EXHIBIT E

ENGINEERING STATEMENT
APPLICATION FOR CONSTRUCTION PERMIT
TO INCREASE ERP
ON BEHALF OF
WAND(TV) PARTNERSHIP
WAND-DT, DECATUR, ILLINOIS
CHANNEL 18 1000 KW MAX DA ERP 393 METERS HAAT

DECEMBER 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 17th day of December, 2009.

CAROLYN C. LYNCH NOTARY PUBLIC DISTRICT OF COLUMBIA

Notary Public

My Commission Expires: 2/28/2013

This engineering statement has been prepared on behalf of WAND(TV) Partnership, licensee of WAND-DT, Decatur, Illinois. The purpose of this engineering statement is to accompany its request for construction permit for digital television ("DTV") facilities to supplement those data required in FCC Form 301, Section III-D.

WAND(TV) operated on NTSC Television Channel 17 with a maximum visual horizontal effective radiated power ("ERP") of 5000 kW directional (horizontal polarization) at a height above average terrain ("HAAT") of 393 meters. WAND-DT has been allocated DTV Channel 18 with facilities of 350 kW at a HAAT of 375 meters in the final DTV Table of Allotments.[1] WAND-DT is licensed for facilities of 350 kW directional ERP at a HAAT of 375 meters. WAND-DT proposes to operate DTV facilities of 1000 kW directional (horizontal polarization) at a HAAT of 393 meters.

There are no AM stations located within 3.22 km of the existing WAND-DT tower site. There are no FM and no full-service NTSC or DTV stations aside from WAND-DT, located and transmitting within 500 meters of this site.

The proposed DTV antenna will be top-mounted on an existing tower having a total overall structure height above ground of 400.5 meters (1314 feet). The existing transmitter site is located approximately 2 miles south of Argenta, Illinois.

[1] "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.

Since there is no change in overall height, FAA airspace approval is not required. The tower registration number of the existing tower is 1009651. Exhibit E-1 is a diagram of the tower and transmitting antenna.

The geographic coordinates of the existing site are:

North Latitude: 39° 57' 07"

West Longitude: 88° 49' 55"

Antenna Registration Number 1009651

NAD-27

Equipment Data
(existing)

Antenna:	Dielectric, Type TFU-18DSC-R P220SP (or equivalent) horizontally polarized antenna 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-2.
Transmission Line:	Dielectric, 75 ohm Type No. 677-004 or equivalent–length 410 meters (1345 ft) with a manufacturer stated loss of 0.108/100

Power Data

Transmitter output	42.3 kW	16.27 dBk
Transmission Line/Loss	71.6%	1.453 dB
Input power to the antenna	30.3 kW	14.81 dBk
Antenna power gain, Main Lobe	33	15.19 dB
Effective Radiated Power, Maximum	1000 kW	30.0 dBk

Elevation Data

Vertical dimension of Channel 18 top-mounted antenna	12.7 meters 41.6 feet
Overall height above ground of the antenna structure (Including beacon and lightning protection)	400.5 meters 1314 feet
Center of radiation of Channel 18 antenna above ground	388.9 meters 1275.9 feet
Elevation of site above mean sea level	209.1 meters 686 feet
Center of radiation of Channel 18 antenna above mean sea level	598 meters 1961.9 feet
Overall height above mean sea level of the tower (including beacon)	609.6 meters 2000 feet
Antenna height above average terrain	393 meters

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

Allocation

An allocation spacing study from the proposed site has not been performed as the proposed DTV facilities are to be located at the licensed site coordinates.

Coverage

The average elevation data for 3.2 to 16.1 km along each radial has been determined from FCC 3-Second Data. 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 0.541 to 0.555 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 every ten degrees.

Interference Analysis

A study of predicted interference by the proposed WAND-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 WindowsXP 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 2000 Census centroids.

Stations were selected according to the FCC Public Notice dated August 10, 1998 and entitled, "Additional Application Processing Guidelines for Digital Television", which outlines the station selection criteria "culling distances" for considering potential interference scenarios.

The Longley-Rice study was performed considering potential interference due to the proposed WAND-DT facility above allotment and all relevant stations listed in the FCC's Consolidated Database System ("CDBS") as of November 24, 2009 and the final DTV Table of Allotments.

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 license 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 a Dielectric, Type TFU-18DSC-R P220SP antenna or the equivalent as described above with a center of radiation above ground of 388.9 meters. The proposed antenna will be top-mounted on a single guyed, uniform, cross-section, existing steel lattice tower with an overall height of 400.5 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 are no other broadcast stations located within 500 meters. The property on which the existing tower is located is rural. Access to the tower is prevented by a six foot chain link fence with a locked gate.

The RFF contribution of the proposed 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

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.

A relative field value of less than 0.15 towards the ground in the vicinity of the tower (from 10° to 90° below the horizontal). Using this relative field factor and the procedures prescribed in OET Bulletin No. 65, the maximum RFF resulting from the proposed DTV operation at two meters above the base of the tower is calculated to be less than 6 $\mu W/cm^{2.}$. This is approximately one percent of the 331.3 $\mu W/cm^{2.}$ maximum uncontrolled exposure to RFF recommended by the current FCC guidelines for the general population.

The total contribution by the WAND-DT proposed DTV operations at 2 meters above ground level is less than two percent of the current FCC guidelines for occupational 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.

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 and the licensee indicates:

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

(a)(2) The proposed facilities are 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 proposed facilities are not located near any known Indian religious sites.

(a)(6) The proposed facilities are not located in a flood plain.

(a)(7) The installation of the DTV facilities on an existing tower at an existing site will not involve a significant change in surface features of the ground in the vicinity of the tower.

(a)(8) The existing tower lighting will remain unchanged.

(b) Workers and the general public will not be subjected to RFF levels in excess of the current FCC guidelines contained in OET Bulletin 65 (Edition 97-01) and Supplement A. Authorized personnel will be alerted to areas of the antennas where potential radiation levels are in excess of the FCC guidelines. A security fence with a locked gate precludes access to the tower site.

