ENGINEERING STATEMENT
MODIFICATION OF CONSTRUCTION PERMIT
FCC FILE NO. BPCDT-19991015ABI
RE DTV BROADCAST ENGINEERING DATA
ON BEHALF OF
MISSION BROADCASTING, INC.
KRBC-DT, ABILENE, TEXAS
CHANNEL 29 1000 KW ND ERP 267.9 METERS HAAT

JULY 2004

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 28th day of July, 2004.

Notary Public

My Commission Expires: 2/28/2008

COHEN, DIPPELL AND EVERIST, P. C.

City of Washington)
) ss
District of Columbia)

Martin R. Doczkat being duly sworn upon his oath, deposes and states that:

He is a graduate electrical engineer of the Pennsylvania State University, and is a staff engineer at 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 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.

Martin R. Doczkat

Subscribed and sworn to before me this 28th day of July, 2004.

Notary Public

My Commission Expires: 2/28/2008

This engineering statement has been prepared on behalf of Mission Broadcasting, Inc., permittee of KRBC-DT, Abilene, Texas. The purpose of this engineering statement is to accompany its request to modify its outstanding construction permit (FCC File No. BPCDT-19991015ABI) for digital television ("DTV") facilities and to supplement those data required in FCC Form 301, Section III-D.

KRBC-TV operates on NTSC Television Channel 9 with a maximum visual horizontal effective radiated power (ERP) of 316 kW non-directional and a height above average terrain (HAAT) of 259 meters (849.7 feet). KRBC-TV has been allocated DTV Channel 29 with facilities of 1000 kW maximum directional and HAAT of 259 meters in the revised DTV Table of Allotments.[1] KRBC-TV proposes to construct DTV facilities of 1000 kW non-directional (horizontal polarization) at a HAAT of 267.9 meters on its existing antenna structure.

There are no AM stations located within 3.22 km of the existing KRBC-TV tower site. There are no FM and with the exception of KRBC-TV no other full-service NTSC stations located and transmitting from this site.

The DTV antenna will be top-mounted on the existing tower having a total overall structure height without appurtenances above ground of 165.5 meters (543 feet). The existing transmitter site is located at Hwy. 84, 11 miles south.

[1] "In the Matter of Advanced Television Systems and Their Impact Upon the Existing Television Broadcast Service", MM Docket No. 87-286, Memorandum Opinion and Order on Reconsideration of the Sixth Report and Order (FCC 98-24), 2/12/98, DTV Table of Allotments, Appendix B.

Since there is no change in overall height, FAA airspace approval is not required. The tower registration number of the existing tower is 1054169. Exhibit E-1 is a diagram of the existing tower and the proposed transmitting antenna.

North Latitude: 32° 17' 06"

West Longitude: 99° 44' 23"

NAD-27

Equipment Data

Antenna: ERI, Type ATW28H3-HTO-29H (or equivalent) top-mounted, horizontally polarized antenna with 0.75º electrical beam tilt. The vertical plane pattern and other exhibits required by Section 73.625(c) are herein included as E-2.

Power Data

Transmitter output	41.09 kW	16.14 dBk
MACX675B, 6-1/8", 75 ohm or equivalent–length 171.0 meters (560.9 ft)	86.9%	0.61 dBk
Input power to the antenna	35.71 kW	15.53 dBk
Antenna power gain, Main Lobe	28.0	14.47 dBd
Effective Radiated Power, Maximum	1000 kW	30.0 dBk

Elevation Data

Vertical dimension of Channel 29 top-mounted antenna	17.37 meters 57 feet

Overall height above ground of the proposed antenna structure (Including beacon and lightning protection)	165.5 meters 543.0 feet
Center of radiation of Channel 29 antenna above ground	156.8 meters 514.4 feet
Elevation of site above mean sea level	716.3 meters 2350.1 feet
Center of radiation of Channel 29 antenna above mean sea level	873.1 meters 2864.5 feet
Overall height above mean sea level of proposed tower (including beacon and lightning protection)	881.8 meters 2893.0 feet
Antenna height above average terrain	267.9 meters 878.9 feet

NOTE: Slight height differences result due to conversion to metric.

Allocation

An allocation study from the proposed site has been performed as the proposed DTV facilities are to be located at the coordinates authorized for the KRBC-DT facilities in the Sixth Report.

Coverage

The average elevation data for 3.2 to 16.1 km along each radial has been determined from the 3-second NGDC for the existing KRBC-TV site. The F(50,90) DTV coverage contour has been computed from reference to the propagation data for Channels 14-69, as published by the FCC in Figure 10b and Figure 10c, 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 0.39 to 0.50 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 I includes the distances to the city F(50,90) coverage contour, the average elevation 3.2 to 16.1 km, and the antenna height above average terrain for the eight radials.

Interference Analysis

A study of predicted interference caused by the proposed KRBC-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 Windows98/Intel 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, such as calculating new interference as total interference less baseline interference. Any variance effect is further reduced when using ratios of calculated population values such as measuring the incremental population affected as a percent of the total population served. The model employs the Longley-Rice propagation methodology and

evaluates in grid cells of approximately 4 km^2 using 3-second terrain data sampled approximately every 1.0 km at one degree azimuth intervals with 1990 census centroids.

The stations to be considered for potential interference, according to the processing guidelines cited above are listed in Table II. All of the potentially affected stations are predicted to receive less than de-minimus levels of new interference. Also, none of these stations are covered by more restrictive interference standards due to more than 10% total interference or less than 90% replication.

Other Licensed and Broadcast Facilities

No adverse technical effect is anticipated by the proposed DTV operation to any other FCC licensed facility. If required, the permittee will install filters or take other measures as necessary to resolve the problem.

FCC Rule, Section 1.1307

The proposed 1000 kW operation will utilize an ERI, Type ATW28H3-HTO-29H top-mounted antenna or the equivalent as described above with a center of radiation above ground of 156.8 meters. The proposed antenna will be top-mounted on a single guyed, uniform, cross-section, steel lattice tower with an overall height of 165.5 meters AGL.

