



**STATEMENT OF JOHN E. HIDLE, P.E.
IN SUPPORT OF AN APPLICATION FOR
A MINOR MODIFICATION OF A
POST REPACK CONSTRUCTION PERMIT
FILE # 0000025679
KEYE-TV - AUSTIN, TEXAS
DTV - CH. 34 - 1000 kW - 395 m HAAT**

Prepared for: KEYE LICENSEE, LLC

I am a Consulting Engineer, an employee in the firm of Carl T. Jones Corporation, with offices located in Springfield, Virginia. My education and experience are a matter of record with the Federal Communications Commission. I am a Licensed Professional Engineer in the Commonwealth of Virginia, License No. 7418, and in the State of New York, License No. 63418.

GENERAL

This office has been authorized by KEYE LICENSEE, LLC, licensee of KEYE-TV, channel 43, facility ID number 33691, licensed to Austin, Texas, to prepare this statement, FCC Form 2100, Schedule A, its technical sections, and the associated exhibits in support of an application for a minor modification of its post-reassignment construction permit, File # 0000025679, that authorizes KEYE-TV to use channel 34 for its post-reassignment broadcasting. The instant application proposes only change to a non-directional antenna and to increase KEYE-TV's ERP to 1000 kW. The proposed increase is in accord with Section 73.622(f)(5), to achieve a coverage area on par with the "largest station in the market", which appears to be KAKW-DT, Channel 13, licensed to Killeen, Texas.

DETERMINATION OF THE “LARGEST STATION IN THE MARKET”

It appears from an analysis of the stations that are licensed to communities located in the Austin, Texas Designated Market Area (DMA) that the largest station in geographic area is KAKW-DT, channel 13, Killeen, Texas with a predicted coverage area of 46,789 square kilometers. The instant application to increase KEYE-TV’s ERP to 1000 kW results in a predicted coverage area of 33,799 square kilometers. Clearly KEYE-TV is entitled, according to Section 73.622(f)(5), to the proposed increase in its ERP to 1000 kW.

OMNI-DIRECTIONAL ANTENNA

The applicant proposes to install a new Dielectric model TFU-24GTH/VP-R O6 elliptically polarized omni-directional transmitting antenna with its center of radiation located at a height above ground of 361 meters, and a height above average terrain of 395 meters. The manufacturer’s horizontal plane azimuth pattern for the vertically polarized component is shown and tabulated in exhibit 2. The manufacturer’s vertical plane elevation radiation pattern, illustrating the antenna’s radiation characteristics above and below the horizontal plane is shown and tabulated in Exhibit 3.

PREDICTED COVERAGE CONTOURS

The predicted coverage contours were calculated in accordance with the method described in Section 73.625(b) of the Rules, utilizing the appropriate F(50,90) propagation curves (47 CFR Section 73.699, Figure 9), proposed Effective Radiated Power, and antenna height above average terrain as determined for each profile radial. The average terrain on the eight cardinal radials from 3 kilometers to 16 kilometers from the site, was determined using the NED Three Second US Terrain Database as permitted in the FCC

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Rules. The antenna site elevation and coordinates were determined from FCC antenna registration data. Exhibit 1 shows the predicted Noise Limited (40.68 dBu) contour, and the principal community (48 dBu) contour. The 48 dBu contour completely encompasses the principal community of license, Austin, Texas.

ALLOCATION CONSIDERATIONS

Post-Transition DTV Considerations

An allocation study was performed, using the FCC's software, tv_study, v. 2.2.3, to determine if the instant application for construction permit is predicted to cause new prohibited interference to post reassignment DTV stations, construction permits, DTV allotments or Class A DTV stations. The study results, shown in Appendix B, indicate that the instant application for construction permit is predicted to cause no new interference exceeding 0.5% to the populations served by any post reassignment DTV station, construction permit, allotment or Class A DTV stations. (See Appendix B)

International DTV Considerations

The allocation study includes Mexican facilities within the coordination distance, however, none is predicted to be affected by the KEYE-TV proposal. (See Appendix B)

BLANKETING AND INTERMODULATION INTERFERENCE

Other broadcast and non-broadcast facilities are either co-located with, or located within 10 km of the proposed KEYE-TV site. The applicant does recognize its responsibility to remedy complaints of interference that might result from this proposal in accordance with applicable Rules.

