

ENGINEERING STATEMENT
APPLICATION FOR CONSTRUCTION PERMIT
ON BEHALF OF
EAGLE CREEK BROADCASTING OF CORPUS CHRISTI, LLC
KZTV-DT, CORPUS CHRISTI, TEXAS
CHANNEL 10 39 KW MAX ERP 289.8 METERS HAAT

SEPTEMBER 2009

COHEN, DIPPELL AND EVERIST, P.C.
CONSULTING ENGINEERS
RADIO AND TELEVISION
WASHINGTON, D.C.

COHEN, DIPPELL AND EVERIST, P. C.

City of Washington)
) ss
District of Columbia)

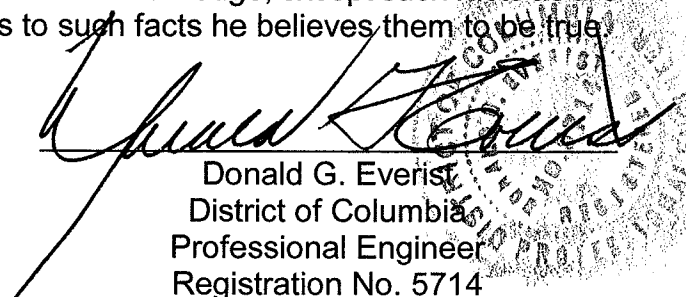
Donald G. Everist, being duly sworn upon his oath, deposes and states that:

He is a graduate electrical engineer, a Registered Professional Engineer in the District of Columbia, and is President, Secretary and Treasurer of Cohen, Dippell and Everist, P.C., Consulting Engineers, Radio - Television, with offices at 1300 L Street, N.W., Suite 1100, Washington, D.C. 20005;

That his qualifications are a matter of record in the Federal Communications Commission;

That the attached engineering report was prepared by him or under his supervision and direction and

That the facts stated herein are true of his own knowledge, except such facts as are stated to be on information and belief, and as to such facts he believes them to be true.


Donald G. Everist
District of Columbia
Professional Engineer
Registration No. 5714

Subscribed and sworn to before me this 11th day of September, 2009.



Notary Public

My Commission Expires: 2/28/2013

Summary

This engineering statement has been prepared on behalf of Eagle Creek Broadcasting of Corpus Christi, LLC, licensee of television KZTV-DT, Corpus Christi, Texas, and is in support of an application to maximize the post-transition facilities. KZTV-DT has been assigned Channel 10 as its post-transitional channel. The application seeks modification of construction permit (FCC File No. BPCDT-20080324AAT) which authorizes an effective radiated power (“ERP”) of 13.5 kW at a height above average terrain (“HAAT”) of 289.8 meters. The application proposes to maximize the current authorized DTV facilities by specifying 39 kW effective radiated power (“ERP”) directional. KZTV-DT proposes to utilize, for post-transition digital operation, the antenna formerly used for the station’s NTSC operation¹. This will allow KZTV-DT to further replicate the station’s formerly licensed NTSC Grade B service. KZTV-DT Channel 10 received concurrence from the Mexican administration November 26, 2008 to permit 50 kW at a slightly different site.

Discussion

KZTV(TV) was licensed to operate on NTSC television Channel 10 with a maximum visual effective radiated power (“ERP”) of 316 kW and an antenna height above average terrain (“HAAT”) of 289.8 meters (950.8 feet). KZTV-DT has been allocated DTV Channel 10 with facilities of 14.337 kW directional and HAAT of 287 meters in the revised DTV Table of

¹Discussions with the antenna manufacturer indicates that by reason of the facility’s location in a hurricane prone area special structural ribs were placed throughout the length of the antenna. These structural ribs result in a slight alteration of the horizontal pattern. This application uses that pattern modification.

Allotments.² KZTV-DT proposes to construct DTV facilities of 39 kW directional at a HAAT of 298.9 meters.

Allocation

An allocation study from the proposed site was not performed as there is no change in channel requested from that specified in Appendix B.³

Maximization

The proposed maximized operation further replicates the Grade B contour of the station's former analog service area and is in compliance with Section 73.622(f) regarding maximum allowable ERP for the specified antenna height.

Proposed DTV Operation

The antenna for the post-transition operation of KZTV-DT is top-mounted on the existing candelabra tower. This antenna was formerly used for the NTSC operation of KZTV(TV). The existing tower has a total overall structure height above ground of 301.4 meters (988.8 feet). The existing transmitter site is located at 3333 County Road 28 Robstown, Texas 07380. There are no AM stations located within 3.2 km of the antenna site. There are no FM stations and one other full service DTV station within 100 meters.

²"In the Matter of Advanced Television Systems and Their Impact Upon the Existing Television Broadcast Service", MM Docket 87-268, Memorandum Opinion and Order on Reconsideration of the Seventh Report and Order and Eighth Report and Order (FCC 08-72) Released March 6, 2008

³Ibid.

Since there is no change in overall height, FAA airspace approval is not required. The antenna structure registration number of the existing tower is 1218044. Exhibit E-1 is a vertical sketch of the existing tower and the proposed transmitting antenna.

The geographic coordinates of the proposed site are as follows:

North Latitude: 27° 42' 27.9"

West Longitude: 97° 37' 59"

NAD-27

Equipment Data
(existing)

Antenna: Andrew, Type ATW12V3HTC-10 antenna with 0.75° electrical beam tilt. The vertical plane pattern and other exhibits required by Section 73.625(c) are herein included as Exhibit E-2.

Transmission Line: 305 meters (1000 ft) of Andrew, Type HRLLine--6-1/8" rigid, 67.7 ohm transmission line

Power Data

Harris Transmitter output including filter	3.01 kW	4.79 dBk
Total Transmission line efficiency/loss	83%	0.81 dB
Input power to the antenna	2.50 kW	3.98 dBk
Antenna power gain, Main Lobe	15.60	11.93 dB
Effective Radiated Power, Maximum	39 kW	15.91 dBk

Elevation Data
(unchanged)

Vertical dimension for Channel 10 antenna	22.9 meters 75 feet
Overall height above ground of the existing antenna structure (including beacon and lightning rod)	301.4 meters 988.8 feet
Center of radiation of Channel 10 antenna above ground	287.1 meters 941.9 feet
Elevation of site above mean sea level	18.3 meters 60 feet
Center of radiation of Channel 10 antenna above mean sea level	305.4 meters 1002 feet
Overall height above mean sea level of existing tower and top-mounted antenna (including beacon)	319.7 meters 1048.9 feet
Antenna height above average terrain	289.8 meters

Note: Slight height differences may result due to conversion to metric.

Interference Analysis

A study of predicted interference by the proposed KZTV-DT service has been performed using a version of the Longley-Rice program as described in OET Bulletin No. 69 (July 2, 1997) and the Public Notice, "Additional Application Processing Guidelines for Digital Television (DTV)" (August 1998). The FCC's FORTRAN-77 code was modified only to the extent necessary (primarily input/output handling) for the program to run on a Windows platform. Comparison of service/interference areas and populations indicates that this model closely matches the FCC's

evaluation program. Best efforts have been made to use data and calculations identical to the FCC's program. Any slight differences are attributable to compiler, operating system and/or processor characteristics. The effect of any variance in calculated population values versus the FCC's program is minimized when differencing a given model's results, e.g., new interference equals total interference less baseline interference. The effect is further reduced for ratios of calculated population values, e.g., incremental population affected as a percent of total population served. The model employs the Longley-Rice propagation methodology and evaluates in grid cells of approximately 4 km² using 3-second terrain data sampled approximately every 1.0 km at one degree azimuth intervals with 2000 census centroids. Table I provides that interference analysis based on a higher power of 50 kW at 289.9 meters HAAT.

Coverage

The average elevation data for 3.2 to 16.1 km along each radial are based upon the 3-second NGDC terrain data.

The F(50,90) DTV coverage contour has been computed from reference to the propagation data for Channels 7-13, as published by the FCC in Figure 10 and Figure 10a, Section 73.699 of the FCC Rules and Regulations.

Utilizing the formula in Section 73.625(b)(2) of the Rules for the effective heights, it is found that the depression angle, A_h , varies from 0.466 to 0.477 degrees. Since the relative vertical field is greater than 90% of the maximum at these depression angles, the maximum power was used in determining the distance to the DTV contour.

Table II includes the distances to the 43 and 36 dBu F(50,90) coverage contours, the average elevation 3.2 to 16.1 km, and the antenna height above average terrain at intervals of ten degrees in azimuth beginning with true north radials. Exhibit E-3 provides the 43 and 36 dBu F(50,90) coverage contours and demonstrates that the community of license is covered by the F(50,90) 43 dBu contour.

