

EXHIBIT A

ENGINEERING STATEMENT

The engineering data contained herein have been prepared on behalf of TRINITY BROADCASTING OF TEXAS, INC., licensee of full-power digital television station KDTX-DT, Channel 45 in Dallas, Texas, in support of its application for modification of Construction Permit 0000027714, which authorizes operation on its post-repack channel, Channel 21. It is proposed herein to operate from a new site with an increase in effective radiated power.

It is proposed to mount a Dielectric broadband TUM-AP-C4-14/48H-2-R-B panel antenna at the 462.7-meter level of an existing 472.7-meter tower. The proposed effective radiated power for the facility is 735 kW in the horizontal plane. Exhibit B is a map upon which the predicted service contours are plotted. As shown, the community of Dallas is completely encompassed by the proposed 48 dBu city-grade service contour.

Azimuth and elevation pattern data for the proposed directional antenna are provided in Exhibit C. Exhibit D contains the summary results from a TVStudy interference study, which was conducted using a cell size of 2.0 kilometers and increment spacing of 1.0 kilometer. It concludes that the proposed KDTX-DT facility meets the Commission's *de minimis* interference criteria to all co-channel and adjacent-channel post-repack full-power and Class A facilities. A power density calculation appears as Exhibit E.

Since no change in the overall height or location of the existing tower is proposed herein, the Federal Aviation Administration has not been notified of this application. In addition, the Federal Communications Commission issued Antenna Structure Registration Number 1055009 to this tower.

EXHIBIT A

I declare under penalty of perjury that the foregoing statements and the attached exhibits, which were prepared by me or under my immediate supervision, are true and correct to the best of my knowledge and belief.

A handwritten signature in blue ink, appearing to read "K. T. Fisher", with a stylized, elongated final letter.

