

**Technical Certifications Exhibit**

This minor modification of licensed facility complies with all engineering standards and assignment requirements specified in the applicable FCC rules and regulations. This application proposes an increase in ERP to operate as a Fill-in for KLTW-HD3, Winnie, TX. Also included is a correction in the geographical coordinates, tower height, site elevation, and antenna RC AMSL height in order to match the antenna structure registration information as indicated below:

	Licensed	Minor Mod of Licensed Facility
Channel / Class	251D	251D
ASRN	1049616	1049616
Geographical coordinates	30 06 35.8 94 01 42.6	30 06 35.6 94 01 42.3
Tower AGL	174.0 m	181.4 m
Site elevation	2.0 m	1.8 m
Antenna RC AGL	155.0 m	155.0 m
Antenna RC AMSL	157.0 m	156.8 m
HAAT	154.0 m	153.9 m
ERP	0.115 kW (H&V, non-DA)	0.220 kW (H&V, non-DA)
ANTENNA	RFS CPF-500/1	RFS CPF-500/1

FCC 30 second terrain data

## Tabulation of HAAT / ERP / distance to 60 dBu contour

CH 251D 30 06 35.6 / 94 01 42.3 0.220 kW ERP (H&amp;V, non-DA) 156.8 m COR AMSL 153.9 m HAAT