Other Licensed and Broadcast Facilities

There are no FM stations located within 100 meters of the site and one other full-service DTV facility (KORO-DT) is located within 100 meters of the site.

There are no AM stations located within 3.22 km of the existing KZTV-DT site. No adverse technical effect is anticipated by the move of the DTV operation to the NTSC antenna and its operation to any other FCC licensed facility. If required, the licensee of KZTV-DT will install filters or take other measures as necessary to resolve any problem.

Mexican Administration Coordination

On November 26, 2008, the FCC received concurrence for DT operation by the Mexican Administration. The following parameters were noted in that Mexican letter.

Transmitter Site: North Latitude: 27° 46' 50"

West Longitude: 97° 38' 03"

ERP: 50 kW

HAAT: 287 meters

This application with 39 kW directional does not extend the 36 dBu contour beyond that achieved with Mexican Administration parameters coordination. See Exhibit E-4.

Total Radiofrequency Field Levels at KZTV-DT Tower Site

The total percentage of radiofrequency field levels (“RFF”) can be calculated by combining the percentage contribution of each station.

This section evaluates the RFF exposure condition created by the operation of the proposed KZTV-DT operation and KORO-DT. According to the August 31, 2009 FCC database, there are no other FM or DTV stations located within 100 meters.

The RFF contribution of each station will be calculated using the following formula:

$$S = \frac{33.4(F^2) \text{ Total ERP}}{R^2}$$

where:

S = power density in $\mu\text{W}/\text{cm}^2$

F = relative field factor

Total ERP = ERP Horizontal Polarization + ERP Vertical Polarization

R = RCAGL - 2 meters

ERP = RMS ERP in watts for DTV Stations

Station KZTV-DT

Channel 10

Freq: 192-198 MHz Range

$$S = \frac{33.4(F^2) \text{ ERP}}{R^2}$$

ERP = 39 kW (Horizontal only)

R = 285.1 meters (antenna height above ground - 2 meters)

F = 0.16

$$S = < 0.410 \mu\text{W}/\text{cm}^2$$

Therefore, the proposed KZTV-DT will contribute less than $0.410 \mu\text{W}/\text{cm}^2$ at two meters above ground.

The limit for an uncontrolled environment (general population) is $200 \mu\text{W}/\text{cm}^2$.

Therefore, the proposed operation by KZTV-DT contributes less than 1% RFF level for an uncontrolled environment (general population) two meters above the ground.

Station KORO-DT

Channel 27 Freq: 548-554 MHz Range

$$S = \frac{33.4 (F^2) \text{ ERP}}{R^2}$$

ERP = 1000 kW (Horizontal only)
R = 284.6 meters (antenna height above ground - 2 meters)
F = 0.2 (assumed)

$$S = < 16.5 \mu\text{W}/\text{cm}^2$$

Therefore, KORO-DT contributes less than $16.5 \mu\text{W}/\text{cm}^2$ at 2 meters above ground.

The limit for an uncontrolled environment (general population) is $367.3 \mu\text{W}/\text{cm}^2$.

KORO-DT contributes less than 4.5% RFF level for an uncontrolled environment (general population) two meters above the ground.

The total contribution by the proposed DTV operation, and KORO-DT at 2 meters above ground level is less than 6% of the current FCC guidelines for general population exposure.

Authorized personnel and rigging contractors will be alerted to the potential zone of high field levels on the tower, and if necessary, the station will operate with reduced power or terminate the operation of the transmitter as appropriate when it is necessary for authorized personnel or contractors to perform work on the tower. Workers and the general public, therefore, will not be subjected to RFF levels in excess of the current FCC guidelines.

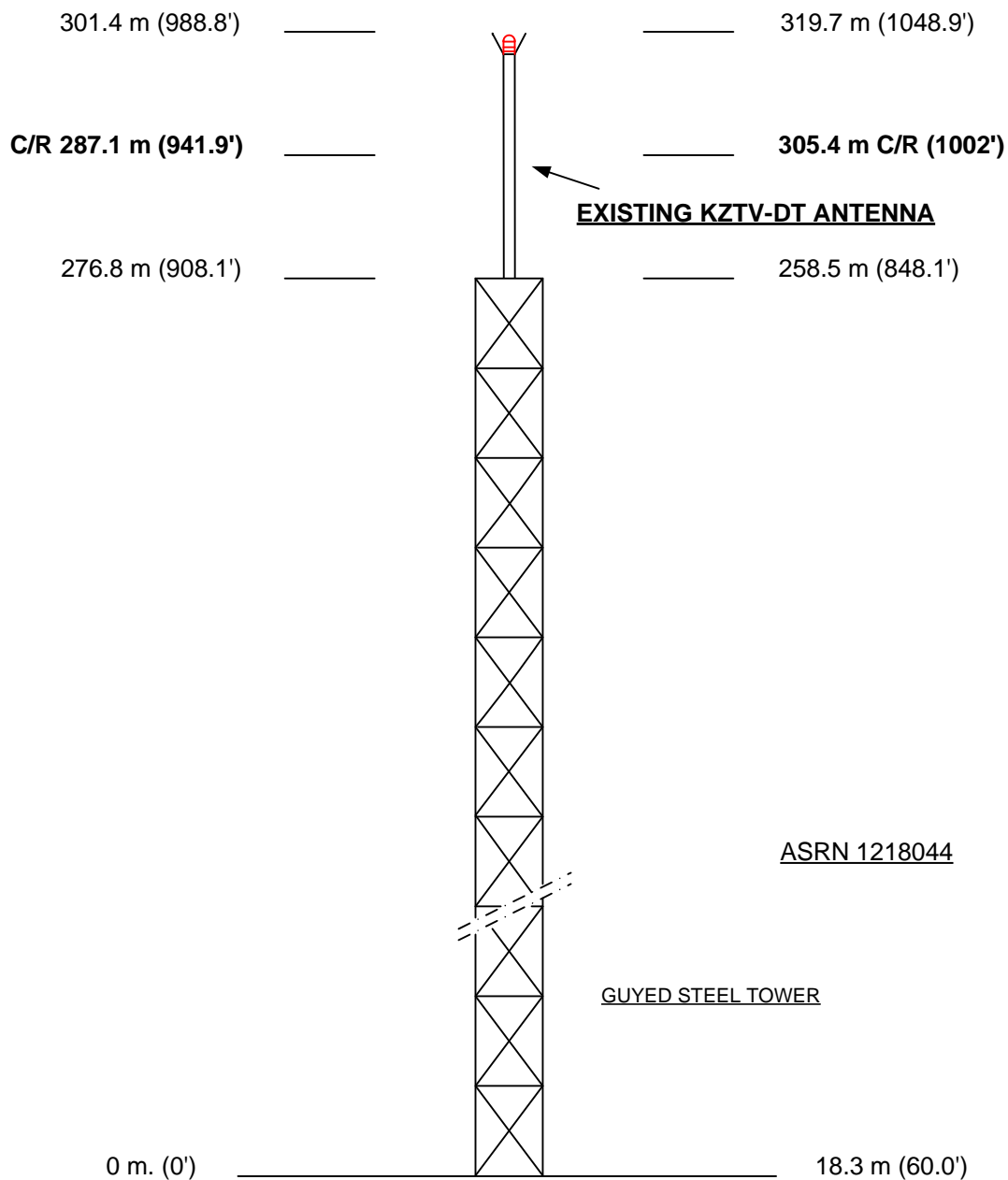
Environmental Assessment

An environmental assessment ("EA") is categorically excluded under Section 1.1306 of the FCC Rules and Regulations as the tower was constructed prior to the requirements specified in WT Docket No. 03-128, the height of the existing tower will not be increased, and the applicant indicates:

- (a)(1) The existing tower is not located in an officially designated wilderness area.
- (a)(2) The existing tower is not located in an officially designated wildlife preserve.
- (a)(3) The proposed facilities will not affect any listed threatened or endangered species or habitats.
- (a)(3)(ii) The proposed facilities will not jeopardize the continued existence of any proposed endangered or threatened species or likely to result in the destruction or adverse modification of proposed critical habitats.
- (a)(4) The proposed facilities located on a tower which was built prior to the adoption of WT Docket No. 03-128 and is grandfathered and has not affected any known districts, sites, buildings, structures, or objects significant in American history, architecture, archaeology, engineering, or culture.
- (a)(5) The existing tower is not located near any known Indian religious sites.
- (a)(6) The existing tower is not located in a flood plain.
- (a)(7) The operation of the DTV facilities on an existing guyed tower and antenna will not involve a significant change in surface features of the ground in the vicinity of the tower.
- (a)(8) It is not proposed to change the current lighting.
- (b) Workers and the general public will not be subjected to RFF levels in excess of the current FCC guidelines contained in OET Bulletin No. 65, Edition 97-01, dated August 1997 and Supplement A.

