

ENGINEERING EXHIBIT

Incentive Auction Channel Reassignment

Amendment to Application for Major Modification of Digital Television Station Construction Permit

prepared for

Gray Television Licensee, LLC

KBTX-TV Bryan, TX

Facility ID 6669

Ch. 16 685 kW 506 m

Gray Television Licensee, LLC (“Gray”) is the licensee of digital television station KBTX-TV, Channel 50, Facility ID 6669, Bryan, TX. Reassignment of KBTX-TV from Channel 50 to Channel 14 was specified in the *Incentive Auction Closing and Channel Reassignment Public Notice* (“CCRPN”, DA 17-317, released April 13, 2017). A Construction Permit (file# 0000025117) authorizes operation on Channel 14 at 495 kW effective radiated power (“ERP”) with a directional antenna at 506 meters height above average terrain. During the second filing window¹, *Gray* submitted a major change application (LMS file# 0000034192) to change KBTX-TV’s post-auction facility to Channel 16. The application was amended in February 2018 to adjust the ERP and electrical beamtilt.

The pending application requests a waiver of 47 CFR 73.623(e). As requested by FCC staff, *Gray* herein amends the application to revise the waiver request’s supporting statement.² No technical parameter changes are specified in this amendment.

KBTX-TV’s reassignment to Channel 14 (470-476 MHz) is first-adjacent to licensed Land-Mobile operations in the adjacent spectrum (460-470 MHz). There is no guard band between the Land-Mobile spectrum and television Channel 14. Several television stations that

¹Public Notice “*Incentive Auction Task Force and Media Bureau Announce the Opening of the Second Filing Window for Eligible Full Power and Class A Television Station—October 3 Through November 2, 2017*” DA 17-911, released September 20, 2017.

²Waiver of §73.623(e) was recently granted for a channel change for WCPB (Salisbury MD, file# 0000025176) to use Channel 16 in the vicinity of a Channel 17 Land-Mobile protected area, also for the purpose of eliminating a Channel 14 reassignment.

were reassigned to Channel 14 have received “unable to construct” waivers due to the difficulty in providing interference protection to Land-Mobile operations, and have obtained grant of alternate channels as proposed in the priority filing window.³ The technical challenges with implementing a full power television station on Channel 14 are therefore well established and will not be recited herein.

Gray proposes to substitute Channel 16 in lieu of Channel 14 for KBTX-TV. Unlike the various priority station proposals, this change can be made without contingent channel change applications involving additional stations. *Gray* requests a waiver of §73.623(e) with respect to the Land-Mobile protection requirement for adjacent Channel 17 at Houston TX.

The KBTX-TV site is located 109.5 km from the Channel 17 Land-Mobile reference point for Houston, TX specified in §73.623(e), which does not satisfy the minimum required distance of 176 km. To protect the Land-Mobile operations on the Channel 17 “T-Band” spectrum (488-494 MHz), the proposed KBTX-TV Channel 16 operation (482-488 MHz) will utilize the same type of emission filtering (*i.e.*, a 12-pole filter) that would be needed to implement the Channel 14 reassignment. The frequency relationship is the same as Channel 14, as KBTX-TV would operate on spectrum immediately adjacent to Land-Mobile operations without a guard band.

The Land-Mobile operations adjacent to Channel 16 are considerably fewer and more distant from KBTX-TV than those adjacent to Channel 14. Within the 460-470 MHz band, adjacent to Channel 14, the FCC’s ULS database shows 11,180 license/frequency records within 110 km of KBTX-TV with the nearest such facilities being 8.1 km (5 miles) distant. Within the T-Band Channel 17 spectrum 488-494 MHz, a total of 1,559 license/frequency records were determined to be located within 110 km of KBTX-TV with the nearest facility to KBTX-TV being 52.1 km distant (32.4 miles). Therefore, providing protection to adjacent spectrum Land-

³For example, see file numbers 0000029879 (WETA-TV Washington DC request to change from Ch. 14 to Ch. 31), 0000029913 (KTFD-TV Denver CO request to change from Ch. 14 to Ch. 28), and 0000029965 (KKPX-TV San Jose CA request to change from Ch. 14 to Ch. 33).

Mobile operations for KBTX-TV's use of Channel 16 should be considerably less challenging and less likely to result in ongoing interference issues than the reassignment Channel 14.

As with the current KBTX-TV Channel 14 authorization, the proposed Channel 16 operation will employ a new antenna system to be top-mounted on the KBTX-TV tower in lieu of the existing Channel 50 antenna. The tower structure corresponds to FCC Antenna Structure Registration number 1062868. No change to the overall structure height will result.

The proposed antenna is an elliptically polarized directional Dielectric model TFU-19ETT/VP-R 6T140 (SP) (33.3 percent vertical polarization). The maximum horizontally polarized ERP is 685 kW and the maximum vertically polarized ERP is 228 kW. The vertically polarized component will not exceed the horizontally polarized component at any azimuth. The directional antenna's azimuthal patterns are depicted in Figures 1 and 1A for horizontal and vertical polarization, respectively. The antenna's elevation pattern is depicted in Figure 2.

Figure 3 supplies a map that demonstrates compliance with §73.625(a)(1) regarding coverage of the entire principal community. The proposed facility's predicted population exceeds 95 percent of the *CCRPN* baseline facility's population.

Interference study per FCC OET Bulletin 69⁴ shows that the proposal complies with the 0.5 percent limit of new interference caused to pertinent nearby post-auction full service and Class A television stations and reassignments as required by §73.616. The interference study output report is provided as Table 1. The channel study excludes the Channel 16 reassignment baseline record for KHPB-CD (Facility ID 35912, Ch. 16, Bastrop, TX), as the KHPB-CD license was cancelled on July 14, 2017 at the licensee's request (file# 0000028904).

⁴FCC Office of Engineering and Technology Bulletin number 69, *Longley-Rice Methodology for Evaluating TV Coverage and Interference*, February 6, 2004 ("OET-69"). This analysis employed the FCC's current "TVStudy" software with the default application processing template settings, 2 km cell size, and 1 km terrain increment. Comparisons of various results of this computer program (run on a Mac processor) to the FCC's implementation of TVStudy show excellent correlation. In order to allow the upload of elevation pattern data, a response of "Yes" is provided in the accompanying Form 2100 Antenna Technical Data section question regarding whether the elevation pattern varies for reasons other than the use of mechanical beamtilt.

Channel study also shows that the proposed channel change would not create any dependencies with respect to the phased transition scheduling plan. Therefore the proposed channel change does not impact the assigned Phase 8 transition date for KBTX-TV.

The proposed 685 kW ERP exceeds the maximum allowed for the proposed antenna HAAT of 506 meters permitted by §73.622(f)(8)(i). Section 73.622(f)(5) permits the maximum ERP to be exceeded in order to provide the same geographic coverage area as the largest station within the same market. As demonstrated in Figure 4, the total area within the proposed KBTX-TV NLSC is 36,730 square kilometers, which does not exceed the NLSC area of KWTX-TV (46,740 sq. km, Ch. 10, Waco TX, BLCDT-20110822AEA) or the licensed KBTX-TV facility (39,118 sq. km, Ch. 50, BLCDT-20090309ABZ). Thus, the 685 kW ERP specified herein is in compliance with §73.622(f)(5) of the FCC's Rules.

The nearest FCC monitoring station is 389 km distant at Kingsville, TX. This exceeds by a large margin the threshold minimum distance specified in §73.1030(c)(3) that would suggest consideration of the monitoring station. The site is not located within the areas requiring coordination with "quiet" zones specified in §73.1030(a) and (b). The site location is beyond the border areas requiring international coordination. There are no authorized AM stations within 3 kilometers of the site.

Human Exposure to Radiofrequency Electromagnetic Field (Environmental)

The proposed operation was evaluated for human exposure to RF energy using the procedures outlined in the FCC's OET Bulletin Number 65. Based on OET-65 equation (10), and considering 10 percent antenna relative field in downward elevations (pattern data shows less than 10 percent relative field at angles 15 to 90 degrees below the antenna), the calculated signal density near the tower at two meters above ground level attributable to the proposed facility is $1.3 \mu\text{W}/\text{cm}^2$, which is 0.4 percent of the general population/uncontrolled maximum permitted exposure limit. This is well below the five percent threshold limit described in §1.1307(b) regarding sites with multiple emitters, categorically excluding the applicant from responsibility for taking any corrective action in the areas where the proposal's contribution is less than five percent.

