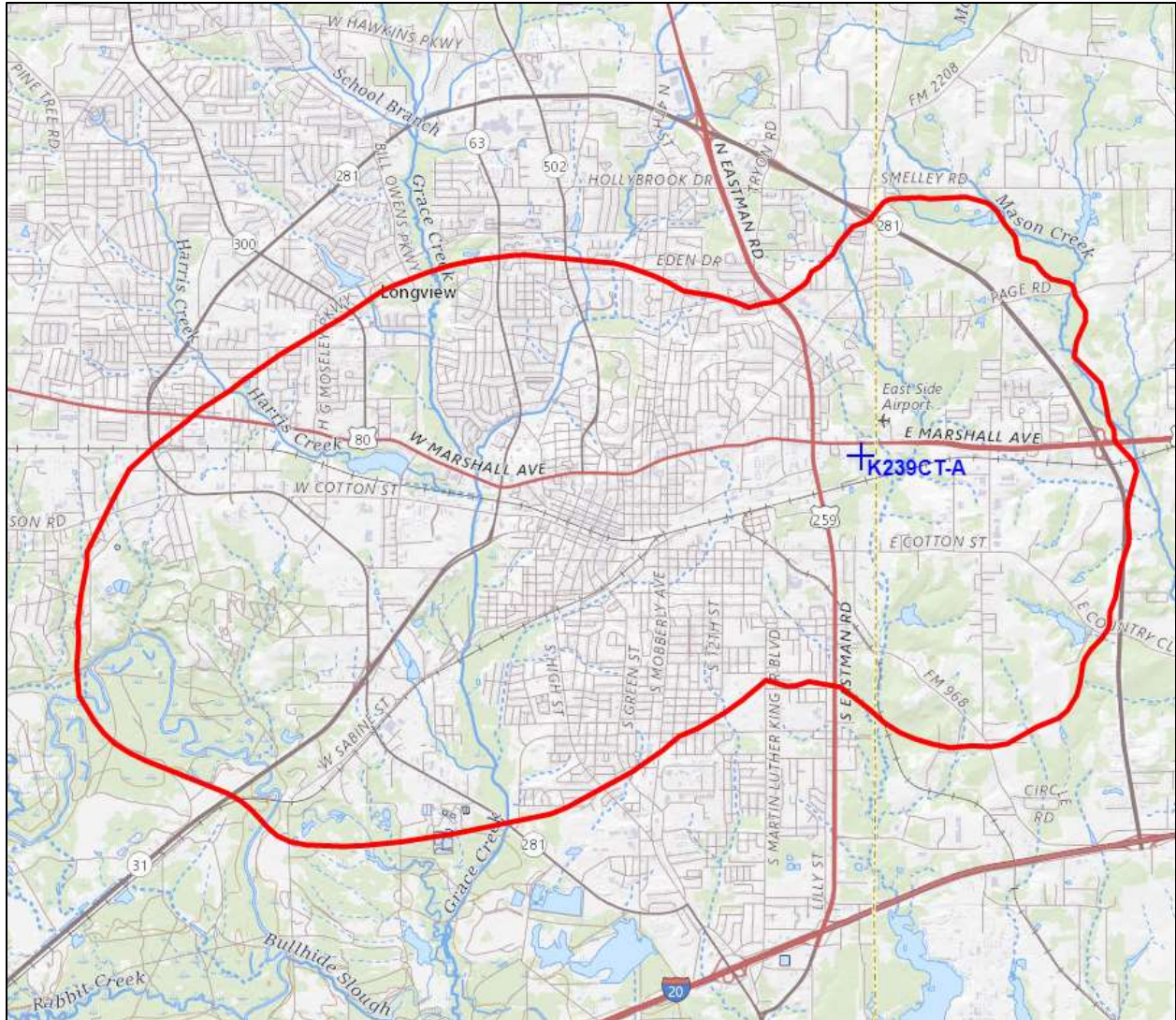




REC Networks/Michelle Bradley, CBT
11541 Riverton Wharf Rd.
Mardela Springs, MD 21837
844.REC.LPFM/202.621.2355
recnet.com