As previously indicated, there are no AM stations located within 3.22 km of the existing tower site. According to the FCC data base with the exception of KRBC-TV, there are no other stations located within 100 meters. The property on which the proposed tower is located is at Hwy. 84, 11 miles south. Access to the tower will be prevented by a [six] foot chain link fence with a locked gate.

The proposed operation based upon the current OET Bulletin No. 65, Edition No. 97-01, dated August 1997 and Supplement A meets the provisions of the FCC radio frequency field ("RFF") guidelines, and thus, complies with Section 1.1307 of the FCC Rules. Provisions will be made to reduce power or to terminate the transmitter emissions, as appropriate, when it is necessary for authorized personnel to be on the tower.

Therefore, the RFF study will consider the following stations:

Station	
KRBC-TV	Channel 9
KRBC-DT	Channel 29

The RFF radiation 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 $\mu W/cm^2$
F = relative field factor
Total ERP = ERP Horizontal Polarization + ERP Vertical Polarization
R = RCAGL - 2 meters

ERP = RMS ERP in watts for DTV Stations

ERP = $[0.4\ ERP_V + ERP_A]$ for NTSC Stations
ERP_V = peak visual ERP in watts
ERP_A = RMS aural ERP in watts

KRBC-TV NTSC Facility

Channel 9 Freq: 189 MHz range
ERP = 316 kW (0.4) [316,000 watts (visual)]+[31,600 watts (aural)]
Polarization = Horizontal
RCAGL -2 meters = 154.8 meters

KRBC-TV is using a GE, Model TY-53-A, helical with Type 2 null fill-in. Typical antenna manufacturer's data indicates the field factor will be less than 0.3 at any angle greater than 45 degrees below the horizon. A value of 0.3 will be used in the calculation.

$S = \frac{33.4 (F^2) \text{ Tot ERP}}{R^2}$ Tot ERP = 316,000 watts (Horizontal Only)
R = 154.8 meters
F = 0.3 (field factor) (assumed)

$S = 39.6 \text{ uW/cm}^2$ $S = 0.0396 \text{ mW/cm}^2$

KRBC-TV contributes 0.0396 mW/cm^2 at 156.8 meters above ground.
The limit for an uncontrolled environment is 0.2 mW/cm^2 for station broadcasting on 189 MHz.

Therefore:

KRBC-TV NTSC facility contributes 19.8% RFF for an uncontrolled environment two meters above ground at the tower site.

KRBC-DT Facility

Channel Freq: 563 MHz range
ERP = 1000 kW
Polarization = Horizontal
RCAGL -2 meters = 154.8 meters

KRBC-DT proposed to utilize ERI, Type ATW28H3-HTO-29H antenna with 0.75° electrical beam tilt. The manufacturer's vertical plane pattern for this antenna is included as Exhibit E-2. Based on this plot, the field factor will be less than 0.1 at any angle greater than 5.0 degrees below the horizon. A value of 0.1 will be used in the calculation.

$S = \frac{33.4\ (F^2)\ \text{Tot ERP}}{R^2}$ Tot ERP = 1,000,000 watts (Horizontal Only)
R = 154.8 meters
F = 0.1 (field factor)

$S = 13.9\ uW/cm^2$ $S = 0.0139\ mW/cm^2$

KRBC-DT contributes 0.0139 mW/cm^2 at 156.8 meters above ground.
The limit for an uncontrolled environment is f/1500 for station broadcasting on 563 MHz.

(563 MHz)/1500 = 0.375 mW/cm^2 is the RFF limit for KRBC-DT

Therefore:

KRBC-DT DTV facility contributes 3.7% RFF for an uncontrolled environment two meters above ground at tower site

Total RFF at Site

The total RFF contribution for all transmitters can now be calculated:

Total RFF = 39.6 uW/cm^2 (TV) RFF + 13.9 uW/cm^2 (DT) RFF

Total RFF = 19.8% + 3.7% Total RFF = 23.5%

Authorized personnel and rigging contractors will be alerted to the potential zone of high radiation 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.

An environmental assessment ("EA") is categorically excluded under Section 1.1306 of the FCC Rules and Regulations since the permittee indicates:

(a)(1) The proposed facilities on an existing tower site are not located in an officially designated wilderness area.

(a)(2) The proposed facilities on an existing tower site are not located in an officially designated wildlife preserve.

(a)(3) The proposed facilities mounted on an existing tower will not affect any listed threatened or endangered species or habitats.

(a)(3)(ii) The proposed facilities mounted on an existing tower 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 mounted on an existing tower will not affect any known districts, sites, buildings, structures, or objects significant in American history, architecture, archaeology, engineering, or culture.

(a)(5) The proposed facilities mounted on an existing tower are not located near any known Indian religious sites.

(a)(6) The proposed facilities mounted on an existing tower are not located in a flood plain.

(a)(7) The operation of the DTV facilities on an existing tower 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 equip the tower with high intensity white lights unless required by the FAA.

(b) [Workers and the general public will not be subjected to RFF levels in excess of the current FCC guidelines in accordance with OET Bulletin No. 65, Edition 97-01, dated August 1997 and Supplement A. A security fence with a locked gate restricts unauthorized access to the tower site.]