KEVIN T. FISHER

October 31, 2017

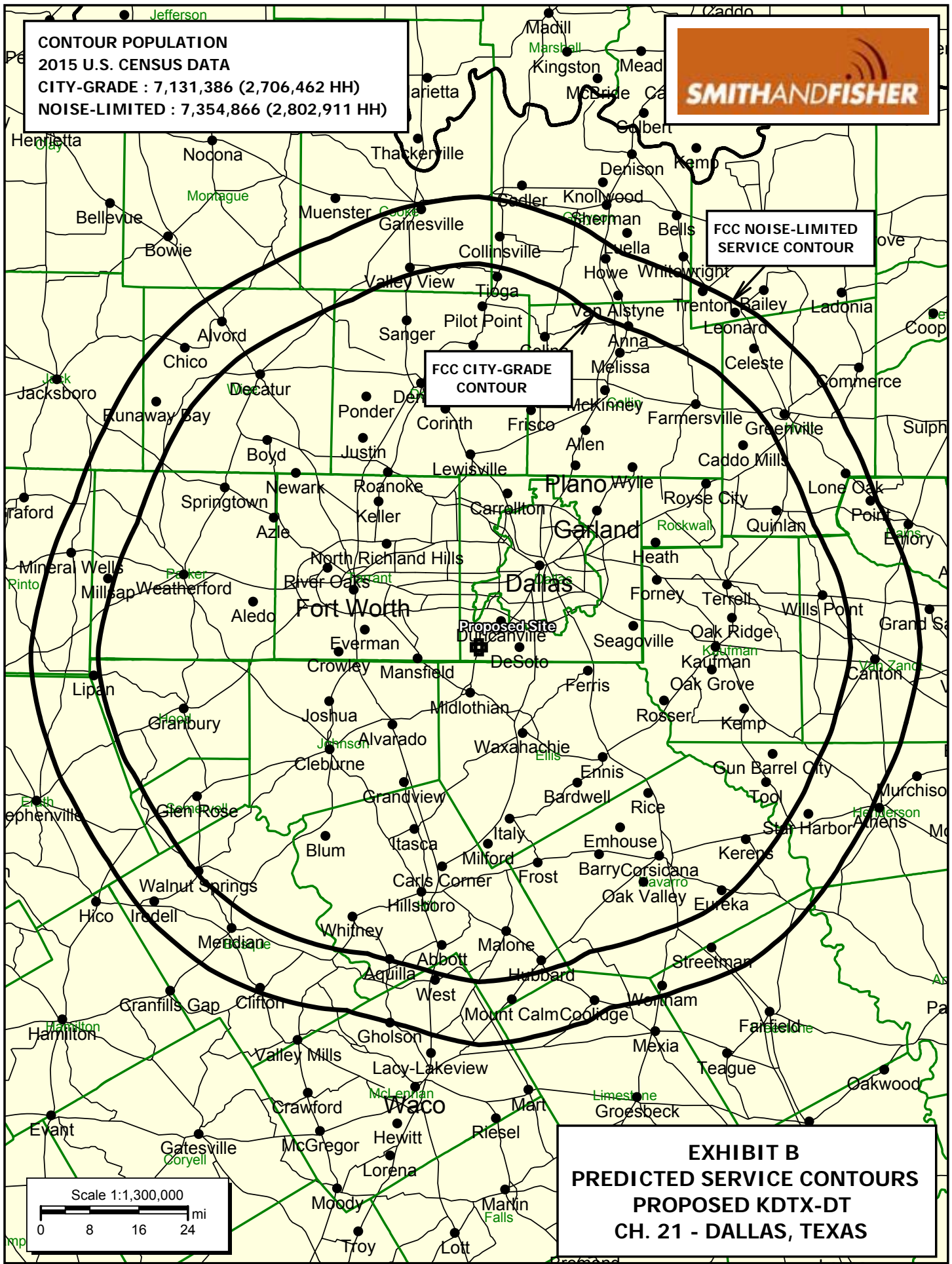
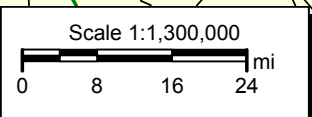
**CONTOUR POPULATION**  
**2015 U.S. CENSUS DATA**  
**CITY-GRADE : 7,131,386 (2,706,462 HH)**  
**NOISE-LIMITED : 7,354,866 (2,802,911 HH)**