Minor modification of Construction Permit for **K239CT**
LONGVIEW, TX
RCA BROADCASTING
BNPFT-20180507AAV

PROPOSED 60dBu F(50,50) SERVICE CONTOUR

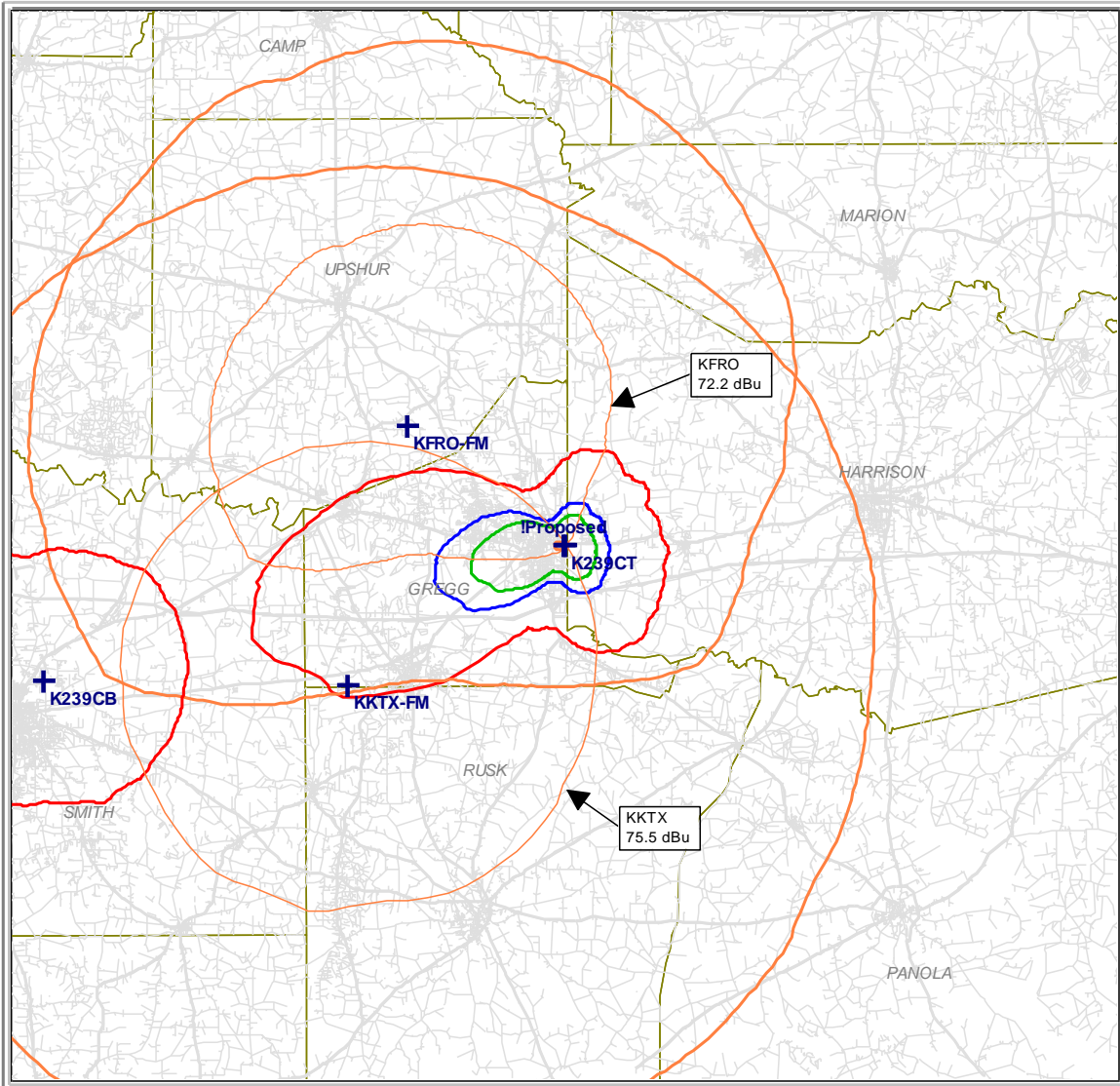


LONGVIEW, TX– Channel 239D ~ 95.7 MHz ~ ERP 0.250 kW
Elev: 114 meters ~ RCAGL: 30 meters ~ RCAMSL: 144 meters
Overall tower height: 30.5 meters – ASR: None
NAD83 Latitude: 32° 30' 08.9" NL – Longitude: 94° 42' 14.3" WL
NAD27 Latitude: 32° 30' 08.4" NL – Longitude: 94° 42' 13.5" WL

Site: !Proposed
 Coordinates: 32-30-08.4 N, 94-42-13.5 W
 Freq: 95.70000 MHz
 ERP: 250.00 W