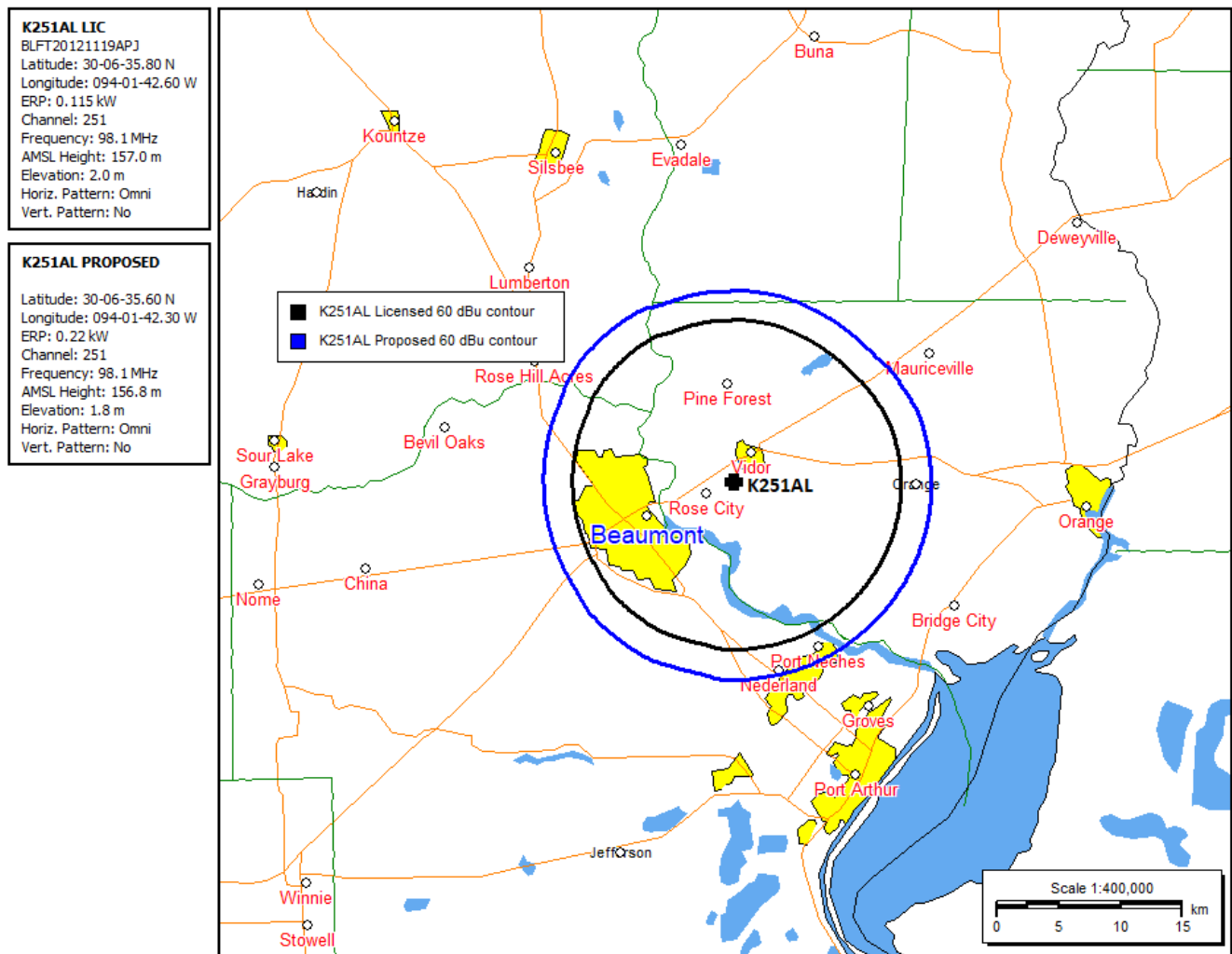
Azi.	AV EL	HAAT	ERP kW	dBk	Field	60-F5
000	5.5	151.3	0.2200	-6.58	1.000	15.42
010	5.7	151.1	0.2200	-6.58	1.000	15.41
020	7.1	149.7	0.2200	-6.58	1.000	15.33
030	8.7	148.1	0.2200	-6.58	1.000	15.23
040	9.5	147.3	0.2200	-6.58	1.000	15.18
050	8.1	148.7	0.2200	-6.58	1.000	15.27
060	3.9	152.9	0.2200	-6.58	1.000	15.52
070	0.4	156.4	0.2200	-6.58	1.000	15.74
080	0.4	156.4	0.2200	-6.58	1.000	15.73
090	0.1	156.7	0.2200	-6.58	1.000	15.75
100	0.0	156.8	0.2200	-6.58	1.000	15.76
110	0.0	156.8	0.2200	-6.58	1.000	15.76
120	0.0	156.8	0.2200	-6.58	1.000	15.76
130	0.0	156.8	0.2200	-6.58	1.000	15.76
140	0.0	156.8	0.2200	-6.58	1.000	15.76
150	0.0	156.8	0.2200	-6.58	1.000	15.76
160	0.0	156.8	0.2200	-6.58	1.000	15.76
170	0.7	156.1	0.2200	-6.58	1.000	15.71
180	0.0	156.8	0.2200	-6.58	1.000	15.76
190	3.7	153.1	0.2200	-6.58	1.000	15.53
200	3.4	153.4	0.2200	-6.58	1.000	15.55
210	2.0	154.8	0.2200	-6.58	1.000	15.63
220	2.8	154.0	0.2200	-6.58	1.000	15.59
230	3.2	153.6	0.2200	-6.58	1.000	15.56
240	7.0	149.8	0.2200	-6.58	1.000	15.33
250	7.0	149.8	0.2200	-6.58	1.000	15.33
260	6.7	150.1	0.2200	-6.58	1.000	15.35
270	6.6	150.2	0.2200	-6.58	1.000	15.36
280	6.0	150.8	0.2200	-6.58	1.000	15.39
290	5.0	151.8	0.2200	-6.58	1.000	15.45
300	1.4	155.4	0.2200	-6.58	1.000	15.67
310	0.0	156.8	0.2200	-6.58	1.000	15.76
320	0.0	156.8	0.2200	-6.58	1.000	15.76
330	0.0	156.8	0.2200	-6.58	1.000	15.76
340	5.2	151.6	0.2200	-6.58	1.000	15.44
350	4.8	152.0	0.2200	-6.58	1.000	15.46

FCC 30 second Terrain Data

(yellow highlighted values establish average HAAT)