**FCC NOISE-LIMITED  
SERVICE CONTOUR**

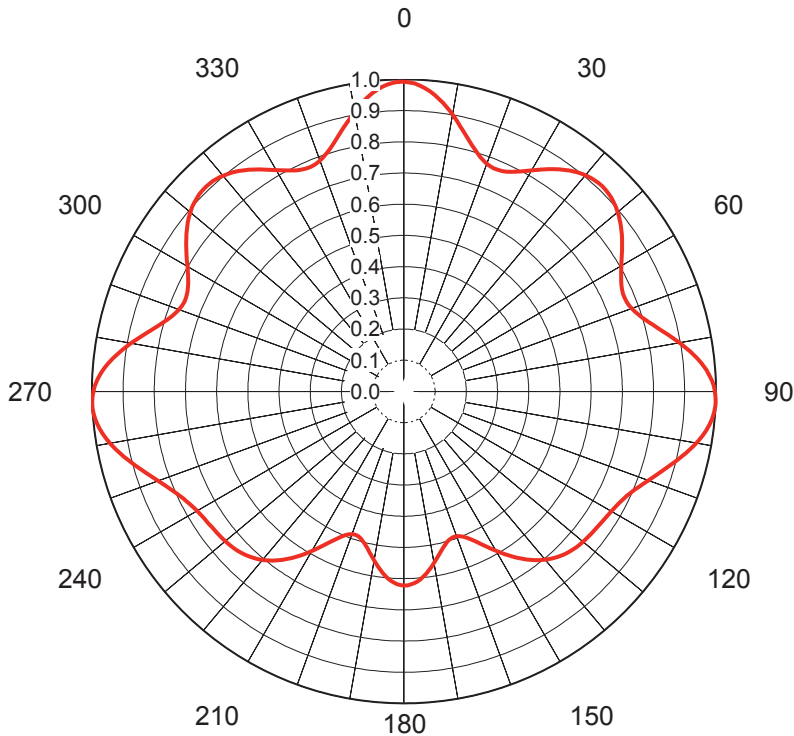
**FCC CITY-GRADE  
CONTOUR**

**EXHIBIT B**  
**PREDICTED SERVICE CONTOURS**  
**PROPOSED KDTX-DT**  
**CH. 21 - DALLAS, TEXAS**



## EXHIBIT C

### AZIMUTH PATTERN Horizontal Polarization



Proposal No. **C-70652-5**  
 Date **8-Sep-17**  
 Call Letters **KDTX**  
 Channel **21**  
 Frequency **515 MHz**  
 Antenna Type **TUM-AP-C4-14/48H-2-R-B**  
 Gain **1.55 (1.91dB)**  
 Calculated

Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value
0	0.993	36	0.878	72	0.792	108	0.856	144	0.666	180	0.622	216	0.668	252	0.861	288	0.781
1	0.991	37	0.886	73	0.802	109	0.844	145	0.654	181	0.621	217	0.678	253	0.873	289	0.773
2	0.988	38	0.893	74	0.813	110	0.834	146	0.642	182	0.618	218	0.688	254	0.886	290	0.767
3	0.982	39	0.900	75	0.826	111	0.823	147	0.630	183	0.613	219	0.697	255	0.898	291	0.763
4	0.975	40	0.905	76	0.839	112	0.814	148	0.617	184	0.608	220	0.705	256	0.911	292	0.761
5	0.965	41	0.909	77	0.853	113	0.805	149	0.603	185	0.600	221	0.712	257	0.923	293	0.760
6	0.955	42	0.912	78	0.868	114	0.798	150	0.590	186	0.592	222	0.719	258	0.935	294	0.762
7	0.943	43	0.914	79	0.883	115	0.790	151	0.576	187	0.582	223	0.724	259	0.946	295	0.765
8	0.929	44	0.915	80	0.897	116	0.784	152	0.563	188	0.572	224	0.729	260	0.957	296	0.770
9	0.915	45	0.914	81	0.912	117	0.779	153	0.550	189	0.561	225	0.734	261	0.966	297	0.776
10	0.900	46	0.913	82	0.926	118	0.775	154	0.538	190	0.550	226	0.737	262	0.975	298	0.784
11	0.885	47	0.910	83	0.939	119	0.771	155	0.527	191	0.539	227	0.740	263	0.983	299	0.792
12	0.869	48	0.906	84	0.951	120	0.767	156	0.517	192	0.528	228	0.743	264	0.989	300	0.801
13	0.854	49	0.901	85	0.962	121	0.765	157	0.509	193	0.517	229	0.745	265	0.994	301	0.811
14	0.839	50	0.895	86	0.972	122	0.762	158	0.502	194	0.508	230	0.747	266	0.998	302	0.821
15	0.825	51	0.888	87	0.981	123	0.761	159	0.497	195	0.500	231	0.748	267	0.999	303	0.832
16	0.812	52	0.880	88	0.988	124	0.759	160	0.494	196	0.493	232	0.750	268	1.000	304	0.842
17	0.801	53	0.872	89	0.993	125	0.757	161	0.493	197	0.489	233	0.751	269	0.998	305	0.852
18	0.791	54	0.863	90	0.997	126	0.756	162	0.494	198	0.486	234	0.752	270	0.995	306	0.862
19	0.783	55	0.853	91	0.999	127	0.755	163	0.497	199	0.485	235	0.754	271	0.991	307	0.871
20	0.777	56	0.844	92	1.000	128	0.753	164	0.502	200	0.487	236	0.756	272	0.984	308	0.879
21	0.773	57	0.834	93	0.999	129	0.752	165	0.509	201	0.491	237	0.757	273	0.977	309	0.887
22	0.771	58	0.824	94	0.996	130	0.750	166	0.517	202	0.496	238	0.760	274	0.967	310	0.894
23	0.771	59	0.814	95	0.992	131	0.748	167	0.526	203	0.504	239	0.762	275	0.957	311	0.900
24	0.774	60	0.805	96	0.986	132	0.745	168	0.536	204	0.513	240	0.766	276	0.945	312	0.904
25	0.778	61	0.796	97	0.979	133	0.742	169	0.547	205	0.524	241	0.770	277	0.932	313	0.908
26	0.783	62	0.788	98	0.971	134	0.739	170	0.558	206	0.536	242	0.774	278	0.918	314	0.911
27	0.790	63	0.781	99	0.962	135	0.735	171	0.568	207	0.549	243	0.779	279	0.903	315	0.912
28	0.799	64	0.776	100	0.952	136	0.730	172	0.578	208	0.563	244	0.785	280	0.888	316	0.913
29	0.808	65	0.772	101	0.941	137	0.725	173	0.588	209	0.576	245	0.792	281	0.873	317	0.912
30	0.818	66	0.769	102	0.929	138	0.719	174	0.597	210	0.590	246	0.800	282	0.858	318	0.910
31	0.828	67	0.768	103	0.917	139	0.712	175	0.605	211	0.604	247	0.808	283	0.843	319	0.907
32	0.839	68	0.770	104	0.905	140	0.704	176	0.611	212	0.618	248	0.818	284	0.828	320	0.903
33	0.849	69	0.772	105	0.892	141	0.696	177	0.616	213	0.631	249	0.828	285	0.815	321	0.897
34	0.859	70	0.777	106	0.880	142	0.686	178	0.620	214	0.644	250	0.838	286	0.802	322	0.891
35	0.869	71	0.784	107	0.868	143	0.677	179	0.622	215	0.656	251	0.850	287	0.791	323	0.884

