

ENGINEERING STATEMENT TO  
RELOCATE DTV FACILITIES  
ON BEHALF OF  
KATC COMMUNICATIONS, INC.  
**KATC-DT, LAFAYETTE, LOUISIANA**  
CHANNEL 28 1000 KW MAX ERP 537 METERS HAAT

AUGUST 2006

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

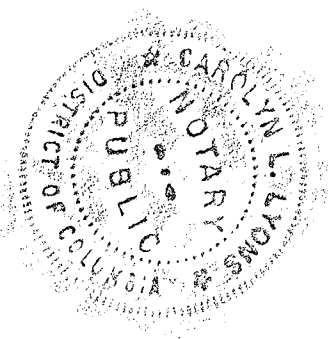
That the facts stated herein are true of his own knowledge, except such facts as are stated to be on information and belief, and as to such facts he believes them to be true.

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

Subscribed and sworn to before me this 25<sup>th</sup> day of August, 2006.

  
\_\_\_\_\_  
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:

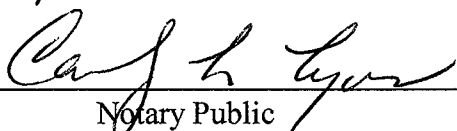
He is a graduate electrical engineer of the Pennsylvania State University, and is a staff engineer at Cohen, Dippell and Everist, P.C., Consulting Engineers, Radio - Television, with offices at 1300 L Street, N.W., Suite 1100, Washington, D.C. 20005;

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

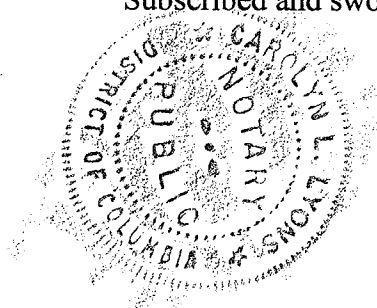
That the facts stated herein are true of his own knowledge, except such facts as are stated to be on information and belief, and as to such facts he believes them to be true.

  
\_\_\_\_\_  
Martin R. Doczkat

Subscribed and sworn to before me this 25<sup>th</sup> day of August, 2006.

  
\_\_\_\_\_  
Notary Public

My Commission Expires: 2/28/2008



### Introduction

This engineering statement has been prepared on behalf of KATC Communications, Inc., licensee of KATC-TV, Lafayette, Louisiana. The purpose of this request is to accompany its request to modify its digital television construction permit (FCC File No. BMPCDT-20011023AAJ) to a new site adjacent to that now authorized.

KATC-TV operates on NTSC Channel 3 with a maximum effective radiated power ("ERP") of 100 kilowatts and an antenna height above average terrain ("HAAT") of 530 meters. The licensee of KATC-TV has been allocated DTV Channel 28 with facilities of 1000 kilowatts and an HAAT of 530 meters. KATC-DT currently holds a CP for facilities to operate with a HAAT of 507 meters and a non-directional ERP of 1000 kW. KATC-DT now proposes to operate with a HAAT of 537 meters and a maximum directional ERP of 1000 kW. A move to a new site would be beneficial to the public because it would locate two of the full-service television stations serving Lafayette, Louisiana at the same area.

### Transmitter Site

The proposed operation will transmit from a Dielectric, Type TFU30GTH-R-O4 SP (or equivalent) top-mounted antenna that is the only antenna on the proposed tower. The antenna site is located approximately 2 miles southwest of Branch, Louisiana. The geographic coordinates of the proposed site are as follows:

North Latitude: 30° 19' 25"

West Longitude: 92° 17' 24"

NAD-27



The proposed tower has received a determination of no hazard to air navigation from the FAA (Aeronautical Study No. 2005-ASW-4892-OE) and KATC-DT has registered this proposed antenna structure in the FCC's ASR database (ASRN 1254898).

The corresponding USGS 7.5 minute quadrangle map, Branch, Louisiana, is included as Exhibit E-1 of this report.

#### Elevation Data

Elevation of site above mean sea level	8.2 meters 27 feet
Center of radiation of antenna above ground level	538.9 meters 1768 feet
Center of antenna above mean sea level	547.1 meters 1795 feet
Overall height above ground of the proposed antenna structure (Including appurtenances)	548.7 meters 1800 feet
Overall height above mean sea level of the proposed antenna structure (Including appurtenances)	556.9 meters 1827 feet
Antenna height above average terrain	537 meters

Attached is a sketch of the supporting structure as Exhibit E-2.

#### Equipment Data

Transmitter:	Type-approved
Transmission Line:	7", Dielectric EIA style rigid TL, 75 ohm approximately 1850'
Antenna:	Dielectric, Type TFU-30GTH-R-O4 SP (or equivalent) with 0.75° electrical beam tilt

The vertical plane pattern and other exhibits required by Section 73.625(c) are herein included in Exhibit E-3.

Power Data

Transmitter Output	43.4 kW	16.37 dBk
Transmission line efficiency & loss	65.7%	1.83 dB
Input power to the antenna	28.5 kW	14.55 dBk
Nominal Maximum Antenna Gain	35.1	15.45 dB
Effective Radiated Power (Max)	1000 kW	30.0 dBk

Allocation and Interference Analysis

The proposed move to the adjacent property is a minimum change in the allocation situation. An allocation study has been performed from the authorized site as well as the proposed site. The proposed operation specifies a slightly higher height than that specified in the outstanding construction permit which has been accommodated by a specifically designed directional azimuth pattern. This proposed directional azimuth pattern for KATC-DT will ensure that the predicted noise-limited contour remains essentially contained within that authorized by the construction permit. In addition, the proposed operation will not cause further short spacing to two licensed stations, KLPB-TV and WLPB-TV, beyond that already authorized in the KATC-DT construction permit since the spacing distances to these two stations can be rounded to the nearest whole number considering the spacing calculated using Longley-Rice. The proposed change predicts no new interference to these stations, as described in the following paragraph.

Interference was investigated using a version of the Longley-Rice program as described in OET Bulletin No. 69 (July 2, 1999) and the Public Notice, "Additional Application Processing Guidelines for Digital Television (DTV)" (August 1998). The FCC's Fortran code was modified only to the extent necessary (primarily input/output handling) for the program to run on a Windows/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. The model employs the Longley-Rice propagation methodology and evaluates in grid cells of approximately 4 km<sup>2</sup> using 3-second terrain data sampled approximately every 1.0 kilometer at one-degree azimuth intervals with 2000 census centroids.

#### Coverage

The average elevation data for 3.2 to 16.1 kilometers along each radial has been determined from a 3-second NGDC database. The F(50,90) 48 and 41 dBu DTV coverage contours have been computed from reference to the propagation data for Channel 14-69, as published by the FCC in Figure 10b and Figure 10c, Section 73.699 of the FCC Rules and Regulations, and are shown in Exhibit E-4. Further, Exhibit E-5 demonstrates that the proposed F(50,90) 41 dBu does not extend in any direction beyond that authorized by the current construction permit (FCC File No. BMPCDT-20011023AAJ), except for an area over the Gulf of Mexico and a minute sliver of land encompassing approximately 1,300 people in 61.6 square kilometers. A Longley-Rice analysis has been performed in order to identify any predicted interference possibly caused to potential interferees due to the sliver and is discussed later in this engineering statement.

The depression angle was calculated every ten degrees utilizing the formula set forth in Section 73.625(b)(2) of the rules. The relative vertical field was found to be greater than 90% at all depression angles, so the maximum ERP was used in determining the distance to the DTV contour. The proposed 48 dBu (DTV Community Service Contour) contour encompasses the community of license, Lafayette, Louisiana, as required in Section 73.623(c)(1).

The computed distances to the proposed F(50,90) 48 & 41 dBu contours as well as the corresponding average elevations, effective heights above average terrain, depression angles, and effective radiated powers for every ten degrees are provided in Table I.

#### Other Broadcast Facilities

A search of the surrounding area has been performed on June 29, 2006 using the most recent CDBS information and there are no AM or FM facilities within at least 5 km of the proposed site. There are no TV or DTV facilities within at least 0.5 km of the proposed site. No adverse technical effect is expected due to the proposed operation of KATC-DT at this new location. If necessary, the applicant will install filters or take other measures as necessary to resolve any problems.