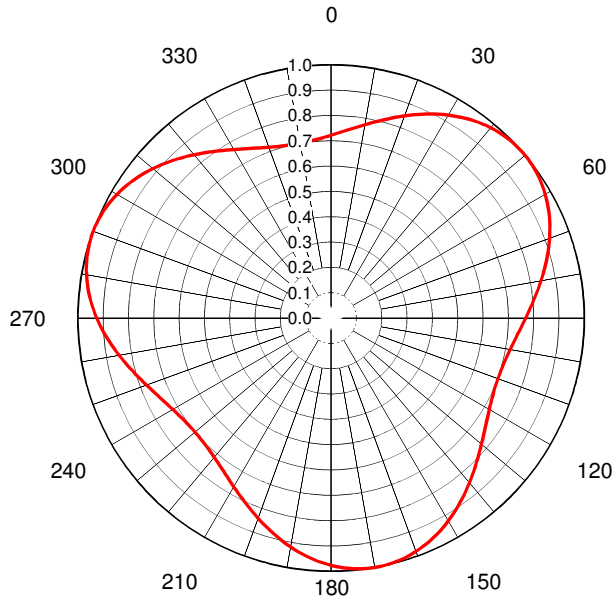
The general public will not be exposed to RF levels attributable to the proposal in excess of the FCC's guidelines. RF exposure warning signs will continue to be posted. With respect to worker safety, the applicant will coordinate exposure procedures with all pertinent stations and will reduce power or cease operation as necessary to protect persons having access to the site, tower, or antenna from RF electromagnetic field exposure in excess of FCC guidelines. This exhibit is limited to the evaluation of exposure to RF electromagnetic field. No increase in structure height is proposed.

List of Attachments

Figure 1, 1A	Antenna Azimuthal Pattern
Figure 2	Antenna Elevation Pattern
Figure 3	Proposed Coverage Contours
Figure 4	Maximum ERP per §73.622(f)
Table 1	OET Bulletin 69 Interference Study
Form 2100	Saved Version of Engineering Sections from FCC Form at Time of Upload

Chesapeake RF Consultants, LLC

Joseph M. Davis, P.E.	July 26, 2018	
207 Old Dominion Road	Yorktown, VA 23692	703-650-9600



AZIMUTH PATTERN Horizontal Polarization

Proposal No. **C-70431-5**
 Date **10-Mar-17**
 Call Letters **KBTX**
 Channel **16**
 Frequency **485 MHz**
 Antenna Type **TFU-19ETT/VP-R 6T140 (SF)**
 Gain **1.37 (1.36dB)**
Calculated

 Drawing # **6T140H D14**

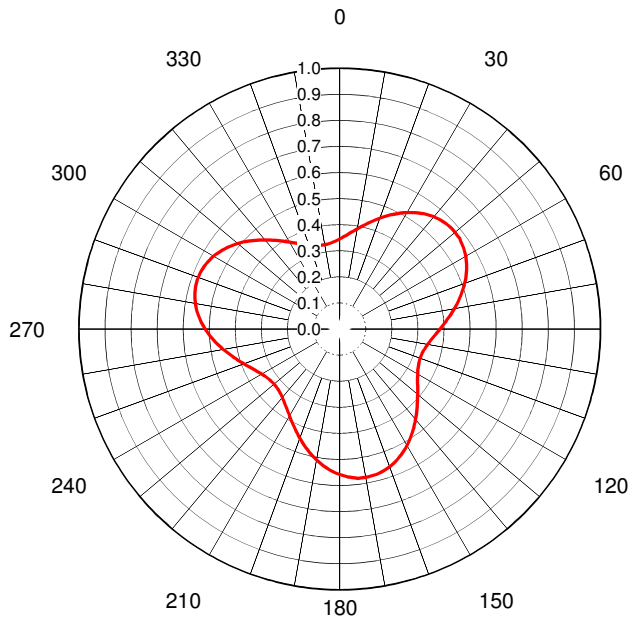
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0	0.722	36	0.962	72	0.904	108	0.702	144	0.881	180	0.977	216	0.735	252	0.789	288	0.999
1	0.726	37	0.968	73	0.896	109	0.701	145	0.889	181	0.972	217	0.730	253	0.796	289	1.000
2	0.730	38	0.972	74	0.889	110	0.701	146	0.896	182	0.967	218	0.726	254	0.804	290	1.000
3	0.735	39	0.977	75	0.881	111	0.702	147	0.904	183	0.962	219	0.722	255	0.811	291	1.000
4	0.740	40	0.981	76	0.873	112	0.703	148	0.911	184	0.957	220	0.718	256	0.819	292	0.998
5	0.745	41	0.985	77	0.865	113	0.703	149	0.918	185	0.951	221	0.715	257	0.826	293	0.997
6	0.750	42	0.988	78	0.858	114	0.705	150	0.925	186	0.945	222	0.712	258	0.834	294	0.995
7	0.756	43	0.991	79	0.850	115	0.707	151	0.932	187	0.939	223	0.709	259	0.842	295	0.994
8	0.762	44	0.993	80	0.842	116	0.709	152	0.939	188	0.932	224	0.707	260	0.850	296	0.991
9	0.769	45	0.996	81	0.834	117	0.712	153	0.945	189	0.925	225	0.705	261	0.858	297	0.988
10	0.775	46	0.997	82	0.826	118	0.715	154	0.951	190	0.918	226	0.704	262	0.865	298	0.985
11	0.782	47	0.999	83	0.818	119	0.718	155	0.957	191	0.911	227	0.702	263	0.873	299	0.981
12	0.789	48	0.999	84	0.811	120	0.722	156	0.962	192	0.904	228	0.702	264	0.881	300	0.977
13	0.796	49	1.000	85	0.803	121	0.726	157	0.968	193	0.896	229	0.701	265	0.889	301	0.972
14	0.804	50	1.000	86	0.796	122	0.730	158	0.972	194	0.889	230	0.701	266	0.896	302	0.967
15	0.811	51	1.000	87	0.789	123	0.735	159	0.977	195	0.881	231	0.702	267	0.904	303	0.962
16	0.819	52	0.998	88	0.782	124	0.740	160	0.981	196	0.873	232	0.703	268	0.911	304	0.957
17	0.826	53	0.997	89	0.775	125	0.745	161	0.985	197	0.865	233	0.703	269	0.918	305	0.951
18	0.834	54	0.995	90	0.769	126	0.751	162	0.988	198	0.858	234	0.705	270	0.925	306	0.945
19	0.842	55	0.994	91	0.762	127	0.756	163	0.991	199	0.850	235	0.707	271	0.932	307	0.939
20	0.850	56	0.991	92	0.756	128	0.762	164	0.993	200	0.842	236	0.709	272	0.939	308	0.932
21	0.858	57	0.988	93	0.750	129	0.769	165	0.996	201	0.834	237	0.712	273	0.945	309	0.925
22	0.865	58	0.985	94	0.745	130	0.775	166	0.997	202	0.826	238	0.715	274	0.951	310	0.918
23	0.873	59	0.981	95	0.740	131	0.782	167	0.999	203	0.818	239	0.718	275	0.957	311	0.911
24	0.881	60	0.977	96	0.735	132	0.789	168	0.999	204	0.811	240	0.722	276	0.962	312	0.904
25	0.889	61	0.972	97	0.730	133	0.796	169	1.000	205	0.803	241	0.726	277	0.968	313	0.896
26	0.896	62	0.967	98	0.726	134	0.804	170	1.000	206	0.796	242	0.730	278	0.972	314	0.889
27	0.904	63	0.962	99	0.722	135	0.811	171	1.000	207	0.789	243	0.735	279	0.977	315	0.881
28	0.911	64	0.957	100	0.718	136	0.819	172	0.998	208	0.782	244	0.740	280	0.981	316	0.873
29	0.918	65	0.951	101	0.715	137	0.826	173	0.997	209	0.775	245	0.745	281	0.985	317	0.865
30	0.925	66	0.945	102	0.712	138	0.834	174	0.995	210	0.769	246	0.750	282	0.988	318	0.858
31	0.932	67	0.939	103	0.709	139	0.842	175	0.994	211	0.762	247	0.756	283	0.991	319	0.850
32	0.939	68	0.932	104	0.707	140	0.850	176	0.991	212	0.756	248	0.762	284	0.993	320	0.842
33	0.945	69	0.925	105	0.705	141	0.858	177	0.988	213	0.750	249	0.769	285	0.996	321	0.834
34	0.951	70	0.918	106	0.704	142	0.865	178	0.985	214	0.745	250	0.775	286	0.997	322	0.826
35	0.957	71	0.911	107	0.702	143	0.873	179	0.981	215	0.740	251	0.782	287	0.999	323	0.818