ABOVE GROUND

ABOVE MEAN SEA LEVEL

400.5 m. (1314') — 609.6 m. (2000')

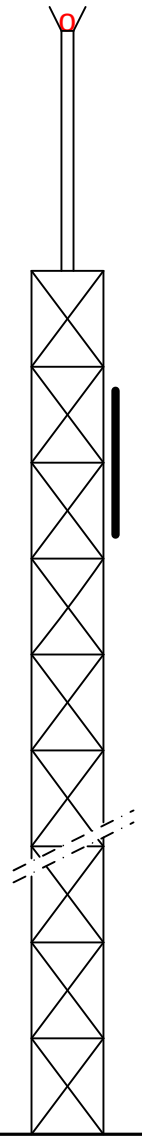
C/R 388.9 m. (1275.9') — **598 m. (1961.9') C/R**

PROPOSED WAND-DT ANTENNA

378.9 m. (1243.1') — 588 m. (1929')

C/R 375 m. — 584.1 m. C/R

EXISTING WAND-DT ANTENNA



TOWER REGISTRATION NO. 1009651

0 m. — 209.1 m (686')

(NOT TO SCALE)

EXHIBIT E - 1
VERTICAL SKETCH
FOR
WAND-DT, DECATUR, ILLINOIS
DECEMBER 2009

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

COHEN, DIPPELL AND EVERIST, P.C.

TABLE I
LONGLEY-RICE INTERFERENCE
OPERATION OF
WAND-DT, DECATUR, ILLINOIS
CHANNEL 18 1000 KW ERP 393 METERS HAAT
DECEMBER 2009

Channel	Call	City/State	Dist(km)	Status	FCC File No.	Result
17	WYIN	GARY IN	196.7	PLN	DTVPLN-DTVPLN49803	No interference
17	WYIN	GARY IN	196.7	LIC	BLEDT-20040206AAA	No interference
18	WISE-DR	FORT WAYNE IN	333.6	RULE	BPRM-20080820AHU	0.00%
18	WISE-TV	FORT WAYNE IN	333.6	CP	BPCDT-20080619AIM	0.00%
18	WKYU-TV	BOWLING GREEN KY	382.7	PLN	DTVPLN-DTVPLN71861	No interference
18	WKYU-TV	BOWLING GREEN KY	382.7	LIC	BLEDT-20040803AAG	No interference
18	WVTV	MILWAUKEE WI	357.8	CP MO	BMPCDT-20080620AJN	No interference
18	WVTV	MILWAUKEE WI	357.8	PLN	DTVPLN-DTVPLN74174	No interference
19	WUSI-TV	OLNEY IL	137.7	PLN	DTVPLN-DTVPLN4301	No interference
19	WUSI-TV	OLNEY IL	137.7	LIC	BLEDT-20060619ABG	No interference
19	WHOI	PEORIA IL	100.9	CP MO	BMPCDT-20080619ACV	0.03%
19	WHOI	PEORIA IL	100.9	PLN	DTVPLN-DTVPLN6866	0.09%

COHEN, DIPPELL AND EVERIST, P.C.

EXHIBIT E-2

ANTENNA MANUFACTURER DATA

WAND-DT, DECATUR, ILLINOIS

Dielectric

Proposal #: **DCA-9658** Antenna Type: **TFU-18DSC-R P220SP** Channel: **18 DTV**

Call Letters: **WAND-DT** Location: **Decatur, IL**

Electrical Specifications		**Value**		**Remarks**
		Ratio	dB	
RMS Gain at Main Lobe over Halfwave Dipole	Hpol	15.0	11.76	
	Vpol			
RMS Gain at Horizontal over Halfwave Dipole	Hpol	13.0	11.14	
	Vpol			
Peak Directional Gain over Halfwave Dipole	Hpol	33.0	15.19	
	Vpol			
Peak Directional Gain at Horizontal over Halfwave Dipole	Hpol	28.5	14.55	
	Vpol			
Circularity		dB		
Axial Ratio		dB		
Beam Tilt		0.75 deg		
Average Power DTV		55 kW	17.40 dBk	
Antenna Input: T/L		6 1/8 in	50.0 ohm	Type: EIA/DCA
Maximum Antenna Input VSWR		Channel	1.08 : 1	
Patterns	Azimuth	TFU-P220SP-18		
	Elevation	18Q150075	18Q150075-90	

Mechanical Specifications		**Metric**	**English**	**Preliminary**
Height with Lightning Protector	H4	m	ft	**Side mounted**
Height Less Lightning Protector	H2	12.7 m	41.6 ft	
Height of Center of Radiation	H3	6.3 m	20.8 ft	
Basic Wind Speed	V	112.7 km/h	70 mi/h	TIA/EIA-222-F.
Force Coeff. x Projected Area	CaAc	6.68 m^2	71.9 ft^2	Excludes Mounts
Moment Arm	D1	m	ft	
Force Coeff. x Projected Area	CaAc	m^2	ft^2	
Moment Arm	D3	m	ft	
Pole Bury Length	D2	m	ft	
Weight	W	0.5 t	1,050 lbs	Excludes Mounts
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 : SWB Approved By : AJS

Original Date : 25-Oct-01

DTV SIDE MOUNTED ANTENNA
TFU-18DSC-R P220SP
WAND-DT: Decatur, IL

PRELIMINARY

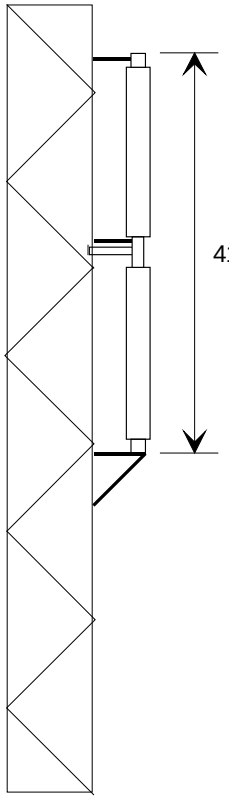
MECHANICAL DATA

CaAc = 71.9 ft² Excludes Mounts

Center of Radiation = 20.8 ft

Weight = 1050 lbs Excludes Mounts

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



CH d18
TFU-18DSC-R P220SP

SWB-011025-03SK

NOT DRAWN TO SCALE

Proposal Number	**DCA-9658**		
Date	**25-Oct-01**		
Call Letters	**WAND-DT**	Channel	**18**
Location	**Decatur, IL**		
Customer	**WAND**		
Antenna Type	**TFU-18DSC-R P220SP**		