Table II provides the list of stations considered in the Longley-Rice interference study. No station is predicted to receive any new interference above that currently predicted to be caused by the outstanding construction permit by using the Commission's Longley-Rice program as described in the above section entitled, *"Allocation and Interference Analysis."*

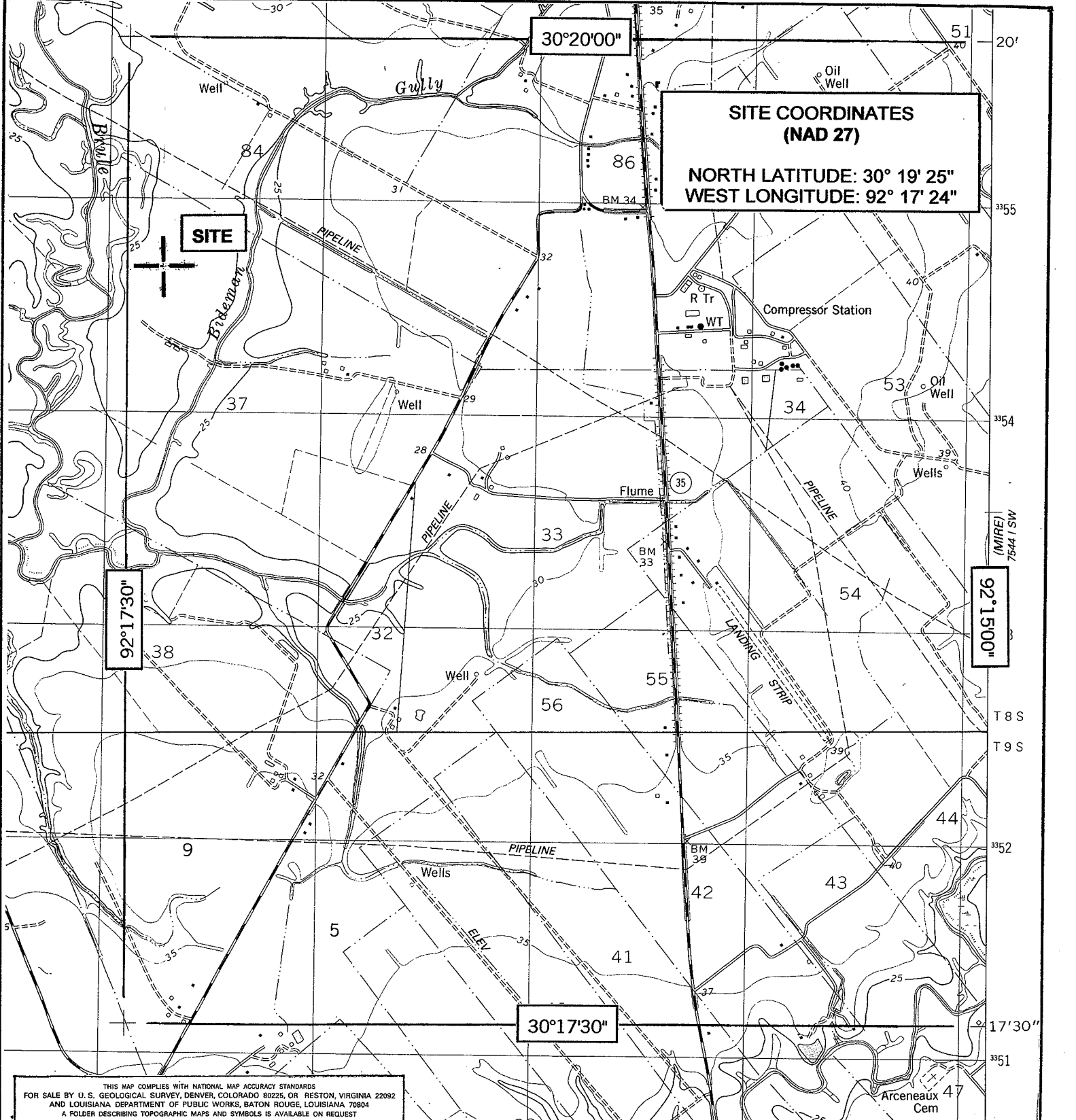
### Environmental Statement

The proposed operation for KATC-DT located at an adjacent property assumes 1000 kilowatts at 538.9 meters above ground and assumes an antenna downward radiation field factor of 0.1. The results of these parameters produce a total contribution of less than 1.2  $\mu\text{W}/\text{cm}^2$ . This value is less than 0.3% of the FCC guidelines for the general population.

The total RFF level at the base of the tower is calculated to be less than 1% of the maximum permissible exposure for an uncontrolled area. This value is well within the standard set forth by OET Bulletin No. 65, Edition 97-01, dated August 1997.

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 excess of the current FCC guidelines.

An environmental assessment ("EA") under Section 1.1306 of the FCC Rules and Regulations has been performed pursuant to the requirements specified in WT Docket No. 03-128 and required in FCC Form 620 by Assessco, Inc. on August 1, 2006 and is attached elsewhere in this application. Cohen, Dippell and Everist, P.C. has not reviewed this information.

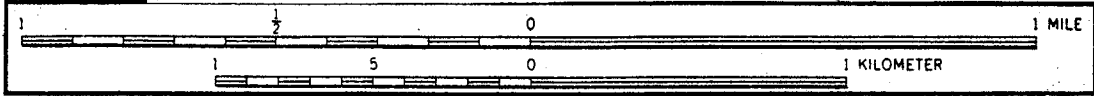


THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS  
FOR SALE BY U.S. GEOLOGICAL SURVEY, DENVER, COLORADO 80225, OR RESTON, VIRGINIA 22092  
AND LOUISIANA DEPARTMENT OF PUBLIC WORKS, BATON ROUGE, LOUISIANA 70804  
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

CONTOUR INTERVAL 5 FEET  
NATIONAL GEODETIC VERTICAL DATUM OF 1929

BRANCH, LA.  
SD4 SURICE 15" QUADRANGLE  
30092-C3-IF-024  
1983  
PHOTOINSPECTED 1987  
DMA 7544 IV SE-SERIES V885

EXHIBIT E-1  
PROPOSED TRANSMITTER SITE  
**KATC-DT, LAFAYETTE, LOUISIANA**  
AUGUST 2006  
**COHEN, DIPPELL AND EVERIST, P.C.** Consulting Engineers Washington, D.C.