ABOVE GROUND

ABOVE MEAN SEA LEVEL



NOT TO SCALE

EXHIBIT E - 1
VERTICAL SKETCH
FOR THE PROPOSED OPERATION OF
KZTV-DT, CORPUS CHRISTI, TEXAS
SEPTEMBER 2009

COHEN, DIPPELL and EVERIST, P.C. Consulting Engineers

COHEN, DIPPELL AND EVERIST, P.C.

TABLE I
LONGLEY-RICE INTERFERENCE
FOR THE PROPOSED OPERATION OF
KZTV-DT, CORPUS CHRISTI, TEXAS
CHANNEL 10 50 KW MAX ERP 289.8 METERS HAAT
SEPTEMBER 2009

<u>Channel</u>	<u>Call</u>	<u>City/State</u>	<u>Dist(km)</u>	<u>Status</u>	<u>FCC File No.</u>	<u>Result</u>
9	KLRN	SAN ANTONIO TX	193.3	CP MO	BMPEDT-20081112ACW	No interference
9	KLRN	SAN ANTONIO TX	193.3	PLN	DTVPLN-DTVPLN749	No interference
10	KWTX-TV	WACO TX	402.9	CP	BPCDT-20090601AUH	0.04%
10	KWTX-TV	WACO TX	402.9	PLN	DTVPLN-DTVPLN35903	0.39%
11	KVCT	VICTORIA TX	135.8	CP MO	BMPCDT-20021107AAS	0.02%
11	KVCT	VICTORIA TX	135.8	PLN	DTVPLN-DTVPLN35846	0.02%

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EXHIBIT E-2

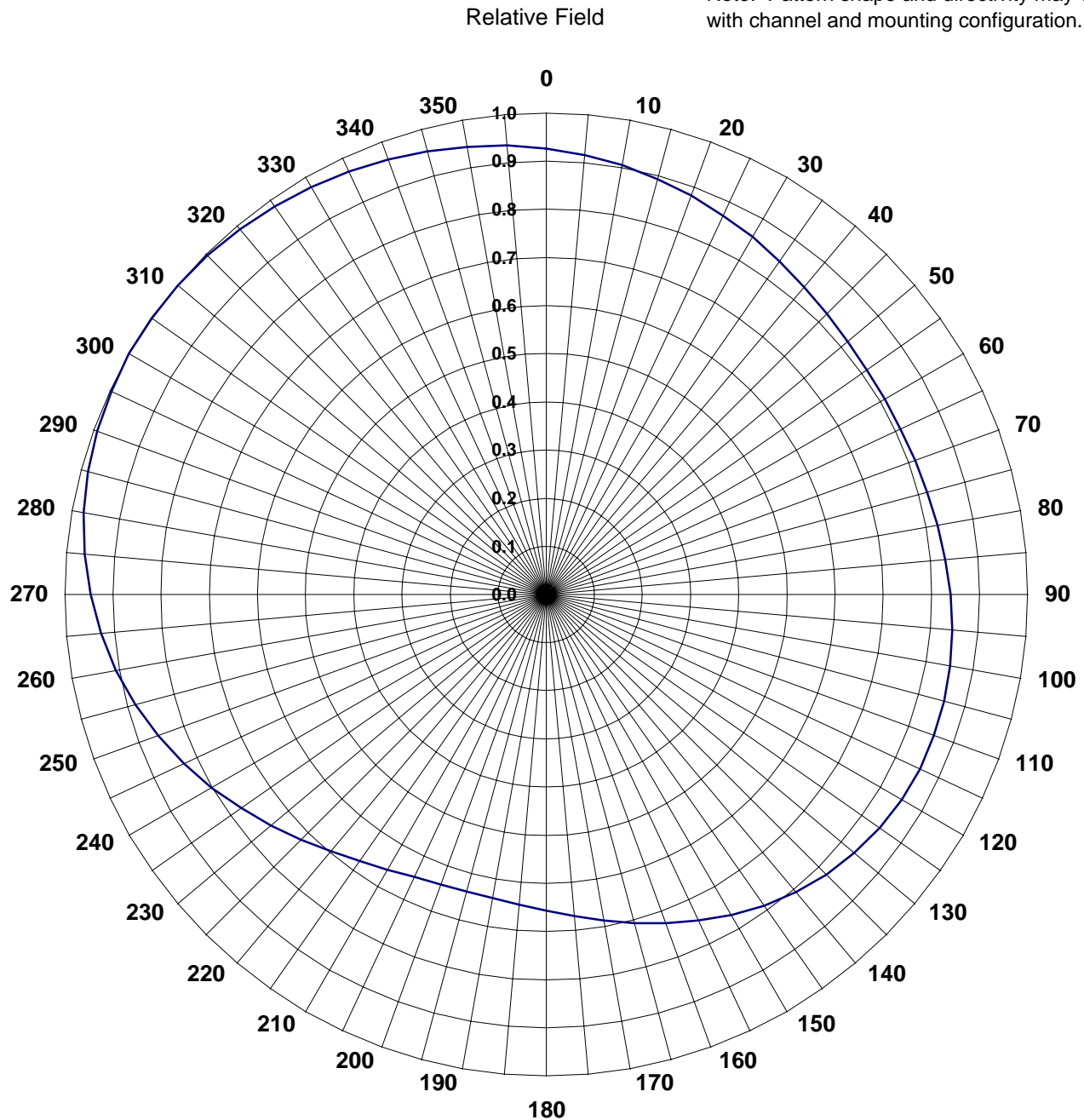
ANTENNA MANUFACTURER DATA

KZTV-DT, CORPUS CHRISTI, TEXAS

AZIMUTH PATTERN

TYPE:	CH10AZ	
	Numeric	dB
Directivity:	1.30	(1.14)
Peak(s) at:	303 degrees	
Polarization:	Horizontal	
Frequency:	Channel 10	
Location:	Corpus Christi, TX	

Note: Pattern shape and directivity may vary with channel and mounting configuration.