SYSTEM SUMMARY

Antenna:

			H Pol	
Type:	**TFU-18DSC-R P220SP**	ERP:	**[1000 kW**	**(30 dBk)]**
Channel:	**18**	Gain*:	**33.0**	**(15.19 dB)**
Location:	**Decatur, IL**	Input Power:	**[30.3 kW**	**(14.81 dBk)]**

Transmission Line:

Type:	**EIA/DCA**	Attenuation:		**[1.453] dB**
Size:	**[6-1/8] in**	Efficiency:	**[71.6] %**	
Impedance:	**[75 ohm]**			
Length:	**[1,345] ft**	**[393] m**		

Transmitter:

Power Required: **[42.3] kW** **([16.27] dBk)**

* Gain is with respect to half wave dipole.

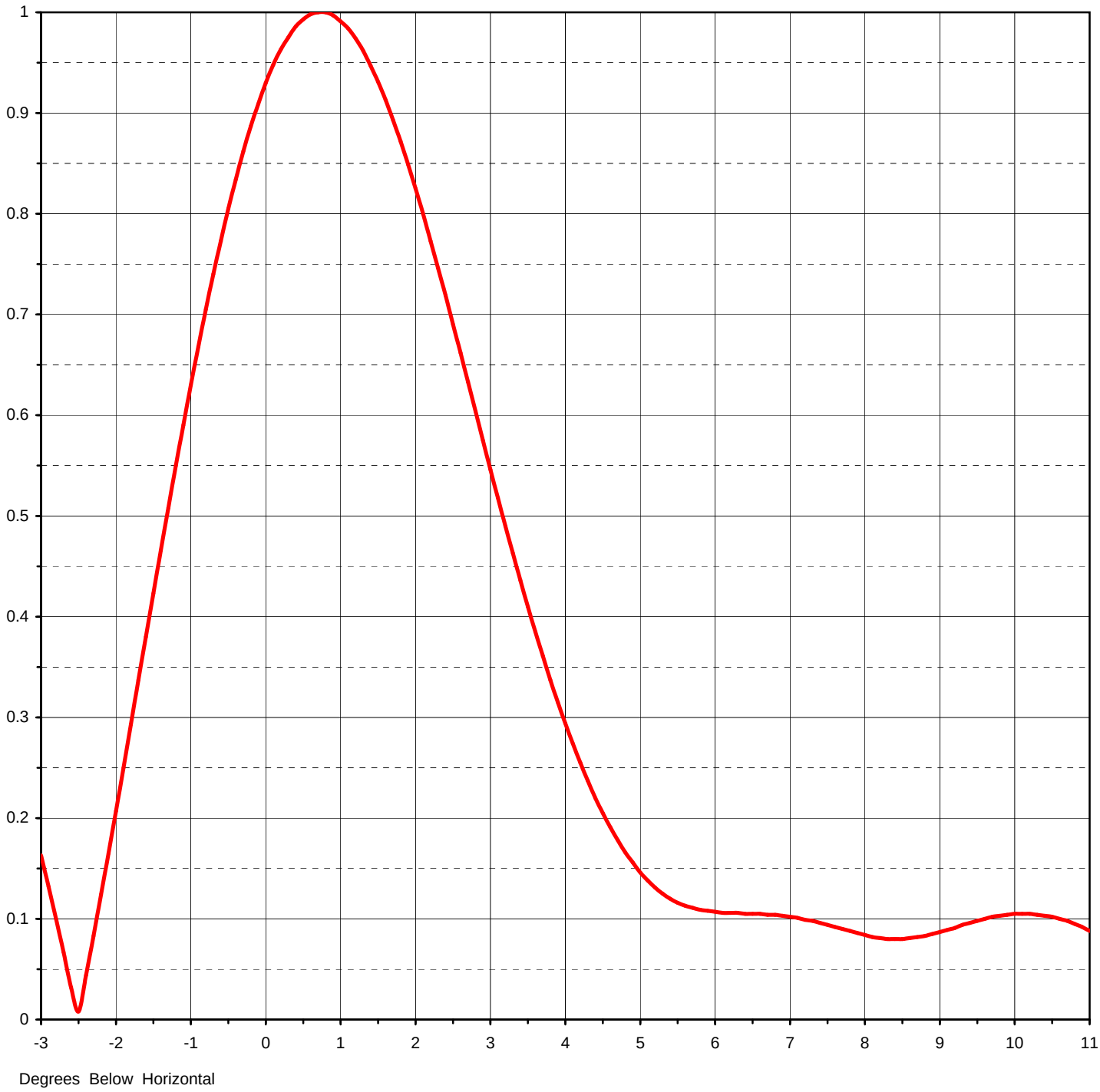
[ ] Modifications made by Cohen, Dippell and Everist, P.C.

