONTOUR



HOUSTON, TX – Channel 268L1 (101.5 MHz) ~ ERP 0.100 kW

Elev: 11 meters ~ RCAGL: 24 meters ~ RCAMSL: 35 meters ~ HAAT: 23 meters

Overall tower height: 25 meters – ASR: None (pass glide slope)

NAD27 Latitude: 29° 44' 59.2" NL – Longitude: 95° 15' 57.2" WL

NAD83 Latitude: 29° 45' 00.0" NL – Longitude: 95° 15' 58.0" WL

Site: KHSX(A)
 Coordinates: 29-44-59.2 N, 95-15-57.2 W
 Freq: 101.50000 MHz
 ERP: 100.00 W

Bearing	ERP W	HAAT	DH	Distance	Lat	Lon
0	100.00	21	20	5.65	29.800560	-95.265889
5	100.00	22	20	5.65	29.800367	-95.260788
10	100.00	23	10	5.65	29.799788	-95.255727
15	100.00	23	10	5.65	29.798829	-95.250743
20	100.00	24	10	5.65	29.797496	-95.245874
25	100.00	24	10	5.65	29.795800	-95.241158
30	100.00	24	10	5.65	29.793754	-95.236630
35	100.00	24	10	5.65	29.791372	-95.232326
40	100.00	25	10	5.65	29.788674	-95.228277
45	100.00	25	10	5.65	29.785680	-95.224514
50	100.00	26	10	5.65	29.782413	-95.221067
55	100.00	26	0	5.65	29.778897	-95.217961
60	100.00	26	0	5.65	29.775159	-95.215221
65	100.00	27	10	5.65	29.771229	-95.212866
70	100.00	27	10	5.65	29.767135	-95.210915
75	100.00	26	10	5.65	29.762909	-95.209383
80	100.00	27	10	5.65	29.758584	-95.208281
85	100.00	28	10	5.65	29.754191	-95.207617
90	100.00	28	10	5.65	29.749765	-95.207397
95	100.00	30	10	5.65	29.745339	-95.207622
100	100.00	29	10	5.65	29.740947	-95.208291
105	100.00	27	10	5.65	29.736622	-95.209398
110	100.00	27	10	5.65	29.732398	-95.210934
115	100.00	27	10	5.65	29.728306	-95.212889
120	100.00	27	10	5.65	29.724377	-95.215246
125	100.00	27	10	5.65	29.720641	-95.217989
130	100.00	27	10	5.65	29.717128	-95.221096
135	100.00	26	10	5.65	29.713863	-95.224544
140	100.00	27	10	5.65	29.710871	-95.228306
145	100.00	27	10	5.65	29.708175	-95.232353
150	100.00	26	10	5.65	29.705796	-95.236656
155	100.00	26	10	5.65	29.703751	-95.241181
160	100.00	26	0	5.65	29.702056	-95.245893
165	100.00	25	0	5.65	29.700725	-95.250758
170	100.00	25	0	5.65	29.699766	-95.255737
175	100.00	25	0	5.65	29.699188	-95.260794
180	100.00	24	0	5.65	29.698995	-95.265889
185	100.00	23	0	5.65	29.699188	-95.270984
190	100.00	23	0	5.65	29.699766	-95.276041
195	100.00	24	0	5.65	29.700725	-95.281020
200	100.00	24	0	5.65	29.702056	-95.285885
205	100.00	24	10	5.65	29.703751	-95.290597
210	100.00	23	10	5.65	29.705796	-95.295122
215	100.00	23	10	5.65	29.708175	-95.299424
220	100.00	23	10	5.65	29.710871	-95.303472
225	100.00	23	10	5.65	29.713863	-95.307234
230	100.00	23	10	5.65	29.717128	-95.310682
235	100.00	23	10	5.65	29.720641	-95.313789
240	100.00	23	10	5.65	29.724377	-95.316531
245	100.00	23	10	5.65	29.728306	-95.318889
250	100.00	23	10	5.65	29.732398	-95.320844
255	100.00	22	10	5.65	29.736622	-95.322380
260	100.00	22	10	5.65	29.740947	-95.323487
265	100.00	21	10	5.65	29.745339	-95.324155
270	100.00	21	20	5.65	29.749765	-95.324381
275	100.00	22	30	5.65	29.754191	-95.324161
280	100.00	23	30	5.65	29.758584	-95.323497
285	100.00	22	30	5.65	29.762909	-95.322395
290	100.00	20	30	5.65	29.767135	-95.320863
295	100.00	19	30	5.65	29.771229	-95.318912
300	100.00	19	20	5.65	29.775159	-95.316557
305	100.00	19	20	5.65	29.778897	-95.313816
310	100.00	18	20	5.65	29.782413	-95.310711
315	100.00	18	30	5.65	29.785680	-95.307264
320	100.00	18	20	5.65	29.788674	-95.303501
325	100.00	17	20	5.65	29.791372	-95.299452
330	100.00	18	20	5.65	29.793754	-95.295148
335	100.00	18	20	5.65	29.795800	-95.290620
340	100.00	19	30	5.65	29.797496	-95.285904
345	100.00	19	10	5.65	29.798829	-95.281035
350	100.00	19	20	5.65	29.799788	-95.276051
355	100.00	20	30	5.65	29.800367	-95.270989