TABULATED DATA FOR AZIMUTH PATTERN

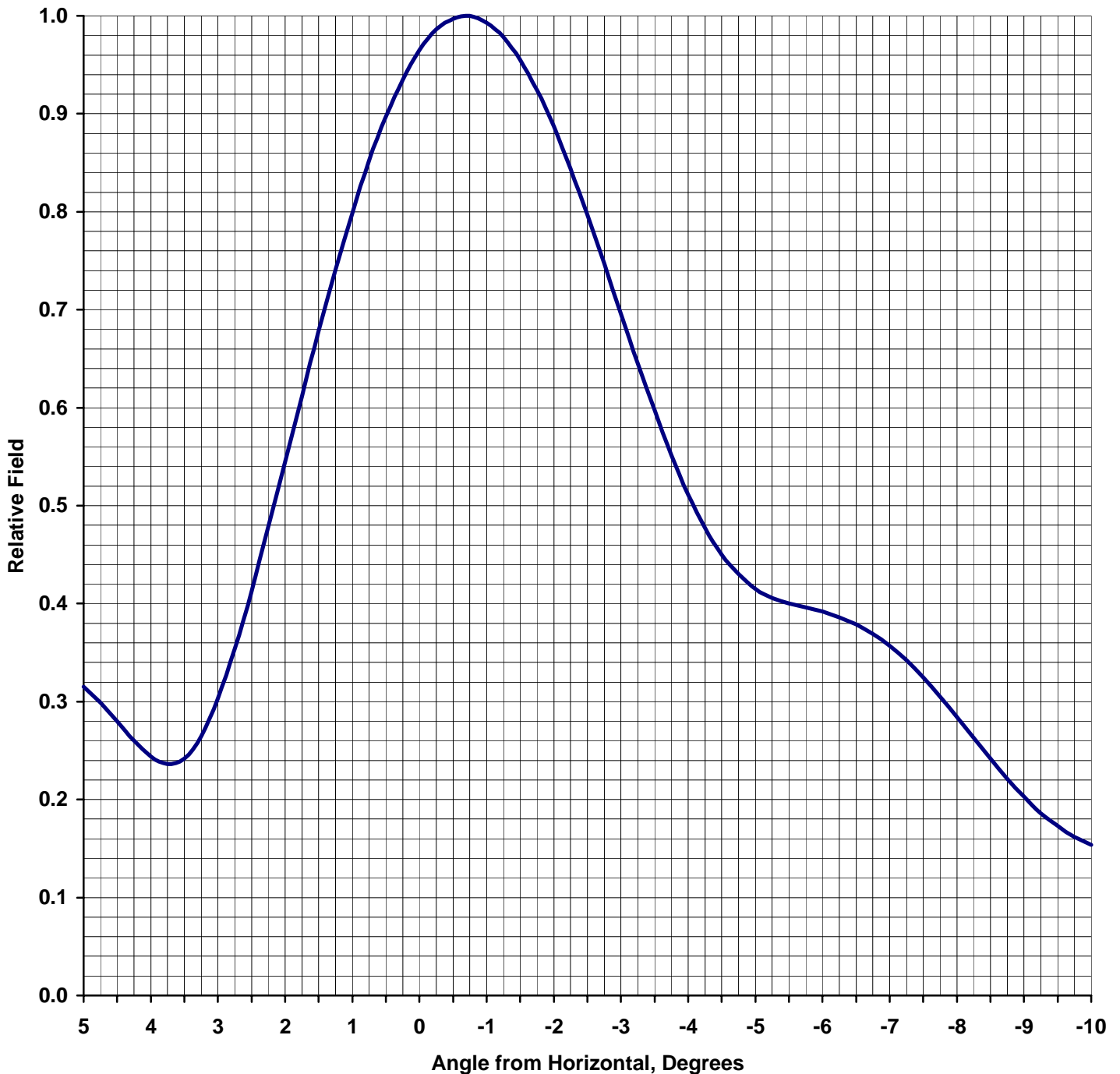
TYPE: CH10AZ

ANGLE	FIELD	dB	ANGLE	FIELD	dB	ANGLE	FIELD	dB	ANGLE	FIELD	dB
0	0.925	-0.68	92	0.842	-1.49	184	0.648	-3.77	276	0.965	-0.31
2	0.921	-0.71	94	0.844	-1.47	186	0.644	-3.82	278	0.970	-0.26
4	0.917	-0.75	96	0.847	-1.44	188	0.642	-3.85	280	0.975	-0.22
6	0.913	-0.79	98	0.849	-1.42	190	0.640	-3.88	282	0.979	-0.18
8	0.909	-0.83	100	0.851	-1.40	192	0.638	-3.90	284	0.983	-0.15
10	0.905	-0.87	102	0.853	-1.38	194	0.638	-3.90	286	0.987	-0.11
12	0.900	-0.92	104	0.854	-1.37	196	0.638	-3.90	288	0.990	-0.09
14	0.895	-0.96	106	0.855	-1.36	198	0.639	-3.89	290	0.992	-0.07
16	0.891	-1.00	108	0.856	-1.35	200	0.640	-3.88	292	0.995	-0.04
18	0.886	-1.05	110	0.856	-1.35	202	0.642	-3.85	294	0.996	-0.03
20	0.881	-1.10	112	0.856	-1.35	204	0.646	-3.80	296	0.998	-0.02
22	0.876	-1.15	114	0.856	-1.35	206	0.649	-3.76	298	0.999	-0.01
24	0.871	-1.20	116	0.855	-1.36	208	0.654	-3.69	300	1.000	0.00
26	0.866	-1.25	118	0.854	-1.37	210	0.659	-3.62	302	1.000	0.00
28	0.861	-1.30	120	0.852	-1.39	212	0.665	-3.54	304	1.000	0.00
30	0.856	-1.35	122	0.850	-1.41	214	0.672	-3.45	306	1.000	0.00
32	0.851	-1.40	124	0.847	-1.44	216	0.679	-3.36	308	0.999	-0.01
34	0.846	-1.45	126	0.843	-1.48	218	0.687	-3.26	310	0.998	-0.02
36	0.841	-1.50	128	0.840	-1.51	220	0.696	-3.15	312	0.997	-0.03
38	0.837	-1.55	130	0.835	-1.57	222	0.705	-3.04	314	0.995	-0.04
40	0.833	-1.59	132	0.830	-1.62	224	0.714	-2.93	316	0.993	-0.06
42	0.829	-1.63	134	0.825	-1.67	226	0.724	-2.81	318	0.991	-0.08
44	0.825	-1.67	136	0.819	-1.73	228	0.735	-2.67	320	0.989	-0.10
46	0.822	-1.70	138	0.813	-1.80	230	0.745	-2.56	322	0.987	-0.11
48	0.819	-1.73	140	0.806	-1.87	232	0.756	-2.43	324	0.984	-0.14
50	0.817	-1.76	142	0.799	-1.95	234	0.767	-2.30	326	0.981	-0.17
52	0.815	-1.78	144	0.792	-2.03	236	0.779	-2.17	328	0.979	-0.18
54	0.813	-1.80	146	0.784	-2.11	238	0.790	-2.05	330	0.976	-0.21
56	0.812	-1.81	148	0.776	-2.20	240	0.802	-1.92	332	0.973	-0.24
58	0.811	-1.82	150	0.768	-2.29	242	0.813	-1.80	334	0.970	-0.26
60	0.811	-1.82	152	0.760	-2.38	244	0.824	-1.68	336	0.966	-0.30
62	0.811	-1.82	154	0.751	-2.49	246	0.835	-1.57	338	0.963	-0.33
64	0.811	-1.82	156	0.743	-2.58	248	0.846	-1.45	340	0.960	-0.35
66	0.812	-1.81	158	0.734	-2.69	250	0.857	-1.34	342	0.957	-0.38
68	0.813	-1.80	160	0.726	-2.78	252	0.868	-1.23	344	0.954	-0.41
70	0.814	-1.79	162	0.718	-2.88	254	0.878	-1.13	346	0.950	-0.45
72	0.816	-1.77	164	0.710	-2.97	256	0.888	-1.03	348	0.947	-0.47
74	0.818	-1.74	166	0.702	-3.07	258	0.897	-0.94	350	0.943	-0.51
76	0.820	-1.72	168	0.694	-3.17	260	0.907	-0.85	352	0.940	-0.54
78	0.823	-1.69	170	0.687	-3.26	262	0.915	-0.77	354	0.936	-0.57
80	0.825	-1.67	172	0.680	-3.35	264	0.924	-0.69	356	0.933	-0.60
82	0.828	-1.64	174	0.673	-3.44	266	0.932	-0.61	358	0.929	-0.64
84	0.831	-1.61	176	0.667	-3.52	268	0.939	-0.55	360	0.925	-0.68
86	0.834	-1.58	178	0.661	-3.60	270	0.946	-0.48			
88	0.836	-1.56	180	0.656	-3.66	272	0.953	-0.42			
90	0.839	-1.52	182	0.652	-3.72	274	0.959	-0.36			