Figure 1
Antenna Azimuthal Pattern
Horizontal Polarization
KBTX-TV Bryan, TX
Facility ID 6669
Ch. 16 685 kW 506 m

prepared for
Gray Television Licensee, LLC

July, 2018



AZIMUTH PATTERN Vertical Polarization

Proposal No. **C-70431-5**
Date **10-Mar-17**
Call Letters **KBTX**
Channel **16**
Frequency **485 MHz**
Antenna Type **TFU-19ETT/VP-R 6T140 (SP)**
Gain **1.58 (1.98dB)**
Calculated

Drawing # **6T140V D14**

Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value
0	0.345	36	0.546	72	0.498	108	0.329	144	0.479	180	0.558	216	0.356	252	0.402	288	0.577
1	0.349	37	0.551	73	0.492	109	0.328	145	0.485	181	0.555	217	0.352	253	0.408	289	0.577
2	0.352	38	0.555	74	0.485	110	0.328	146	0.492	182	0.551	218	0.349	254	0.414	290	0.577
3	0.356	39	0.558	75	0.479	111	0.329	147	0.498	183	0.546	219	0.345	255	0.420	291	0.577
4	0.360	40	0.562	76	0.472	112	0.329	148	0.504	184	0.542	220	0.342	256	0.427	292	0.576
5	0.365	41	0.565	77	0.466	113	0.330	149	0.510	185	0.537	221	0.340	257	0.433	293	0.575
6	0.369	42	0.567	78	0.459	114	0.332	150	0.516	186	0.532	222	0.337	258	0.440	294	0.574
7	0.374	43	0.570	79	0.453	115	0.333	151	0.521	187	0.527	223	0.335	259	0.446	295	0.572
8	0.379	44	0.572	80	0.446	116	0.335	152	0.527	188	0.521	224	0.333	260	0.453	296	0.570
9	0.385	45	0.574	81	0.440	117	0.337	153	0.532	189	0.516	225	0.332	261	0.459	297	0.567
10	0.390	46	0.575	82	0.433	118	0.340	154	0.537	190	0.510	226	0.330	262	0.466	298	0.565
11	0.396	47	0.576	83	0.427	119	0.342	155	0.542	191	0.504	227	0.329	263	0.472	299	0.562
12	0.402	48	0.577	84	0.420	120	0.345	156	0.546	192	0.498	228	0.329	264	0.479	300	0.558
13	0.408	49	0.577	85	0.414	121	0.349	157	0.551	193	0.492	229	0.328	265	0.485	301	0.555
14	0.414	50	0.577	86	0.408	122	0.352	158	0.555	194	0.485	230	0.328	266	0.492	302	0.551
15	0.420	51	0.577	87	0.402	123	0.356	159	0.558	195	0.479	231	0.329	267	0.498	303	0.546
16	0.427	52	0.576	88	0.396	124	0.360	160	0.562	196	0.472	232	0.329	268	0.504	304	0.542
17	0.433	53	0.577	89	0.390	125	0.365	161	0.565	197	0.466	233	0.330	269	0.510	305	0.537
18	0.440	54	0.574	90	0.385	126	0.369	162	0.567	198	0.459	234	0.332	270	0.516	306	0.532
19	0.446	55	0.572	91	0.379	127	0.374	163	0.570	199	0.453	235	0.333	271	0.521	307	0.527
20	0.453	56	0.570	92	0.374	128	0.379	164	0.572	200	0.446	236	0.335	272	0.527	308	0.521
21	0.459	57	0.567	93	0.369	129	0.385	165	0.574	201	0.440	237	0.337	273	0.532	309	0.516
22	0.466	58	0.565	94	0.365	130	0.390	166	0.575	202	0.433	238	0.340	274	0.537	310	0.510
23	0.472	59	0.562	95	0.360	131	0.396	167	0.576	203	0.427	239	0.342	275	0.542	311	0.504
24	0.479	60	0.558	96	0.356	132	0.402	168	0.577	204	0.420	240	0.345	276	0.546	312	0.498
25	0.485	61	0.555	97	0.352	133	0.408	169	0.577	205	0.414	241	0.349	277	0.551	313	0.492
26	0.492	62	0.551	98	0.349	134	0.414	170	0.577	206	0.408	242	0.352	278	0.555	314	0.485
27	0.498	63	0.546	99	0.345	135	0.420	171	0.577	207	0.402	243	0.356	279	0.558	315	0.479
28	0.504	64	0.542	100	0.342	136	0.427	172	0.576	208	0.396	244	0.360	280	0.562	316	0.472
29	0.510	65	0.537	101	0.340	137	0.433	173	0.577	209	0.390	245	0.365	281	0.565	317	0.466
30	0.516	66	0.532	102	0.337	138	0.440	174	0.574	210	0.385	246	0.369	282	0.567	318	0.459
31	0.521	67	0.527	103	0.335	139	0.446	175	0.572	211	0.379	247	0.374	283	0.570	319	0.453
32	0.527	68	0.521	104	0.333	140	0.453	176	0.570	212	0.374	248	0.379	284	0.572	320	0.446
33	0.532	69	0.516	105	0.332	141	0.459	177	0.567	213	0.369	249	0.385	285	0.574	321	0.440
34	0.537	70	0.510	106	0.330	142	0.466	178	0.565	214	0.365	250	0.390	286	0.575	322	0.433
35	0.542	71	0.504	107	0.329	143	0.472	179	0.562	215	0.360	251	0.396	287	0.576	323	0.427



Figure 1A
Antenna Azimuthal Pattern
Vertical Polarization
KBTX-TV Bryan, TX
Facility ID 6669
Ch. 16 685 kW 506 m

prepared for
Gray Television Licensee, LLC

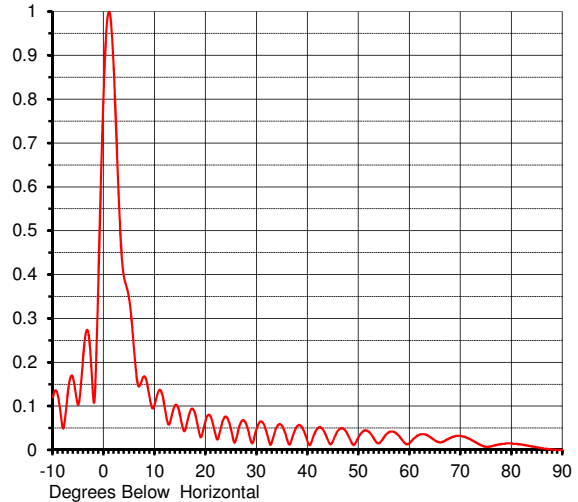
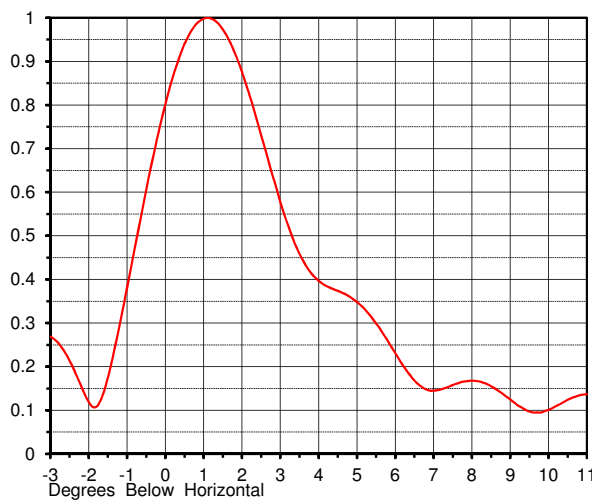
July, 2018

ELEVATION PATTERN

Proposal No. **C-70431-5**
 Date **10-Mar-17**
 Call Letters **KBTX**
 Channel **16**
 Frequency **485 MHz**
 Antenna Type **TFU-19ETT/VP-R 6T140 (S**

RMS Directivity at Main Lobe **17.8 (12.50 dB)**
 RMS Directivity at Horizontal **11.4 (10.57 dB)**
Calculated