R E C NETWORKS
CHANNEL REPORT

NAD27 LATITUDE: 29 - 45' 00.0" - LONGITUDE: 95 - 15' 58.0"
CHANNEL: 268 - CLASS: LPFM(LP-100)

CHAN	FREQ	CALL	LOCATION	CLS	DIST	REQ	CLEAR	BEAR
266	101.1	KLQL	HOUSTON	TX C	30.5	93.0	-62.5	230.6
		: CBS RADIO STATIONS INC.						
268	101.5	KLJJ-LP	SPRING	TX L1	51.3	24.0	27.3	339.5
		: THE LION OF THE TRIBE OF JUDAH MINISTRIES						
268	101.5	K268CW	HOUSTON	TX D6	22.4	39.0	-16.6	218.8
		: HOUSTON CHRISTIAN BROADCASTERS, INC.						
		: Rounds to 22. (current distance 22.4 km - rounds to 22) no increased short spacing						
268	101.5	KOER-LP	CYPRESS	TX L1	44.2	24.0	20.2	308.6
		: RHEMA GOSPEL RADIO						
268	101.5	K268CW	HOUSTON	TX D5	16.0	32.0	-16.0	262.2
		: HOUSTON CHRISTIAN BROADCASTERS, INC.						
		: Rounds to 16. (current distance 16.0 km - rounds to 16) no increased short spacing						
268	101.5	KHSX-LP	HOUSTON	TX L1	0.1	24.0	-23.9	203.2
		: HIS SANCTUARY MINISTRIES USA INTERNATIONAL, INC.						
		: Currently authorized facility.						
269	101.7	K269GS	HOUSTON	TX D6	24.1	28.0	-3.9	85.1
		: SIGA BROADCASTING CORPORATION						
		: Rounds to 24. (current distance 24.0 km - rounds to 24) no increased short spacing						
269	101.7	K269GT	HUNTSVILLE	TX D5	76.5	21.0	55.5	4.1
		: ELOHIM GROUP CORPORATION						
269	101.7	K269GT	HUNTSVILLE	TX D7	56.8	28.0	28.8	1.9
		: ELOHIM GROUP CORPORATION						
269	101.7	K269GS	HOUSTON	TX D4	13.4	21.0	-7.6	155.6
		: SIGA BROADCASTING CORPORATION						
		: Rounds to 13. (current distance 13.4 km - rounds to 13) no increased short spacing						
269	101.7	K269GS	HOUSTON	TX D4	10.7	21.0	-10.3	133.5
		: SIGA BROADCASTING CORPORATION						
		: Rounds to 11. (current distance 10.7 km - rounds to 11) no increased short spacing						
269	101.7	KSAM-FM	HUNTSVILLE	TX A	108.5	56.0	52.5	345.4
		: HEH COMMUNICATIONS, LLC						
269	101.7	KAYD-FM	SILSBEE	TX C3	128.9	67.0	61.9	71.3
		: CUMULUS LICENSING LLC						
269	101.7	KNTE	BAY CITY	TX C1	134.4	100.0	34.4	218.4
		: LIBERMAN BROADCASTING OF HOUSTON LICENSE LLC						
269	101.7	KQEU-LP	HOUSTON	TX L1	33.3	14.0	19.3	263.1
		: NTD PUBLIC MEDIA						
269	101.7	NEW	HOUSTON	TX L1	17.6	14.0	3.6	308.6
		: IGLESIA CRISTIANA AMOR Y RESTAURACION						

LPFM SECOND ADJACENT CHANNEL WAIVER STUDY
WAIVER REQUEST §73.807(a)

KHSX-LP
Houston, Texas
Channel 268L1 (101.5 MHz)

The proposed location does not meet second-adjacent channel minimum distance separation in respect to KLOL, Houston, Texas.