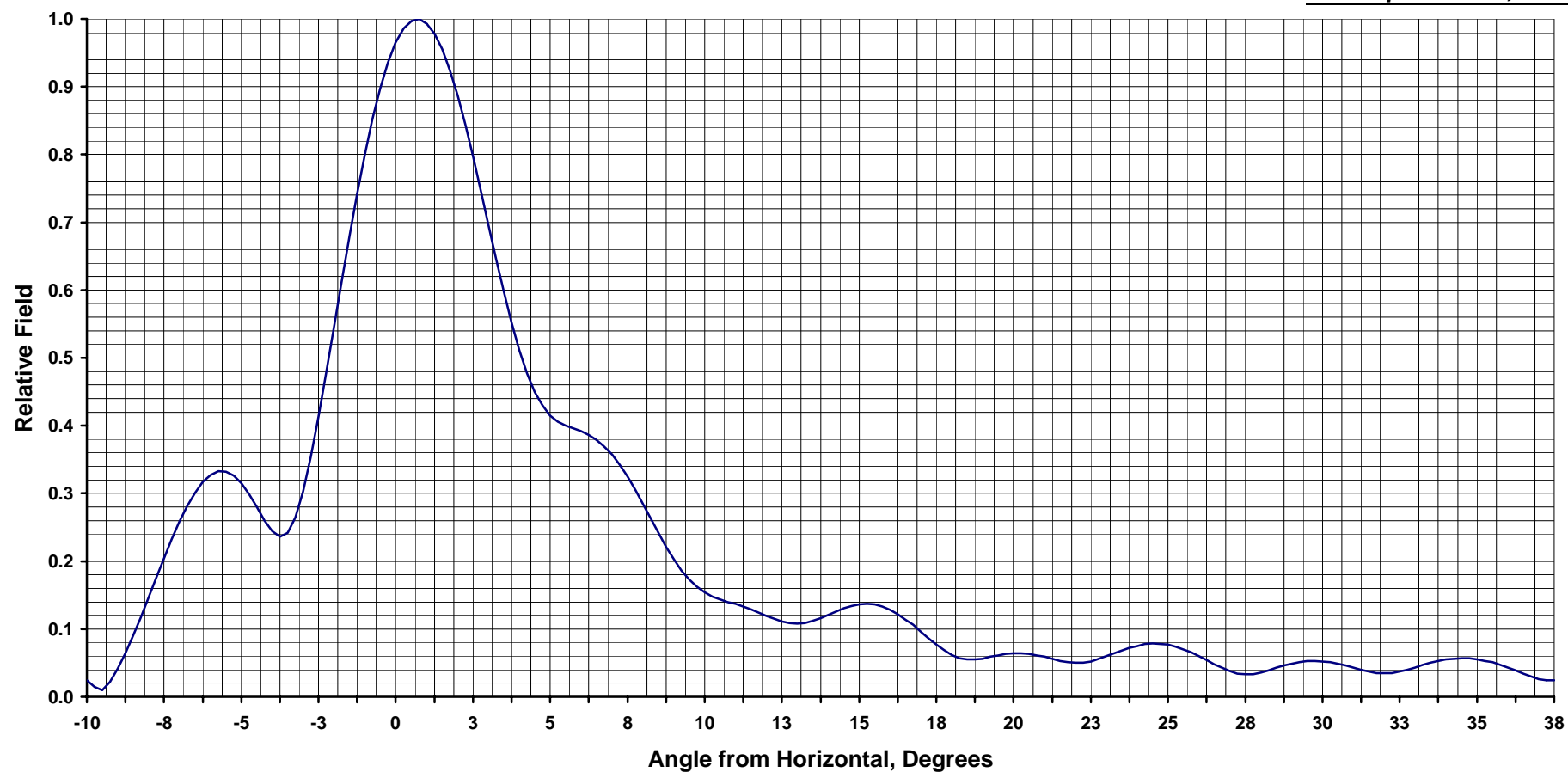
ELEVATION PATTERN

TYPE:	CH10EL	
Directivity:	Numeric	dBd
Main Lobe:	12.00	(10.79)
Horizontal:	11.17	(10.48)
Beam Tilt:	-0.75 degrees	
Polarization:	Horizontal	
Frequency:	Channel 10	
Location:	Corpus Christi, TX	



ELEVATION PATTERN

TYPE:	CH10EL	
Directivity:	Numeric	dBd
Main Lobe:	12.00	(10.79)
Horizontal:	11.17	(10.48)
Beam Tilt:	-0.75 degrees	
Polarization:	Horizontal	
Frequency:	Channel 10	
Location:	Corpus Christi, TX	



TABULATED DATA FOR ELEVATION PATTERN**TYPE: CH10EL****-5 to 10 degrees in 0.25 increments****10 to 90 degrees in 0.50 increments**

ANGLE	FIELD	dB	ANGLE	FIELD	dB	ANGLE	FIELD	dB	ANGLE	FIELD	dB	ANGLE	FIELD	dB
5.00	0.315	-10.03	-6.75	0.369	-8.66	-27.00	0.038	-28.40	-50.50	0.042	-27.54	-74.00	0.095	-20.45
4.75	0.299	-10.49	-7.00	0.357	-8.95	-27.50	0.033	-29.63	-51.00	0.050	-26.02	-74.50	0.092	-20.72
4.50	0.280	-11.06	-7.25	0.342	-9.32	-28.00	0.036	-28.87	-51.50	0.057	-24.88	-75.00	0.088	-21.11
4.25	0.260	-11.70	-7.50	0.325	-9.76	-28.50	0.043	-27.33	-52.00	0.062	-24.15	-75.50	0.084	-21.51
4.00	0.244	-12.25	-7.75	0.305	-10.31	-29.00	0.049	-26.20	-52.50	0.064	-23.88	-76.00	0.079	-22.05
3.75	0.236	-12.54	-8.00	0.284	-10.93	-29.50	0.053	-25.51	-53.00	0.065	-23.74	-76.50	0.075	-22.50
3.50	0.242	-12.32	-8.25	0.263	-11.60	-30.00	0.052	-25.68	-53.50	0.063	-24.01	-77.00	0.070	-23.10
3.25	0.265	-11.54	-8.50	0.242	-12.32	-30.50	0.049	-26.20	-54.00	0.060	-24.44	-77.50	0.065	-23.74
3.00	0.303	-10.37	-8.75	0.221	-13.11	-31.00	0.043	-27.33	-54.50	0.055	-25.19	-78.00	0.061	-24.29
2.75	0.354	-9.02	-9.00	0.203	-13.85	-31.50	0.037	-28.64	-55.00	0.048	-26.38	-78.50	0.056	-25.04
2.50	0.413	-7.68	-9.25	0.186	-14.61	-32.00	0.035	-29.12	-55.50	0.041	-27.74	-79.00	0.052	-25.68
2.25	0.478	-6.41	-9.50	0.173	-15.24	-32.50	0.037	-28.64	-56.00	0.034	-29.37	-79.50	0.047	-26.56
2.00	0.545	-5.27	-9.75	0.162	-15.81	-33.00	0.043	-27.33	-56.50	0.028	-31.06	-80.00	0.043	-27.33
1.75	0.612	-4.26	-10.00	0.154	-16.25	-33.50	0.050	-26.02	-57.00	0.024	-32.40	-80.50	0.039	-28.18
1.50	0.678	-3.38	-10.50	0.144	-16.83	-34.00	0.055	-25.19	-57.50	0.024	-32.40	-81.00	0.036	-28.87
1.25	0.741	-2.60	-11.00	0.137	-17.27	-34.50	0.057	-24.88	-58.00	0.026	-31.70	-81.50	0.032	-29.90
1.00	0.799	-1.95	-11.50	0.129	-17.79	-35.00	0.055	-25.19	-58.50	0.029	-30.75	-82.00	0.029	-30.75
0.75	0.852	-1.39	-12.00	0.119	-18.49	-35.50	0.051	-25.85	-59.00	0.032	-29.90	-82.50	0.026	-31.70
0.50	0.897	-0.94	-12.50	0.111	-19.09	-36.00	0.043	-27.33	-59.50	0.035	-29.12	-83.00	0.023	-32.77
0.25	0.935	-0.58	-13.00	0.108	-19.33	-36.50	0.034	-29.37	-60.00	0.036	-28.87	-83.50	0.021	-33.56
0.00	0.965	-0.31	-13.50	0.112	-19.02	-37.00	0.026	-31.70	-60.50	0.036	-28.87	-84.00	0.019	-34.42
-0.25	0.986	-0.12	-14.00	0.121	-18.34	-37.50	0.024	-32.40	-61.00	0.034	-29.37	-84.50	0.016	-35.92
-0.50	0.997	-0.03	-14.50	0.131	-17.65	-38.00	0.028	-31.06	-61.50	0.031	-30.17	-85.00	0.014	-37.08
-0.75	1.000	0.00	-15.00	0.136	-17.33	-38.50	0.036	-28.87	-62.00	0.027	-31.37	-85.50	0.013	-37.72
-1.00	0.993	-0.06	-15.50	0.136	-17.33	-39.00	0.044	-27.13	-62.50	0.021	-33.56	-86.00	0.011	-39.17
-1.25	0.978	-0.19	-16.00	0.128	-17.86	-39.50	0.049	-26.20	-63.00	0.015	-36.48	-86.50	0.009	-40.92
-1.50	0.955	-0.40	-16.50	0.114	-18.86	-40.00	0.053	-25.51	-63.50	0.010	-40.00	-87.00	0.008	-41.94
-1.75	0.924	-0.69	-17.00	0.096	-20.35	-40.50	0.053	-25.51	-64.00	0.011	-39.17	-87.50	0.007	-43.10
-2.00	0.887	-1.04	-17.50	0.077	-22.27	-41.00	0.050	-26.02	-64.50	0.018	-34.89	-88.00	0.005	-46.02
-2.25	0.844	-1.47	-18.00	0.062	-24.15	-41.50	0.045	-26.94	-65.00	0.027	-31.37	-88.50	0.004	-47.96
-2.50	0.797	-1.97	-18.50	0.055	-25.19	-42.00	0.038	-28.40	-65.50	0.036	-28.87	-89.00	0.003	-50.46
-2.75	0.747	-2.53	-19.00	0.056	-25.04	-42.50	0.032	-29.90	-66.00	0.045	-26.94	-89.50	0.001	-60.00
-3.00	0.696	-3.15	-19.50	0.061	-24.29	-43.00	0.028	-31.06	-66.50	0.055	-25.19	-90.00	0.000	-99.99
-3.25	0.645	-3.81	-20.00	0.064	-23.88	-43.50	0.028	-31.06	-67.00	0.063	-24.01			
-3.50	0.597	-4.48	-20.50	0.063	-24.01	-44.00	0.032	-29.90	-67.50	0.071	-22.97			
-3.75	0.552	-5.16	-21.00	0.059	-24.58	-44.50	0.038	-28.40	-68.00	0.079	-22.05			
-4.00	0.511	-5.83	-21.50	0.053	-25.51	-45.00	0.042	-27.54	-68.50	0.085	-21.41			
-4.25	0.477	-6.43	-22.00	0.050	-26.02	-45.50	0.045	-26.94	-69.00	0.091	-20.82			
-4.50	0.450	-6.94	-22.50	0.052	-25.68	-46.00	0.046	-26.74	-69.50	0.095	-20.45			
-4.75	0.430	-7.33	-23.00	0.060	-24.44	-46.50	0.044	-27.13	-70.00	0.099	-20.09			
-5.00	0.415	-7.64	-23.50	0.068	-23.35	-47.00	0.040	-27.96	-70.50	0.101	-19.91			
-5.25	0.406	-7.83	-24.00	0.075	-22.50	-47.50	0.034	-29.37	-71.00	0.103	-19.74			
-5.50	0.400	-7.96	-24.50	0.079	-22.05	-48.00	0.027	-31.37	-71.50	0.104	-19.66			
-5.75	0.396	-8.05	-25.00	0.077	-22.27	-48.50	0.021	-33.56	-72.00	0.103	-19.74			
-6.00	0.392	-8.13	-25.50	0.070	-23.10	-49.00	0.019	-34.42	-72.50	0.102	-19.83			
-6.25	0.386	-8.27	-26.00	0.060	-24.44	-49.50	0.024	-32.40	-73.00	0.101	-19.91			
-6.50	0.379	-8.43	-26.50	0.048	-26.38	-50.00	0.033	-29.63	-73.50	0.098	-20.18			