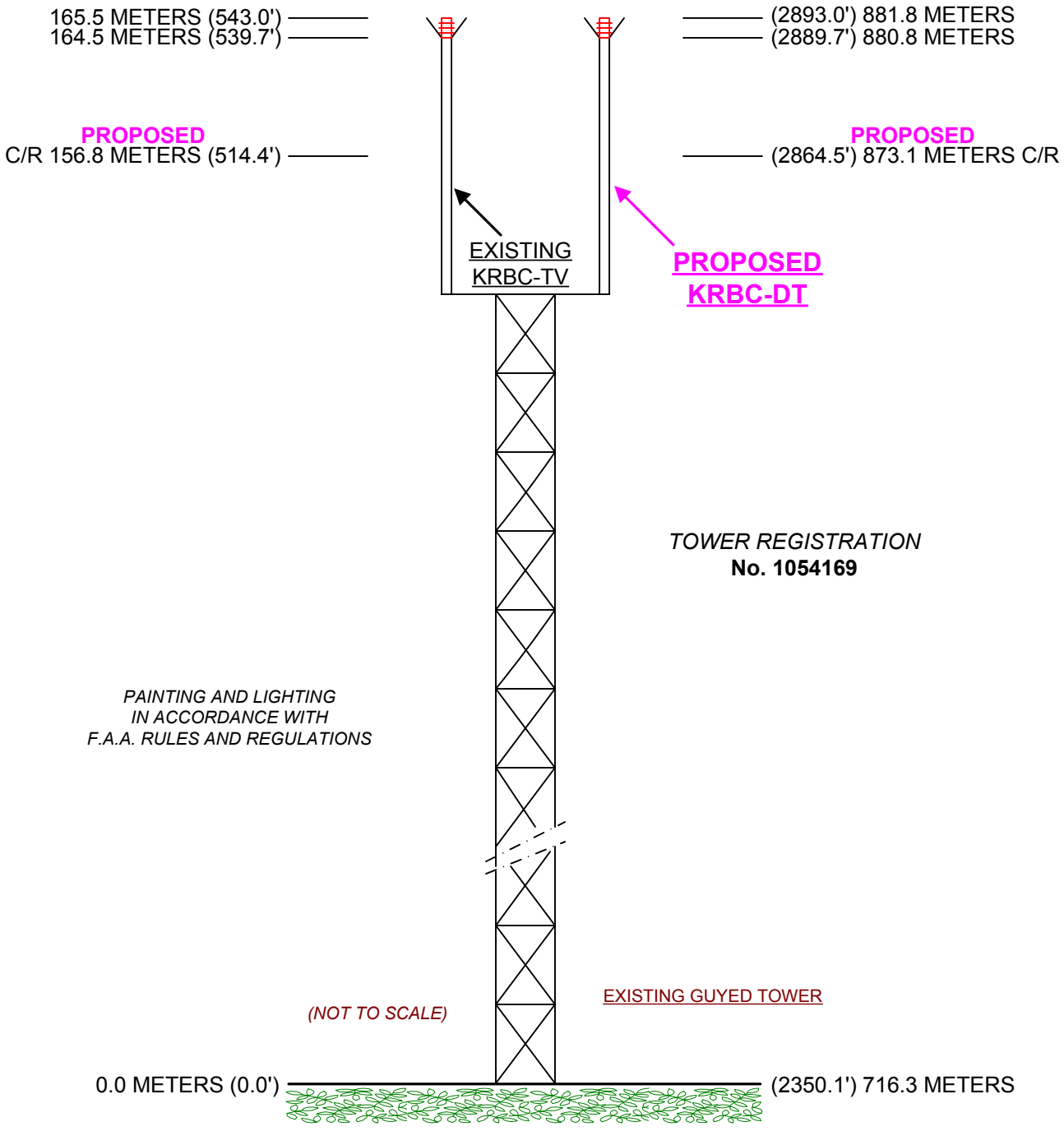


EXHIBIT E-1

TOWER SKETCH

FOR THE PROPOSED DTV OPERATION OF

KRBC-DT, ABILENE, TEXAS

JULY 2004

COHEN, DIPPELL AND EVERIST, P.C. Consulting Engineers Washington, D.C.

COHEN, DIPPELL AND EVERIST, P. C.