ABOVE MEAN SEA LEVEL

ABOVE GROUND

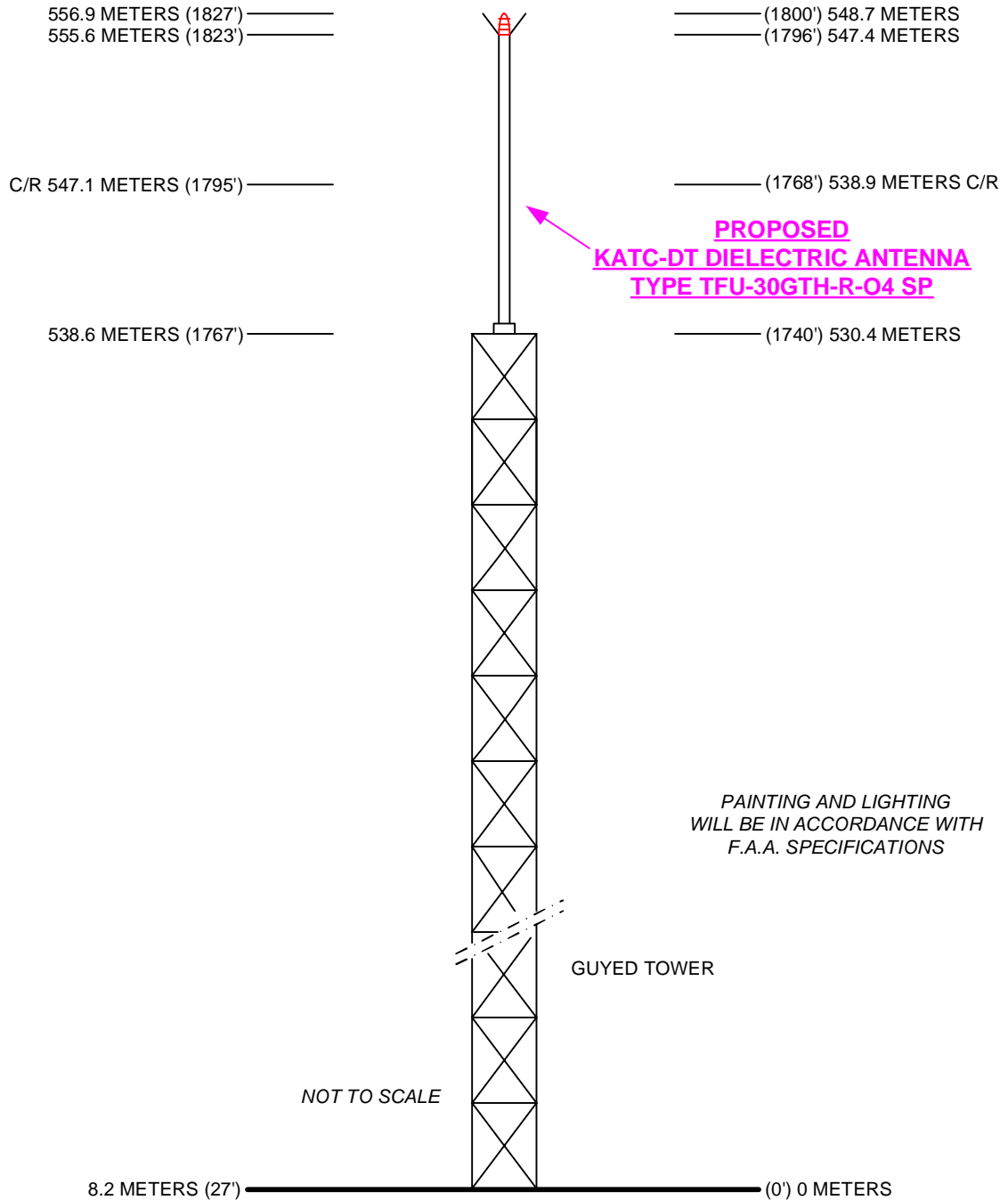


EXHIBIT E-2  
VERTICAL SKETCH  
FOR THE PROPOSED OPERATION OF  
**KATC-DT, LAFAYETTE, LOUISIANA**  
AUGUST 2006

EXHIBIT E-3

ANTENNA MANUFACTURER DATA

KATC-DT, LAFAYETTE, LOUISIANA



# Dielectric

Proposal #: **DCA-11420-2** Antenna Type: **TFU-30GTH-R O4**  
 Call Letters: **KATC-DT** Location: **Lafayette, LA**

Channel: **28 DTV**

Electrical Specifications		Value		Remarks
		Ratio	dB	
RMS Gain at Main Lobe over Halfwave Dipole	Hpol	27.0	14.31	
	Vpol			
RMS Gain at Horizontal over Halfwave Dipole	Hpol	18.7	12.72	
	Vpol			
Peak Directional Gain over Halfwave Dipole	Hpol	35.1	15.45	
	Vpol			
Peak Directional Gain at Horizontal over Halfwave Dipole	Hpol	24.3	13.86	
	Vpol			
Circularity	Directional	dB		
Axial Ratio		dB		
Beam Tilt		0.75 deg		
Average Power	DTV	57 kW	17.56 dBk	
Antenna Input:	T/L	6 1/8 in	75.0 ohm	Type: EIA/DCA
Maximum Antenna Input VSWR		Channel	1.08 : 1	
Patterns	Azimuth	TFU-O4-SP		
	Elevation	30G270075	30G270075-90	
<b>Mechanical Specifications</b>		<b>Metric</b>	<b>English</b>	
Height with Lightning Protector	H4	18.3 m	59.9 ft	
Height Less Lightning Protector	H2	17.0 m	55.9 ft	
Height of Center of Radiation	H3	8.5 m	28.0 ft	
Basic Wind Speed	V	160.9 km/h	100 mi/h	TIA/EIA-222-F.
Force Coeff. x Projected Area	CaAc	6.47 m <sup>2</sup>	69.6 ft <sup>2</sup>	Above base flange
Moment Arm	D1	9.0 m	29.6 ft	Above base flange
Force Coeff. x Projected Area	CaAc	m <sup>2</sup>	ft <sup>2</sup>	
Moment Arm	D3	m	ft	
Pole Bury Length	D2	m	ft	
Weight	W	5.7 t	12,500 lbs	
Radome				
Antenna designed in accordance with AISC specifications for design of structural steel for building as prescribed by TIA/EIA-222-F.				

NOTE:

Prepared By :  
 Original Date : 24-Feb-06

SWB RMS

Steve  
Brower

Digitally signed by Steve Brower  
 DN: CN = Steve Brower,  
 C = US, OU = Dielectric  
 Reason: I am the author  
 of this document  
 Date: 2006.08.24  
 09:48:20 -0400

Revision: 2

Approved By :  
 Rev. Date: 25-Jul-06

JLS

SWB

*PSS 8/24/06*

**DTV ANTENNA CONFIGURATION**  
**TFU-30GTH-R O4**  
**KATC-DT : Lafayette, LA**

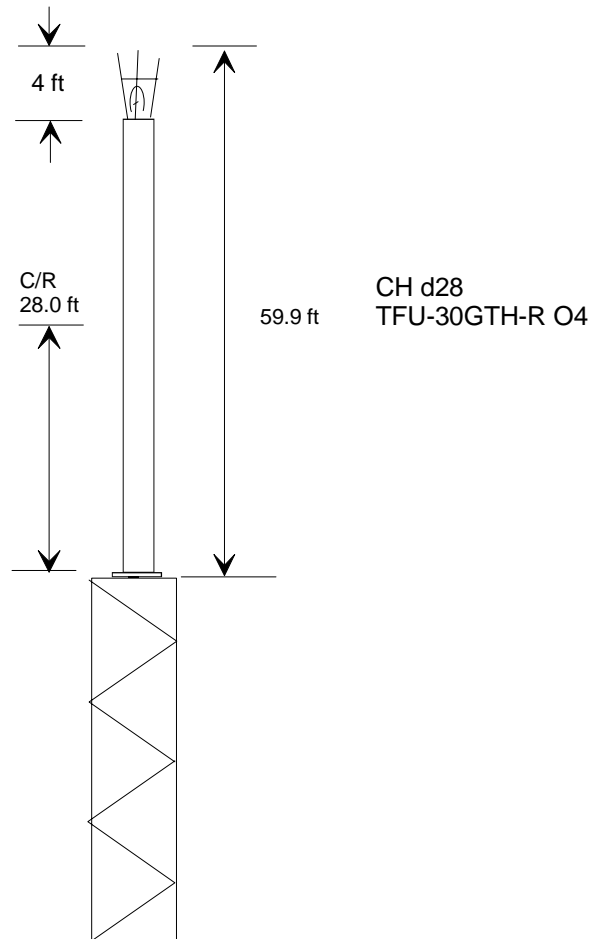
**TOP MOUNTED MECHANICAL DATA**

CaAc = 69.6 ft<sup>2</sup>

D1 = 29.6 ft

Weight = 12,500 lbs

EIA-222-F Specification  
(100 mph basic wind speed)



SWB-060824-1SK

NOT DRAWN TO SCALE



Proposal Number  
Date  
Call Letters  
Location  
Customer  
Antenna Type

**DCA-11420**      Revision:      **2**  
**25-Jul-06**  
**KATC-DT**      Channel      **28**  
**Lafayette, LA**  
**Cordillera Communications**  
**TFU-30GTH-R O4**

## SYSTEM SUMMARY

### Antenna:

Type:	<b>TFU-30GTH-R O4</b>	ERP:	<b>1000 kW</b>	H Pol	<b>( 30.00 dBk )</b>
Channel:	<b>28</b>	Peak Gain*:	<b>35.1</b>		<b>( 15.45 dB )</b>
Location:	<b>Lafayette, LA</b>	Input Power:	<b>28.5 kW</b>		<b>( 14.55 dBk )</b>

### Transmission Line:

Type:	<b>EIA/DCA</b>	Attenuation:	<b>1.83 dB</b>
Size:	<b>7-3/16 in</b>	Efficiency:	<b>65.7%</b>
Impedance:	<b>75 ohm</b>		
Length:	<b>1,850 ft</b>		<b>563.9 m</b>

### Transmitter:

Power Required:      **43.4 kW**      **( 16.37 dBk )**

\* Gain is with respect to half wave dipole.