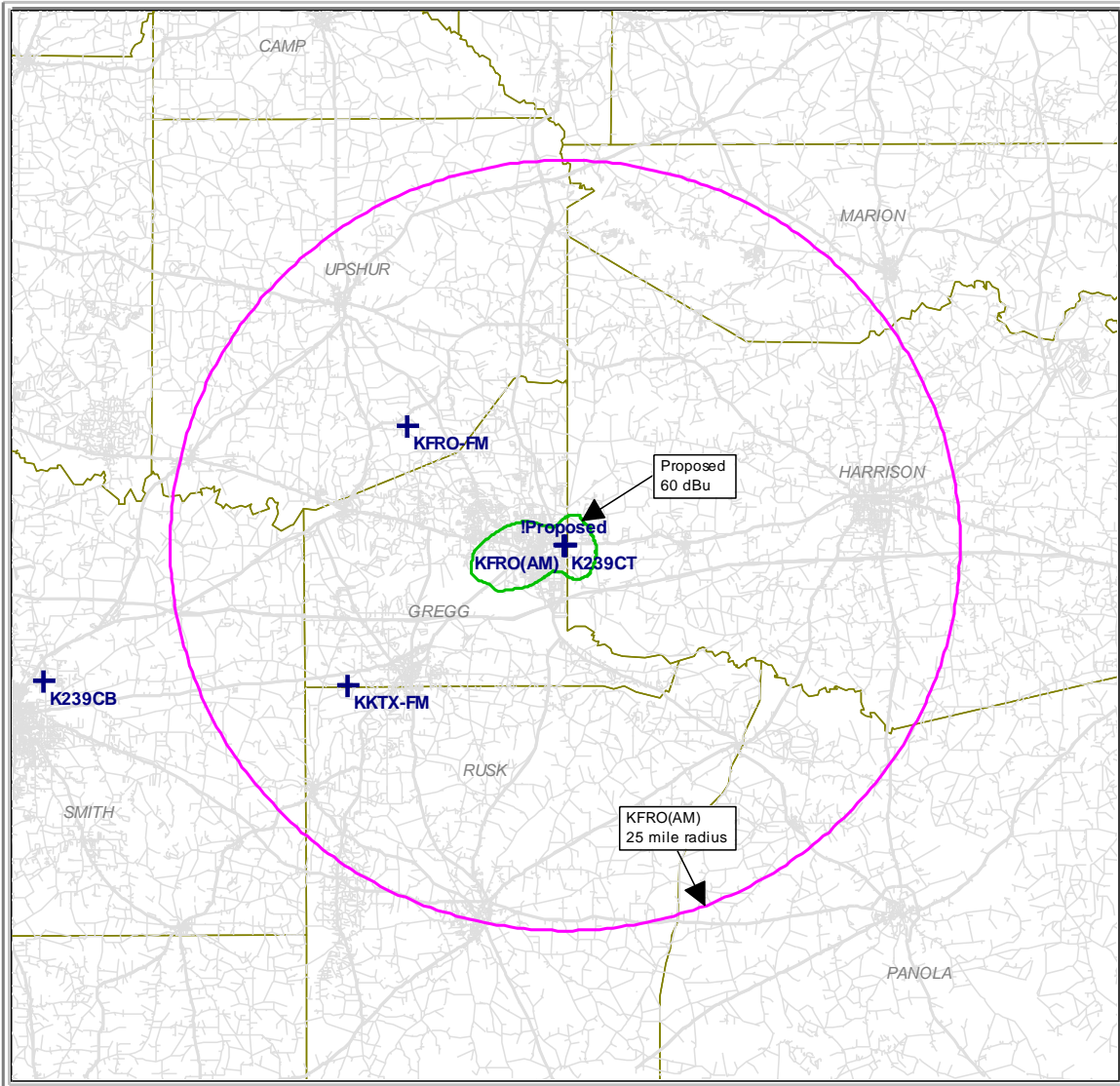
Bearing	ERP W	HAAT	DH	Distance	Lat	Lon
0	4.56	36	60	2.86	32.528039	-94.703750
5	5.33	39	80	3.07	32.529805	-94.700899
10	5.93	40	60	3.20	32.530714	-94.697815
15	6.32	40	50	3.26	32.530647	-94.694751
20	6.24	42	50	3.34	32.530562	-94.691563
25	6.01	45	30	3.44	32.530407	-94.688222
30	5.48	45	50	3.36	32.528536	-94.685806
35	5.18	43	50	3.23	32.526093	-94.684017
40	4.97	40	60	3.05	32.523360	-94.682823
45	4.97	41	60	3.10	32.522028	-94.680390
50	5.11	44	50	3.26	32.521167	-94.677127
55	5.48	43	40	3.27	32.519210	-94.675160
60	6.01	39	40	3.17	32.516586	-94.674467
65	6.89	30	50	2.89	32.513331	-94.675774
70	8.19	27	50	2.99	32.511537	-94.673752
75	9.02	25	60	3.07	32.509485	-94.672081
80	9.02	28	30	3.07	32.507130	-94.671463
85	9.02	32	30	3.17	32.504817	-94.670028
90	9.02	35	30	3.33	32.502328	-94.668289
95	8.46	37	20	3.37	32.499686	-94.667947
100	7.14	39	20	3.32	32.497145	-94.668893
105	6.16	43	40	3.37	32.494474	-94.668996
110	5.55	47	30	3.46	32.491694	-94.669109
115	5.18	50	20	3.51	32.488979	-94.669809
120	4.97	53	30	3.59	32.486184	-94.670599
125	4.97	56	30	3.68	32.483324	-94.671573
130	5.11	56	40	3.71	32.480892	-94.673464
135	5.40	58	30	3.82	32.478060	-94.674981
140	5.93	61	30	3.99	32.474846	-94.676413
145	6.24	59	40	3.97	32.473051	-94.679448
150	6.32	56	40	3.90	32.471992	-94.682987
155	6.08	57	30	3.89	32.470606	-94.686214
160	5.48	57	30	3.80	32.470223	-94.689898
165	4.69	57	30	3.66	32.470518	-94.693645
170	3.84	57	40	3.49	32.471455	-94.697296
175	3.14	56	50	3.28	32.472962	-94.700704