RADIO_FREQUENCY IMPACT

The FCC's guidelines and procedures for evaluating environmental effects of radio frequency (RF) emissions are generally based on recommendations by the National Council on Radiation Protection and Measurements (NCRP) in NCRP Report No. 86 (1986) and by the American National Standards Institute and the Institute of Electrical and Electronic Engineers, LLC (IEEE) in ANSI/IEEE C95.1-1992 (IEEE C95.1-1991). The guidelines define a maximum permissible exposure (MPE) level for occupational or "controlled" situations, and for "uncontrolled" environments that apply in all other cases that might affect the general public. The FCC Office of Engineering and Technology's technical bulletin No. 65 entitled, "Evaluating Compliance with FCC Guidelines for Human Exposure to Radio Frequency Electromagnetic Fields" (Edition 97-01, August 1997), provides assistance to determine whether FCC-regulated facilities comply with guidelines for human exposure to radio frequency electromagnetic fields as adopted by the Commission in 1996. OET Bulletin No. 65 contains the technical information necessary to evaluate compliance with the FCC's policies and guidelines. The Maximum Permitted Exposure (MPE) level for broadcast facilities that operate on a frequency between 30 MHz and 300 MHz is 200 microwatts per centimeter squared ($\mu\text{W}/\text{cm}^2$) for an "uncontrolled" environment, and is 1000 microwatts per centimeter squared ($\mu\text{W}/\text{cm}^2$) for a "controlled" environment. The MPE level for broadcast facilities that operate on a frequency between 300 MHz and 1500 MHz, primarily UHF DTV stations, is determined for an "uncontrolled" environment by dividing the operating frequency in MHz by 1.5, and is determined for a "controlled" environment by dividing the operating frequency in MHz by 0.3.

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The KEYE-TV transmit antenna is located at a multiple-use transmitter site. In accordance with Section 1.1307(b) of the FCC Rules, "when performing an evaluation for compliance with the FCC RF guidelines all significant contributors to the ambient RF environment should be considered". As discussed below, the KEYE-TV predicted power density contribution at the multiple-use site is not considered significant and does not require consideration.

As shown on the vertical elevation pattern submitted elsewhere in this application, the relative field of the proposed antenna does not exceed a value of 0.15 at any downward direction greater than 4.0 degrees below the horizontal. Considering this worst-case downward relative field of 0.15, the subject station is predicted to produce a maximum power density of only 11.796 microwatts per square centimeter at two meters above ground level at the multiple-use transmitter site. This represents only 2.98% of the FCC Guideline value of 395.33 microwatts per square centimeter for uncontrolled RFR environments at the KEYE-TV operating frequency. Pursuant to Section 1.1307(b)(3) of the FCC Rules, because the proposed facility would contribute less than 5% of the uncontrolled and controlled exposure limit at the multiple use site, the proposal's power density contribution is insignificant.

Further, the Applicant will continue to cooperate/coordinate with other site users and reduce power and/or cease operation during times of service or maintenance of the transmission systems as necessary to avoid potentially harmful exposure to personnel. In light of the above, the proposed KEYE-TV facility should be categorically excluded from RF environmental processing under Section 1.1307(b) of the Commission's Rules.

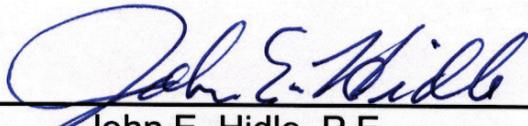
OCCUPATIONAL SAFETY

The licensee of KEYE-TV is committed to the protection of station personnel and/or tower contractors working in the vicinity of the KEYE-TV antenna, and is committed to reducing power or ceasing operation during times of maintenance of the transmission systems, when necessary, to ensure protection to personnel.