EXHIBIT E-2

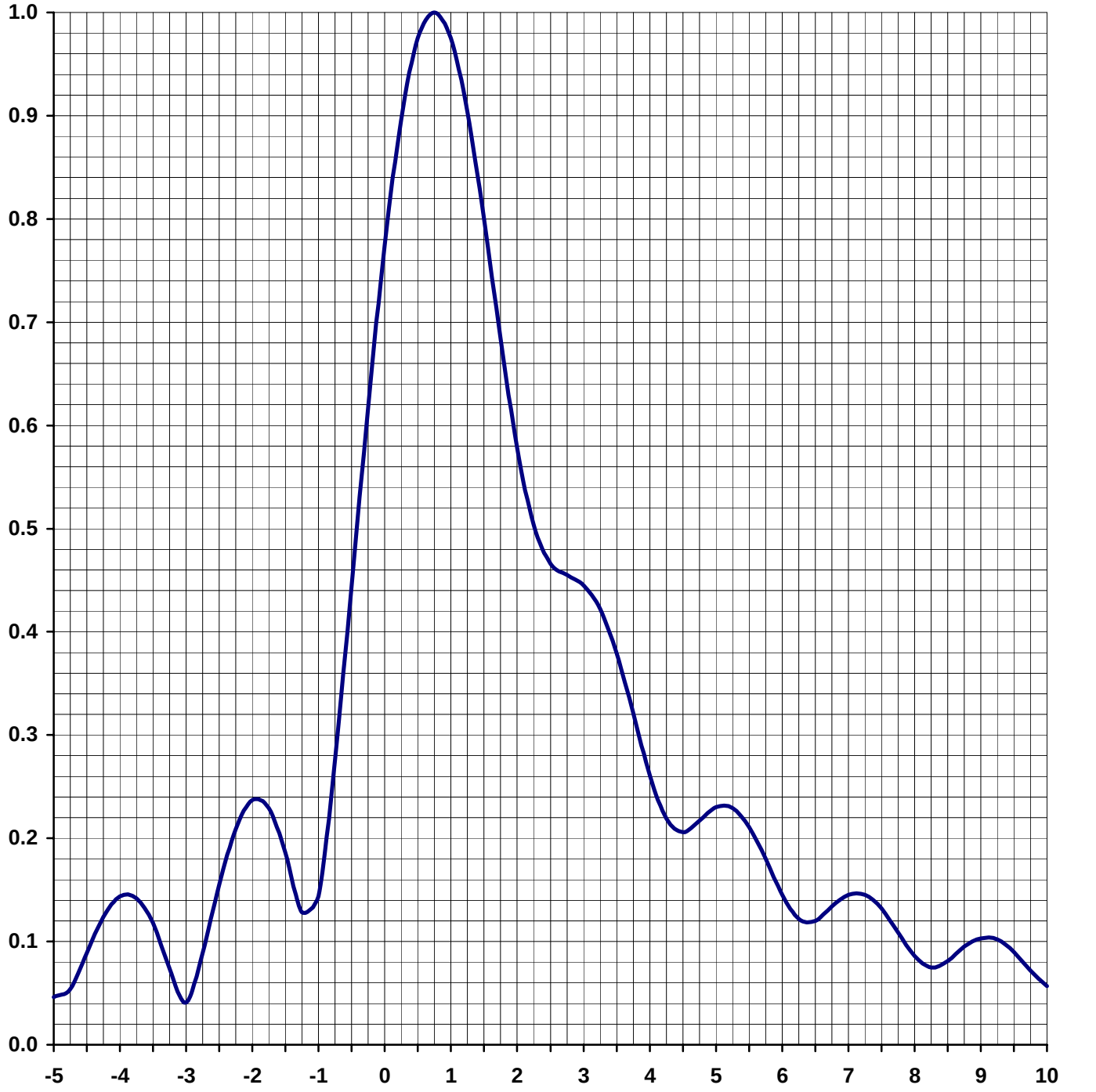
ANTENNA MANUFACTURER DATA

KRBC-DT, ABILENE, TEXAS

ELECTRONICS RESEARCH, INC.

ELEVATION PATTERN

TYPE:	ATW28H3H	
Directivity:	Numeric	dBd
Main Lobe:	28.00	14.47
Horizontal:	16.77	12.25
Beam Tilt:	0.75	
Polarization:	Horizontal	
Frequency:	29 (Digital)	
Location:	Abilene, TX	



ELECTRONICS RESEARCH, INC.

ELEVATION PATTERN

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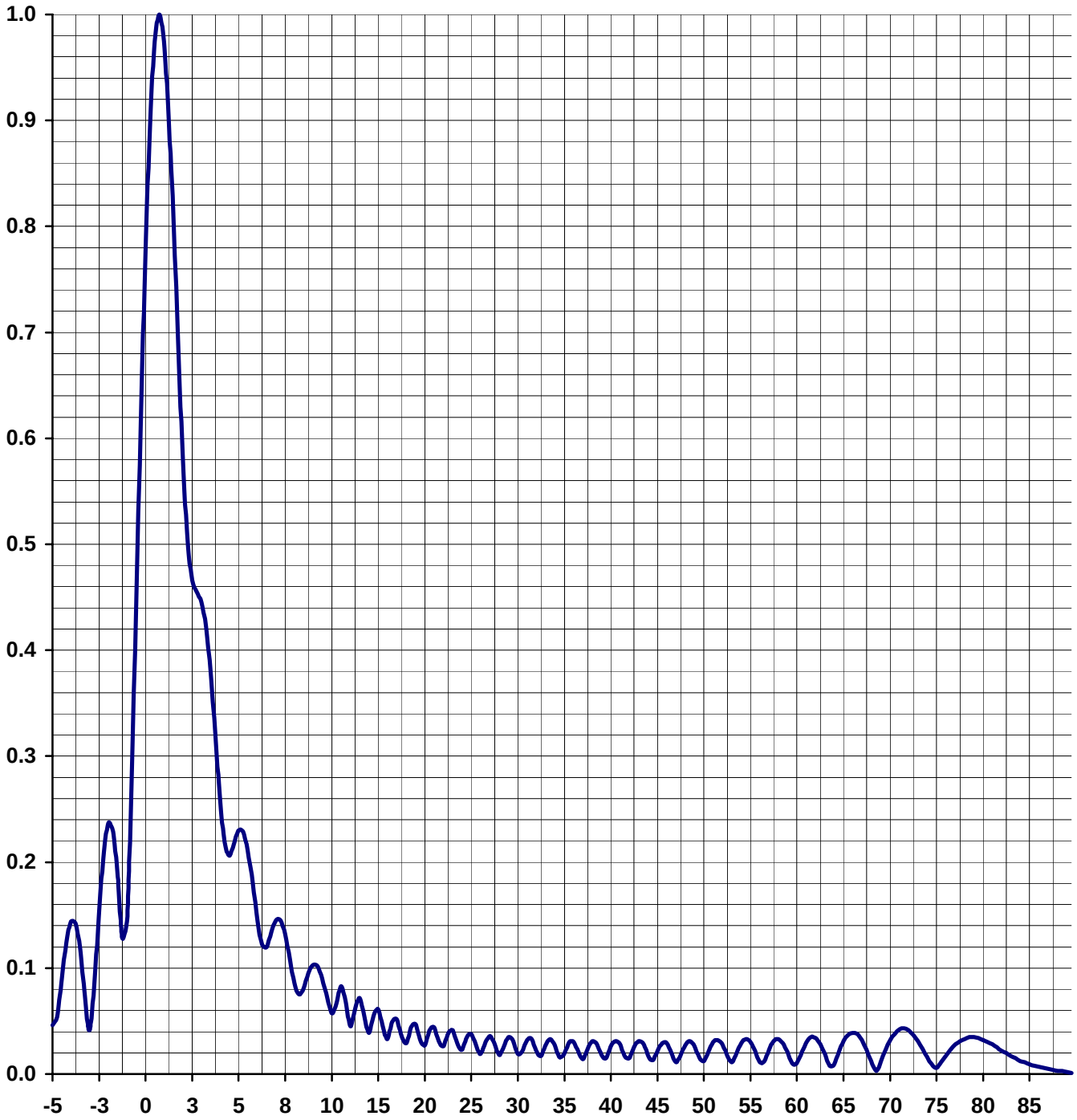


ELECTRONICS RESEARCH, INC.