180	2.55	53	60	3.00	32.475305	-94.703750
185	2.16	50	60	2.83	32.476931	-94.706384
190	1.98	52	50	2.83	32.477230	-94.708997
195	1.98	55	60	2.90	32.477155	-94.711747
200	2.30	54	40	2.97	32.477256	-94.714569
205	3.25	52	50	3.18	32.476418	-94.718074
210	5.70	55	60	3.77	32.472927	-94.723873
215	11.66	57	60	4.60	32.468446	-94.731872
220	26.24	57	60	5.60	32.463757	-94.742109
225	47.09	56	60	6.38	32.461741	-94.751849
230	73.98	59	60	7.32	32.460010	-94.763508
235	104.98	64	70	8.36	32.459162	-94.776784
240	138.76	59	60	8.65	32.463394	-94.783635
245	171.81	59	60	9.16	32.467487	-94.792243
250	200.70	62	80	9.78	32.472219	-94.801699
255	225.15	60	60	9.90	32.479246	-94.805708
260	240.59	55	50	9.65	32.487225	-94.805054
265	243.54	52	40	9.39	32.494930	-94.803546
270	228.01	47	70	8.73	32.502299	-94.796822
275	207.02	42	40	7.95	32.508540	-94.788261
280	177.66	38	20	7.27	32.513663	-94.780105
285	145.92	35	30	6.64	32.517784	-94.772215
290	111.22	34	30	6.12	32.521136	-94.765066
295	80.09	32	50	5.49	32.523206	-94.756865
300	51.98	33	50	4.98	32.524721	-94.749757
305	29.93	32	30	4.28	32.524388	-94.741115
310	14.16	31	30	3.51	32.522635	-94.732449
315	6.24	27	50	2.84	32.520375	-94.725149
320	3.66	26	40	2.53	32.519757	-94.721090
325	2.35	27	30	2.27	32.519087	-94.717663
330	2.02	28	40	2.19	32.519368	-94.715414
335	1.94	29	50	2.16	32.519949	-94.713492
340	2.12	28	50	2.21	32.521037	-94.711824
345	2.45	32	60	2.37	32.522889	-94.710282
350	3.02	32	70	2.49	32.524363	-94.708357
355	3.72	35	50	2.71	32.526598	-94.706268