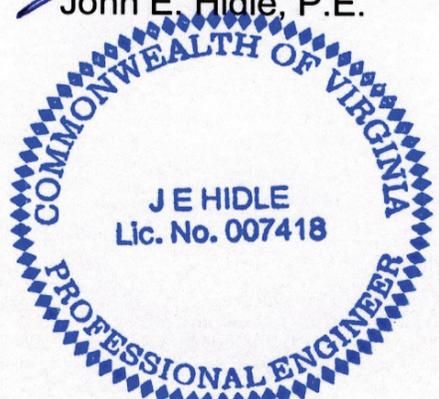
SUMMARY

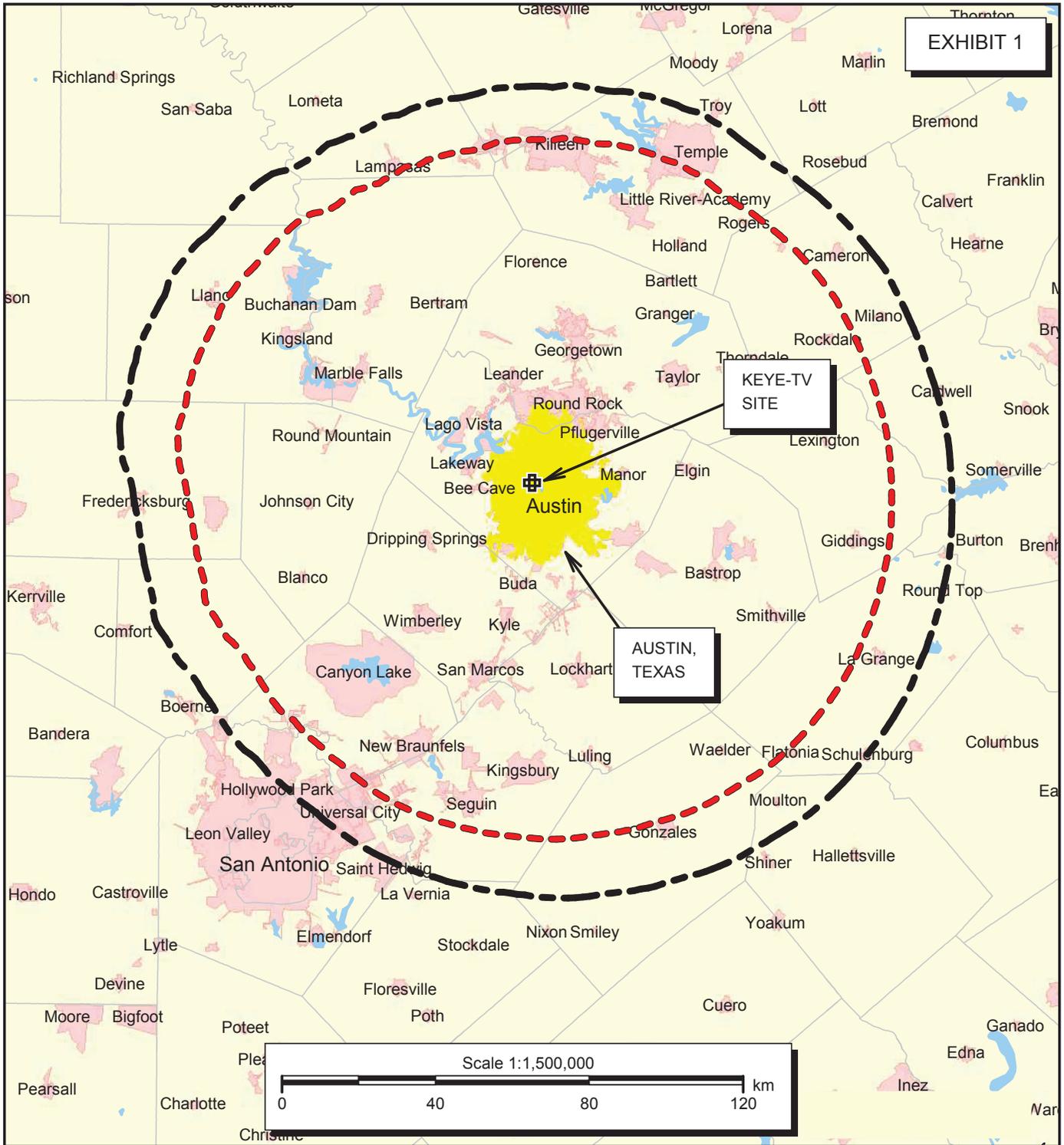
It is submitted that the instant application for minor modification of its post-reassignment channel 34 construction permit to increase KEYE-TV's ERP to 1000 kW, as described herein, complies with the Rules, Regulations and relevant Policies of the Federal Communications Commission. This statement, FCC Form 2100, its technical sections, and the attached exhibits were prepared by me or under my direct supervision and are believed to be true and correct to the best of my knowledge and belief.