Dielectric

Proposal Number	**DCA-9658**		
Date	**25-Oct-01**		
Call Letters	**WAND-DT**	Channel	**18**
Location	**Decatur, IL**		
Customer	**WAND**		
Antenna Type	**TFU-18DSC-R P220SP**		

ELEVATION PATTERN

RMS Gain at Main Lobe	**15.00 (11.76 dB)**	Beam Tilt	**0.75 deg**
RMS Gain at Horizontal	**13.00 (11.14 dB)**	Frequency	**497.00 MHz**
Calculated / Measured	**Calculated**	Drawing #	**18Q150075**

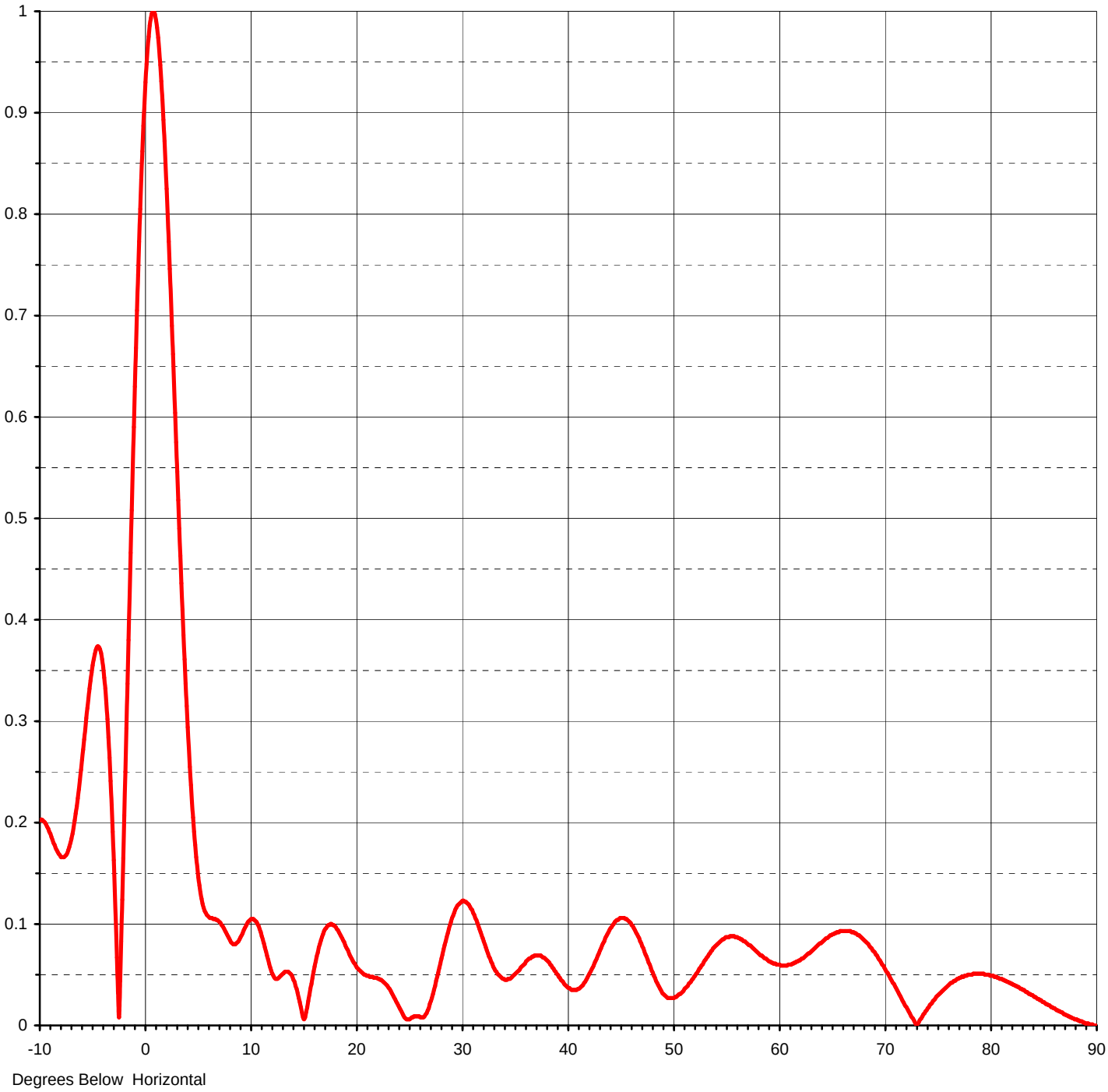


Dielectric

Proposal Number	**DCA-9658**		
Date	**25-Oct-01**		
Call Letters	**WAND-DT**	Channel	**18**
Location	**Decatur, IL**		
Customer	**WAND**		
Antenna Type	**TFU-18DSC-R P220SP**		

ELEVATION PATTERN

RMS Gain at Main Lobe	**15.00 (11.76 dB)**	Beam Tilt	**0.75 deg**
RMS Gain at Horizontal	**13.00 (11.14 dB)**	Frequency	**497.00 MHz**
Calculated / Measured	**Calculated**	Drawing #	**18Q150075-90**



Dielectric

Proposal Number **DCA-9658**
Date **25-Oct-01**
Call Letters **WAND-DT** Channel **18**
Location **Decatur, IL**
Customer **WAND**
Antenna Type **TFU-18DSC-R P220SP**