Contour Protection - §74.1204(a)

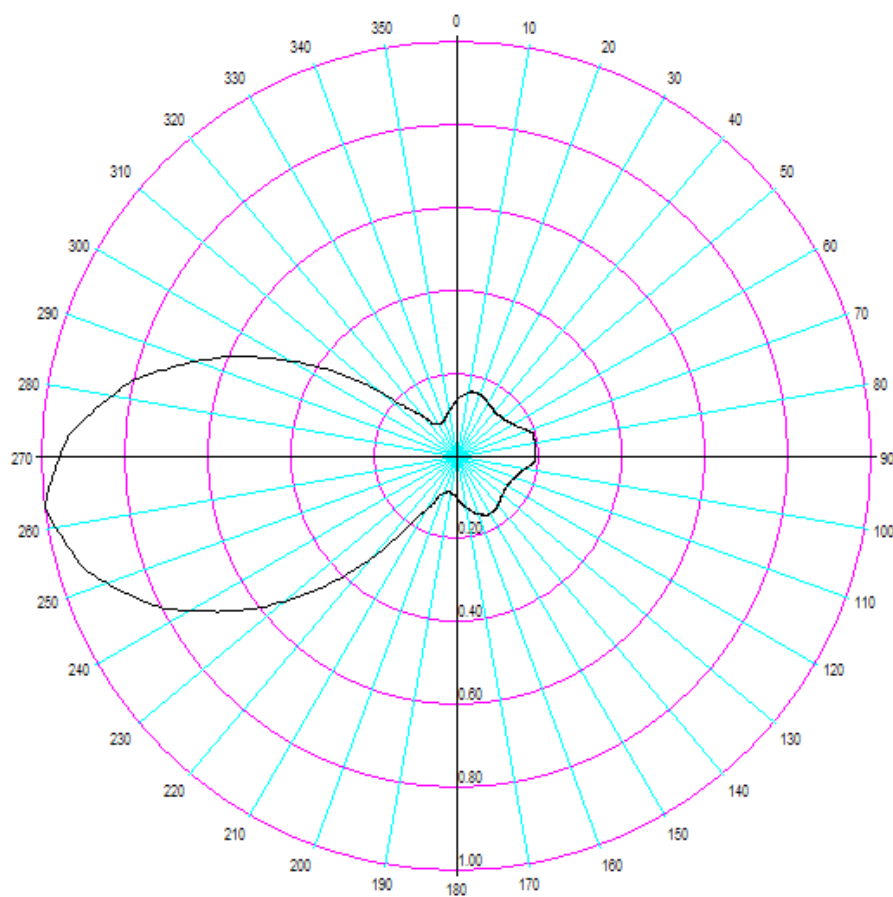


Red: Proposed 40 dBu to co-channel 60 dBu

Fill In Area with KFRO(AM)



Translator at same site as AM station. Service contour entirely within 25 mile radius.



Azim	Rel.FS	ERP [W]	dBk
0.0	0.135	4.556	-23.414
5.0	0.146	5.329	-22.734
10.0	0.154	5.929	-22.270
15.0	0.159	6.320	-21.993
20.0	0.158	6.241	-22.047
25.0	0.155	6.006	-22.214
30.0	0.148	5.476	-22.615
35.0	0.144	5.184	-22.853
40.0	0.141	4.970	-23.036
45.0	0.141	4.970	-23.036
50.0	0.143	5.112	-22.914
55.0	0.148	5.476	-22.615
60.0	0.155	6.006	-22.214
65.0	0.166	6.889	-21.618
70.0	0.181	8.190	-20.867
75.0	0.190	9.025	-20.446
80.0	0.190	9.025	-20.446
85.0	0.190	9.025	-20.446

Azim	Rel.FS	ERP [W]	dBk
90.0	0.190	9.025	-20.446
95.0	0.184	8.464	-20.724
100.0	0.169	7.140	-21.463
105.0	0.157	6.162	-22.103
110.0	0.149	5.550	-22.557
115.0	0.144	5.184	-22.853
120.0	0.141	4.970	-23.036
125.0	0.141	4.970	-23.036
130.0	0.143	5.112	-22.914
135.0	0.147	5.402	-22.674
140.0	0.154	5.929	-22.270
145.0	0.158	6.241	-22.047
150.0	0.159	6.320	-21.993
155.0	0.156	6.084	-22.158
160.0	0.148	5.476	-22.615
165.0	0.137	4.692	-23.286
170.0	0.124	3.844	-24.152
175.0	0.112	3.136	-25.036

Azim	Rel.FS	ERP [W]	dBk
180.0	0.101	2.550	-25.934
185.0	0.093	2.162	-26.651
190.0	0.089	1.980	-27.033