DATED: October 20, 2017



John E. Hidle, P.E.





PREDICTED COVERAGE CONTOURS

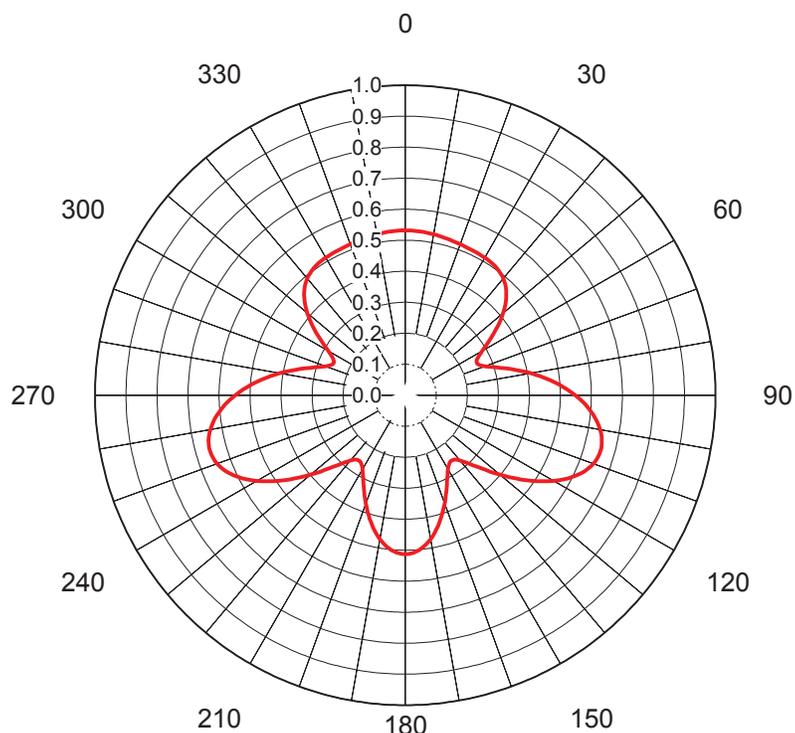
KEYE-TV - AUSTIN, TEXAS
DTV Channel 34 - 1000 kW ERP - 395 M HAAT
OCTOBER, 2017

— — — — —
 Predicted Noise Limited 40.68 dBu
 F(50,90) Coverage Contour



— — — — —
 Predicted Principal Community 48 dBu
 F(50,90) Coverage Contour

AZIMUTH PATTERN Vertical Polarization



Proposal No. **C-70037**
 Date **14-Feb-17**
 Call Letters **KEYE 34**
 Frequency **593 MHz**
 Antenna Type **TFU-24GTH/VP-R O6SP**