KLOL operates on Channel 266C with an effective radiated power (ERP) of 96 kW at 585 meters height above average terrain (HAAT) into a non-directional antenna. KLOL places an 86.6 dBu service contour at the proposed transmitter site.

Using the U/D method¹, the proposed LPFM station is predicted to produce an undesired interference overlap in respect to KLOL to the proposed LPFM station's 126.6 dBu interfering contour ("overlap zone"). At 100 watts ERP, the overlap zone extends to 33 meters from the radiation center.

The proposed antenna is going to be on the roof of a 4-story office building. The tower will reach to 30 feet (9.1 meters) above the roof line. The landing (floor) of the 4th floor is 11.25 meters above ground level. With the average height of a person at 6 feet, the highest occupied area is 2 meters above the floor of the highest occupied level of the building. This puts our highest occupied point at 13.25 meters.

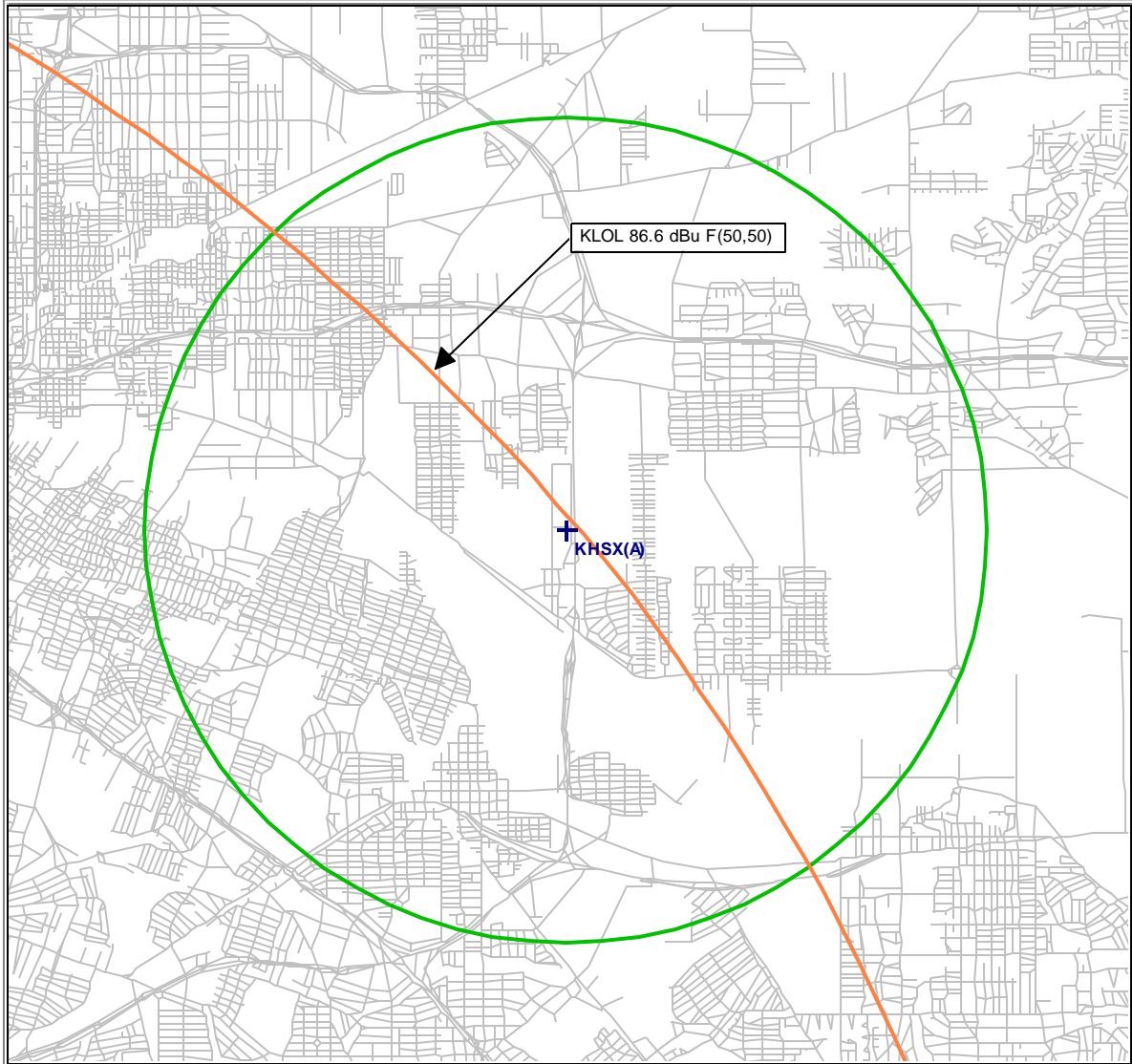
KHSX-LP proposes to operate a 2-bay Nicom BKG-77 circularly polarized antenna at half-wave spacing. Based on the manufacturer's specifications, at 13.25 meters above ground level along the -25 degree depression angle, the interfering field strength is only 125.46 dBu. Therefore, the overlap zone remains above the highest occupied point of the building. Therefore, the proposed station will not create any interference to existing or potential listeners of second adjacent channel station KLOL, Houston.