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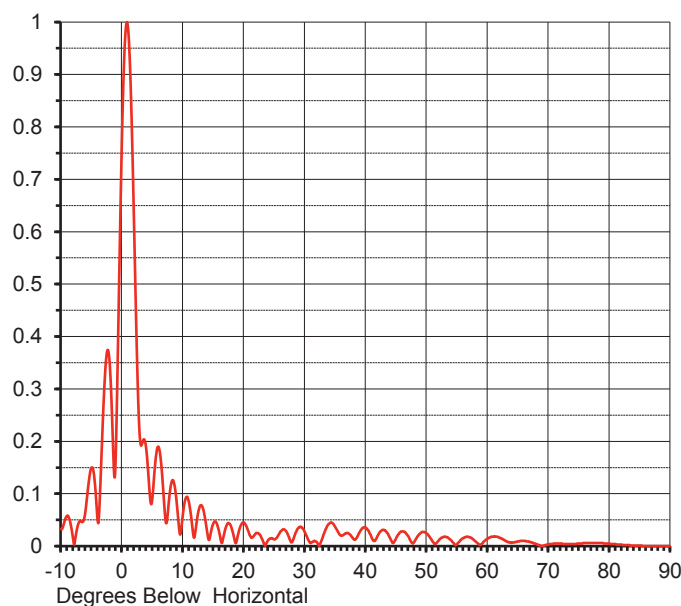
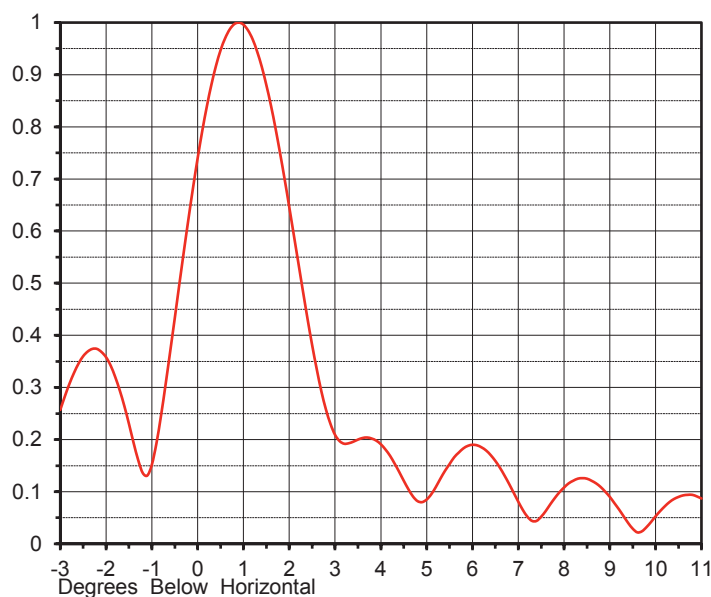
## EXHIBIT C