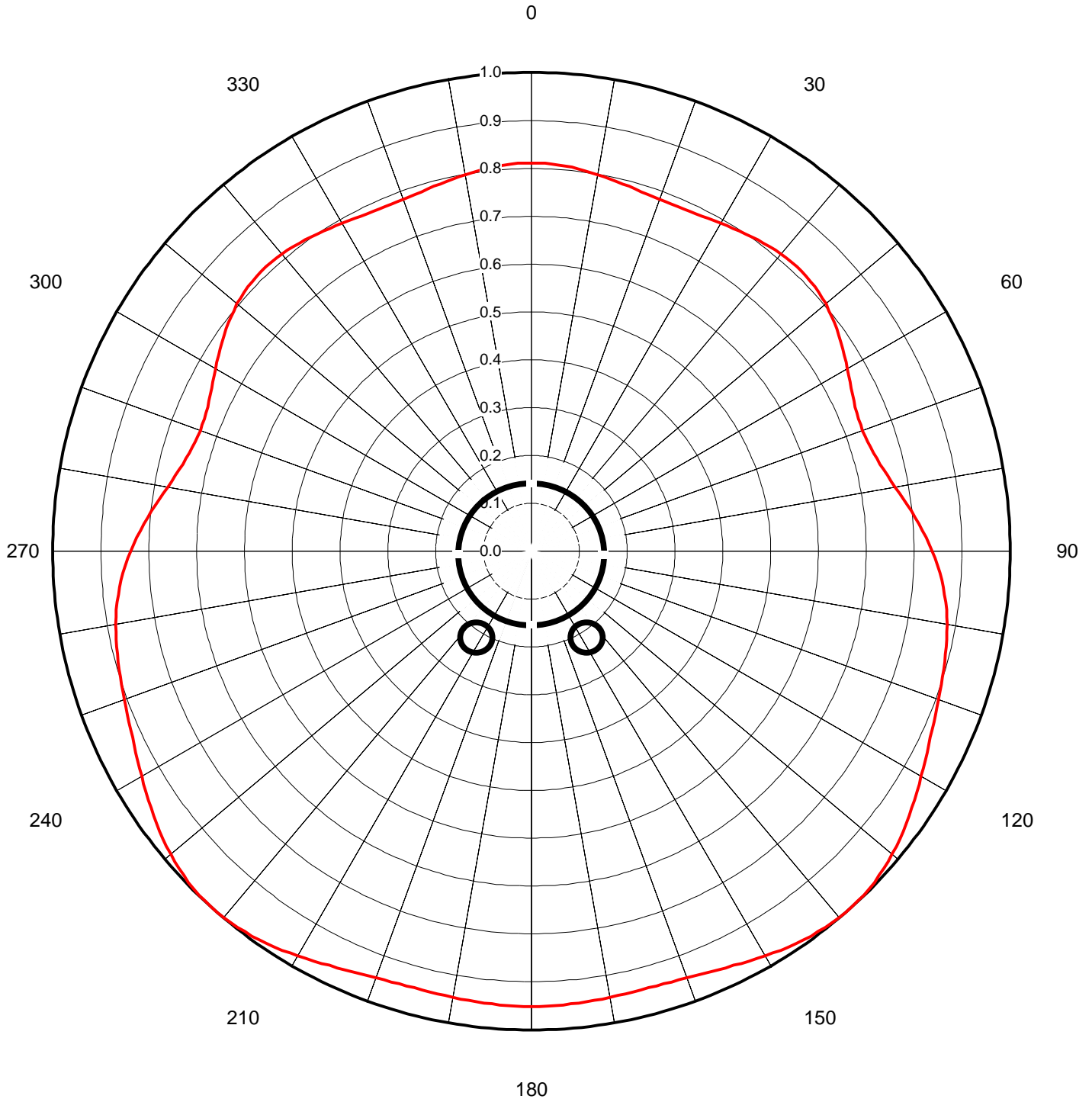


Proposal Number	<b>DCA-11420</b>	Revision:	<b>2</b>
Date	<b>25-Jul-06</b>		
Call Letters	<b>KATC-DT</b>	Channel	<b>28</b>
Location	<b>Lafayette, LA</b>		
Customer	<b>Cordillera Communications</b>		
Antenna Type	<b>TFU-30GTH-R O4</b>		

## AZIMUTH PATTERN

Gain	<b>1.30</b>	<b>( 1.14 dB)</b>
Calculated / Measured	<b>Calculated</b>	

Frequency	<b>557.00 MHz</b>
Drawing #	<b>TFU-O4-SP</b>





Proposal Number	<b>DCA-11420</b>	Revision:	<b>2</b>
Date	<b>25-Jul-06</b>		
Call Letters	<b>KATC-DT</b>	Channel	<b>28</b>
Location	<b>Lafayette, LA</b>		
Customer	<b>Cordillera Communications</b>		
Antenna Type	<b>TFU-30GTH-R O4</b>		