The applicant requests a waiver of §73.807(a) of the Commission's Rules in respect to KLOL.

Report completed by
Michelle Bradley
Founder, REC Networks
December 19, 2017

¹ - See *Living Way Ministries, Inc.* Memorandum Opinion and Order, 17 FCC Rcd 17054, 17056 (2002) at 5. *Recon denied* 23 FCC Rcd 15070 (2008).

KHSP-LP vs. KLOL



Proposed Power:				0.1 kW				
Antenna Height AGL:				24.1 m				
Interference Contour:				126.6 dBu				
Artificial RX Antenna Height:				13.25 m				
Antenna Type:				Nicom BKG77/BKG88 - 2 bay Half-wave spacing				
Angle Below Horizon	Antenna Relative Field	ERP in kW	ERP in dBk	Distance from Ant to Interference Contour	Distance from Ant to Artificial Plane	Field Strength in dBu @ Artificial Plane	Distance from Ant to Ground Level	Field Strength in dBu @ Ground Level
5	0.988	0.098	-10.10	32.42	124.49	114.91	276.52	107.98
10	0.952	0.091	-10.43	31.23	62.48	120.58	138.79	113.65
15	0.881	0.078	-11.10	28.91	41.92	123.37	93.12	116.44
20	0.791	0.063	-12.04	25.95	31.72	124.86	70.46	117.92
25	0.686	0.047	-13.27	22.51	25.67	125.46	57.03	118.53
30	0.577	0.033	-14.78	18.93	21.70	125.41	48.20	118.48
35	0.463	0.021	-16.69	15.19	18.92	124.69	42.02	117.76
40	0.354	0.013	-19.02	11.61	16.88	123.35	37.49	116.42
45	0.256	0.007	-21.84	8.40	15.34	121.37	34.08	114.43
50	0.174	0.003	-25.19	5.71	14.16	118.71	31.46	111.78
55	0.110	0.001	-29.17	3.61	13.25	115.31	29.42	108.37
60	0.061	0.000	-34.29	2.00	12.53	110.67	27.83	103.74
65	0.028	0.000	-41.06	0.92	11.97	104.30	26.59	97.37
70	0.007	0.000	-53.10	0.23	11.55	92.57	25.65	85.64
75	0.004	0.000	-57.96	0.13	11.23	87.95	24.95	81.02
80	0.008	0.000	-51.94	0.26	11.02	94.14	24.47	87.21
85	0.008	0.000	-51.94	0.26	10.89	94.24	24.19	87.31
90	0.009	0.000	-50.92	0.30	10.85	95.30	24.10	88.36

DEMONSTRATION OF HIGHEST OCCUPIED AREA

As mentioned, the landing of the 4th floor is at 11.25 meters above ground level. Since the height of the average person is less than 2 meters, we will place the highest occupied point at 13.25 meters above ground level. (measurements below are in meters.)