Beam Tilt **1.00 deg**
 Drawing Number **19E178100**



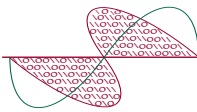
Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
-10.0	0.120	10.0	0.105	30.0	0.050	50.0	0.030	70.0	0.032
-9.0	0.123	11.0	0.137	31.0	0.064	51.0	0.044	71.0	0.029
-8.0	0.049	12.0	0.093	32.0	0.036	52.0	0.041	72.0	0.023
-7.0	0.138	13.0	0.064	33.0	0.020	53.0	0.025	73.0	0.017
-6.0	0.162	14.0	0.102	34.0	0.054	54.0	0.015	74.0	0.011
-5.0	0.103	15.0	0.076	35.0	0.054	55.0	0.030	75.0	0.007
-4.0	0.221	16.0	0.047	36.0	0.022	56.0	0.041	76.0	0.008
-3.0	0.263	17.0	0.091	37.0	0.030	57.0	0.041	77.0	0.011
-2.0	0.108	18.0	0.077	38.0	0.055	58.0	0.030	78.0	0.014
-1.0	0.426	19.0	0.029	39.0	0.049	59.0	0.016	79.0	0.015
0.0	0.835	20.0	0.069	40.0	0.018	60.0	0.016	80.0	0.015
1.0	1.000	21.0	0.074	41.0	0.028	61.0	0.028	81.0	0.014
2.0	0.849	22.0	0.029	42.0	0.050	62.0	0.035	82.0	0.012
3.0	0.550	23.0	0.054	43.0	0.046	63.0	0.035	83.0	0.010
4.0	0.390	24.0	0.076	44.0	0.021	64.0	0.029	84.0	0.008
5.0	0.341	25.0	0.043	45.0	0.022	65.0	0.021	85.0	0.006
6.0	0.217	26.0	0.028	46.0	0.045	66.0	0.017	86.0	0.004
7.0	0.146	27.0	0.065	47.0	0.048	67.0	0.022	87.0	0.002
8.0	0.167	28.0	0.056	48.0	0.031	68.0	0.028	88.0	0.001
9.0	0.118	29.0	0.016	49.0	0.011	69.0	0.032	89.0	0.000
						90.0	0.000		

Figure 2
Antenna Elevation Pattern
KBTX-TV Bryan, TX
Facility ID 6669
Ch. 16 685 kW 506 m

prepared for
Gray Television Licensee, LLC

July, 2018





Chesapeake RF Consultants, LLC
Radiofrequency Consulting Engineers
Digital Television and Radio

Figure 4
Maximum ERP per §73.622(f)
KBTX-TV Bryan, TX
Facility ID 6669
Ch. 16 685 kW 506 m

prepared for
Gray Television Licensee, LLC

July, 2018

KWTV-TV Ch. 10 Waco, TX
BLCDT-20110822AEA
36 dBμ Contour (NLSC)
Area: 46,740 sq. km

Proposed KBTX-TV Ch. 16
41 dBμ Contour (NLSC)
Area: 36,730 sq. km

Licensed KBTX-TV Ch. 50
1000 kW 507 m BLCDT-20090309ABZ
41 dBμ Contour (NLSC)
Area: 39,118

Scale 1:2,250,000

0 30 60 90 km

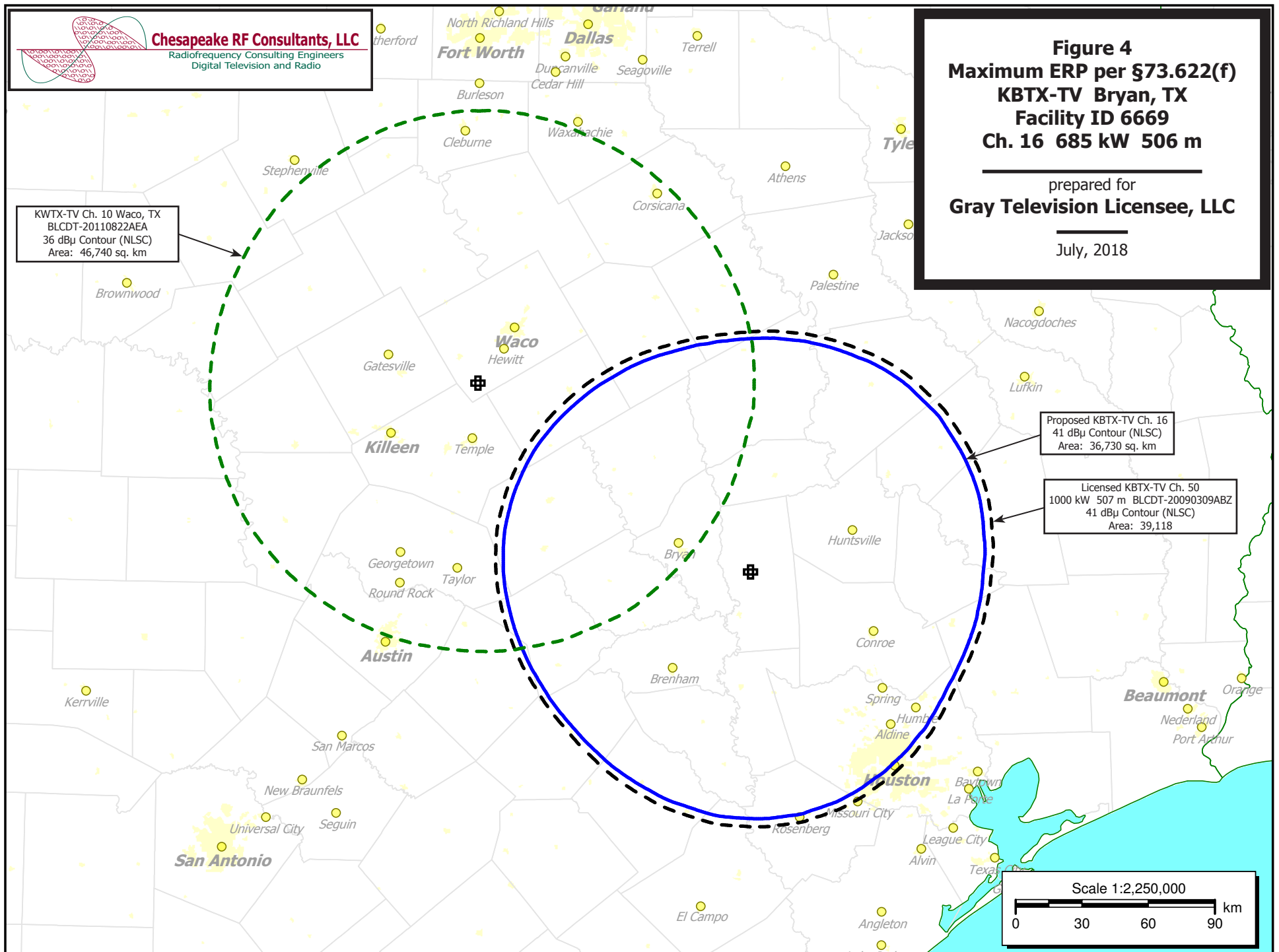


Table 1 KBTX-TV OET Bulletin 69 Interference Study
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tvstudy v2.2.5 (4uoc83)
Database: localhost, Study: KBTX-TV 16-amend 685kW 19E178100_, Model: Longley-Rice
Start: 2018.07.26 08:53:58

Study created: 2018.07.26 08:53:58

Study build station data: LMS TV 2018-07-24

Proposal: KBTX-TV D16 DT APP BRYAN, TX
File number: KBTX-TV 16-amend 685kW 19E178100
Facility ID: 6669
Station data: User record
Record ID: 1742
Country: U.S.
Zone: III

Search options:
Baseline record excluded if station has CP

Individual records excluded:
35912 DKHPB-CD D16 DC BL BASTROP, TX DTVBL35912

Stations potentially affected by proposal:

IX	Call	Chan	Svc	Status	City, State	File Number	Distance
No	KFDM	D15	DT	CP	BEAUMONT, TX	BLANK0000033630	202.1 km
Yes	KRHD-CD	D15	DC	CP	BRYAN, TX	BLANK0000034152	47.5
No	KHPL-CD	D15	DC	CP	LA GRANGE, TX	BLANK0000033614	108.4
Yes	KYTX	D15	DT	CP	NACOGDOCHES, TX	BLANK0000027990	175.1
Yes	KYTX	D15	DT	APP	NACOGDOCHES, TX	BLANK0000034826	175.1
No	KVDA	D15	DT	CP	SAN ANTONIO, TX	BLANK0000034595	256.3
No	KADN-TV	D16	DT	LIC	LAFAYETTE, LA	BLCDT20060630AFZ	366.3
Yes	KSHV-TV	D16	DT	CP	SHREVEPORT, LA	BLANK0000028480	307.4
Yes	KSHV-TV	D16	DT	APP	SHREVEPORT, LA	BLANK0000034906	307.4
No	KSAN-TV	D16	DT	LIC	SAN ANGELO, TX	BLANK0000004868	435.9
Yes	KHCE-TV	D16	DT	APP	SAN ANTONIO, TX	BLANK0000035698	256.3
Yes	KHCE-TV	D16	DT	LIC	SAN ANTONIO, TX	BL EDT20110215AEM	256.3
Yes	KNCT	D17	DT	CP	BELTON, TX	BLANK0000028609	160.1