TABULATED DATA FOR ELEVATION PATTERN

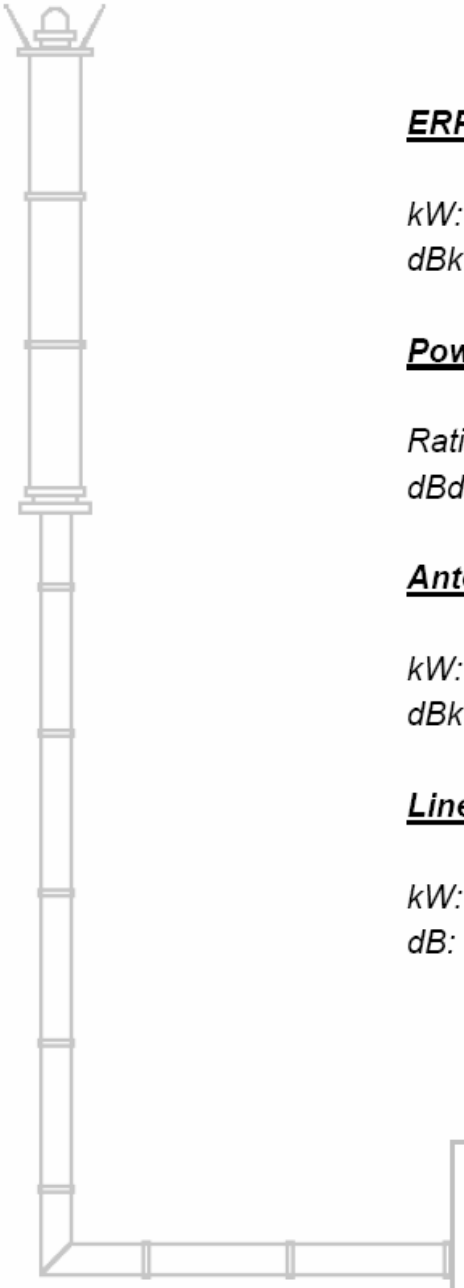
TYPE: ATW28H3H ***-5 to 10 degrees in 0.25 increments*** ***10 to 90 degrees in 0.50 increments***

ANGLE	FIELD	dB	ANGLE	FIELD	dB	ANGLE	FIELD	dB	ANGLE	FIELD	dB	ANGLE	FIELD	dB
-5.00	0.046	-26.74	6.75	0.134	-17.46	27.00	0.036	-28.87	50.50	0.021	-33.56	74.00	0.016	-35.92
-4.75	0.054	-25.35	7.00	0.145	-16.77	27.50	0.028	-31.06	51.00	0.030	-30.46	74.50	0.009	-40.92
-4.50	0.089	-21.01	7.25	0.145	-16.77	28.00	0.018	-34.89	51.50	0.032	-29.90	75.00	0.006	-44.44
-4.25	0.124	-18.13	7.50	0.132	-17.59	28.50	0.026	-31.70	52.00	0.027	-31.37	75.50	0.011	-39.17
-4.00	0.144	-16.83	7.75	0.109	-19.25	29.00	0.035	-29.12	52.50	0.017	-35.39	76.00	0.017	-35.39
-3.75	0.142	-16.95	8.00	0.086	-21.31	29.50	0.031	-30.17	53.00	0.011	-39.17	76.50	0.023	-32.77
-3.50	0.118	-18.56	8.25	0.075	-22.50	30.00	0.019	-34.42	53.50	0.020	-33.98	77.00	0.028	-31.06
-3.25	0.074	-22.62	8.50	0.081	-21.83	30.50	0.022	-33.15	54.00	0.029	-30.75	77.50	0.031	-30.17
-3.00	0.041	-27.74	8.75	0.095	-20.45	31.00	0.032	-29.90	54.50	0.033	-29.63	78.00	0.033	-29.63
-2.75	0.089	-21.01	9.00	0.103	-19.74	31.50	0.033	-29.63	55.00	0.030	-30.46	78.50	0.035	-29.12
-2.50	0.155	-16.19	9.25	0.102	-19.83	32.00	0.022	-33.15	55.50	0.022	-33.15	79.00	0.035	-29.12
-2.25	0.209	-13.60	9.50	0.090	-20.92	32.50	0.017	-35.39	56.00	0.011	-39.17	79.50	0.034	-29.37
-2.00	0.237	-12.51	9.75	0.072	-22.85	33.00	0.027	-31.37	56.50	0.012	-38.42	80.00	0.032	-29.90
-1.75	0.229	-12.80	10.00	0.057	-24.88	33.50	0.033	-29.63	57.00	0.023	-32.77	80.50	0.030	-30.46
-1.50	0.186	-14.61	10.50	0.067	-23.48	34.00	0.027	-31.37	57.50	0.031	-30.17	81.00	0.028	-31.06
-1.25	0.128	-17.86	11.00	0.083	-21.62	34.50	0.016	-35.92	58.00	0.033	-29.63	81.50	0.025	-32.04
-1.00	0.144	-16.83	11.50	0.068	-23.35	35.00	0.020	-33.98	58.50	0.029	-30.75	82.00	0.022	-33.15
-0.75	0.276	-11.18	12.00	0.045	-26.94	35.50	0.030	-30.46	59.00	0.021	-33.56	82.50	0.020	-33.98
-0.50	0.444	-7.05	12.50	0.061	-24.29	36.00	0.030	-30.46	59.50	0.010	-40.00	83.00	0.017	-35.39
-0.25	0.617	-4.19	13.00	0.072	-22.85	36.50	0.021	-33.56	60.00	0.010	-40.00	83.50	0.015	-36.48
0.00	0.774	-2.23	13.50	0.055	-25.19	37.00	0.014	-37.08	60.50	0.021	-33.56	84.00	0.012	-38.42
0.25	0.896	-0.95	14.00	0.039	-28.18	37.50	0.024	-32.40	61.00	0.030	-30.46	84.50	0.011	-39.17
0.50	0.975	-0.22	14.50	0.055	-25.19	38.00	0.031	-30.17	61.50	0.035	-29.12	85.00	0.009	-40.92
0.75	1.000	0.00	15.00	0.061	-24.29	38.50	0.028	-31.06	62.00	0.034	-29.37	85.50	0.008	-41.94
1.00	0.975	-0.22	15.50	0.045	-26.94	39.00	0.018	-34.89	62.50	0.028	-31.06	86.00	0.007	-43.10
1.25	0.904	-0.88	16.00	0.033	-29.63	39.50	0.015	-36.48	63.00	0.019	-34.42	86.50	0.006	-44.44
1.50	0.801	-1.93	16.50	0.049	-26.20	40.00	0.026	-31.70	63.50	0.008	-41.94	87.00	0.005	-46.02
1.75	0.685	-3.29	17.00	0.052	-25.68	40.50	0.031	-30.17	64.00	0.009	-40.92	87.50	0.004	-47.96
2.00	0.579	-4.75	17.50	0.037	-28.64	41.00	0.028	-31.06	64.50	0.021	-33.56	88.00	0.003	-50.46
2.25	0.504	-5.95	18.00	0.029	-30.75	41.50	0.017	-35.39	65.00	0.031	-30.17	88.50	0.003	-50.46
2.50	0.466	-6.63	18.50	0.044	-27.13	42.00	0.015	-36.48	65.50	0.037	-28.64	89.00	0.002	-53.98
2.75	0.455	-6.84	19.00	0.047	-26.56	42.50	0.025	-32.04	66.00	0.039	-28.18	89.50	0.001	-60.00
3.00	0.445	-7.03	19.50	0.032	-29.90	43.00	0.031	-30.17	66.50	0.038	-28.40	90.00	0.000	#NUM!
3.25	0.422	-7.49	20.00	0.027	-31.37	43.50	0.028	-31.06	67.00	0.032	-29.90			
3.50	0.379	-8.43	20.50	0.041	-27.74	44.00	0.017	-35.39	67.50	0.023	-32.77			
3.75	0.321	-9.87	21.00	0.044	-27.13	44.50	0.013	-37.72	68.00	0.012	-38.42			
4.00	0.261	-11.67	21.50	0.031	-30.17	45.00	0.022	-33.15	68.50	0.003	-50.46			
4.25	0.219	-13.19	22.00	0.026	-31.70	45.50	0.029	-30.75	69.00	0.012	-38.42			
4.50	0.206	-13.72	22.50	0.038	-28.40	46.00	0.029	-30.75	69.50	0.023	-32.77			
4.75	0.217	-13.27	23.00	0.041	-27.74	46.50	0.020	-33.98	70.00	0.032	-29.90			
5.00	0.230	-12.77	23.50	0.029	-30.75	47.00	0.011	-39.17	70.50	0.038	-28.40			
5.25	0.229	-12.80	24.00	0.023	-32.77	47.50	0.018	-34.89	71.00	0.042	-27.54			
5.50	0.211	-13.51	24.50	0.034	-29.37	48.00	0.027	-31.37	71.50	0.043	-27.33			
5.75	0.180	-14.89	25.00	0.038	-28.40	48.50	0.031	-30.17	72.00	0.041	-27.74			
6.00	0.145	-16.77	25.50	0.028	-31.06	49.00	0.026	-31.70	72.50	0.037	-28.64			
6.25	0.122	-18.27	26.00	0.019	-34.42	49.50	0.016	-35.92	73.00	0.031	-30.17			
6.50	0.120	-18.42	26.50	0.030	-30.46	50.00	0.012	-38.42	73.50	0.024	-32.40			