## TABULATION OF AZIMUTH PATTERN

Azimuth Pattern Drawing #: **TFU-O4-SP**

Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
0	0.811	45	0.812	90	0.837	135	0.997	180	0.951	225	0.997	270	0.837	315	0.812
1	0.810	46	0.811	91	0.843	136	0.999	181	0.951	226	0.996	271	0.831	316	0.812
2	0.810	47	0.809	92	0.849	137	0.999	182	0.951	227	0.993	272	0.825	317	0.812
3	0.809	48	0.808	93	0.854	138	1.000	183	0.950	228	0.991	273	0.818	318	0.812
4	0.808	49	0.805	94	0.859	139	1.000	184	0.950	229	0.987	274	0.811	319	0.811
5	0.807	50	0.803	95	0.863	140	0.999	185	0.949	230	0.984	275	0.805	320	0.811
6	0.806	51	0.800	96	0.868	141	0.998	186	0.949	231	0.980	276	0.798	321	0.809
7	0.804	52	0.796	97	0.871	142	0.997	187	0.948	232	0.976	277	0.791	322	0.808
8	0.802	53	0.792	98	0.875	143	0.995	188	0.947	233	0.972	278	0.784	323	0.806
9	0.800	54	0.789	99	0.878	144	0.993	189	0.947	234	0.968	279	0.778	324	0.804
10	0.798	55	0.784	100	0.881	145	0.991	190	0.946	235	0.963	280	0.772	325	0.802
11	0.796	56	0.780	101	0.884	146	0.988	191	0.945	236	0.959	281	0.766	326	0.799
12	0.794	57	0.775	102	0.887	147	0.985	192	0.945	237	0.954	282	0.760	327	0.797
13	0.792	58	0.771	103	0.889	148	0.982	193	0.944	238	0.949	283	0.755	328	0.795
14	0.790	59	0.766	104	0.891	149	0.979	194	0.944	239	0.945	284	0.751	329	0.793
15	0.789	60	0.762	105	0.894	150	0.976	195	0.944	240	0.940	285	0.747	330	0.791
16	0.787	61	0.758	106	0.896	151	0.972	196	0.945	241	0.936	286	0.743	331	0.789
17	0.785	62	0.753	107	0.898	152	0.969	197	0.945	242	0.931	287	0.741	332	0.787
18	0.784	63	0.750	108	0.900	153	0.966	198	0.946	243	0.927	288	0.738	333	0.785
19	0.783	64	0.746	109	0.902	154	0.963	199	0.947	244	0.923	289	0.737	334	0.784
20	0.782	65	0.743	110	0.905	155	0.960	200	0.948	245	0.920	290	0.736	335	0.783
21	0.782	66	0.741	111	0.907	156	0.957	201	0.950	246	0.916	291	0.737	336	0.782
22	0.781	67	0.739	112	0.910	157	0.955	202	0.952	247	0.913	292	0.737	337	0.782
23	0.782	68	0.737	113	0.913	158	0.952	203	0.955	248	0.910	293	0.739	338	0.781
24	0.782	69	0.737	114	0.916	159	0.950	204	0.957	249	0.907	294	0.741	339	0.782
25	0.783	70	0.736	115	0.920	160	0.948	205	0.960	250	0.905	295	0.743	340	0.782
26	0.784	71	0.737	116	0.923	161	0.947	206	0.963	251	0.902	296	0.746	341	0.783
27	0.785	72	0.738	117	0.927	162	0.946	207	0.966	252	0.900	297	0.750	342	0.784
28	0.787	73	0.741	118	0.931	163	0.945	208	0.969	253	0.898	298	0.753	343	0.785
29	0.789	74	0.743	119	0.936	164	0.945	209	0.972	254	0.896	299	0.758	344	0.787
30	0.791	75	0.747	120	0.940	165	0.944	210	0.976	255	0.894	300	0.762	345	0.789
31	0.793	76	0.751	121	0.945	166	0.944	211	0.979	256	0.891	301	0.766	346	0.790
32	0.795	77	0.755	122	0.949	167	0.944	212	0.982	257	0.889	302	0.771	347	0.792
33	0.797	78	0.760	123	0.954	168	0.945	213	0.985	258	0.887	303	0.775	348	0.794
34	0.799	79	0.766	124	0.959	169	0.945	214	0.988	259	0.884	304	0.780	349	0.796
35	0.802	80	0.772	125	0.963	170	0.946	215	0.991	260	0.881	305	0.784	350	0.798
36	0.804	81	0.778	126	0.968	171	0.947	216	0.993	261	0.878	306	0.789	351	0.800
37	0.806	82	0.784	127	0.972	172	0.947	217	0.995	262	0.875	307	0.792	352	0.802
38	0.808	83	0.791	128	0.976	173	0.948	218	0.997	263	0.871	308	0.796	353	0.804
39	0.809	84	0.798	129	0.980	174	0.949	219	0.998	264	0.868	309	0.800	354	0.806
40	0.811	85	0.805	130	0.984	175	0.949	220	0.999	265	0.863	310	0.803	355	0.807
41	0.811	86	0.811	131	0.987	176	0.950	221	1.000	266	0.859	311	0.805	356	0.808
42	0.812	87	0.818	132	0.991	177	0.950	222	1.000	267	0.854	312	0.808	357	0.809
43	0.812	88	0.825	133	0.993	178	0.951	223	0.999	268	0.849	313	0.809	358	0.810
44	0.812	89	0.831	134	0.996	179	0.951	224	0.999	269	0.843	314	0.811	359	0.810

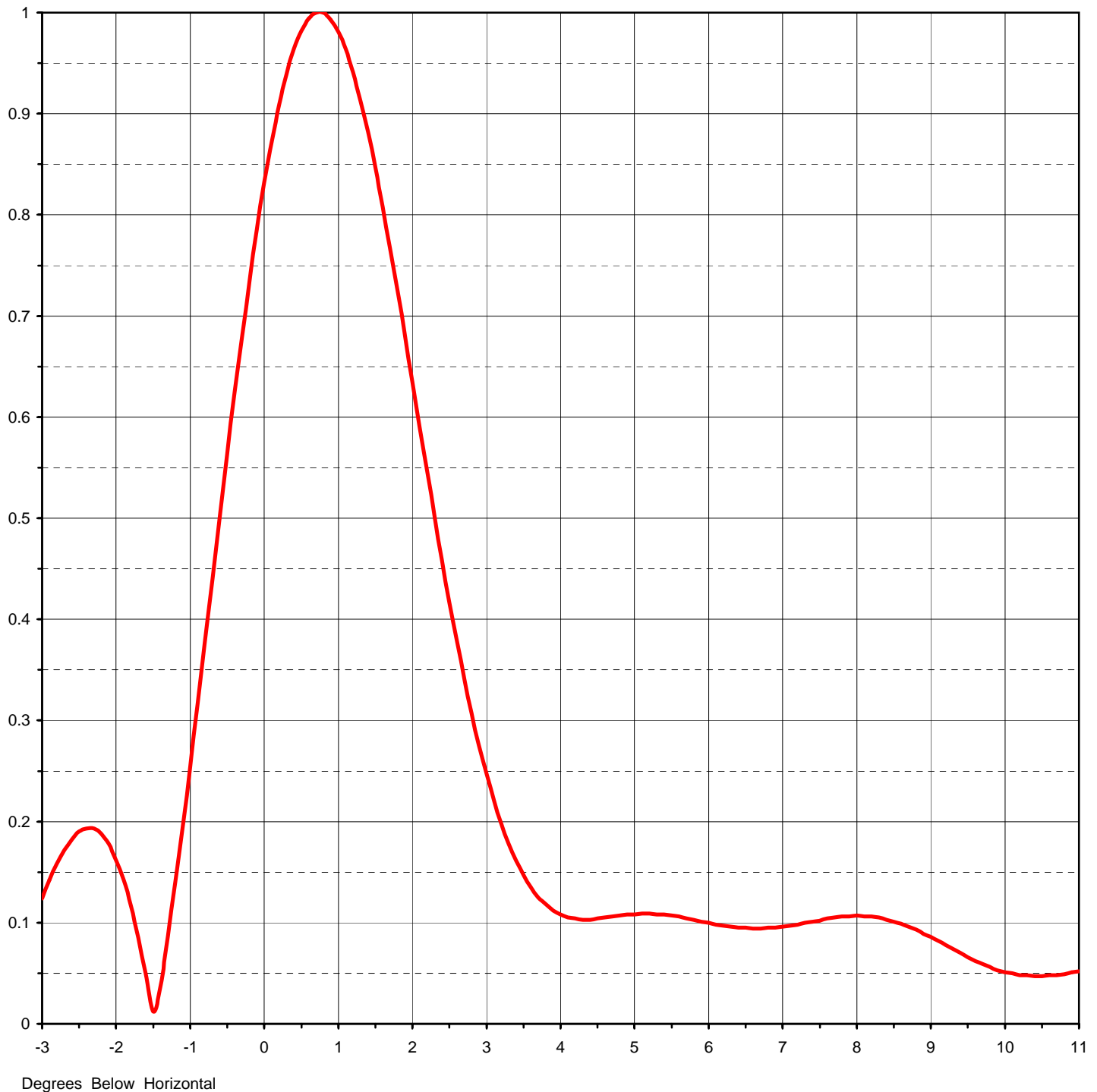


Proposal Number	<b>DCA-11420</b>	Revision:	<b>2</b>
Date	<b>25-Jul-06</b>		
Call Letters	<b>KATC-DT</b>	Channel	<b>28</b>
Location	<b>Lafayette, LA</b>		
Customer	<b>Cordillera Communications</b>		
Antenna Type	<b>TFU-30GTH-R O4</b>		

## ELEVATION PATTERN

RMS Gain at Main Lobe	<b>27.00 ( 14.31 dB )</b>
RMS Gain at Horizontal	<b>18.70 ( 12.72 dB )</b>
Calculated / Measured	<b>Calculated</b>