195.0	0.089	1.980	-27.033
200.0	0.096	2.304	-26.375
205.0	0.114	3.249	-24.883
210.0	0.151	5.700	-22.441
215.0	0.216	11.664	-19.332
220.0	0.324	26.244	-15.810
225.0	0.434	47.089	-13.271
230.0	0.544	73.984	-11.309
235.0	0.648	104.976	-9.789
240.0	0.745	138.756	-8.577
245.0	0.829	171.810	-7.650
250.0	0.896	200.704	-6.974
255.0	0.949	225.150	-6.475
260.0	0.981	240.590	-6.187
265.0	0.987	243.542	-6.134

Azim	Rel.FS	ERP [W]	dBk
270.0	0.955	228.006	-6.421
275.0	0.910	207.025	-6.840
280.0	0.843	177.662	-7.504
285.0	0.764	145.924	-8.359
290.0	0.667	111.222	-9.538
295.0	0.566	80.089	-10.964
300.0	0.456	51.984	-12.841
305.0	0.346	29.929	-15.239
310.0	0.238	14.161	-18.489
315.0	0.158	6.241	-22.047
320.0	0.121	3.660	-24.365
325.0	0.097	2.352	-26.285
330.0	0.090	2.025	-26.936
335.0	0.088	1.936	-27.131
340.0	0.092	2.116	-26.745
345.0	0.099	2.450	-26.108
350.0	0.110	3.025	-25.193
355.0	0.122	3.721	-24.293

REQUEST FOR WAIVER OF §74.1204(a)
SECOND-ADJACENT CHANNEL

K239CT(APP) – Longview, Texas
Channel 239D – 95.7 MHz

The 100 dBu interfering contour of the proposed facility is inside the 60 dBu service contour of second-adjacent channel station KFRO-FM, Gilmer, Texas. KFRO-FM operates 9.5 kW at 161 meters HAAT into a directional antenna. KFRO-FM places a 72.2 dBu contour at the proposed transmitter location.