No non-directional AM stations found within 0.8 km

No directional AM stations found within 3.2 km

Record parameters as studied:

Channel: D16
Latitude: 30 33 16.50 N (NAD83)
Longitude: 96 1 52.30 W
Height AMSL: 595.8 m
HAAT: 506.2 m
Peak ERP: 685 kW
Antenna: DIE-TFU-19ETT/VP-R 6T140 (SP) (ID 1002218) 0.0 deg
Elev Pattn: 19E178100 ELpat
Elec Tilt: 1.00

38.9 dBu contour:

Azimuth	ERP	HAAT	Distance
0.0 deg	357 kW	508.7 m	109.8 km
45.0	672	486.9	114.3
90.0	405	489.3	109.6
135.0	452	485.4	110.3
180.0	654	508.7	115.6
225.0	345	528.8	110.9
270.0	586	528.2	115.8
315.0	530	513.7	113.9

ERP exceeds maximum
ERP: 685 kW ERP maximum: 497 kW

Distance to Canadian border: 1708.2 km

Distance to Mexican border: 472.9 km

Table 1 KBTX-TV OET Bulletin 69 Interference Study
(page 2 of 8)



Conditions at FCC monitoring station: Kingsville TX
Bearing: 208.0 degrees Distance: 390.0 km

Proposal is not within the West Virginia quiet zone area

Conditions at Table Mountain receiving zone:
Bearing: 324.5 degrees Distance: 1349.2 km

**Proposal fails distance check to land mobile station: Houston TX ch. 17, 109.6 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 BLANK0000034152 CP scenario 1

Desired:	Call KRHD-CD	Chan D15	Svc DC	Status CP	City, State BRYAN, TX	File Number BLANK0000034152	Distance
Undesireds:	KBTX-TV	D16	DT	APP	BRYAN, TX	KBTX-TV 16-amend 685kW	47.5 km
	KYTX	D15	DT	CP	NACOGDOCHES, TX	BLANK0000027990	183.1
	KVDA	D15	DT	CP	SAN ANTONIO, TX	BLANK0000034595	237.0
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX
5789.8	230,510	5789.8	230,510	5773.8	230,367	5569.8 229,320	3.53 0.45
Undesired				Total IX	Unique IX, before	Unique IX, after	
KBTX-TV D16 DT APP	208.0			1,088		204.0 1,047	
KVDA D15 DT CP	16.0			143	16.0 143	12.0 102	

Interference to BLANK0000034152 CP scenario 2

Desired:	Call KRHD-CD	Chan D15	Svc DC	Status CP	City, State BRYAN, TX	File Number BLANK0000034152	Distance
Undesireds:	KBTX-TV	D16	DT	APP	BRYAN, TX	KBTX-TV 16-amend 685kW	47.5 km
	KYTX	D15	DT	APP	NACOGDOCHES, TX	BLANK0000034826	183.1
	KVDA	D15	DT	CP	SAN ANTONIO, TX	BLANK0000034595	237.0
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX
5789.8	230,510	5789.8	230,510	5701.9	230,132	5521.9 229,198	3.16 0.41
Undesired				Total IX	Unique IX, before	Unique IX, after	
KBTX-TV	D16	DT	APP	208.0	1,088	180.0 934	
KYTX	D15	DT	APP	83.9	276	47.9 122	
KVDA	D15	DT	CP	16.0	143	4.0 102	

Interference to BLANK0000027990 CP scenario 1

Desired:	Call KYTX	Chan D15	Svc DT	Status CP	City, State NACOGDOCHES, TX	File Number BLANK0000027990	Distance
Undesireds:	KBTX-TV	D16	DT	APP	BRYAN, TX	KBTX-TV 16-amend 685kW	175.1 km
	WNTZ-TV	D15	DT	CP	NATCHEZ, MS	BLANK0000027596	321.6
	KFDM	D15	DT	CP	BEAUMONT, TX	BLANK0000033630	222.7
	KRHD-CD	D15	DC	CP	BRYAN, TX	BLANK0000034152	183.1
	KSHV-TV	D16	DT	CP	SHREVEPORT, LA	BLANK0000028480	137.3
Service area		Terrain-limited			IX-free, before	IX-free, after	Percent New IX
30556.3	891,087	30452.2	889,780	29346.1	873,459	29290.4 873,311	0.19 0.02
Undesired				Total IX	Unique IX, before	Unique IX, after	
KBTX-TV	D16	DT	APP	99.5	250	55.7	148
WNTZ-TV	D15	DT	CP	96.0	970	28.1	586
KFDM	D15	DT	CP	840.7	6,378	716.9	5,880
KRHD-CD	D15	DC	CP	16.0	41	4.1	1

Table 1 KBTX-TV OET Bulletin 69 Interference Study
(page 3 of 8)



KSHV-TV D16 DT CP 241.3 9,366 233.2 9,356 233.2 9,356

Interference to BLANK0000027990 CP scenario 2

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	KYTX	D15	DT	CP	NACOGDOCHES, TX	BLANK0000027990	
Undesireds:	KBTX-TV	D16	DT	APP	BRYAN, TX	KBTX-TV 16-amend 685kW	175.1 km
	WNTZ-TV	D15	DT	CP	NATCHEZ, MS	BLANK0000027596	321.6
	KFDM	D15	DT	CP	BEAUMONT, TX	BLANK0000033630	222.7
	KRHD-CD	D15	DC	CP	BRYAN, TX	BLANK0000034152	183.1
	KSHV-TV	D16	DT	APP	SHREVEPORT, LA	BLANK0000034906	137.3
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX
30556.3 891,087		30452.2 889,780		29241.5 872,700		29185.8 872,552	0.19 0.02
Undesired		Total IX		Unique IX, before		Unique IX, after	
KBTX-TV D16 DT APP		99.5 250				55.7 148	
WNTZ-TV D15 DT CP		96.0 970		28.1 586		28.1 586	
KFDM D15 DT CP		840.7 6,378		752.8 5,944		716.9 5,880	
KRHD-CD D15 DC CP		16.0 41		4.1 1		4.1 1	
KSHV-TV D16 DT APP		346.0 10,125		337.9 10,115		337.9 10,115	

Interference to BLANK0000034826 APP scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	KYTX	D15	DT	APP	NACOGDOCHES, TX	BLANK0000034826	
Undesireds:	KBTX-TV	D16	DT	APP	BRYAN, TX	KBTX-TV 16-amend 685kW	175.1 km
	KERA-TV	D14	DT	LIC	DALLAS, TX	BLEDT20140903AFQ	189.9
	WNTZ-TV	D15	DT	CP	NATCHEZ, MS	BLANK0000027596	321.6
	KFDM	D15	DT	CP	BEAUMONT, TX	BLANK0000033630	222.7
	KRHD-CD	D15	DC	CP	BRYAN, TX	BLANK0000034152	183.1
	KSHV-TV	D16	DT	CP	SHREVEPORT, LA	BLANK0000028480	137.3
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX
39180.7 1,008,667		39045.0 1,007,479		37118.5 983,839		36935.5 983,453	0.49 0.04
Undesired		Total IX		Unique IX, before		Unique IX, after	
KBTX-TV D16 DT APP		302.5 575				183.1 386	
KERA-TV D14 DT LIC		217.5 9,958		217.5 9,958		217.5 9,958	
WNTZ-TV D15 DT CP		275.8 1,727		51.9 299		51.9 299	
KFDM D15 DT CP		1234.9 6,593		983.1 5,039		875.7 4,914	
KRHD-CD D15 DC CP		19.9 72		0.0 0		0.0 0	
KSHV-TV D16 DT CP		458.3 7,611		410.0 6,654		410.0 6,654	