Beam Tilt	<b>0.75 deg</b>
Frequency	<b>557.00 MHz</b>
Drawing #	<b>30G270075</b>



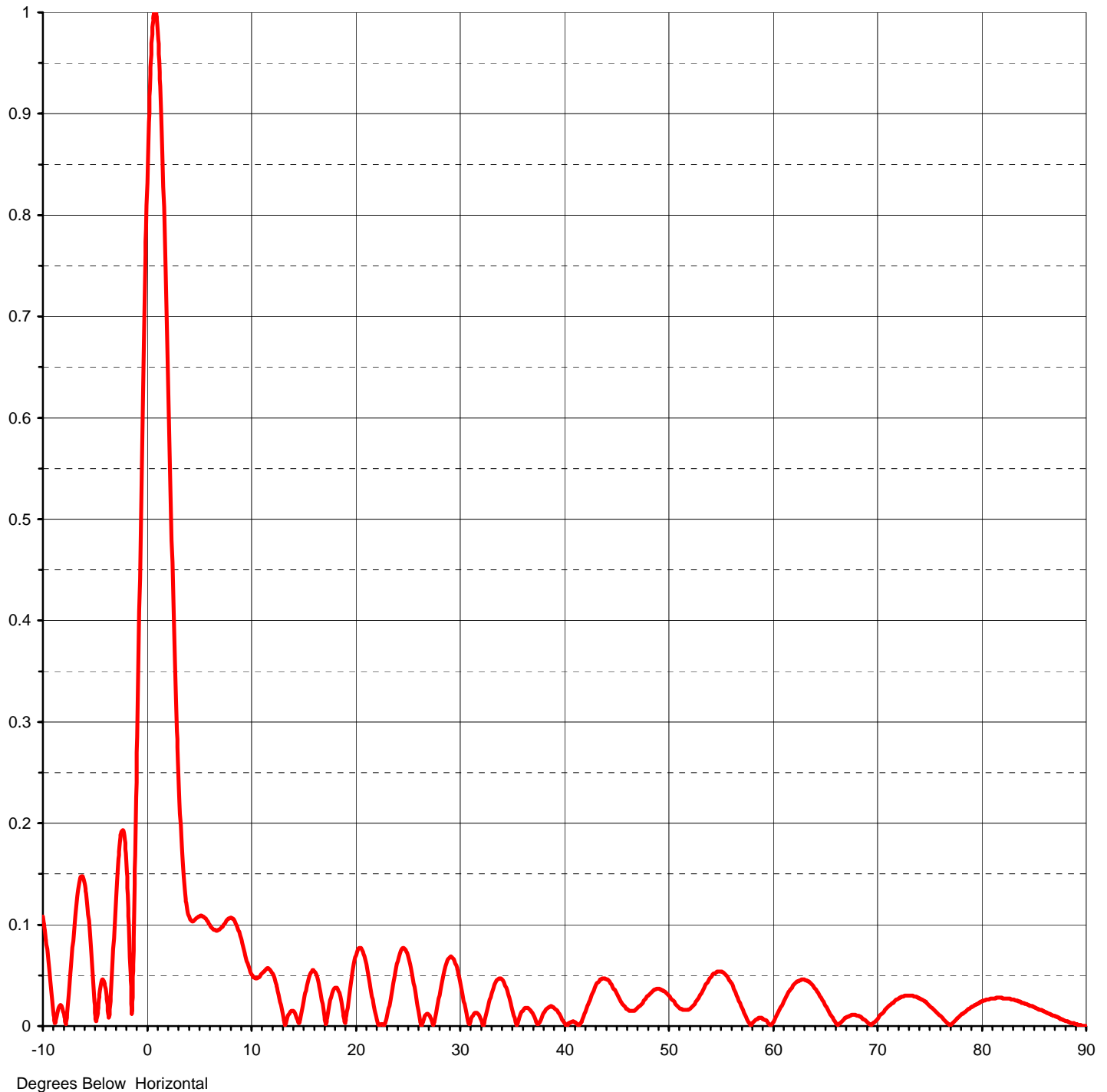


Proposal Number	<b>DCA-11420</b>	Revision:	<b>2</b>
Date	<b>25-Jul-06</b>		
Call Letters	<b>KATC-DT</b>	Channel	<b>28</b>
Location	<b>Lafayette, LA</b>		
Customer	<b>Cordillera Communications</b>		
Antenna Type	<b>TFU-30GTH-R O4</b>		

## ELEVATION PATTERN

RMS Gain at Main Lobe	<b>27.00 ( 14.31 dB )</b>
RMS Gain at Horizontal	<b>18.70 ( 12.72 dB )</b>
Calculated / Measured	<b>Calculated</b>

Beam Tilt	<b>0.75 deg</b>
Frequency	<b>557.00 MHz</b>
Drawing #	<b>30G270075-90</b>





Proposal Number **DCA-11420**      Revision: **2**  
 Date **25-Jul-06**  
 Call Letters **KATC-DT**      Channel **28**  
 Location **Lafayette, LA**  
 Customer **Cordillera Communications**  
 Antenna Type **TFU-30GTH-R 04**

## TABULATION OF ELEVATION PATTERN

Elevation Pattern Drawing #: **30G270075-90**

Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
-10.0	0.108	2.4	0.458	10.6	0.047	30.5	0.022	51.0	0.019	71.5	0.023
-9.5	0.066	2.6	0.378	10.8	0.048	31.0	0.002	51.5	0.016	72.0	0.027
-9.0	0.015	2.8	0.307	11.0	0.051	31.5	0.013	52.0	0.016	72.5	0.029
-8.5	0.018	3.0	0.247	11.5	0.056	32.0	0.009	52.5	0.021	73.0	0.030
-8.0	0.012	3.2	0.198	12.0	0.054	32.5	0.008	53.0	0.029	73.5	0.029
-7.5	0.033	3.4	0.161	12.5	0.040	33.0	0.028	53.5	0.038	74.0	0.027
-7.0	0.096	3.6	0.135	13.0	0.016	33.5	0.043	54.0	0.047	74.5	0.024
-6.5	0.141	3.8	0.118	13.5	0.007	34.0	0.047	54.5	0.052	75.0	0.020
-6.0	0.141	4.0	0.108	14.0	0.015	34.5	0.038	55.0	0.054	75.5	0.015
-5.5	0.091	4.2	0.104	14.5	0.006	35.0	0.020	55.5	0.051	76.0	0.010
-5.0	0.017	4.4	0.103	15.0	0.019	35.5	0.001	56.0	0.044	76.5	0.005
-4.5	0.038	4.6	0.105	15.5	0.044	36.0	0.014	56.5	0.033	77.0	0.001
-4.0	0.037	4.8	0.107	16.0	0.055	36.5	0.018	57.0	0.020	77.5	0.006
-3.5	0.029	5.0	0.108	16.5	0.044	37.0	0.013	57.5	0.009	78.0	0.011
-3.0	0.124	5.2	0.109	17.0	0.015	37.5	0.002	58.0	0.001	78.5	0.015
-2.8	0.158	5.4	0.108	17.5	0.017	38.0	0.011	58.5	0.007	79.0	0.019
-2.6	0.182	5.6	0.106	18.0	0.037	38.5	0.018	59.0	0.008	79.5	0.022
-2.4	0.193	5.8	0.103	18.5	0.033	39.0	0.019	59.5	0.005	80.0	0.024
-2.2	0.188	6.0	0.100	19.0	0.005	39.5	0.013	60.0	0.002	80.5	0.026
-2.0	0.162	6.2	0.097	19.5	0.034	40.0	0.005	60.5	0.012	81.0	0.027
-1.8	0.116	6.4	0.095	20.0	0.066	40.5	0.003	61.0	0.022	81.5	0.028
-1.6	0.050	6.6	0.094	20.5	0.077	41.0	0.004	61.5	0.032	82.0	0.027
-1.4	0.038	6.8	0.095	21.0	0.065	41.5	0.001	62.0	0.040	82.5	0.027
-1.2	0.140	7.0	0.096	21.5	0.038	42.0	0.012	62.5	0.044	83.0	0.026
-1.0	0.255	7.2	0.098	22.0	0.011	42.5	0.025	63.0	0.046	83.5	0.024
-0.8	0.378	7.4	0.101	22.5	0.002	43.0	0.038	63.5	0.044	84.0	0.023
-0.6	0.503	7.6	0.104	23.0	0.006	43.5	0.046	64.0	0.039	84.5	0.021
-0.4	0.624	7.8	0.106	23.5	0.031	44.0	0.047	64.5	0.029	85.0	0.019
-0.2	0.735	8.0	0.107	24.0	0.059	44.5	0.042	65.0	0.020	85.5	0.016
0.0	0.832	8.2	0.106	24.5	0.076	45.0	0.034	65.5	0.011	86.0	0.014
0.2	0.909	8.4	0.103	25.0	0.072	45.5	0.024	66.0	0.003	86.5	0.012
0.4	0.964	8.6	0.099	25.5	0.051	46.0	0.017	66.5	0.004	87.0	0.010
0.6	0.994	8.8	0.093	26.0	0.020	46.5	0.015	67.0	0.008	87.5	0.007
0.8	1.000	9.0	0.086	26.5	0.004	47.0	0.017	67.5	0.011	88.0	0.005
1.0	0.981	9.2	0.078	27.0	0.012	47.5	0.022	68.0	0.010	88.5	0.003
1.2	0.941	9.4	0.070	27.5	0.001	48.0	0.029	68.5	0.008	89.0	0.002
1.4	0.882	9.6	0.062	28.0	0.024	48.5	0.034	69.0	0.004	89.5	0.001
1.6	0.808	9.8	0.059	28.5	0.051	49.0	0.037	69.5	0.002	90.0	0.000
1.8	0.724	10.0	0.053	29.0	0.067	49.5	0.035	70.0	0.007		
2.0	0.635	10.2	0.050	29.5	0.066	50.0	0.031	70.5	0.013		
2.2	0.545	10.4	0.048	30.0	0.048	50.5	0.025	71.0	0.019		