ELECTRONICS RESEARCH, INC.

Broadcast Antenna System
Power Analysis

Type: ATW28H3-HTO-29H



ERP: **Hor Pol:**

kW:	1000.00
dBk:	30.00

Transmission Line:

Type:
MACX675B
6-1/8" 75 ohm MACXLine®
Vert. Length: 500 ft.
Horz. Length: 65 ft.
Attenuation:
0.108 dB/100 ft.
Efficiency: 86.91 %

Power Gain:

Ratio:	28.00
dBd:	14.47

Antenna Input:

kW:	35.71
dBk:	15.53

Line Loss:

kW:	5.38
dB:	0.61

Transmitter Power

kW:	41.09
dBk:	16.14

COHEN, DIPPELL AND EVERIST, P. C.

TABLE I
COMPUTED COVERAGE DATA
FOR THE PROPOSED DTV OPERATION OF
KRBC-DT, ABILENE, TEXAS
CHANNEL 29 1000 KW ERP 267.9 METERS HAAT
JULY 2004

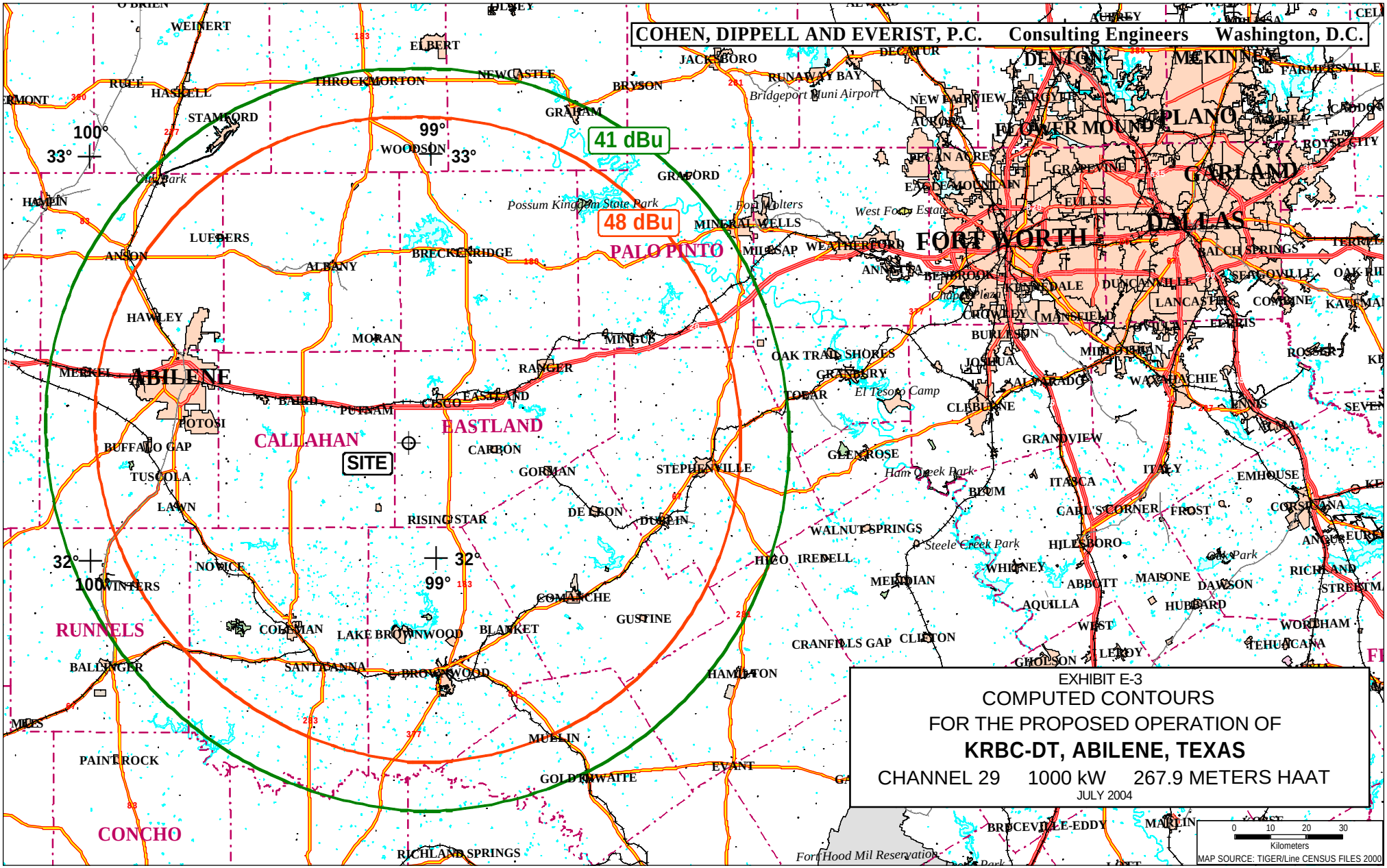
Radial Bearing N ° E, T	Average* Elevation 3.2 to 16.1 km meters	Effective Height meters	Depression Angle	ERP At Radio Horizon kW	Distance to Contour F(50,90) 48 dBu City Grade km	41 dBu Noise-Limited km
0	548.7	324.4	0.499	1000	85.9	99.5
45	565.2	307.9	0.486	1000	84.0	97.7
90	635.1	238.0	0.427	1000	76.4	88.4
135	672.5	200.6	0.392	1000	73.6	83.9
180	605.6	267.5	0.453	1000	79.1	92.5
225	619.9	253.2	0.441	1000	77.7	90.4
270	628.1	245.0	0.434	1000	76.9	89.3
315	566.8	306.3	0.485	1000	83.8	97.5
Average	605.2	267.9				