TABLE II
COMPUTED COVERAGE DATA
FOR THE PROPOSED DTV OPERATION OF
KZTV, CORPUS CHRISTI, TEXAS
CHANNEL 10 39 KW ERP 289.8 METERS HAAT
SEPTEMBER 2009

<u>Radial</u> N ° E, T	<u>Average*</u> <u>Elevation</u> meters	<u>Effective</u> <u>Height</u> meters	<u>Depression</u> <u>Angle</u> degrees	<u>ERP</u> kW	<u>Distance to Contour F(50,90)</u>	
					<u>43 dBu</u> <u>City Grade</u> km	<u>36 dBu</u> <u>Noise-Limited</u> km
0	20.0	285.4	0.468	33.4	88.5	101.0
10	18.9	286.5	0.469	31.9	88.2	100.7
20	18.6	286.8	0.469	30.3	87.8	100.3
30	17.5	287.9	0.470	28.6	87.4	99.8
40	16.4	289.0	0.471	27.1	87.0	99.5
50	15.0	290.4	0.472	26.0	86.8	99.2
60	14.1	291.3	0.473	25.7	86.7	99.1
70	13.0	292.4	0.474	25.8	86.9	99.3
80	11.9	293.5	0.475	26.5	87.1	99.5
90	9.2	296.2	0.477	27.5	87.5	100.0
100	12.1	293.3	0.474	28.2	87.6	100.0
110	13.3	292.1	0.473	28.6	87.6	100.0
120	14.0	291.4	0.473	28.3	87.5	99.9
130	14.4	291.0	0.473	27.2	87.2	99.6
140	13.2	292.2	0.473	25.3	86.7	99.1
150	12.7	292.7	0.474	23.0	86.0	98.3
160	11.8	293.6	0.475	20.6	85.2	97.5
170	11.5	293.9	0.475	18.4	84.4	96.7
180	11.5	293.9	0.475	16.8	83.7	96.0
190	11.8	293.6	0.475	16.0	83.3	95.6
200	12.5	292.9	0.474	16.0	83.3	95.5
210	13.2	292.2	0.474	16.9	83.7	95.9
220	14.0	291.4	0.473	18.9	84.4	96.7
230	15.0	290.4	0.472	21.6	85.4	97.8
240	16.1	289.3	0.471	25.1	86.5	98.9
250	17.0	288.4	0.470	28.6	87.4	99.9
260	18.4	287.0	0.469	32.1	88.2	100.7
270	18.4	287.0	0.469	34.9	88.9	101.4
280	18.6	286.8	0.469	37.1	89.3	101.9

TABLE II
COMPUTED COVERAGE DATA
FOR THE PROPOSED DTV OPERATION OF
KZTV, CORPUS CHRISTI, TEXAS
CHANNEL 10 39 KW ERP 289.8 METERS HAAT
SEPTEMBER 2009
(continued)

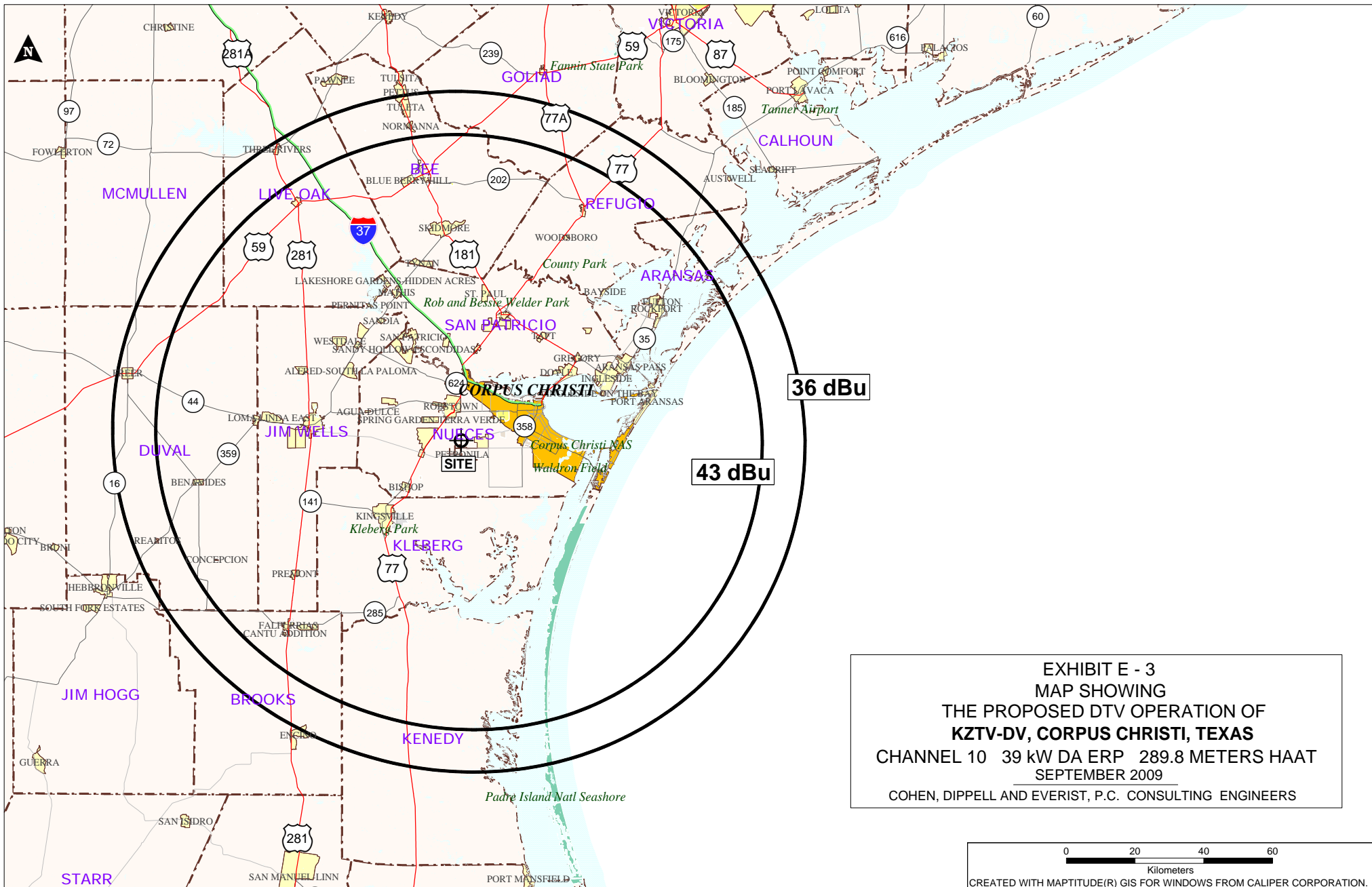
<u>Radial</u> N ° E, T	<u>Average*</u> <u>Elevation</u> meters	<u>Effective</u> <u>Height</u> meters	<u>Depression</u> <u>Angle</u> degrees	<u>ERP</u> kW	<u>Distance to Contour F(50,90)</u>	
					<u>43 dBu</u> <u>City Grade</u> km	<u>36 dBu</u> <u>Noise-Limited</u> km
290	19.5	285.9	0.468	38.4	89.6	102.2
300	20.2	285.2	0.468	39.0	89.7	102.3
310	21.6	283.8	0.467	38.8	89.6	102.2
320	22.1	283.3	0.466	38.1	89.4	102.0
330	22.0	283.4	0.466	37.2	89.2	101.8
340	21.8	283.6	0.466	35.9	89.0	101.5
350	21.4	284.0	0.467	34.7	88.7	101.2