TABLE I  
DTV COVERAGE DATA  
FOR PROPOSED OPERATION OF  
KATC-DT, LAFAYETTE, LOUISIANA  
CHANNEL 28 1000 KW ERP 537 METERS HAAT  
AUGUST 2006

<u>Radial</u> N ° E, T	<u>Average*</u>	<u>Effective</u>	<u>Depression</u>	<u>ERP</u> kW	<u>Distance to Contour</u>	
	<u>Elevation</u> meters	<u>Height</u> meters	<u>Angle</u> degrees		<u>48 dBu</u> km	<u>41 dBu</u> km
0	13.0	534.1	0.640	657.7	98.4	112.8
10	13.4	533.7	0.640	636.8	98.0	112.5
20	12.5	534.6	0.640	611.5	97.8	112.2
30	13.7	533.4	0.640	625.7	97.9	112.3
40	13.3	533.8	0.640	657.7	98.3	112.8
50	12.6	534.5	0.640	644.8	98.2	112.7
60	12.2	534.9	0.641	580.6	97.4	111.8
70	11.8	535.3	0.641	541.7	96.8	111.1
80	11.2	535.9	0.641	596.0	97.7	112.1
90	10.7	536.4	0.642	700.6	99.1	113.6
100	10.6	536.5	0.642	776.2	100.0	114.5
110	10.2	536.9	0.642	819.0	100.5	115.0
120	9.9	537.2	0.642	883.6	101.2	115.8
130	9.7	537.4	0.642	968.3	102.0	116.6
140	8.9	538.2	0.643	998.0	102.4	117.0
150	8.4	538.7	0.643	952.6	102.0	116.6
160	8.0	539.1	0.643	898.7	101.5	116.0
170	7.6	539.5	0.643	894.9	101.5	116.0
180	7.7	539.4	0.643	904.4	101.6	116.1
190	7.9	539.3	0.643	894.9	101.5	116.0
200	7.7	539.4	0.643	898.7	101.5	116.1
210	7.3	539.8	0.644	952.6	102.1	116.6
220	7.0	540.1	0.644	998.0	102.5	117.1
230	7.0	540.1	0.644	968.3	102.2	116.8
240	7.5	539.6	0.643	883.6	101.4	115.9
250	7.7	539.4	0.643	819.0	100.7	115.2
260	8.0	539.1	0.643	776.2	100.2	114.7
270	8.5	538.6	0.643	700.6	99.3	113.7
280	9.0	538.1	0.643	596.0	97.8	112.2

TABLE I  
DTV COVERAGE DATA  
FOR PROPOSED OPERATION OF  
KATC-DT, LAFAYETTE, LOUISIANA  
CHANNEL 28 1000 KW ERP 537 METERS HAAT  
AUGUST 2006  
 (continued)

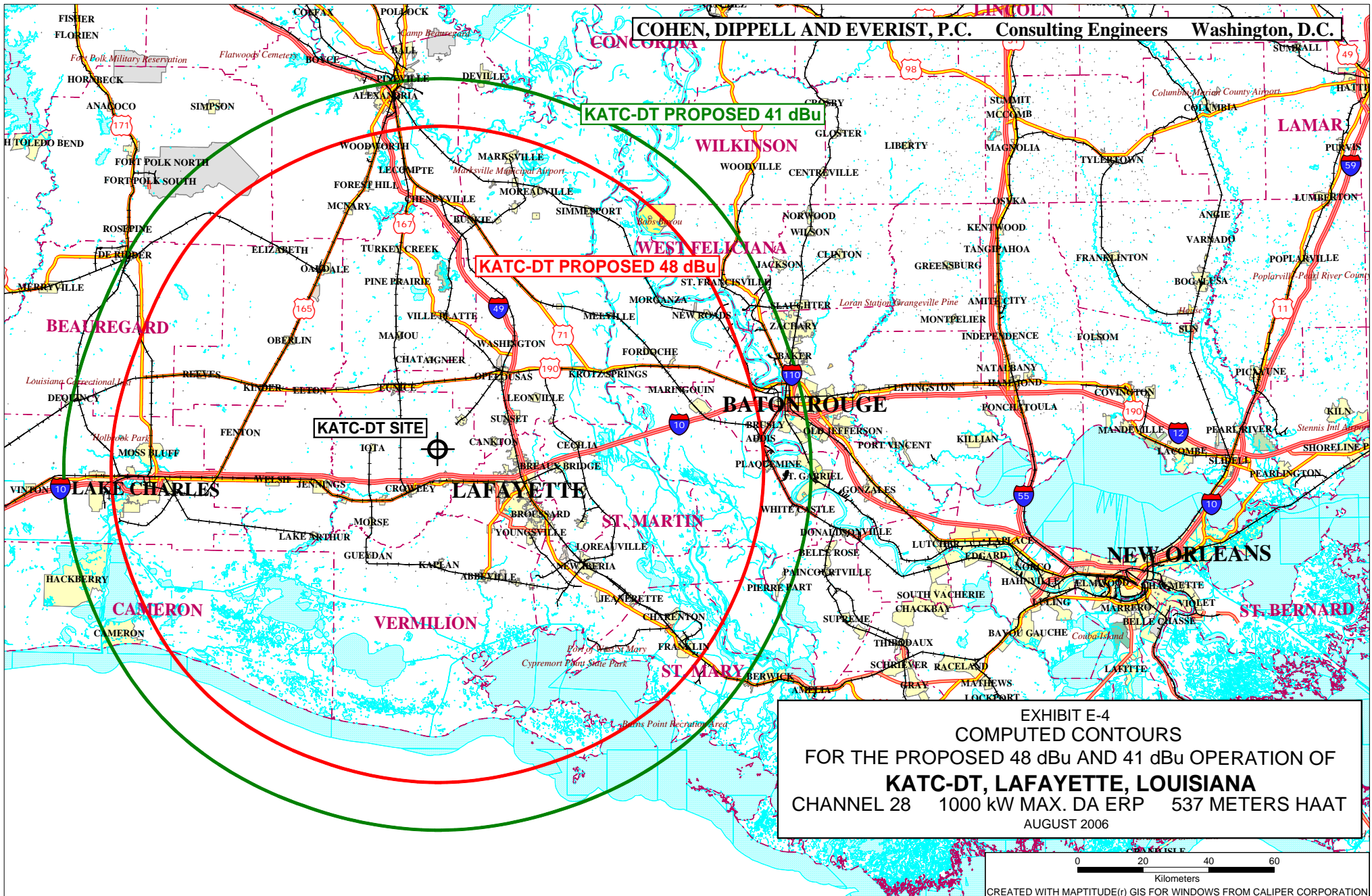
<u>Radial</u> N ° E, T	<u>Average*</u> <u>Elevation</u>	<u>Effective</u> <u>Height</u>	<u>Depression</u> <u>Angle</u>	<u>ERP</u> kW	<u>Distance to Contour</u>	
	meters	meters	degrees		<u>48 dBu</u> km	<u>41 dBu</u> km
290	9.7	537.4	0.642	541.7	97.0	111.3
300	10.3	536.9	0.642	580.6	97.5	111.9
310	10.5	536.6	0.642	644.8	98.4	112.8
320	10.7	536.4	0.642	657.7	98.6	113.0
330	11.2	535.9	0.641	625.7	98.1	112.5
340	12.6	534.5	0.640	611.5	97.8	112.2
350	12.7	534.4	0.640	636.8	98.1	112.6