 Gain **1.97 (2.94dB)**
Calculated

 Directinal
 Drawing # **TFU-O6SP-V**

Deg	Value																		
0	0.531	36	0.505	72	0.294	108	0.652	144	0.259	180	0.513	216	0.259	252	0.652	288	0.294	324	0.505
1	0.531	37	0.502	73	0.307	109	0.650	145	0.258	181	0.512	217	0.261	253	0.654	289	0.283	325	0.507
2	0.531	38	0.499	74	0.320	110	0.646	146	0.259	182	0.511	218	0.264	254	0.655	290	0.273	326	0.508
3	0.531	39	0.496	75	0.334	111	0.641	147	0.261	183	0.509	219	0.269	255	0.654	291	0.265	327	0.510
4	0.531	40	0.492	76	0.349	112	0.635	148	0.265	184	0.506	220	0.275	256	0.653	292	0.259	328	0.511
5	0.530	41	0.487	77	0.364	113	0.628	149	0.270	185	0.502	221	0.283	257	0.651	293	0.255	329	0.512
6	0.530	42	0.481	78	0.379	114	0.620	150	0.276	186	0.497	222	0.292	258	0.647	294	0.253	330	0.512
7	0.529	43	0.475	79	0.394	115	0.611	151	0.283	187	0.492	223	0.303	259	0.643	295	0.254	331	0.513
8	0.529	44	0.468	80	0.409	116	0.601	152	0.290	188	0.486	224	0.314	260	0.638	296	0.256	332	0.514
9	0.528	45	0.461	81	0.424	117	0.590	153	0.299	189	0.479	225	0.326	261	0.632	297	0.261	333	0.514
10	0.527	46	0.453	82	0.439	118	0.579	154	0.308	190	0.471	226	0.339	262	0.625	298	0.268	334	0.515
11	0.526	47	0.444	83	0.454	119	0.566	155	0.318	191	0.463	227	0.353	263	0.618	299	0.277	335	0.515
12	0.525	48	0.434	84	0.469	120	0.553	156	0.328	192	0.454	228	0.368	264	0.610	300	0.287	336	0.516
13	0.524	49	0.423	85	0.483	121	0.539	157	0.338	193	0.445	229	0.383	265	0.601	301	0.298	337	0.516
14	0.524	50	0.412	86	0.497	122	0.525	158	0.349	194	0.436	230	0.399	266	0.592	302	0.310	338	0.517
15	0.523	51	0.400	87	0.510	123	0.510	159	0.360	195	0.425	231	0.414	267	0.581	303	0.323	339	0.517
16	0.522	52	0.388	88	0.523	124	0.494	160	0.371	196	0.415	232	0.430	268	0.571	304	0.336	340	0.518
17	0.521	53	0.375	89	0.536	125	0.478	161	0.382	197	0.404	233	0.446	269	0.560	305	0.349	341	0.519
18	0.520	54	0.362	90	0.548	126	0.463	162	0.393	198	0.393	234	0.463	270	0.548	306	0.362	342	0.520
19	0.519	55	0.349	91	0.560	127	0.446	163	0.404	199	0.382	235	0.478	271	0.536	307	0.375	343	0.521
20	0.518	56	0.336	92	0.571	128	0.430	164	0.415	200	0.371	236	0.494	272	0.523	308	0.388	344	0.522
21	0.517	57	0.323	93	0.581	129	0.414	165	0.425	201	0.360	237	0.510	273	0.510	309	0.400	345	0.523
22	0.517	58	0.310	94	0.592	130	0.399	166	0.436	202	0.349	238	0.525	274	0.497	310	0.412	346	0.524
23	0.516	59	0.298	95	0.601	131	0.383	167	0.445	203	0.338	239	0.539	275	0.483	311	0.423	347	0.524
24	0.516	60	0.287	96	0.610	132	0.368	168	0.454	204	0.328	240	0.553	276	0.469	312	0.434	348	0.525
25	0.515	61	0.277	97	0.618	133	0.353	169	0.463	205	0.318	241	0.566	277	0.454	313	0.444	349	0.526
26	0.515	62	0.268	98	0.625	134	0.339	170	0.471	206	0.308	242	0.579	278	0.439	314	0.453	350	0.527
27	0.514	63	0.261	99	0.632	135	0.326	171	0.479	207	0.299	243	0.590	279	0.424	315	0.461	351	0.528
28	0.514	64	0.256	100	0.638	136	0.314	172	0.486	208	0.290	244	0.601	280	0.409	316	0.468	352	0.529
29	0.513	65	0.254	101	0.643	137	0.303	173	0.492	209	0.283	245	0.611	281	0.394	317	0.475	353	0.529
30	0.512	66	0.253	102	0.647	138	0.292	174	0.497	210	0.276	246	0.620	282	0.379	318	0.481	354	0.530
31	0.512	67	0.255	103	0.651	139	0.283	175	0.502	211	0.270	247	0.628	283	0.364	319	0.487	355	0.530
32	0.511	68	0.259	104	0.653	140	0.275	176	0.506	212	0.265	248	0.635	284	0.349	320	0.492	356	0.531
33	0.510	69	0.265	105	0.654	141	0.269	177	0.509	213	0.261	249	0.641	285	0.334	321	0.496	357	0.531
34	0.508	70	0.273	106	0.655	142	0.264	178	0.511	214	0.259	250	0.646	286	0.320	322	0.499	358	0.531
35	0.507	71	0.283	107	0.654	143	0.261	179	0.512	215	0.258	251	0.650	287	0.307	323	0.502	359	0.531