### ELEVATION PATTERN

Proposal No. **C-70652-5**  
 Date **8-Sep-17**  
 Call Letters **KDTX**  
 Channel **21**  
 Frequency **515 MHz**  
 Antenna Type **TUM-AP-C4-14/48H-2-R-B**

RMS Directivity at Main Lobe **27.0 ( 14.31 dB )**  
 RMS Directivity at Horizontal **16.9 ( 12.28 dB )**  
**Calculated**

Beam Tilt **0.75 deg**  
 Pattern Number **14U270075**



Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
-10.0	0.033	10.0	0.063	30.0	0.026	50.0	0.024	70.0	0.003
-9.0	0.058	11.0	0.082	31.0	0.006	51.0	0.008	71.0	0.005
-8.0	0.011	12.0	0.026	32.0	0.007	52.0	0.011	72.0	0.005
-7.0	0.047	13.0	0.078	33.0	0.020	53.0	0.018	73.0	0.004
-6.0	0.068	14.0	0.024	34.0	0.043	54.0	0.011	74.0	0.004
-5.0	0.150	15.0	0.044	35.0	0.036	55.0	0.004	75.0	0.005
-4.0	0.047	16.0	0.023	36.0	0.020	56.0	0.015	76.0	0.006
-3.0	0.283	17.0	0.035	37.0	0.025	57.0	0.017	77.0	0.006
-2.0	0.342	18.0	0.033	38.0	0.013	58.0	0.009	78.0	0.006
-1.0	0.193	19.0	0.021	39.0	0.027	59.0	0.004	79.0	0.005
0.0	0.792	20.0	0.045	40.0	0.035	60.0	0.014	80.0	0.005
1.0	0.985	21.0	0.020	41.0	0.015	61.0	0.018	81.0	0.004
2.0	0.592	22.0	0.025	42.0	0.021	62.0	0.016	82.0	0.003
3.0	0.197	23.0	0.013	43.0	0.031	63.0	0.010	83.0	0.002
4.0	0.181	24.0	0.012	44.0	0.015	64.0	0.007	84.0	0.001
5.0	0.095	25.0	0.013	45.0	0.016	65.0	0.009	85.0	0.001
6.0	0.189	26.0	0.028	46.0	0.028	66.0	0.010	86.0	0.000
7.0	0.065	27.0	0.027	47.0	0.018	67.0	0.008	87.0	0.000
8.0	0.116	28.0	0.010	48.0	0.009	68.0	0.004	88.0	0.000
9.0	0.078	29.0	0.036	49.0	0.025	69.0	0.000	89.0	0.000
								90.0	0.000

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TVSTUDY INTERFERENCE ANALYSIS RESULTS  
PROPOSED KDTX-DT  
CHANNEL 21 – DALLAS, TEXAS

Study created: 2017.10.31 09:09:33

Study build station data: LMS TV 2017-10-24 (1)

Proposal: KDTX-TV D21 DT CP DALLAS, TX  
File number: BLANK0000027714  
Facility ID: 67910  
Station data: User record  
Record ID: 62  
Country: U.S.  
Zone: II