The 100 dBu interfering contour of the proposed facility is inside the 60 dBu service contour of second-adjacent channel translator station KKTX-FM, Kilgore, Texas. KKTX-FM operates 50 kW at 150 meters HAAT into a nondirectional antenna. KKTX-FM places a 79.5 dBu contour at the proposed transmitter location.

When evaluating multiple overlapping facilities to determine protection, we look further at the weaker signal at the transmitter site, which in this case is KFRO-FM.

Using the U/D method¹, KFRO-FM places a 72.2 dBu contour at the proposed transmitter site. At 250 watts ERP, this creates a 112.2 dBu interfering contour of 272 meters, which reaches the ground. K239CT(APP) is proposing to use a Kathrein Scala CA-5 horizontally polarized directional antenna. Based on the manufacturer's specifications, the 112.2 dBu interfering contour does not reach any occupied structures. The small structure adjacent to the base of the tower houses the equipment for KFRO(AM) and this proposed translator and is not normally occupied.

It can be concluded that the proposed facility will not cause any interference to the overlapping second adjacent channel stations.

Applicant requests a waiver of §74.1204(a) in respect to KFRO-FM, Gilmer, Texas and KKTX-FM, Kilgore, Texas.

Prepared by

/S/
Michelle Bradley, CBT
REC Networks

October 2, 2021

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).



PART 1, SUBPART BB
NEARBY AM TOWERS
NO CONSTRUCTION PERMIT CONDITION NECESSARY

K239CT(APP) – Longview, Texas
Channel 239D – 95.7 MHz

The proposed site is approximately 80 meters from the licensed coordinates for KFRO(AM), Longview, Texas. KFRO(AM) operates on 1370 kHz (219 meters) and was recently licensed as a nondirectional facility (see File No. BL-20210106AAI).

Pursuant to Part 1, Subpart BB of the Commissions Rules, a study was performed on the proposed tower site. The antenna structure that will be used by the proposed translator is a separate tower used as a studio to transmitter link receive site and is not a “hot” tower as part of the current or formerly licensed directional antenna system (see File No. BL-19830613AJ, modified by BP-20200421AAH).

As the distance between the proposed translator site and the nondirectional AM station is less than one wavelength (219 meters), we must look at the electrical distance between the AM antenna and the proposed antenna. An evaluation of the electrical distance shows that the proposed antenna structure has an electrical distance of 50.14 degrees, which is less than the 60 electrical degrees necessary to require notification of the AM licensee.

Based on this information, no construction permit condition in respect to KFRO(AM) is necessary. There are no other nearby AM towers.

Report prepared by,

Michelle Bradley, CBT
REC Networks

October 2, 2021

Tower structure details

Antenna type	Free-standing tower
Supporting Height	30.5 m
In the calculation of electrical degrees, the entire tower structure height will be considered due to the antenna being ground mounted.	

AM Station Details

Array Center		Distance		Elec. Degrees		Notify AM Station
Latitude	Longitude	Required	Actual	Req'd	Actual	
KFRO 1370 kHz (219 m) <i>Non-Directional</i> (Daytime)						
32 30' 7.20"	94 42' 10.80"	219 m	80 m	60	50.14	NO
KFRO 1370 kHz (219 m) <i>Non-Directional</i> (Nighttime)						
32 30' 7.20"	94 42' 10.80"	219 m	80 m	60	50.14	NO