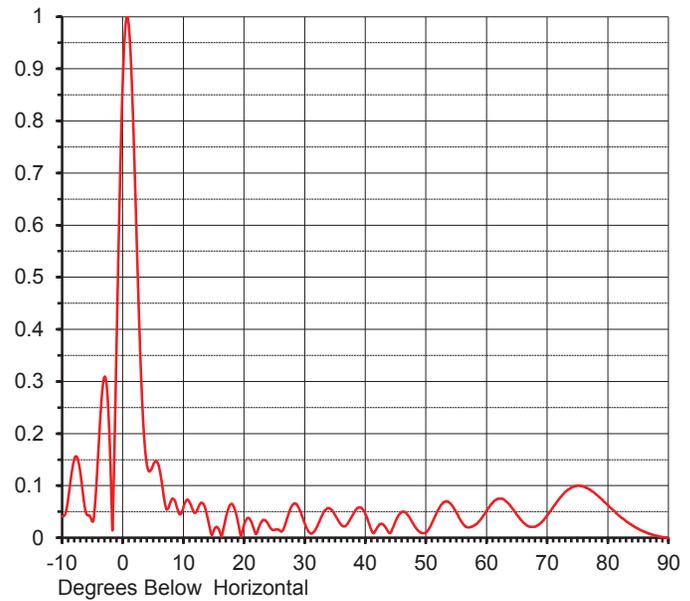
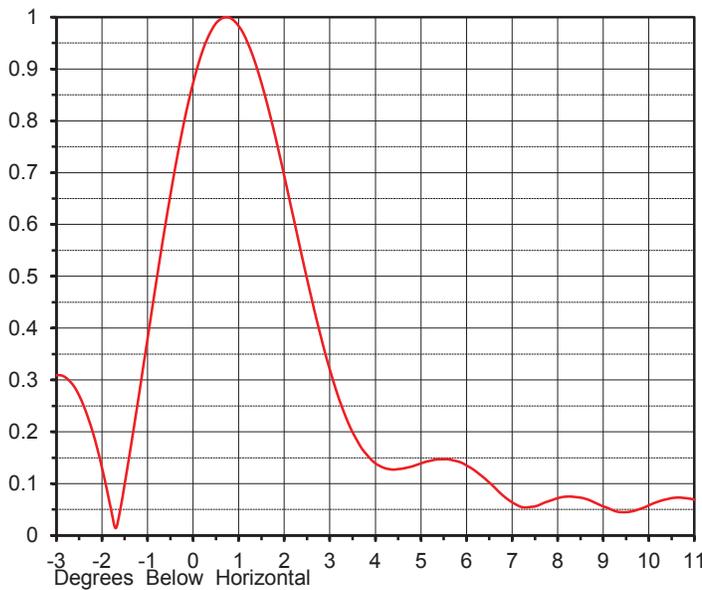
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ELEVATION PATTERN

Proposal No. **C-70037**
 Date **14-Feb-17**
 Call Letters **KEYE 34**
 Frequency **593 MHz**
 Antenna Type **TFU-24GTH/VP-R O6SP**

RMS Directivity at Main Lobe **22.00 (13.42 dB)**
 RMS Directivity at Horizontal **16.80 (12.25 dB)**
Calculated