Interference to BLANK0000034826 APP scenario 2

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	KYTX	D15	DT	APP	NACOGDOCHES, TX	BLANK0000034826	
Undesireds:	KBTX-TV	D16	DT	APP	BRYAN, TX	KBTX-TV 16-amend 685kW	175.1 km
	KERA-TV	D14	DT	LIC	DALLAS, TX	BLEDT20140903AFQ	189.9
	WNTZ-TV	D15	DT	CP	NATCHEZ, MS	BLANK0000027596	321.6
	KFDM	D15	DT	CP	BEAUMONT, TX	BLANK0000033630	222.7
	KRHD-CD	D15	DC	CP	BRYAN, TX	BLANK0000034152	183.1
	KSHV-TV	D16	DT	APP	SHREVEPORT, LA	BLANK0000034906	137.3
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX
39180.7 1,008,667		39045.0 1,007,479		37014.0 979,126		36830.9 978,740	0.49 0.04
Undesired		Total IX		Unique IX, before		Unique IX, after	
KBTX-TV D16 DT APP		302.5 575				183.1 386	
KERA-TV D14 DT LIC		217.5 9,958		217.5 9,958		217.5 9,958	
WNTZ-TV D15 DT CP		275.8 1,727		51.9 299		51.9 299	
KFDM D15 DT CP		1234.9 6,593		983.1 5,039		875.7 4,914	
KRHD-CD D15 DC CP		19.9 72		0.0 0		0.0 0	
KSHV-TV D16 DT APP		562.8 12,324		514.5 11,367		514.5 11,367	

Table 1 KBTX-TV OET Bulletin 69 Interference Study
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Interference to BLANK0000028480 CP scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	KSHV-TV	D16	DT	CP	SHREVEPORT, LA	BLANK0000028480	
Undesireds:	KBTX-TV	D16	DT	APP	BRYAN, TX	KBTX-TV 16-amend 685kW	307.4 km
	KYTX	D15	DT	CP	NACOGDOCHES, TX	BLANK0000027990	137.3
	KVTH-DT	D16	DT	CP	HOT SPRINGS, AR	BLANK0000028415	206.6
	KADN-TV	D16	DT	LIC	LAFAYETTE, LA	BLCDT20060630AFZ	303.5
	KLTS-TV	D17	DT	CP	SHREVEPORT, LA	BLANK0000034590	1.5
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX
31251.0 943,947		31178.8 942,978		30501.6 933,955		30465.3 933,688	0.12 0.03
Undesired		Total IX		Unique IX, before		Unique IX, after	
KBTX-TV D16 DT APP		84.7 1,900				36.3 267	
KYTX D15 DT CP		112.9 4,915		108.9 4,740		80.7 3,333	
KVTH-DT D16 DT CP		435.2 3,501		419.2 3,193		419.2 3,193	
KADN-TV D16 DT LIC		44.5 175		40.4 158		28.3 109	
KLTS-TV D17 DT CP		100.5 740		92.6 624		88.5 622	

Interference to BLANK0000028480 CP scenario 2

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	KSHV-TV	D16	DT	CP	SHREVEPORT, LA	BLANK0000028480	
Undesireds:	KBTX-TV	D16	DT	APP	BRYAN, TX	KBTX-TV 16-amend 685kW	307.4 km
	KYTX	D15	DT	APP	NACOGDOCHES, TX	BLANK0000034826	137.3
	KVTH-DT	D16	DT	CP	HOT SPRINGS, AR	BLANK0000028415	206.6
	KADN-TV	D16	DT	LIC	LAFAYETTE, LA	BLCDT20060630AFZ	303.5
	KLTS-TV	D17	DT	CP	SHREVEPORT, LA	BLANK0000034590	1.5
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX
31251.0 943,947		31178.8 942,978		30416.8 932,169		30388.6 932,007	0.09 0.02
Undesired		Total IX		Unique IX, before		Unique IX, after	
KBTX-TV D16 DT APP		84.7 1,900				28.3 162	
KYTX D15 DT APP		197.7 6,701		193.7 6,526		157.4 5,014	
KVTH-DT D16 DT CP		435.2 3,501		419.2 3,193		419.2 3,193	
KADN-TV D16 DT LIC		44.5 175		40.4 158		28.3 109	
KLTS-TV D17 DT CP		100.5 740		92.6 624		88.5 622	

Interference to BLANK0000034906 APP scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	KSHV-TV	D16	DT	APP	SHREVEPORT, LA	BLANK0000034906	
Undesireds:	KBTX-TV	D16	DT	APP	BRYAN, TX	KBTX-TV 16-amend 685kW	307.4 km
	KYTX	D15	DT	CP	NACOGDOCHES, TX	BLANK0000027990	137.3
	KVTH-DT	D16	DT	CP	HOT SPRINGS, AR	BLANK0000028415	206.6
	KADN-TV	D16	DT	LIC	LAFAYETTE, LA	BLCDT20060630AFZ	303.5
	KLTS-TV	D17	DT	CP	SHREVEPORT, LA	BLANK0000034590	1.5
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX
33451.4 987,994		33334.9 985,115		32665.2 974,099		32596.7 972,834	0.21 0.13
Undesired		Total IX		Unique IX, before		Unique IX, after	
KBTX-TV D16 DT APP		116.9 3,073				68.5 1,265	
KYTX D15 DT CP		117.0 5,948		112.9 5,795		80.7 4,012	
KVTH-DT D16 DT CP		427.7 3,518		415.6 3,229		411.6 3,215	
KADN-TV D16 DT LIC		60.6 1,334		56.6 1,268		48.5 1,259	
KLTS-TV D17 DT CP		76.4 505		72.5 435		68.4 433	

Interference to BLANK0000034906 APP scenario 2

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	KSHV-TV	D16	DT	APP	SHREVEPORT, LA	BLANK0000034906	
Undesireds:	KBTX-TV	D16	DT	APP	BRYAN, TX	KBTX-TV 16-amend 685kW	307.4 km
	KYTX	D15	DT	APP	NACOGDOCHES, TX	BLANK0000034826	137.3

Table 1 KBTX-TV OET Bulletin 69 Interference Study
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KVTH-TV	D16	DT	CP	HOT SPRINGS, AR	BLANK0000028415	206.6
KADN-TV	D16	DT	LIC	LAFAYETTE, LA	BLCDT20060630AFZ	303.5
KLTS-TV	D17	DT	CP	SHREVEPORT, LA	BLANK0000034590	1.5

Service area	Terrain-limited	IX-free, before	IX-free, after	Percent New IX
33451.4 987,994	33334.9 985,115	32560.2 968,528	32499.7 968,048	0.19 0.05

Undesired	Total IX	Unique IX, before	Unique IX, after
KBTX-TV D16 DT APP	116.9 3,073	60.5 480	
KYTX D15 DT APP	222.0 11,519	217.9 11,366	177.7 8,798
KVTH-TV D16 DT CP	427.7 3,518	415.6 3,229	411.6 3,215
KADN-TV D16 DT LIC	60.6 1,334	56.6 1,268	48.5 1,259
KLTS-TV D17 DT CP	76.4 505	72.5 435	68.4 433

Interference to BLANK0000035698 APP scenario 1

Call	Chan	Svc	Status	City, State	File Number	Distance
Desired: KHCE-TV	D16	DT	APP	SAN ANTONIO, TX	BLANK0000035698	
Undesireds: KBTX-TV	D16	DT	APP	BRYAN, TX	KBTX-TV 16-amend 685kW	256.3 km
KVDA	D15	DT	CP	SAN ANTONIO, TX	BLANK0000034595	0.5
KSAN-TV	D16	DT	LIC	SAN ANGELO, TX	BLANK0000004868	333.0

Service area	Terrain-limited	IX-free, before	IX-free, after	Percent New IX
30523.6 2,364,874	30049.7 2,359,467	29604.4 2,345,855	29231.0 2,335,671	1.26 0.43

Undesired	Total IX	Unique IX, before	Unique IX, after
KBTX-TV D16 DT APP	477.9 12,673	373.4 10,184	
KVDA D15 DT CP	344.9 12,932	328.9 12,584	288.7 10,953
KSAN-TV D16 DT LIC	116.4 1,028	100.3 680	48.1 153

Interference to BLEDT20110215AEM LIC scenario 1

Call	Chan	Svc	Status	City, State	File Number	Distance
Desired: KHCE-TV	D16	DT	LIC	SAN ANTONIO, TX	BLEDT20110215AEM	
Undesireds: KBTX-TV	D16	DT	APP	BRYAN, TX	KBTX-TV 16-amend 685kW	256.3 km
KVDA	D15	DT	CP	SAN ANTONIO, TX	BLANK0000034595	0.5
KSAN-TV	D16	DT	LIC	SAN ANGELO, TX	BLANK0000004868	333.0

Service area	Terrain-limited	IX-free, before	IX-free, after	Percent New IX
29620.1 2,353,883	29162.3 2,348,391	28729.1 2,334,764	28363.6 2,323,738	1.27 0.47

Undesired	Total IX	Unique IX, before	Unique IX, after
KBTX-TV D16 DT APP	441.9 12,948	365.5 11,026	
KVDA D15 DT CP	340.8 12,883	328.8 12,746	304.7 11,380
KSAN-TV D16 DT LIC	104.4 881	92.4 744	48.1 319