TABULATION OF ELEVATION PATTERN

Elevation Pattern Drawing #: **18Q150075-90**

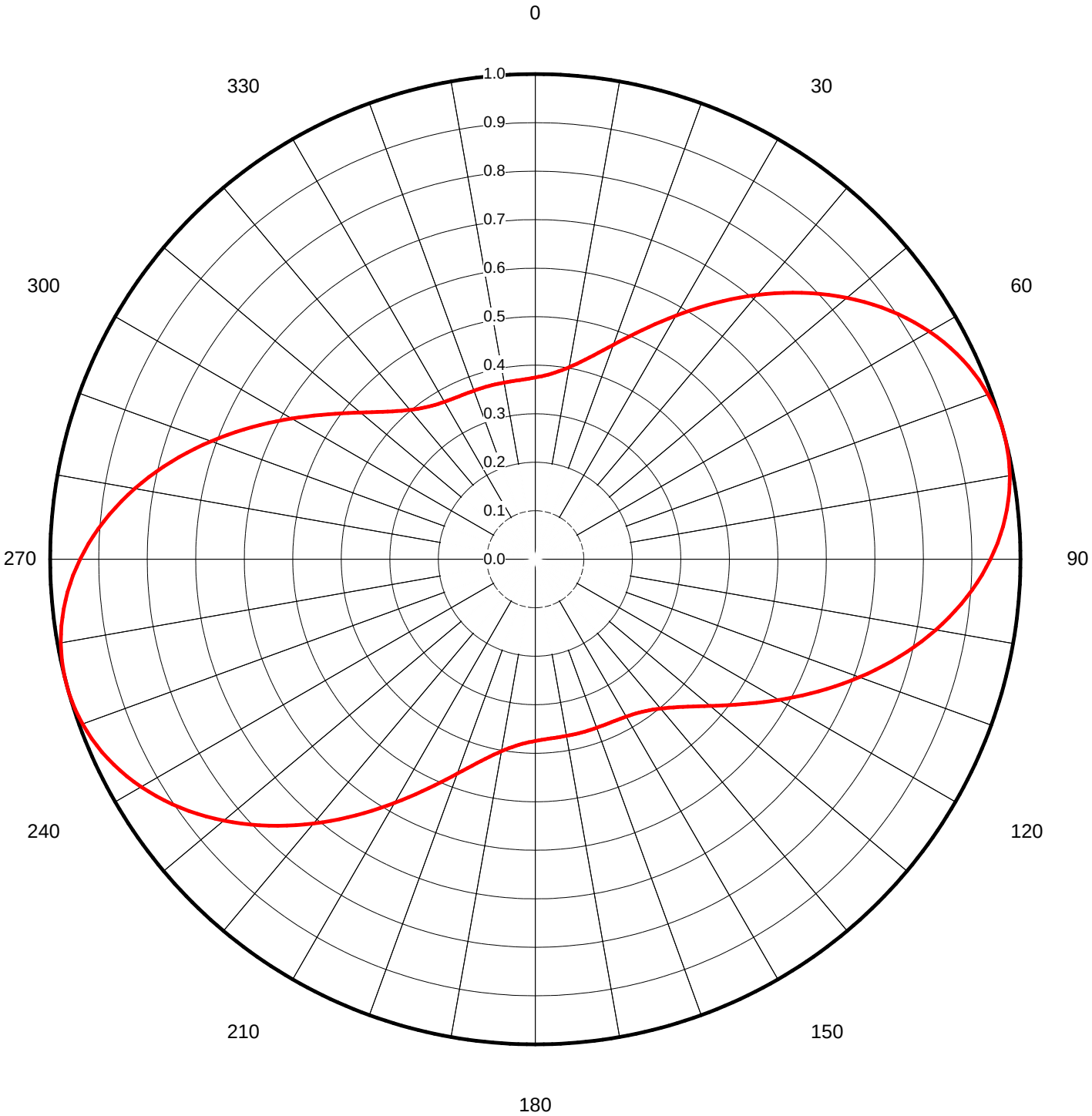
Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
-10.0	0.202	2.4	0.719	10.6	0.102	30.5	0.121	51.0	0.034	71.5	0.027
-9.5	0.200	2.6	0.662	10.8	0.098	31.0	0.114	51.5	0.041	72.0	0.018
-9.0	0.189	2.8	0.604	11.0	0.092	31.5	0.101	52.0	0.048	72.5	0.008
-8.5	0.175	3.0	0.546	11.5	0.073	32.0	0.086	52.5	0.056	73.0	0.001
-8.0	0.166	3.2	0.490	12.0	0.054	32.5	0.071	53.0	0.064	73.5	0.009
-7.5	0.168	3.4	0.436	12.5	0.046	33.0	0.058	53.5	0.071	74.0	0.017
-7.0	0.184	3.6	0.385	13.0	0.050	33.5	0.050	54.0	0.078	74.5	0.024
-6.5	0.216	3.8	0.337	13.5	0.053	34.0	0.046	54.5	0.083	75.0	0.030
-6.0	0.262	4.0	0.294	14.0	0.048	34.5	0.046	55.0	0.087	75.5	0.035
-5.5	0.313	4.2	0.255	14.5	0.032	35.0	0.050	55.5	0.088	76.0	0.040
-5.0	0.355	4.4	0.220	15.0	0.008	35.5	0.055	56.0	0.087	76.5	0.044
-4.5	0.374	4.6	0.191	15.5	0.024	36.0	0.061	56.5	0.085	77.0	0.047
-4.0	0.353	4.8	0.166	16.0	0.053	36.5	0.066	57.0	0.081	77.5	0.049
-3.5	0.284	5.0	0.146	16.5	0.077	37.0	0.069	57.5	0.077	78.0	0.050
-3.0	0.163	5.2	0.131	17.0	0.093	37.5	0.069	58.0	0.072	78.5	0.051
-2.8	0.100	5.4	0.120	17.5	0.099	38.0	0.065	58.5	0.068	79.0	0.051
-2.6	0.032	5.6	0.113	18.0	0.098	38.5	0.059	59.0	0.064	79.5	0.050
-2.4	0.044	5.8	0.109	18.5	0.090	39.0	0.051	59.5	0.061	80.0	0.049
-2.2	0.124	6.0	0.107	19.0	0.079	39.5	0.044	60.0	0.060	80.5	0.048
-2.0	0.207	6.2	0.106	19.5	0.068	40.0	0.038	60.5	0.059	81.0	0.046
-1.8	0.293	6.4	0.105	20.0	0.059	40.5	0.035	61.0	0.060	81.5	0.043
-1.6	0.380	6.6	0.105	20.5	0.053	41.0	0.036	61.5	0.062	82.0	0.041
-1.4	0.466	6.8	0.104	21.0	0.049	41.5	0.040	62.0	0.064	82.5	0.038
-1.2	0.550	7.0	0.102	21.5	0.048	42.0	0.049	62.5	0.068	83.0	0.035
-1.0	0.630	7.2	0.099	22.0	0.047	42.5	0.059	63.0	0.072	83.5	0.032
-0.8	0.705	7.4	0.096	22.5	0.044	43.0	0.071	63.5	0.077	84.0	0.029
-0.6	0.773	7.6	0.092	23.0	0.039	43.5	0.083	64.0	0.081	84.5	0.026
-0.4	0.834	7.8	0.088	23.5	0.030	44.0	0.094	64.5	0.086	85.0	0.023
-0.2	0.887	8.0	0.084	24.0	0.020	44.5	0.102	65.0	0.090	85.5	0.020
0.0	0.930	8.2	0.081	24.5	0.010	45.0	0.106	65.5	0.092	86.0	0.017
0.2	0.963	8.4	0.080	25.0	0.006	45.5	0.105	66.0	0.093	86.5	0.014
0.4	0.986	8.6	0.081	25.5	0.009	46.0	0.101	66.5	0.093	87.0	0.011
0.6	0.998	8.8	0.083	26.0	0.009	46.5	0.092	67.0	0.092	87.5	0.008
0.8	1.000	9.0	0.087	26.5	0.009	47.0	0.081	67.5	0.089	88.0	0.006
1.0	0.991	9.2	0.091	27.0	0.021	47.5	0.068	68.0	0.084	88.5	0.004
1.2	0.974	9.4	0.096	27.5	0.039	48.0	0.054	68.5	0.078	89.0	0.002
1.4	0.947	9.6	0.100	28.0	0.061	48.5	0.042	69.0	0.072	89.5	0.001
1.6	0.913	9.8	0.102	28.5	0.083	49.0	0.032	69.5	0.064	90.0	0.000
1.8	0.872	10.0	0.104	29.0	0.102	49.5	0.027	70.0	0.055		
2.0	0.825	10.2	0.105	29.5	0.116	50.0	0.027	70.5	0.046		
2.2	0.773	10.4	0.104	30.0	0.122	50.5	0.030	71.0	0.037		