### 60 dBu contour coverage map

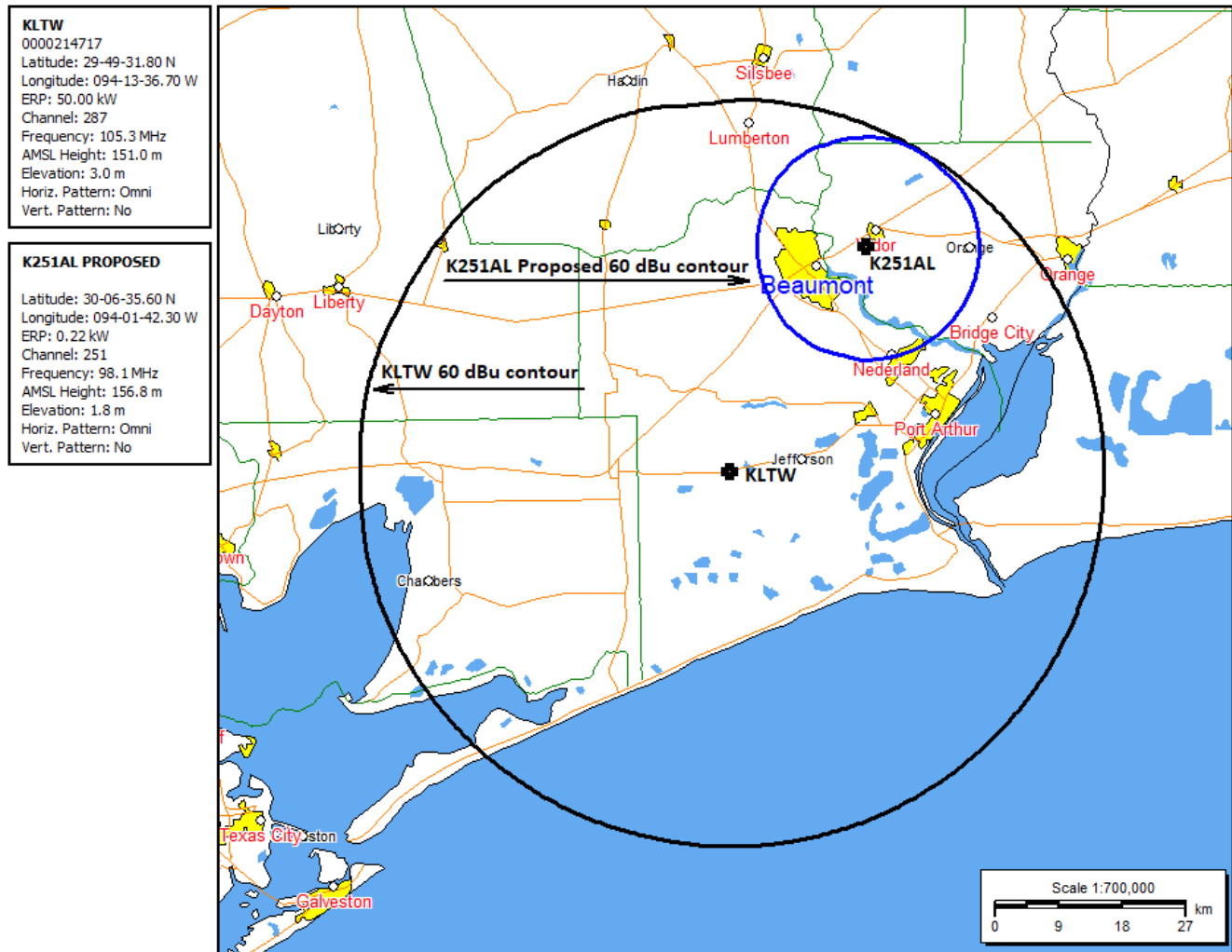
The proposed 60 dBu contour will have overlap with the licensed 60 dBu contour.



FCC 30 second terrain data

### Fill-in Translator

This application proposes to operate K251AL as a fill-in of KLTW-HD3, Winnie, TX (Facility ID 479). The below map demonstrates that the proposed 60 dBu contour of K251AL will be completely encompassed within the 60 dBu contour of KLTW and thus meets the required criteria for fill-in status.