Interference to BLANK0000028609 CP scenario 1

Call	Chan	Svc	Status	City, State	File Number	Distance
Desired: KNCT	D17	DT	CP	BELTON, TX	BLANK0000028609	
Undesireds: KBTX-TV	D16	DT	APP	BRYAN, TX	KBTX-TV 16-amend 685kW	160.1 km
KTXA	D18	DT	CP	FORT WORTH, TX	BLANK0000033718	184.4

Service area	Terrain-limited	IX-free, before	IX-free, after	Percent New IX
29899.5 2,247,708	29543.1 2,238,592	29531.0 2,238,560	29331.1 2,237,335	0.68 0.05

Undesired	Total IX	Unique IX, before	Unique IX, after
KBTX-TV D16 DT APP	199.9 1,225	199.9 1,225	
KTXA D18 DT CP	12.2 32	12.2 32	12.2 32

Interference to proposal scenario 1

Call	Chan	Svc	Status	City, State	File Number	Distance
Desired: KBTX-TV	D16	DT	APP	BRYAN, TX	KBTX-TV 16-amend 685kW	
Undesireds: KRHD-CD	D15	DC	CP	BRYAN, TX	BLANK0000034152	47.5 km

Table 1 KBTX-TV OET Bulletin 69 Interference Study
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KHPL-CD	D15	DC	CP	LA GRANGE, TX	BLANK0000033614	108.4
KYTX	D15	DT	CP	NACOGDOCHES, TX	BLANK0000027990	175.1
KSHV-TV	D16	DT	CP	SHREVEPORT, LA	BLANK0000028480	307.4
KHCE-TV	D16	DT	APP	SAN ANTONIO, TX	BLANK0000035698	256.3
KNCT	D17	DT	CP	BELTON, TX	BLANK0000028609	160.1

Service area	Terrain-limited	IX-free	Percent IX
39792.4 4,404,648	39680.4 4,401,048	38595.2 4,391,286	2.73 0.22

Undesired	Total IX	Unique IX	Prcnt Unique IX
KRHD-CD D15 DC CP	23.9 64	20.0 41	0.05 0.00
KHPL-CD D15 DC CP	64.4 2,876	4.0 598	0.01 0.01
KSHV-TV D16 DT CP	35.7 27	35.7 27	0.09 0.00
KHCE-TV D16 DT APP	737.9 6,960	525.6 3,025	1.32 0.07
KNCT D17 DT CP	439.5 3,793	287.6 2,136	0.72 0.05

Interference to proposal scenario 2

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	KBTX-TV	D16	DT	APP	BRYAN, TX	KBTX-TV 16-amend 685kW	
Undesireds:	KRHD-CD	D15	DC	CP	BRYAN, TX	BLANK0000034152	47.5 km
	KHPL-CD	D15	DC	CP	LA GRANGE, TX	BLANK0000033614	108.4
	KYTX	D15	DT	CP	NACOGDOCHES, TX	BLANK0000027990	175.1
	KSHV-TV	D16	DT	CP	SHREVEPORT, LA	BLANK0000028480	307.4
	KHCE-TV	D16	DT	LIC	SAN ANTONIO, TX	BLEDT20110215AEM	256.3
	KNCT	D17	DT	CP	BELTON, TX	BLANK0000028609	160.1

Service area	Terrain-limited	IX-free	Percent IX
39792.4 4,404,648	39680.4 4,401,048	38627.3 4,391,510	2.65 0.22

Undesired	Total IX	Unique IX	Prcnt Unique IX
KRHD-CD D15 DC CP	23.9 64	20.0 41	0.05 0.00
KHPL-CD D15 DC CP	64.4 2,876	4.0 598	0.01 0.01
KSHV-TV D16 DT CP	35.7 27	35.7 27	0.09 0.00
KHCE-TV D16 DT LIC	681.9 6,606	493.6 2,801	1.24 0.06
KNCT D17 DT CP	439.5 3,793	311.6 2,266	0.79 0.05

Interference to proposal scenario 3

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	KBTX-TV	D16	DT	APP	BRYAN, TX	KBTX-TV 16-amend 685kW	
Undesireds:	KRHD-CD	D15	DC	CP	BRYAN, TX	BLANK0000034152	47.5 km
	KHPL-CD	D15	DC	CP	LA GRANGE, TX	BLANK0000033614	108.4
	KYTX	D15	DT	CP	NACOGDOCHES, TX	BLANK0000027990	175.1
	KSHV-TV	D16	DT	APP	SHREVEPORT, LA	BLANK0000034906	307.4
	KHCE-TV	D16	DT	APP	SAN ANTONIO, TX	BLANK0000035698	256.3
	KNCT	D17	DT	CP	BELTON, TX	BLANK0000028609	160.1

Service area	Terrain-limited	IX-free	Percent IX
39792.4 4,404,648	39680.4 4,401,048	38563.4 4,391,124	2.81 0.23

Undesired	Total IX	Unique IX	Prcnt Unique IX
KRHD-CD D15 DC CP	23.9 64	20.0 41	0.05 0.00
KHPL-CD D15 DC CP	64.4 2,876	4.0 598	0.01 0.01
KSHV-TV D16 DT APP	67.5 189	67.5 189	0.17 0.00
KHCE-TV D16 DT APP	737.9 6,960	525.6 3,025	1.32 0.07
KNCT D17 DT CP	439.5 3,793	287.6 2,136	0.72 0.05

Interference to proposal scenario 4

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	KBTX-TV	D16	DT	APP	BRYAN, TX	KBTX-TV 16-amend 685kW	
Undesireds:	KRHD-CD	D15	DC	CP	BRYAN, TX	BLANK0000034152	47.5 km
	KHPL-CD	D15	DC	CP	LA GRANGE, TX	BLANK0000033614	108.4
	KYTX	D15	DT	CP	NACOGDOCHES, TX	BLANK0000027990	175.1
	KSHV-TV	D16	DT	APP	SHREVEPORT, LA	BLANK0000034906	307.4
	KHCE-TV	D16	DT	LIC	SAN ANTONIO, TX	BLEDT20110215AEM	256.3

Table 1 KBTX-TV OET Bulletin 69 Interference Study
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KNCT	D17	DT	CP	BELTON, TX	BLANK0000028609	160.1
Service area	Terrain-limited		IX-free		Percent IX	
39792.4	4,404,648	39680.4	4,401,048	38595.5	4,391,348	2.73 0.22

Undesired	Total IX		Unique IX		Prcnt Unique IX	
KRHD-CD D15 DC CP	23.9	64	20.0	41	0.05	0.00
KHPL-CD D15 DC CP	64.4	2,876	4.0	598	0.01	0.01
KSHV-TV D16 DT APP	67.5	189	67.5	189	0.17	0.00
KHCE-TV D16 DT LIC	681.9	6,606	493.6	2,801	1.24	0.06
KNCT D17 DT CP	439.5	3,793	311.6	2,266	0.79	0.05

Interference to proposal scenario 5

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	KBTX-TV	D16	DT	APP	BRYAN, TX	KBTX-TV 16-amend 685kW	
Undesireds:	KRHD-CD	D15	DC	CP	BRYAN, TX	BLANK0000034152	47.5 km
	KHPL-CD	D15	DC	CP	LA GRANGE, TX	BLANK0000033614	108.4
	KYTX	D15	DT	APP	NACOGDOCHES, TX	BLANK0000034826	175.1
	KSHV-TV	D16	DT	CP	SHREVEPORT, LA	BLANK0000028480	307.4
	KHCE-TV	D16	DT	APP	SAN ANTONIO, TX	BLANK0000035698	256.3
	KNCT	D17	DT	CP	BELTON, TX	BLANK0000028609	160.1

Service area	Terrain-limited		IX-free		Percent IX	
39792.4	4,404,648	39680.4	4,401,048	38587.3	4,391,270	2.75 0.22
Undesired	Total IX		Unique IX		Prcnt Unique IX	
KRHD-CD D15 DC CP	23.9	64	20.0	41	0.05	0.00
KHPL-CD D15 DC CP	64.4	2,876	4.0	598	0.01	0.01
KYTX D15 DT APP	7.9	16	7.9	16	0.02	0.00
KSHV-TV D16 DT CP	35.7	27	35.7	27	0.09	0.00
KHCE-TV D16 DT APP	737.9	6,960	525.6	3,025	1.32	0.07
KNCT D17 DT CP	439.5	3,793	287.6	2,136	0.72	0.05