Dielectric

Proposal Number	**DCA-9658**		
Date	**25-Oct-01**		
Call Letters	**WAND-DT**	Channel	**18**
Location	**Decatur, IL**		
Customer	**WAND**		
Antenna Type	**TFU-18DSC-R P220SP**		

AZIMUTH PATTERN

Gain	**2.20**	**(3.42 dB)**	
Calculated / Measured	**Calculated**		
Frequency	**497.00 MHz**		
Drawing #	**TFU-P220SP-18**		



Dielectric

Proposal Number	**DCA-9658**		
Date	**25-Oct-01**		
Call Letters	**WAND-DT**	Channel	**18**
Location	**Decatur, IL**		
Customer	**WAND**		
Antenna Type	**TFU-18DSC-R P220SP**		

TABULATION OF AZIMUTH PATTERN

Azimuth Pattern Drawing #: **TFU-P220SP-18**

Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
0	0.374	45	0.777	90	0.938	135	0.430	180	0.374	225	0.777	270	0.938	315	0.430
1	0.376	46	0.789	91	0.930	136	0.424	181	0.376	226	0.789	271	0.930	316	0.424
2	0.377	47	0.802	92	0.921	137	0.418	182	0.377	227	0.802	272	0.921	317	0.418
3	0.379	48	0.814	93	0.912	138	0.412	183	0.379	228	0.814	273	0.912	318	0.412
4	0.381	49	0.826	94	0.903	139	0.407	184	0.381	229	0.826	274	0.903	319	0.407
5	0.384	50	0.838	95	0.893	140	0.402	185	0.384	230	0.838	275	0.893	320	0.402
6	0.387	51	0.850	96	0.883	141	0.398	186	0.387	231	0.850	276	0.883	321	0.398
7	0.390	52	0.861	97	0.872	142	0.393	187	0.390	232	0.861	277	0.872	322	0.393
8	0.393	53	0.872	98	0.861	143	0.390	188	0.393	233	0.872	278	0.861	323	0.390
9	0.398	54	0.883	99	0.850	144	0.387	189	0.398	234	0.883	279	0.850	324	0.387
10	0.402	55	0.893	100	0.838	145	0.384	190	0.402	235	0.893	280	0.838	325	0.384
11	0.407	56	0.903	101	0.826	146	0.381	191	0.407	236	0.903	281	0.826	326	0.381
12	0.412	57	0.912	102	0.814	147	0.379	192	0.412	237	0.912	282	0.814	327	0.379
13	0.418	58	0.921	103	0.802	148	0.377	193	0.418	238	0.921	283	0.802	328	0.377
14	0.424	59	0.930	104	0.789	149	0.376	194	0.424	239	0.930	284	0.789	329	0.376
15	0.430	60	0.938	105	0.777	150	0.375	195	0.430	240	0.938	285	0.777	330	0.374
16	0.437	61	0.946	106	0.764	151	0.373	196	0.437	241	0.946	286	0.764	331	0.373
17	0.445	62	0.953	107	0.751	152	0.372	197	0.445	242	0.953	287	0.751	332	0.372
18	0.453	63	0.960	108	0.738	153	0.372	198	0.453	243	0.960	288	0.738	333	0.372
19	0.462	64	0.966	109	0.724	154	0.371	199	0.462	244	0.966	289	0.724	334	0.371
20	0.470	65	0.972	110	0.711	155	0.371	200	0.470	245	0.972	290	0.711	335	0.371
21	0.480	66	0.977	111	0.698	156	0.370	201	0.480	246	0.977	291	0.698	336	0.370
22	0.489	67	0.982	112	0.684	157	0.370	202	0.489	247	0.982	292	0.684	337	0.370
23	0.500	68	0.986	113	0.671	158	0.370	203	0.500	248	0.986	293	0.671	338	0.370
24	0.510	69	0.990	114	0.658	159	0.370	204	0.510	249	0.990	294	0.658	339	0.370
25	0.521	70	0.993	115	0.644	160	0.370	205	0.521	250	0.993	295	0.644	340	0.370
26	0.532	71	0.995	116	0.631	161	0.370	206	0.532	251	0.995	296	0.631	341	0.370
27	0.544	72	0.998	117	0.618	162	0.370	207	0.544	252	0.998	297	0.618	342	0.370
28	0.555	73	0.999	118	0.605	163	0.370	208	0.555	253	0.999	298	0.605	343	0.370
29	0.568	74	1.000	119	0.593	164	0.370	209	0.568	254	1.000	299	0.592	344	0.370
30	0.580	75	1.000	120	0.580	165	0.370	210	0.580	255	1.000	300	0.580	345	0.370
31	0.592	76	1.000	121	0.568	166	0.370	211	0.593	256	1.000	301	0.568	346	0.370
32	0.605	77	0.999	122	0.555	167	0.370	212	0.605	257	0.999	302	0.555	347	0.370
33	0.618	78	0.998	123	0.544	168	0.370	213	0.618	258	0.998	303	0.544	348	0.370
34	0.631	79	0.995	124	0.532	169	0.370	214	0.631	259	0.995	304	0.532	349	0.370
35	0.644	80	0.993	125	0.521	170	0.370	215	0.644	260	0.993	305	0.521	350	0.370
36	0.658	81	0.990	126	0.510	171	0.370	216	0.658	261	0.990	306	0.510	351	0.370
37	0.671	82	0.986	127	0.500	172	0.370	217	0.671	262	0.986	307	0.500	352	0.370
38	0.684	83	0.982	128	0.489	173	0.370	218	0.684	263	0.982	308	0.489	353	0.370
39	0.698	84	0.977	129	0.480	174	0.370	219	0.698	264	0.977	309	0.480	354	0.370
40	0.711	85	0.972	130	0.470	175	0.371	220	0.711	265	0.972	310	0.470	355	0.371
41	0.724	86	0.966	131	0.462	176	0.371	221	0.724	266	0.966	311	0.462	356	0.371
42	0.738	87	0.960	132	0.453	177	0.372	222	0.738	267	0.960	312	0.453	357	0.372
43	0.751	88	0.953	133	0.445	178	0.372	223	0.751	268	0.953	313	0.445	358	0.372
44	0.764	89	0.946	134	0.437	179	0.373	224	0.764	269	0.946	314	0.437	359	0.373