Beam Tilt **0.75 deg**
 Drawing Number **24G220075**



Angle	Field								
-10.0	0.041	10.0	0.058	30.0	0.028	50.0	0.010	70.0	0.043
-9.0	0.074	11.0	0.069	31.0	0.008	51.0	0.028	71.0	0.059
-8.0	0.150	12.0	0.048	32.0	0.020	52.0	0.053	72.0	0.075
-7.0	0.126	13.0	0.067	33.0	0.046	53.0	0.068	73.0	0.088
-6.0	0.046	14.0	0.038	34.0	0.057	54.0	0.066	74.0	0.096
-5.0	0.031	15.0	0.013	35.0	0.044	55.0	0.049	75.0	0.100
-4.0	0.170	16.0	0.012	36.0	0.025	56.0	0.029	76.0	0.098
-3.0	0.309	17.0	0.038	37.0	0.026	57.0	0.020	77.0	0.093
-2.0	0.131	18.0	0.065	38.0	0.045	58.0	0.024	78.0	0.084
-1.0	0.379	19.0	0.030	39.0	0.058	59.0	0.035	79.0	0.074
0.0	0.873	20.0	0.024	40.0	0.046	60.0	0.051	80.0	0.063
1.0	0.983	21.0	0.035	41.0	0.015	61.0	0.067	81.0	0.052
2.0	0.694	22.0	0.007	42.0	0.020	62.0	0.075	82.0	0.041
3.0	0.320	23.0	0.032	43.0	0.025	63.0	0.072	83.0	0.032
4.0	0.139	24.0	0.026	44.0	0.009	64.0	0.060	84.0	0.024
5.0	0.139	25.0	0.015	45.0	0.032	65.0	0.044	85.0	0.017
6.0	0.135	26.0	0.013	46.0	0.049	66.0	0.030	86.0	0.012
7.0	0.064	27.0	0.033	47.0	0.044	67.0	0.022	87.0	0.007
8.0	0.072	28.0	0.063	48.0	0.025	68.0	0.021	88.0	0.004
9.0	0.056	29.0	0.058	49.0	0.011	69.0	0.029	89.0	0.001
								90.0	0.000

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KEYE-TV - AUSTIN, TEXAS Longley-Rice Interference Analysis

tvstudy v2.2.3 (Dxtpx3)
 Database: localhost, Study: KEYE-34 OMNI 1MW 171005, Model: Longley-Rice
 Start: 2017.10.05 09:59:38

Study created: 2017.10.05 09:59:10

Study build station data: LMS TV 2017-10-01 (38)

Proposal: KEYE-TV D34 DT APP AUSTIN, TX
 File number: KEYE-34 OMNI 1MW 171005
 Facility ID: 33691
 Station data: User record
 Record ID: 1844
 Country: U.S.
 Zone: III

Search options:
 Non-U.S. records included
 Stations affected by proposal:

Call	Chan	Svc	Status	City, State	File Number	Distance
KIAH	D34	DT	CP	HOUSTON, TX	BLANK0000025063	237.2 km
KSTR-DT	D34	DT	CP	IRVING, TX	BLANK0000027922	259.6

No non-directional AM stations found within 0.8 km

No directional AM stations found within 3.2 km

Record parameters as studied:

Channel: D34
 Latitude: 30 19 19.30 N (NAD83)
 Longitude: 97 48 12.60 W
 Height AMSL: 615.5 m
 HAAT: 395.0 m
 Peak ERP: 1000 kW
 Antenna: Omnidirectional
 Elev Pattn: Generic
 Elec Tilt: 0.8

40.7 dBu contour:

Azimuth	ERP	HAAT	Distance
0.0 deg	1000 kW	358.5 m	103.1 km
45.0	1000	382.4	105.3
90.0	1000	423.9	109.1
135.0	1000	462.7	112.4
180.0	1000	405.3	107.4
225.0	1000	338.8	101.4
270.0	1000	367.4	103.9
315.0	1000	392.6	106.2

Database HAAT does not agree with computed HAAT

Database HAAT: 395 m Computed HAAT: 391 m

ERP exceeds maximum
 ERP: 1000 kW ERP maximum: 912 kW

**Proposal service area extends beyond baseline plus 1.0%
 Proposal service area population is more than 95.0% of baseline

Appendix B - Interference Analysis
KEYE-TV - Austin, Texas
Channel 34 - 1000 kW - Page 2

Distance to Canadian border: 1838.0 km

Distance to Mexican border: 308.6 km

Conditions at FCC monitoring station: Kingsville TX
 Bearing: 181.4 degrees Distance: 320.2 km

Proposal is not within the West Virginia quiet zone area

Conditions at Table Mountain receiving zone:
 Bearing: 330.3 degrees Distance: 1279.4 km