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

DTV Channel 29 (560-566 MHz)
Average Elevation 3.2 to 16.1 km 605.2 meters AMSL
Center of Radiation 873.1 meters AMSL
Antenna Height Above Average Terrain 267.9 meters
Effective Radiated Power 1000 kW (30 dBk) Max

North Latitude: 32° 17' 06"
West Longitude: 99° 44' 23"

(NAD-27)


COHEN, DIPPELL AND EVERIST, P.C. Consulting Engineers Washington, D.C.
41 dBu
48 dBu
SITE
ABILENE
CALLAHAN
EASTLAND
PALO PINTO
RUNNELS
CONCHO
DALLAS
FORT WORTH
PLANO
GARLAND
DENTON
MCKINNEY
100°
33°
99°
32°
EXHIBIT E-3
COMPUTED CONTOURS
FOR THE PROPOSED OPERATION OF
KRBC-DT, ABILENE, TEXAS
CHANNEL 29 1000 kW 267.9 METERS HAAT
JULY 2004
Kilometers
MAP SOURCE: TIGER/Line CENSUS FILES 2000

COHEN, DIPPELL AND EVERIST, P. C.

TABLE II
LONGLEY-RICE ANALYSIS FOR THE
PROPOSED OPERATION OF
KRBC-DT, ABILENE, TEXAS
CHANNEL 29 1000 KW ND (MAX ERP) 267.9 METERS HAAT
JULY 2004

Stations Potentially Affected by Proposed Station (KRBC-DT)

Channel	Call	City/State	Dist(km)	Status	Application Ref. No.		Result
15	KXVA	ABILENE TX	14.1	LIC	BLCT	-20010130ABC	0.0%
21	960726KI	SAN ANGELO TX	106.8	APP	BPET	-19960726KI	No Interference
22	K22HE	ABILENE TX	26.2	CP	BNPTTL	-20000818ABG	No Interference
22	K22GS	SWEETWATER TX	63.1	CP	BNPTTL	-20000818ACE	No Interference
25	NEW	SAN ANGELO TX	114.5	APP	BNPTTL	-20000830AFC	No Interference
25	NEW	SAN ANGELO TX	112.8	APP	BNPTTL	-20000830BGP	No Interference
25	NEW	SAN ANGELO TX	108.6	APP	BNPTTL	-20000831CJO	No Interference
25	NEW	SAN ANGELO TX	122.9	APP	BNPTTL	-20000830BAY	No Interference
25	NEW	SAN ANGELO TX	122	APP	BNPTTL	-20000829AMM	No Interference
25	NEW	SAN ANGELO TX	115.8	APP	BNPTTL	-20000829ATY	No Interference
26	K26HG	ABILENE TX	26.2	CP	BNPTTL	-20000829AHP	No Interference
26	K26AP	BROWNWOOD TX	92	LIC	BLTTL	-19870826II	No Interference
26	NEW	SAN ANGELO TX	122.9	APP	BNPTTL	-20000818ACK	No Interference
26	K26DW	SNYDER TX	121.7	LIC	BLTT	-19940531IF	No Interference
26	K26DW	SNYDER TX	121.9	STA	BSTA	-20030812AEB	No Interference
27	NEW	SAN ANGELO TX	122.9	APP	BNPTTL	-20000818AGZ	No Interference
27	NEW	SAN ANGELO TX	106.8	APP	BNPTTL	-20000831AJQ	No Interference
27	NEW	SWEETWATER TX	63.1	APP	BNPTTL	-20000818ACG	No Interference
28	NEW	BROWNWOOD TX	95	APP	BNPTTL	-20000828AZH	No Interference
28	NEW	BROWNWOOD TX	95	APP	BNPTTL	-20000828AGH	No Interference
28	NEW	MIDLAND TX	156.3	APP	BNPTTL	-20000831BIZ	No Interference
28	NEW	SAN ANGELO TX	112	APP	BNPTTL	-20000807AAZ	No Interference
28	NEW	SAN ANGELO TX	122.9	APP	BNPTTL	-20000830BBY	No Interference
28	NEW	SAN ANGELO TX	106.8	APP	BNPTTL	-20000831AXX	No Interference
28	NEW	SAN ANGELO TX	115.8	APP	BNPTTL	-20000829AXP	No Interference
28	NEW	SAN ANGELO TX	111.3	APP	BNPTTL	-20000831BGC	No Interference
28	KFDX-TV	WICHITA FALLS TX	209.3	CP MOD	BMPCDT	-20040312ADT	No Interference
28	KFDX-DT	WICHITA FALLS TX	209.5	PLN	DTVPLN	#NAME?	No Interference

COHEN, DIPPELL AND EVERIST, P. C.