**Educational Media Foundation**  
**Minor Modification of Licensed Facility BLFT-20121119APJ**

**K251AL, Beaumont, TX**  
**January 2024**

**Interference Study**

CH 251D 30 06 35.6 / 94 01 42.3 0.220 kW ERP (H&V, non-DA) 156.8 m COR AMSL 153.9 m HAAT

CH CITY	CALL	TYPE STATE	AZI. <--	DIST FILE #	LAT. LNG.	Pwr (kW) HAAT (M)	INT (km) COR (M)	PRO (km) LICENSEE	*IN* (Overlap in km)	*OUT*
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**Reference station:**

251D	K251AL	LIC	307.6	0.01	30 06 35.80	0.115				
Beaumont		TX	127.6	BLFT20121119APJ	94 01 42.60	154	157	Educational Media Foundation		

**Co-channel, 1<sup>st</sup>, 2<sup>nd</sup>, & 3<sup>rd</sup> adjacent channel relationships:**

248C	KFNC	LIC	218.3	58.23	29 41 52.80	100.000	13.7	91.7	29.0	-34.5
Mont Belvieu		TX	38.1	BLH20120716AFA	94 24 09.70	597	598	Gow Media, LLC		
249C2	KGFZ	LIC	337.1	150.86	31 21 38.80	32.000	5.6	50.4	129.6	99.4
Burke		TX	156.8	0000187342	94 38 55.40	166	248	Educational Radio Foundation		
250C2	KQLK	LIC	53.6	95.43	30 36 57.70	50.000	79.6	53.5	0.4	18.6
De Ridder		LA	234.1	BLH20010212AAA	93 13 31.60	150	185	Cumulus Licensing LLC		
250C	KBXX	LIC	247.8	154.93	29 34 34.80	100.000	136.1	91.5	3.5	40.3
Houston		TX	67.1	BLH19831026AD	95 30 36.70	585	605	Radio One Of Texas II, LLC		
251C	WDGL	LIC	83.3	272.47	30 21 58.70	100.000	188.1	84.5	68.6	136.6
Baton Rouge		LA	264.7	BLH20160113ABS	91 12 47.40	459	465	Guaranty Broadcasting Comp		
252C3	KDLA	LIC	31.0	133.55	31 08 20.60	7.000	34.9	23.0	83.6	87.5
New Llano		LA	211.4	BLH20160112AAO	93 18 15.50	42	124			
252D	W252AQ	LIC	82.7	78.47	30 11 50.70	0.250	21.1	14.0	41.6	40.8
Lake Charles		LA	263.1	BLFT19930629TE	93 13 12.50	131	132	Family Stations, Inc.		
253C	KTJM	LIC	258.4	51.01	30 01 01.80	100.000	13.7	91.9	21.9	-41.9
Port Arthur		TX	78.2	BLH20071113AGU	94 32 47.70	596	611	Estrella Radio License Of		

**I.F. relationships:**

None

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FCC 30 second terrain data

### Interference Study

K251AL is located within the protected contour of KFNC, CH 248C, Mont Belvieu, TX. K251AL's antenna RC AGL height is 155.0 meters. The below chart demonstrates that by using the vertical elevation pattern of a RFS CPF-500 1 bay antenna no interference will reach the ground by a minimum margin of 45.1 meters. Therefore, based on the showing of no population within the area of predicted interference, a waiver of Section 74.1204(d) is respectfully requested.