Interference to proposal scenario 6

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	KBTX-TV	D16	DT	APP	BRYAN, TX	KBTX-TV 16-amend 685kW	
Undesireds:	KRHD-CD	D15	DC	CP	BRYAN, TX	BLANK0000034152	47.5 km
	KHPL-CD	D15	DC	CP	LA GRANGE, TX	BLANK0000033614	108.4
	KYTX	D15	DT	APP	NACOGDOCHES, TX	BLANK0000034826	175.1
	KSHV-TV	D16	DT	CP	SHREVEPORT, LA	BLANK0000028480	307.4
	KHCE-TV	D16	DT	LIC	SAN ANTONIO, TX	BLEDT20110215AEM	256.3
	KNCT	D17	DT	CP	BELTON, TX	BLANK0000028609	160.1

Service area	Terrain-limited		IX-free		Percent IX	
39792.4	4,404,648	39680.4	4,401,048	38619.3	4,391,494	2.67 0.22
Undesired	Total IX		Unique IX		Prcnt Unique IX	
KRHD-CD D15 DC CP	23.9	64	20.0	41	0.05	0.00
KHPL-CD D15 DC CP	64.4	2,876	4.0	598	0.01	0.01
KYTX D15 DT APP	7.9	16	7.9	16	0.02	0.00
KSHV-TV D16 DT CP	35.7	27	35.7	27	0.09	0.00
KHCE-TV D16 DT LIC	681.9	6,606	493.6	2,801	1.24	0.06
KNCT D17 DT CP	439.5	3,793	311.6	2,266	0.79	0.05

Interference to proposal scenario 7

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	KBTX-TV	D16	DT	APP	BRYAN, TX	KBTX-TV 16-amend 685kW	
Undesireds:	KRHD-CD	D15	DC	CP	BRYAN, TX	BLANK0000034152	47.5 km
	KHPL-CD	D15	DC	CP	LA GRANGE, TX	BLANK0000033614	108.4
	KYTX	D15	DT	APP	NACOGDOCHES, TX	BLANK0000034826	175.1
	KSHV-TV	D16	DT	APP	SHREVEPORT, LA	BLANK0000034906	307.4
	KHCE-TV	D16	DT	APP	SAN ANTONIO, TX	BLANK0000035698	256.3
	KNCT	D17	DT	CP	BELTON, TX	BLANK0000028609	160.1

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Service area		Terrain-limited		IX-free		Percent IX	
39792.4	4,404,648	39680.4	4,401,048	38555.5	4,391,108	2.83	0.23
Undesired		Total IX		Unique IX		Prcnt Unique IX	
KRHD-CD D15 DC CP		23.9	64	20.0	41	0.05	0.00
KHPL-CD D15 DC CP		64.4	2,876	4.0	598	0.01	0.01
KYTX D15 DT APP		7.9	16	7.9	16	0.02	0.00
KSHV-TV D16 DT APP		67.5	189	67.5	189	0.17	0.00
KHCE-TV D16 DT APP		737.9	6,960	525.6	3,025	1.32	0.07
KNCT D17 DT CP		439.5	3,793	287.6	2,136	0.72	0.05

Interference to proposal scenario 8

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	KBTX-TV	D16	DT	APP	BRYAN, TX	KBTX-TV 16-amend 685kW	
Undesireds:	KRHD-CD	D15	DC	CP	BRYAN, TX	BLANK0000034152	47.5 km
	KHPL-CD	D15	DC	CP	LA GRANGE, TX	BLANK0000033614	108.4
	KYTX	D15	DT	APP	NACOGDOCHES, TX	BLANK0000034826	175.1
	KSHV-TV	D16	DT	APP	SHREVEPORT, LA	BLANK0000034906	307.4
	KHCE-TV	D16	DT	LIC	SAN ANTONIO, TX	BLEDT20110215AEM	256.3
	KNCT	D17	DT	CP	BELTON, TX	BLANK0000028609	160.1

Service area		Terrain-limited		IX-free		Percent IX	
39792.4	4,404,648	39680.4	4,401,048	38587.5	4,391,332	2.75	0.22
Undesired		Total IX		Unique IX		Prcnt Unique IX	
KRHD-CD D15 DC CP		23.9	64	20.0	41	0.05	0.00
KHPL-CD D15 DC CP		64.4	2,876	4.0	598	0.01	0.01
KYTX D15 DT APP		7.9	16	7.9	16	0.02	0.00
KSHV-TV D16 DT APP		67.5	189	67.5	189	0.17	0.00
KHCE-TV D16 DT LIC		681.9	6,606	493.6	2,801	1.24	0.06
KNCT D17 DT CP		439.5	3,793	311.6	2,266	0.79	0.05

Channel and Facility Information

Pre-filled and fixed to reassignment Ch-14 on electronic form. FCC Staff to change to intended Ch-16 after form is submitted.

Section	Question	Response
Proposed Community of License	Facility ID	6669
	State	Texas
	City	BRYAN
	DTV Channel	14
Facility Type	Facility Type	Commercial
	Station Type	Main
Zone	Zone	3

Antenna Location Data

Section	Question	Response
Antenna Structure Registration	Do you have an FCC Antenna Structure Registration (ASR) Number?	Yes
	ASR Number	1062868
Coordinates (NAD83)	Latitude	30° 33' 16.5" N+
	Longitude	096° 01' 52.3" W-
	Structure Type	TOWER-A free standing or guyed struct
	Overall Structure Height	502.9 meters
	Support Structure Height	487.7 meters
	Ground Elevation (AMSL)	101.1 meters
Antenna Data	Height of Radiation Center Above Ground Level	494.7 meters
	Height of Radiation Center Above Average Terrain	506.2 meters
	Height of Radiation Center Above Mean Sea Level	595.8 meters
	Effective Radiated Power	685 kW

Antenna Technical Data

Section	Question	Response
Antenna Type	Antenna Type	Directional Custom
	Do you have an Antenna ID?	Yes
	Antenna ID	1002863
Antenna Manufacturer and Model	Manufacturer:	DIE
	Model	TFU-19ETT/VP-R 6T140 (SP)
	Rotation	0 degrees
	Electrical Beam Tilt	1.0
	Mechanical Beam Tilt	Not Applicable
	toward azimuth	
	Polarization	Elliptical
DTV and DTS: Elevation Pattern	Does the proposed antenna propose elevation radiation patterns that vary with azimuth for reasons other than the use of mechanical beam tilt?	Yes
	Uploaded file for elevation antenna (or radiation) pattern data	KBTX-TV EL pat 19E178100.xml

Directional Antenna Relative Field Values (Pre-rotated Pattern)

Degree	V _A (Authorized Value)	Degree	V _A (Authorized Value)	Degree	V _A (Authorized Value)	Degree	V _A (Authorized Value)
0	0.722	90	0.769	180	0.977	270	0.925
10	0.775	100	0.718	190	0.918	280	0.981
20	0.850	110	0.701	200	0.842	290	1.000
30	0.925	120	0.722	210	0.769	300	0.977
40	0.981	130	0.775	220	0.718	310	0.918
50	1.000	140	0.850	230	0.701	320	0.842
60	0.977	150	0.925	240	0.722	330	0.769
70	0.918	160	0.981	250	0.775	340	0.718
80	0.842	170	1.000	260	0.850	350	0.701

Additional Azimuths

Degree	V _A
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**Construction
Permit
Certifications**

Section	Question	Response
Post-Incentive Auction Expedited Processing	It will operate on the DTV channel for this station as established in the post-incentive auction channel reassignment public notice.	No
	It will operate post-incentive auction facilities that do not expand the noise-limited service contour in any direction beyond that established by the post-incentive auction channel reassignment public notice.	No
	It will operate post-incentive auction facilities that match or reduce by no more than five percent with respect to predicted population from those defined in the post-incentive auction channel reassignment public notice.	Yes
	The antenna structure to be used by this facility has been registered by the Commission and will not require re-registration to support the proposed antenna, OR the FAA has previously determined that the proposed structure will not adversely affect safety in air navigation and this structure qualifies for later registration under the Commission's phased registration plan, OR the proposed installation on this structure does not require notification to the FAA pursuant to 47 C.F.R. Section 17.7.	Yes
Environmental Effect	Would a Commission grant of Authorization for this location be an action which may have a significant environmental effect? (See Section 1.1306 of 47 C.F.R.)	No
Broadcast Facility	The proposed facility complies with the applicable engineering standards and assignment requirements of 47 C. F.R. Sections 73.616, 73.622(i), 73.623(e), 73.625, 73.1030, and 73.1125.	Yes