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

DTV Channel 28 (554-560 MHz)  
 Average Elevation 3.2 to 16.1 km 10.1 meters AMSL  
 Center of Radiation 547.1 meters AMSL  
 Antenna Height Above Average Terrain 537 meters  
 Effective Radiated Power 1000 kW (30 dBk) Max

North Latitude: 30° 19' 25"  
 West Longitude: 92° 17' 24"

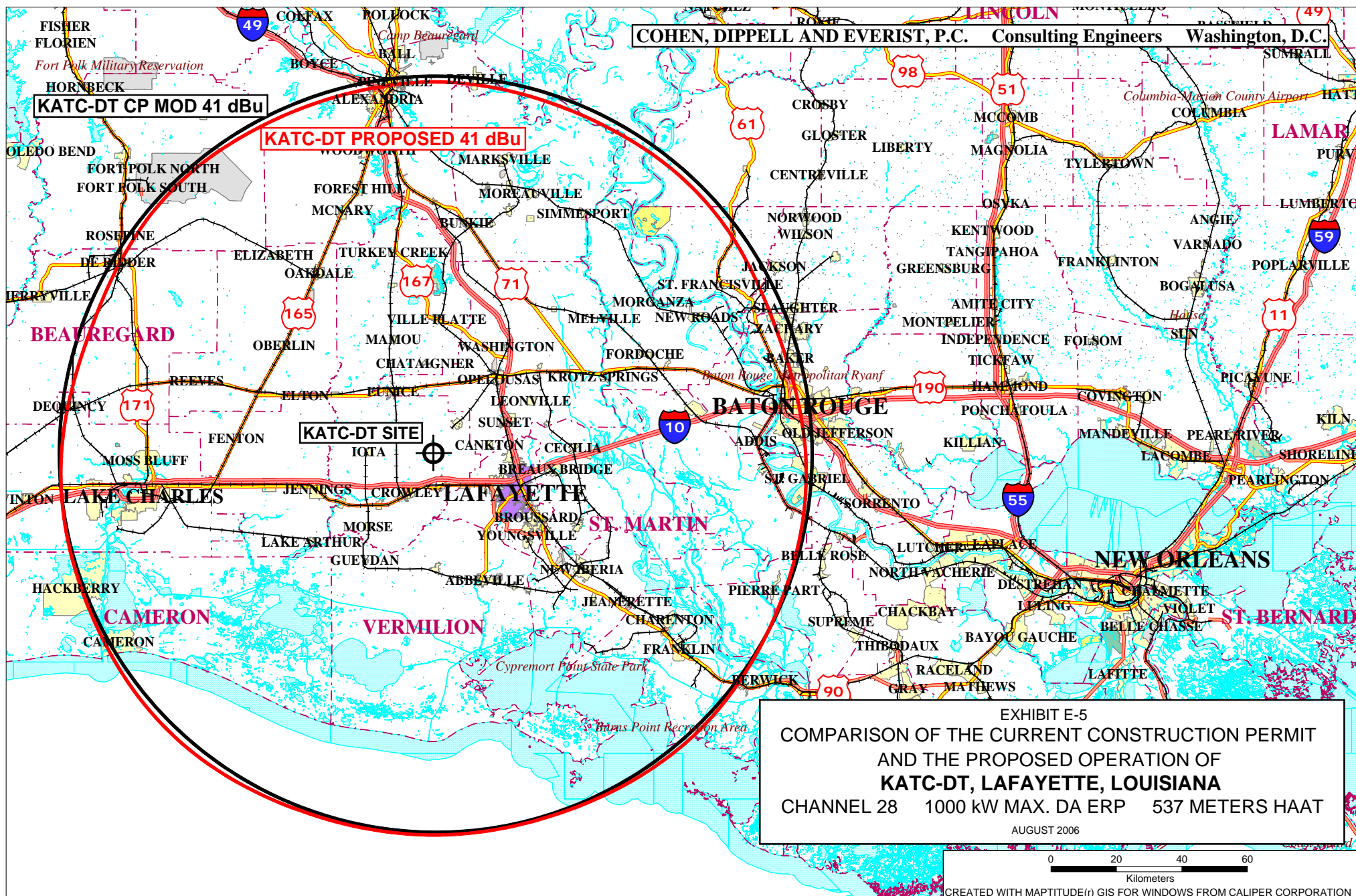
(NAD-27)



COHEN, DIPPELL AND EVERIST, P.C.

TABLE II  
STATIONS POTENTIALLY AFFECTED BY  
THE PROPOSED OPERATION OF  
KATC-DT, LAFAYETTE, LOUISIANA  
CHANNEL 28 1000 KW MAX ERP 537 METERS HAAT  
AUGUST 2006

<u>Channel</u>	<u>Call</u>	<u>City/State</u>	<u>Dist(km)</u>	<u>Status</u>	<u>Application Ref. No.</u>
14	KFAM-LP	LAKE CHARLES LA	98.5	LIC	BLTTA-20050509ACM
21	WBRL-CA	BATON ROUGE LA	97.2	LIC	BLTTA-20030530ANC
21	KLFT-LP	LAFAYETTE LA	25.4	LIC	BLTTL-19910826JH
24	KLPB-TV	LAFAYETTE LA	32.0	LIC	BLET-19810429KG
25	KLPA-TV	ALEXANDRIA LA	140.2	LIC	BLET-20050127ABI
25	NEW	LAKE CHARLES LA	100.6	APP	BNPTTL-20000818ABS
25	NEW	LAKE CHARLES LA	90.4	APP	BNPTTL-20000807ABH
25	NEW	SULPHUR LA	98.5	APP	BNPTTL-20000831AWE
26	NEW	LAKE CHARLES LA	100.6	APP	BNPTTL-20000818AAP
27	WLPB-TV	BATON ROUGE LA	104.3	LIC	BLET-19910401KE
28	KTBS-TV	SHREVEPORT LA	305.2	LIC	BLCDT-20020911ABZ
28	KTBS-DT	SHREVEPORT LA	305.2	ALLOT	
28	WDAM-TV	LAUREL MS	312.9	LIC	BLCDT-20020426ABB
28	WDAM-DT	LAUREL MS	312.9	ALLOT	
28	KYLE	BRYAN TX	398.2	LIC	BLCT-19970219KG
28	KHMV-CA	HOUSTON TX	321.1	LIC	BLTTL-20001220ABA
28	KHMV-CA	HOUSTON TX	321.2	CP	BPTTA-20051004ADH
28	KHMV-CA	HOUSTON TX	321.2	APP	BSTA-20060227ACL
29	KVHP	LAKE CHARLES LA	123.5	LIC	BLCT-19900406KL
29	KVHP	LAKE CHARLES LA	123.5	APP	BSTA-20051104AAG
29	WVUE	NEW ORLEANS LA	228.7	LIC	BLCDT-20050614AAH
29	WVUE-DT	NEW ORLEANS LA	228.7	ALLOT	
30	WLFT-CA	BATON ROUGE LA	118.7	LIC	BLTTA-20030710ABU
30	WLFT-CA	BATON ROUGE LA	118.7	CP	BPTTA-20030903ABG
31	KLAX-TV	ALEXANDRIA LA	140.2	LIC	BLCT-19890705KG
31	KAGN-LP	CROWLEY LA	8.4	LIC	BLTTA-20030911ABS
36	960920YI	NEW IBERIA LA	51.2	APP	BPCT-19960920YI





### 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 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.

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 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 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

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. ☐ 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 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.") ☐ 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.

- 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 Martin R. Doczkat	Relationship to Applicant (e.g., Consulting Engineer) Consulting Engineer	
Signature 	Date August 25, 2006	
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).