KFNC(LIC), CH 248C, Mont Belvieu, TX

KFNC signal strength at the K251AL site	73.9 dBu
K251AL interference contour	113.9 dBu
Distance to K251AL interference contour	209.4 meters

ERP (kw):	0.22
Height of Antenna above Ground (m):	155
Translator's IX Contour:	113.9
Antenna Type:	RFS CPF-500 1 bay

<u>Depression Angle from Horizon</u>	<u>Antenna Relative Field</u>	<u>ERP (kw) from the Antenna RF</u>	<u>Dist. To IX Contour (m)</u>	<u>Height IX Contour Above Ground (m)</u>
0	1.000	0.2200	209.9962	155.000
5	0.997	0.2185	209.2612	136.762
10	0.986	0.2139	207.0562	119.045
15	0.969	0.2064	203.4023	102.356
20	0.945	0.1963	198.3624	87.156
25	0.914	0.1839	191.9785	73.866
30	0.878	0.1696	184.3556	62.822
35	0.836	0.1538	175.5778	54.293
40	0.789	0.1371	165.7500	48.458
45	0.738	0.1199	154.9982	45.400
50	0.683	0.1027	143.4484	45.112
55	0.625	0.0859	131.2476	47.488
60	0.565	0.0701	118.5428	52.339
65	0.502	0.0555	105.4811	59.402
70	0.439	0.0424	92.2303	68.332
75	0.376	0.0311	78.9166	78.772
80	0.313	0.0215	65.7078	90.290
85	0.251	0.0139	52.7510	102.450
90	0.191	0.0081	40.1723	114.828

### Interference Study

K251AL is located within the protected contour of KTJM, CH 253C, Port Arthur, TX. K251AL's antenna RC AGL height is 155.0 meters. The below chart demonstrates that by using the vertical elevation pattern of a RFS CPF-500 1 bay antenna no interference will reach the ground by a minimum margin of 79.8 meters. Therefore, based on the showing of no population within the area of predicted interference, a waiver of Section 74.1204(d) is respectfully requested.

KTJM(LIC), CH 253C, Port Arthur, TX

KTJM signal strength at the K251AL site	77.2 dBu
K251AL interference contour	117.2 dBu
Distance to K251AL interference contour	144.3 meters

ERP (kw):	0.22
Height of Antenna above Ground (m):	155
Translator's IX Contour:	117.2
Antenna Type:	RFS CPF-500 1 bay

<u>Depression Angle from Horizon</u>	<u>Antenna Relative Field</u>	<u>ERP (kw) from the Antenna RF</u>	<u>Dist. To IX Contour (m)</u>	<u>Height IX Contour Above Ground (m)</u>
0	1.000	0.2200	143.6188	155.000
5	0.997	0.2185	143.1161	142.527
10	0.986	0.2139	141.6082	130.410
15	0.969	0.2064	139.1092	118.996
20	0.945	0.1963	135.6623	108.601
25	0.914	0.1839	131.2963	99.512
30	0.878	0.1696	126.0830	91.959
35	0.836	0.1538	120.0797	86.125
40	0.789	0.1371	113.3583	82.135
45	0.738	0.1199	106.0050	80.043
50	0.683	0.1027	98.1060	79.846
55	0.625	0.0859	89.7618	81.471
60	0.565	0.0701	81.0728	84.789
65	0.502	0.0555	72.1397	89.619
70	0.439	0.0424	63.0774	95.727
75	0.376	0.0311	53.9720	102.867
80	0.313	0.0215	44.9383	110.744
85	0.251	0.0139	36.0770	119.060
90	0.191	0.0081	27.4743	127.526

### **Environmental Impact & RFR Compliance Statement**

K251AL is located at an established communications site that is in compliance with all environmental impact requirements.

K251AL will operate with 0.220 kW ERP (H&V) at an antenna COR AGL height of 155.0 meters. For a worse case estimation at 2 meters above ground level the RFR is no more than 0.3% of the general population/uncontrolled MPE limit. There are other broadcast facilities at the site.

Facilities that contribute no more than 5% of the general population/uncontrolled MPE limit at the site comply with the requirements of OET Bulletin No. 65 with no further study, therefore K251AL is in compliance with all environmental and RFR requirements.

The site has restricted access to only authorized personnel. The applicant certifies that in cooperation with other users of the site all authorized personnel will be protected from RFR exposure in excess of FCC guidelines while accessing any controlled exposure area, including the tower, by either reducing power or ceasing operations.