TABLE II
LONGLEY-RICE ANALYSIS FOR THE
PROPOSED OPERATION OF
KRBC-DT, ABILENE, TEXAS
CHANNEL 29 1000 KW ND (MAX ERP) 267.9 METERS HAAT
JULY 2004

Channel	Call	City/State	Dist(km)	Status	Application Ref. No.		Result
29	NEW	CLOVIS NM	397.6	APP	BNPTT	-20000830AVO	No Interference
29	NEW	CLOVIS NM	395.4	APP	BNPTTL	-20000830BAX	No Interference
29	NEW	CLOVIS NM	401.4	APP	BNPTTL	-20000830BLE	No Interference
29	KHFT	HOBBS NM	318.4	LIC	BLCT	-20000424AAU	No Interference
29	K29EI	ELK CITY, ETC. OK	344	0 LIC	BLTT	-20031211AB	No Interference
29	KQOK	SHAWNEE OK	399.9	CP	BPCDT	-19991101AGN	No Interference
29	KAQS-DT	SHAWNEE OK	399.9	PLN	DTVPLN	#NAME?	No Interference
29	K29GD	AMARILLO TX	378.1	CP	BNPTTL	-20000830BID	No Interference
29	NEW	BIG WELLS TX	393.9	APP	BNPTTL	-20000831AYP	No Interference
29	KYLE	BRYAN TX	360.7	CP	BPCDT	-19991018ABD	No Interference
29	KYLE-DT	BRYAN TX	360.7	PLN	DTVPLN	#NAME?	No Interference
29	KMPX	DECATUR TX	271.6	LIC	BMLCT	-20030623ADR	0.0%
29	KMPX	DECATUR TX	262.1	CP MOD	BMPCT	-20031121AOP	0.1%
29	K29GE	LITTLEFIELD TX	305.5	CP	BNPTT	-20000831ARC	No Interference
29	K29FW	PLAINVIEW TX	281.8	CP	BNPTT	-20000831BWS	No Interference
29	K29FR	QUANAH TX	213.9	CP	BNPTT	-20000825AJG	No Interference
29	KABB	SAN ANTONIO TX	361.3	LIC	BLCT	-19880210KF	0.0%
29	K29BH	WELLINGTON, ETC. T	279.	2 LIC	BLTT	-19880623ID	No Interference
31	NEW	ABILENE TX	0	APP	BNPTTL	-20000830BHK	0.0%
31	K31HP	MULLIN TX	127.2	CP	BNPTTL	-20000831BFC	No Interference
31	KEUS-LP	SAN ANGELO TX	112.2	LIC	BLTTL	-19990727JE	No Interference
32	KTAB-TV	ABILENE TX	13.3	LIC	BLCT	-19990329KF	0.0%
33	NEW	SAN ANGELO TX	106.8	APP	BNPTTL	-20000831AYA	No Interference
36	NEW	ABILENE TX	26.2	APP	BNPTTL	-20000818ABM	No Interference
36	K36HF	TUSCOLA TX	10.9	CP	BNPTTL	-20000831BRD	0.0%

SECTION III-D - DTV Engineering

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

Certification Checklist: A correct answer of "Yes" to all of the questions below will ensure an expeditious grant of a construction permit. However, if the proposed facility is located within the Canadian or Mexican borders, coordination of the proposal under the appropriate treaties may be requird 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.

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. [X] Yes [ ] No

   (b) It will operate 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. [X] Yes [ ] No

   (c) It will operate 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 [X] No

2. The proposed facility will not have a significant environmental impact, including exposure of workers or the general public to levels of RF radiation exceeding the applicable health and safety guidelines, and therefore will not come within 47 C.F.R. Section 1.1307. [X] 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. [X] 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. [X] 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. [X] 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 29 Analog TV, if any 9

2. Zone: ☐ I ☒ II ☐ III

3. Antenna Location Coordinates: (NAD 27)

32 ° 17 ' 06 " ☒ N ☐ S Latitude

99 ° 44 ' 23 " ☐ E ☒ W Longitude

4. Antenna Structure Registration Number: 1054169

☐ Not applicable ☐ FAA Notification Filed with FAA

5. Antenna Location Site Elevation Above Mean Sea Level: 716.3 meters

6. Overall Tower Height Above Ground Level: 165.5 meters

7. Height of Radiation Center Above Ground Level: 156.8 meters

8. Height of Radiation Center Above Average Terrain: 267.9 meters

9. Maximum Effective Radiated Power (average power): 1000 kW

10. Antenna Specifications:

a. Manufacturer: ERI, Inc. | Model: ATW28H3-HTO-29H

b. Electrical Beam Tilt: 0.75 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. E-2

d. Polorization: ☒ Horizontal ☐ Circular ☐ Elliptical

TECH BOX

e. Directional Antenna Relative Field Values: [X] 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 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.") [X] Yes [ ] No

If "No," attach as an Exhibit justification therefor, 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 therefor. (Applicable only if **Certification Checklist** Item 3 is answered "No.") Exhibit No.

13. **Environmental Protection Act. Submit in an Exhibit** the following: Exhibit No. E

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 radiofrequency 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.

PREPARER'S CERTIFICATION IN SECTION III MUST BE COMPLETED AND SIGNED.

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 July 28, 2004
Mailing Address Cohen, Dippell and Everist, P.C., 1300 L Street, NW, 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).