Stations affected by proposal:

Call	Chan	Svc	Status	City, State	File Number	Distance
KFXK-TV	D20	DT	CP	LONGVIEW, TX	BLANK0000028476	193.0 km
KFXK-TV	D20	DT	BL	LONGVIEW, TX	DTVBL70917	193.0
KHBS	D21	DT	LIC	FORT SMITH, AR	BLCDDT20031121AMR	347.6
KUOT-CD	D21	DC	CP	OKLAHOMA CITY, OK	BLANK0000027255	312.3
KUOT-CD	D21	DC	BL	OKLAHOMA CITY, OK	DTVBL31368	312.3
KXAN-TV	D21	DT	LIC	AUSTIN, TX	BLCDDT20050630AAG	263.6
KZJL	D21	DT	CP	HOUSTON, TX	BLANK0000028638	364.0
KZJL	D21	DT	BL	HOUSTON, TX	DTVBL69531	364.0
KUVN-CD	D22	DC	CP	FORT WORTH, TX	BLANK0000025148	38.5
KUVN-CD	D22	DC	BL	FORT WORTH, TX	DTVBL5319	38.5
KETK-TV	D22	DT	LIC	JACKSONVILLE, TX	BMLCDDT20120516ABW	166.2

No non-directional AM stations found within 0.8 km

No directional AM stations found within 3.2 km

Record parameters as studied:

Channel: D21  
Latitude: 32 35 22.00 N (NAD83)  
Longitude: 96 58 12.90 W  
Height AMSL: 716.0 m  
HAAT: 494.0 m  
Peak ERP: 735 kW

Antenna: DIE PANEL 0.0 deg  
Elev Pattn: Generic  
Elec Tilt: 0.70

39.5 dBu contour:

Azimuth	ERP	HAAT	Distance
0.0 deg	725 kW	559.2 m	118.6 km
45.0	595	509.5	113.6
90.0	731	513.9	115.8
135.0	388	508.8	109.5
180.0	284	483.1	104.4
225.0	387	533.3	111.2
270.0	728	543.4	117.7
315.0	593	548.5	116.1

Database HAAT does not agree with computed HAAT  
Database HAAT: 494 m Computed HAAT: 525 m

ERP exceeds maximum  
ERP: 735 kW ERP maximum: 450 kW

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

Distance to Canadian border: 1601.4 km

Distance to Mexican border: 520.4 km

Conditions at FCC monitoring station: Kingsville TX  
Bearing: 189.0 degrees Distance: 578.9 km

Proposal is not within the West Virginia quiet zone area

Conditions at Table Mountain receiving zone:  
Bearing: 320.9 degrees Distance: 1115.3 km

No land mobile station failures found

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%

No IX check failures found.

POWER DENSITY CALCULATION

PROPOSED KDTX-DT  
CHANNEL 21 – DALLAS, TEXAS

[MODIFICATION OF CONSTRUCTION PERMIT 0000027714]

Since the FCC considers the possible biological effects of RF transmissions in its environmental determinations, we have studied the matter with respect to this Dallas facility. Employing the methods set forth in *OET Bulletin No. 65* and considering a main-lobe effective radiated power of 735 kW, an antenna radiation center 462.7 meters above ground, and the specific elevation pattern of the proposed Dielectric antenna, maximum power density two meters above ground of  $0.000090 \text{ mW/cm}^2$  is calculated to occur 683 meters north of the base of the tower. Since this is significantly less than 0.1 percent of the  $0.34 \text{ mW/cm}^2$  reference for uncontrolled environments (areas with public access) surrounding a facility operating on Channel 21 (512-518 MHz), a grant of this proposal may be considered a minor environmental action with respect to public exposure to non-ionizing electromagnetic radiation.

Further, the station owner will take whatever precautionary steps are necessary, such as reducing power or leaving the air temporarily, to ensure that workers operating in the vicinity of the antenna are not exposed to excessive non-ionizing radiation.