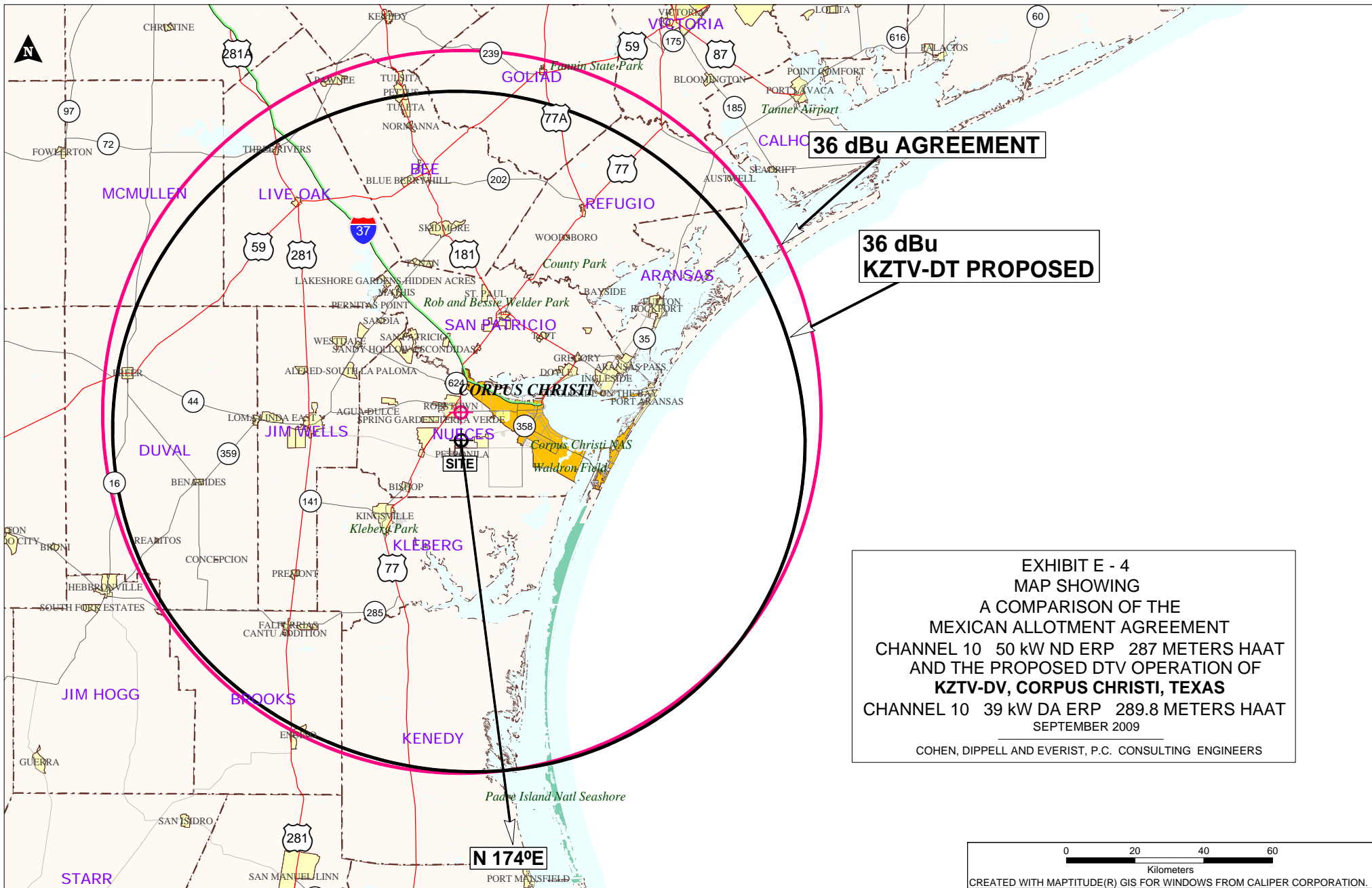
*Based on data from FCC 3-second data base.

DTV Channel 10 (192-198 MHz)
Average Elevation 3.2 to 16.1 km 15.9 meters AMSL
Center of Radiation 305.4 meters AMSL
Antenna Height Above Average Terrain 289.8 meters
Effective Radiated Power 39 kW (15.91 dBk) Max.

North Latitude: 27° 42' 27.9"
West Longitude: 97° 37' 59"

(NAD-27)





36 dBu AGREEMENT

**36 dBu
KZTV-DT PROPOSED**

EXHIBIT E - 4
MAP SHOWING
A COMPARISON OF THE
MEXICAN ALLOTMENT AGREEMENT
CHANNEL 10 50 kW ND ERP 287 METERS HAAT
AND THE PROPOSED DTV OPERATION OF
KZTV-DV, CORPUS CHRISTI, TEXAS
CHANNEL 10 39 kW DA ERP 289.8 METERS HAAT
SEPTEMBER 2009
COHEN, DIPPELL AND EVERIST, P.C. CONSULTING ENGINEERS

0 20 40 60
Kilometers
CREATED WITH MAPTITUDE(R) GIS FOR WINDOWS FROM CALIPER CORPORATION.

SECTION III - D - DTV Engineering

Complete Questions 1-5, and provide all data and information for the proposed facility, as requested in Technical Specifications, Items 1-13.

Pre-Transition Certification Checklist: An application concerning a pre-transition channel must complete questions 1(a)-(c), and 2-5. A correct answer of "Yes" to all of the questions will ensure an expeditious grant of a construction permit application to modify pre-transition facilities. However, if the proposed facility is located within the Canadian or Mexican borders, coordination of the proposal under the appropriate treaties may be required prior to grant of the application. An answer of "No" will require additional evaluation of the applicable information in this form before a construction permit can be granted.

Post-Transition Expedited Processing. An application concerning a post-transition channel must complete questions 1(a), (d)-(e), and 2-5. A station applying for a construction permit to build its post-transition channel will receive expedited processing if its application (1) does not seek to expand the noise-limited service contour in any direction beyond that established by Appendix B of the Seventh Report and Order in MB Docket No. 87-268 establishing the new DTV Table of Allotments in 47 C.F.R. § 73.622(i) ("new DTV Table Appendix B"); (2) specifies facilities that match or closely approximate those defined in the new DTV Table Appendix B facilities; and (3) is filed on or before March 17, 2008 (45 days of the Report and Order in the Third DTV Periodic Review proceeding, MB Docket No. 07-91).