TABLE II
COMPUTED COVERAGE DATA
FOR THE PROPOSED DTV OPERATION OF
WAND, DECATUR, ILLINOIS
CHANNEL 18 1000 KW ERP 393 METERS HAAT
DECEMBER 2009

Radial Bearing N ° E, T	Average* Elevation 3 to 16.1 km meters	Effective Height meters	Depression Angle degrees	ERP At Radio Horizon kW	Distance to Contour F(50,90) 48 dBu City Grade km	41 dBu Noise-Limited km
0	209.8	388.2	0.546	139.9	78.0	88.8
10	209.6	388.4	0.546	161.6	79.0	89.9
20	207.1	390.9	0.548	220.9	81.2	92.3
30	205.9	392.1	0.549	336.4	84.0	95.7
40	206.1	391.9	0.548	505.5	86.8	99.1
50	205.5	392.5	0.549	702.2	89.1	102.1
60	205.4	392.6	0.549	879.8	90.7	104.2
70	203.8	394.2	0.550	986.0	91.6	105.5
80	200.8	397.2	0.552	1000.0	91.9	105.9
90	202.5	395.5	0.551	986.0	91.7	105.6
100	202.4	395.6	0.551	879.8	90.9	104.5
110	209.6	388.4	0.546	702.2	88.9	101.8
120	211.1	386.9	0.545	505.5	86.5	98.7
130	212.9	385.1	0.544	336.4	83.6	95.2
140	211.8	386.2	0.544	220.9	80.9	92.0
150	211.3	386.7	0.545	161.6	78.8	89.8
160	211.8	386.2	0.544	140.6	77.9	88.8
170	210.1	387.9	0.546	136.9	77.8	88.7
180	207.0	391.0	0.548	136.9	78.0	88.9
190	206.3	391.7	0.548	139.9	78.2	89.0
200	207.6	390.4	0.547	161.6	79.1	90.0
210	196.4	401.6	0.555	220.9	81.9	92.9
220	201.3	396.7	0.552	336.4	84.3	95.9
230	206.9	391.1	0.548	505.5	86.7	99.0
240	205.8	392.2	0.549	702.2	89.1	102.1
250	204.5	393.5	0.549	879.8	90.8	104.3
260	205.4	392.6	0.549	986.0	91.6	105.3
270	205.8	392.2	0.549	1000.0	91.6	105.4
280	206.2	391.8	0.548	986.0	91.5	105.3

TABLE II
COMPUTED COVERAGE DATA
FOR THE PROPOSED DTV OPERATION OF
WAND, DECATUR, ILLINOIS
CHANNEL 18 1000 KW ERP 393 METERS HAAT
DECEMBER 2009