Study cell size: 2.00 km
 Profile point spacing: 1.00 km

Maximum new IX to full-service and Class A: 0.50%
 Maximum new IX to LPTV: 2.00%

 Interference to BLANK000025063 CP, scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	KIAH	D34	DT	CP	HOUSTON, TX	BLANK0000025063	
Undesireds:	KEYE-TV	D34	DT	BL	AUSTIN, TX	DTVBL33691	237.2 km
	KEYE-TV	D34	DT	APP	AUSTIN, TX	KEYE-34 OMNI 1MW 17100	237.2
	KTBU	D33	DT	CP	CONROE, TX	BLANK0000028543	1.2
	KMSS-TV	D34	DT	LIC	SHREVEPORT, LA	BLCDT20050705AAB	375.1
	KSTR-DT	D34	DT	CP	IRVING, TX	BLANK0000027922	358.7
	KPRC-TV	D35	DT	LIC	HOUSTON, TX	BLCDT19991022ABJ	0.0
	Service area		Terrain-limited		IX-free, before	IX-free, after	Percent New IX
	36024.2	6,054,519	35968.1	6,054,274	35318.4	6,042,360	35198.3 6,040,588 0.34 0.03
Undesired			Total IX		Unique IX, before	Unique IX, after	
KEYE-TV D34 DT BL		465.2	8,315		429.1	7,982	
KEYE-TV D34 DT APP		585.3	10,087			549.2	9,754
KTBU D33 DT CP		36.2	648		24.1	598	24.1 598
KMSS-TV D34 DT LIC		16.0	265		0.0	0	0.0 0
KSTR-DT D34 DT CP		12.0	18		0.0	0	0.0 0
KPRC-TV D35 DT LIC		160.4	3,001		156.3	3,001	156.3 3,001

 Interference to BLANK0000027922 CP, scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	KSTR-DT	D34	DT	CP	IRVING, TX	BLANK0000027922	
Undesireds:	KEYE-TV	D34	DT	BL	AUSTIN, TX	DTVBL33691	259.6 km
	KEYE-TV	D34	DT	APP	AUSTIN, TX	KEYE-34 OMNI 1MW 17100	259.6
	KUVN-DT	D33	DT	CP	GARLAND, TX	BLANK0000026100	5.2
	KMSS-TV	D34	DT	LIC	SHREVEPORT, LA	BLCDT20050705AAB	283.6
	KIAH	D34	DT	CP	HOUSTON, TX	BLANK0000025063	358.7
	KDFW	D35	DT	LIC	DALLAS, TX	BLCDT20090508AAB	5.0
	Service area		Terrain-limited		IX-free, before	IX-free, after	Percent New IX
	35388.6	6,616,302	35211.8	6,614,646	34741.4	6,598,243	34588.3 6,596,425 0.44 0.03
Undesired			Total IX		Unique IX, before	Unique IX, after	
KEYE-TV D34 DT BL		108.9	917		104.8	881	
KEYE-TV D34 DT APP		266.0	2,876			257.9	2,699
KUVN-DT D33 DT CP		128.3	6,981		80.2	4,504	80.2 4,504
KMSS-TV D34 DT LIC		56.3	616		56.3	616	56.3 616
KIAH D34 DT CP		4.1	36		0.0	0	0.0 0
KDFW D35 DT LIC		225.0	10,366		176.9	7,889	172.8 7,748

Appendix B - Interference Analysis
KEYE-TV - Austin, Texas
Channel 34 - 1000 kW - Page 3

Interference to proposal, scenario 1
 1.05% interference

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	KEYE-TV	D34	DT	APP	AUSTIN, TX	KEYE-34 OMNI 1MW 17100	
Undesireds:	KIAH	D34	DT	CP	HOUSTON, TX	BLANK0000025063	237.2 km
	KSTR-DT	D34	DT	CP	IRVING, TX	BLANK0000027922	259.6
	KHPF-CD	D35	DC	CP	FREDERICKSBURG, TX	BLANK0000027634	104.2
	LICITACIOND34	DT	LIC		NUEVO LAREDO, TA	BLANKBFFS20090331AHG	360.2

Service area	Terrain-limited	IX-free	Percent IX
35430.5	2,732,257	34635.1	2,652,529
		33798.6	2,624,601
			2.42
			1.05

Undesired	Total IX	Unique IX	Prcnt Unique IX
KIAH D34 DT CP	744.6	20,436	712.8
KSTR-DT D34 DT CP	79.6	2,249	51.8
KHPF-CD D35 DC CP	36.1	4,580	36.1
LICITACION D34 DT LIC	8.0	2,689	4.0
			18,410
			1,798
			4,580
			1,114
			2.06
			0.15
			0.10
			0.01
			0.69
			0.07
			0.17
			0.04