1. The proposed DTV facility complies with 47 C.F.R. Section 73.622 in the following respects:
 - (a) It will operate on the DTV channel for this station as established in 47 C.F.R. Section 73.622. ☐ Yes ☐ No
 - (b) It will operate a pre-transition facility from a transmitting antenna located within 5.0 km (3.1 miles) of the DTV reference site for this station as established in 47 C.F.R. Section 73.622. ☐ Yes ☐ No
 - (c) It will operate a pre-transition facility with an effective radiated power (ERP) and antenna height above average terrain (HAAT) that do not exceed the DTV reference ERP and HAAT for this station as established in 47 C.F.R. Section 73.622. ☐ Yes ☐ No
 - (d) It will operate at post-transition facilities that do not expand the noise-limited service contour in any direction beyond that established by Appendix B of the Seventh Report and Order in MB Docket No. 87-268 establishing the new DTV Table of Allotments in 47 C.F.R. § 73.622(i) ("new DTV Table Appendix B"). ☐ Yes ☐ No
☐ N/A
 - (e) It will operate at post-transition facilities that match or reduce by no more than five percent with respect to predicted population from those defined in the new DTV Table Appendix B. ☐ Yes ☐ No
☐ N/A
2. The proposed facility will not have a significant environmental impact, including exposure of workers or the general public to levels of RIF radiation exceeding the applicable health and safety guidelines, and therefore will not come within 47 C.F.R. Section 1.1307. ☐ Yes ☐ No

Applicant must **submit the Exhibit** called for in Item 13.

3. Pursuant to 47 C.F.R. Section 73.625, the DTV coverage contour of the proposed facility will encompass the allotted principal community. ☐ Yes ☐ No
4. The requirements of 47 C.F.R. Section 73.1030 regarding notification to radio astronomy installations, radio receiving installations and FCC monitoring stations have either been satisfied or are not applicable. ☐ Yes ☐ No
5. The antenna structure to be used by this facility has been registered by the Commission and will not require reregistration to support the proposed antenna, OR the FAA has previously determined that the proposed structure will not adversely effect 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 ☐ No

SECTION III - D DTV Engineering

TECHNICAL SPECIFICATIONS Ensure that the specifications below are accurate. Contradicting data found elsewhere in this application will be disregarded. All items must be completed. The response "on file" is not acceptable.

TECH BOX

1. Channel Number: DTV _____ Analog TV, if any _____
2. Zone: ☐ I ☐ II ☐ III
3. Antenna Location Coordinates: (NAD 27)
- _____ ° _____ ' _____ " ☐ N ☐ S Latitude
_____ ° _____ ' _____ " ☐ E ☐ W Longitude
4. Antenna Structure Registration Number: _____
- ☐ Not applicable ☐ FAA Notification Filed with FAA
5. Antenna Location Site Elevation Above Mean Sea Level: _____ meters
6. Overall Tower Height Above Ground Level: _____ meters
7. Height of Radiation Center Above Ground Level: _____ meters
8. Height of Radiation Center Above Average Terrain: _____ meters
9. Maximum Effective Radiated Power (average power): _____ kW
10. Antenna Specifications:
- a.

Manufacturer	Model
--------------	-------
- b. Electrical Beam Tilt: _____ degrees ☐ Not Applicable
- c. Mechanical Beam Tilt: _____ degrees toward azimuth _____ degrees True ☐ Not Applicable
- Attach as an Exhibit all data specified in 47 C.F.R. Section 73.625(c).

Exhibit No.

- d. Polarization: ☐ Horizontal ☐ Circular ☐ Elliptical

TECH BOX

e. Directional Antenna Relative Field Values:

☐

Not applicable (Nondirectional)

Rotation: _____

☐

No rotation

Degree	Value	Degree	Value	Degree	Value	Degree	Value	Degree	Value	Degree	Value
0		60		120		180		240		300	
10		70		130		190		250		310	
20		80		140		200		260		320	
30		90		150		210		270		330	
40		100		160		220		280		340	
50		110		170		230		290		350	
Additional Azimuths											

If a directional antenna is proposed, the requirements of 47 C.F.R. Section 73.625(c) must be satisfied. **Exhibit required.**

Exhibit No.

11. Does the proposed facility satisfy the pre-transition interference protection provisions of 47 C.F.R. Section 73.623(a) (Applicable only if **Certification Checklist** Items 1(a), (b), or (c) are answered "No.") and/or the post-transition interference protection provisions of 47 C.F.R. Section 73.616?

☐

Yes

☐

No

If "No," attach as an Exhibit justification therefore, including a summary of any related previously granted waivers.

Exhibit No.

12. If the proposed facility will not satisfy the coverage requirement of 47 C.F.R. Section 73.625, attach as an Exhibit justification therefore. (Applicable only if **Certification Checklist** Item 3 is answered "No.")

Exhibit No.

13. **Environmental Protection Act. Submit in an Exhibit** the following:

Exhibit No.

- a. If **Certification Checklist Item 2** is answered "Yes," a brief explanation of why an Environmental Assessment is not required. Also describe in the Exhibit the steps that will be taken to limit RF radiation exposure to the public and to persons authorized access to the tower site.

By checking "Yes" to **Certification Checklist** Item 2, the applicant also certifies that it, in coordination with other users of the site, will reduce power or cease operation as necessary to protect persons having access to the site, tower or antenna from radio frequency electromagnetic exposure in excess of FCC guidelines.

If **Certification Checklist** Item 2 is answered "No," an Environmental Assessment as required by 47 C.F.R. Section 1.1311.

10. **Auction Authorization.** If the application is being submitted to obtain a construction permit for which the applicant was the winning bidder in an auction, then the applicant certifies, pursuant to 47 C.F.R. Section 73.5005(a), that it has attached an exhibit containing the information required by 47 C.F.R. Sections 1.2107(d), 1.2110(i), 1.2112(a) and 1.2112(b), if applicable. ☐ Yes ☒ KZTV (MOD)
- Exhibit No.
- An exhibit is required unless this question is inapplicable.
11. **Anti-Drug Abuse Act Certification.** Applicant certifies that neither applicant nor any party to the application is subject to denial of federal benefits pursuant to Section 5301 of the Anti-Drug Abuse Act of 1988, 21 U.S.C. Section 862. ☐ Yes ☐ No
12. **Equal Employment Opportunity (EEO).** If the applicant proposes to employ five or more full-time employees, applicant certifies that it is filing simultaneously with this application a Model EEO Program Report on FCC Form 396-A. ☐ Yes ☐ No ☐ N/A
13. **Petition for Rulemaking/Counterproposal to Add New FM Channel to FM Table of Allotments.** If the application is being submitted concurrently with a Petition for Rulemaking or Counterproposal to Amend the FM Table of Allotments (47 C.F.R. Section 73.202) to add a new FM channel allotment, petitioner/counter-proponent certifies that, if the FM channel allotment requested is allotted, petitioner/counter-proponent will apply to participate in the auction of the channel allotment requested and specified in this application. ☐ Yes ☐ No ☐ N/A


I certify that the statements in this application are true, complete, and correct to the best of my knowledge and belief, and are made in 'good faith. I acknowledge that all certifications and attached Exhibits are considered material representations. I hereby waive any claim to the use of any particular frequency as against the regulatory power of the United States because of the previous use of the same, whether by license or otherwise, and request an authorization in accordance with this application. (See Section 304 of the Communications Act of 1934, as amended.)

Typed or Printed Name of Person Signing	Typed or Printed Title of Person Signing
Signature	Date

WILLFUL FALSE STATEMENTS ON THIS FORM ARE PUNISHABLE BY FINE AND/OR IMPRISONMENT (U.S. CODE, TITLE 18, SECTION 1001), AND/OR REVOCATION OF ANY STATION LICENSE OR CONSTRUCTION PERMIT (U.S. CODE, TITLE 47, SECTION 312(a)(1)), AND/OR FORFEITURE (U.S. CODE, TITLE 47, SECTION 503).

SECTION III PREPARER'S CERTIFICATION

I certify that I have prepared Section III (Engineering Data) on behalf of the applicant, and that after such preparation, I have examined and found it to be accurate and true to the best of my knowledge and belief.

Name Donald G. Everist		Relationship to Applicant (e.g., Consulting Engineer) Consulting Engineer	
Signature 		Date September 11, 2009	
Mailing Address Cohen, Dippell and Everist, P.C., 1300 L Street, N.W., Suite 1100			
City Washington	State or Country (if foreign address) DC	ZIP Code 20005	
Telephone Number (include area code) (202) 898-0111		E-Mail Address (if available) cde@attglobal.net	

WILLFUL FALSE STATEMENTS ON THIS FORM ARE PUNISHABLE BY FINE AND/OR IMPRISONMENT (U.S. CODE, TITLE 18, SECTION 1001), AND/OR REVOCATION OF ANY STATION LICENSE OR CONSTRUCTION PERMIT (U.S. CODE, TITLE 47, SECTION 312(a)(1)), AND/OR FORFEITURE (U.S. CODE, TITLE 47, SECTION 503).