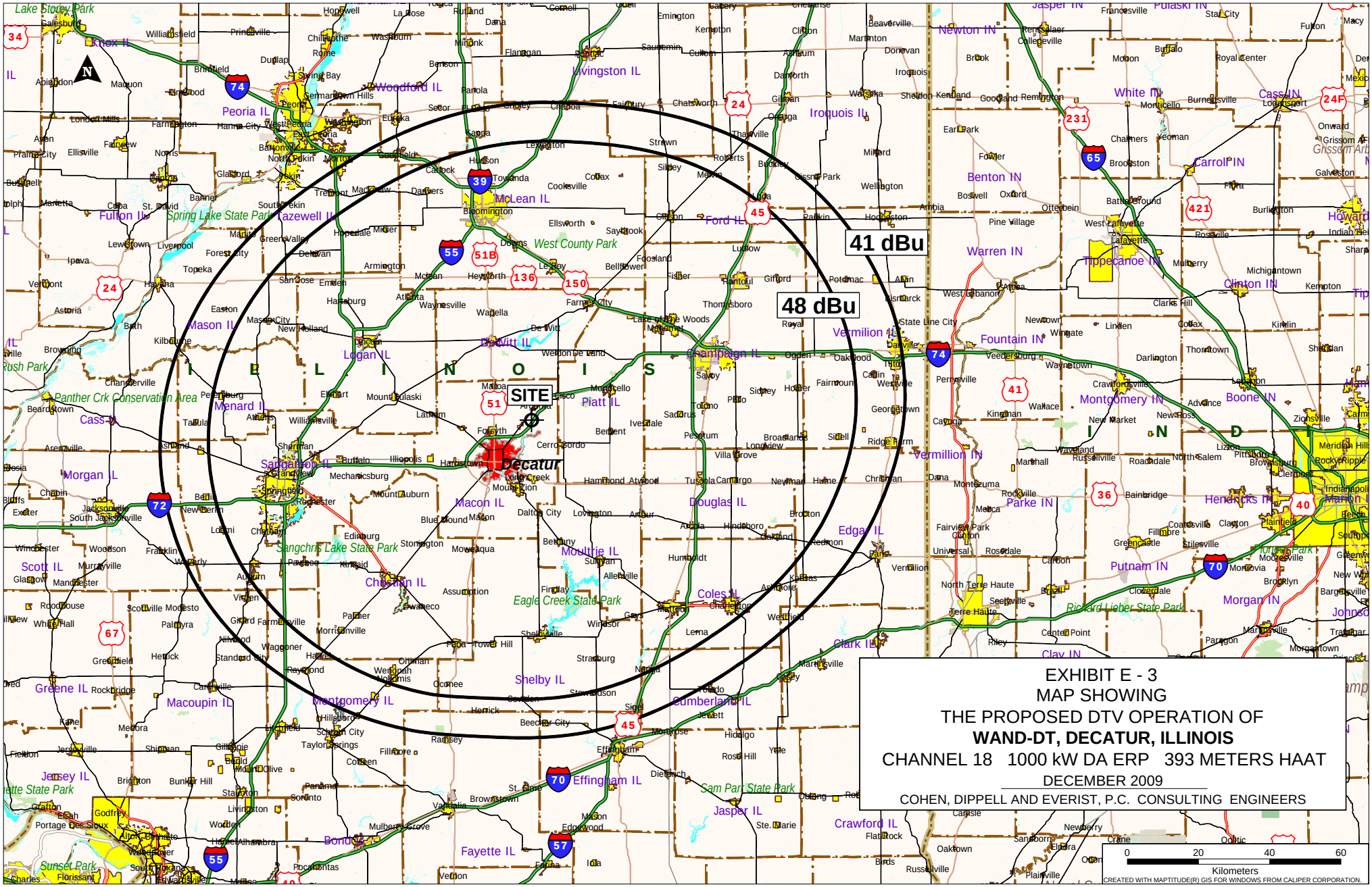
Radial Bearing N ° E, T	Average* Elevation 3 to 16.1 km meters	Effective Height meters	Depression Angle degrees	ERP At Radio Horizon kW	Distance to Contour F(50,90) 48 dBu City Grade km	41 dBu Noise-Limited km
290	207.8	390.2	0.547	879.8	90.6	104.0
300	210.7	387.3	0.545	702.2	88.8	101.7
310	212.6	385.4	0.544	505.5	86.4	98.6
320	212.7	385.3	0.544	336.4	83.6	95.2
330	212.7	385.3	0.544	220.9	80.8	92.0
340	215.4	382.6	0.542	161.6	78.6	89.5
350	216.9	381.1	0.541	139.9	77.5	88.4

*Based on data from FCC 3-second data base.
Note: The relative field pattern is 1.0 at N 75˚ E and N 255˚ E.

DTV Channel 18 (494-500 MHz)
Average Elevation 3.2 to 16.1 km 208.3 meters AMSL
Center of Radiation 598 meters AMSL
Antenna Height Above Average Terrain 393 meters
Effective Radiated Power 1000 kW (30 dBk) Max

North Latitude: 39˚ 57' 07"
West Longitude: 88˚ 49' 55"

(NAD-27)


41 dBu
48 dBu
SITE
Decatur
ILLINOIS
INDIANA
EXHIBIT E - 3
MAP SHOWING
THE PROPOSED DTV OPERATION OF
WAND-DT, DECATUR, ILLINOIS
CHANNEL 18 1000 kW DA ERP 393 METERS HAAT
DECEMBER 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. [X] 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 [X] 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. [X] 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. [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 18 Analog TV, if any 17

2. Zone: [X] I [ ] II [ ] III

3. Antenna Location Coordinates: (NAD 27)

39 ° 57 ' 07 " [X] N [ ] S Latitude

88 ° 49 ' 55 " [ ] E [X] W Longitude

4. Antenna Structure Registration Number: 1009651

[ ] Not applicable [ ] FAA Notification Filed with FAA

5. Antenna Location Site Elevation Above Mean Sea Level: 209.1 meters

6. Overall Tower Height Above Ground Level: 400.5 meters

7. Height of Radiation Center Above Ground Level: 388.9 meters

8. Height of Radiation Center Above Average Terrain: 393 meters

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

10. Antenna Specifications:

a. Manufacturer: Dielectric | Model: TFU-18DSC-R P220SP

b. Electrical Beam Tilt: 0.75 degrees [ ] Not Applicable

c. Mechanical Beam Tilt: _____ degrees toward azimuth _____ degrees True [X] Not Applicable

Attach as an Exhibit all data specified in 47 C.F.R. Section 73.625(c). Exhibit No. E-2

d. Polorization: [X] 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	0.374	60	0.938	120	0.580	180	0.374	240	0.938	300	0.580
10	0.402	70	0.993	130	0.470	190	0.402	250	0.993	310	0.470
20	0.470	80	0.993	140	0.402	200	0.470	260	0.993	320	0.402
30	0.580	90	0.938	150	0.375	210	0.580	270	0.938	330	0.374
40	0.711	100	0.838	160	0.370	220	0.711	280	0.838	340	0.370
50	0.838	110	0.711	170	0.370	230	0.838	290	0.711	350	0.370
Additional Azimuths		75	1.000	255	1.000						

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

Exhibit No. E-2

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. N/A

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 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.

An exhibit is required unless this question is inapplicable.

☐ Yes WAND-DT

Exhibit No.

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 I'M 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	Relationship to Applicant (e.g., Consulting Engineer)	
Donald G. Everist	Consulting Engineer	
Signature	Date December 17, 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).