

ENGINEERING STATEMENT
MODIFICATION OF CONSTRUCTION PERMIT
(FCC FILE NO. BMPCDT-20040803AAT)
ON BEHALF OF
NEXSTAR BROADCASTING, INC.
WDHN-DT, DOTHAN, ALABAMA
CHANNEL 21 1000 KW ND 205 METERS HAAT

JANUARY 2007

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

This engineering statement has been prepared on behalf of Nexstar Broadcasting, Inc., permittee of WDHN-DT, Dothan, Alabama. The purpose of this engineering statement is to accompany its request to modify its outstanding construction permit (FCC File No. BMPCDT-20040803AAT) for digital television (“DTV”) facilities and to supplement those data required in FCC Form 301, Section III-D.

WDHN-TV operates on NTSC Television Channel 18 with a maximum visual horizontal effective radiated power (ERP) of 1070 kW non-directional and a height above average terrain (HAAT) of 223 meters. WDHN-DT has been allocated DTV Channel 21 with facilities of 50 kW and HAAT of 223 meters in the revised DTV Table of Allotments.¹ WDHN-DT has a construction permit to build DTV facilities of 1000 kW non-directional (horizontal polarization) at a HAAT of 223.1 meters on its existing antenna structure. The sole purpose of this construction permit is to reduce the antenna height above average terrain from 223.1 meters to 205 meters.

There are no AM stations located within 3.22 km of the existing WDHN-TV tower site. There are no FM and one full-service NTSC station, WDHN-TV, located and transmitting within 100 meters from this site.

The DTV antenna will be side-mounted on an existing tower having a total overall structure height above ground of 242.8 meters (796.6 feet). The existing transmitter site is located 5274 East State Highway 52, Dothan, Alabama.

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.

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Since there is no change in overall height, FAA airspace approval is not required. The tower registration number of the existing tower is 1040389. Exhibit E-1 is a diagram of the tower and transmitting antenna.

The geographic coordinates of the site are:

North Latitude: 31° 14' 25"

West Longitude: 85° 18' 43"

NAD-27

Equipment Data

Antenna: ERI, Type ATW28H3H-CH21 (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.

Power Data

Transmitter output	45.60 kW	16.59 dBk
MACX675B, 6-1/8", 75 ohm or equivalent-length 285 meters (935 ft)	78.3%	1.06 dB
Input power to the antenna	35.71 kW	15.53 dBk
Antenna power gain, Main Lobe	28.0	14.47 dB
Effective Radiated Power, Maximum	1000 kW	30.0 dBk

Elevation Data

Vertical dimension of Channel 21 top-mounted antenna	18.9 meters 62 feet
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Overall height above ground of the proposed antenna structure (Including beacon and lightning protection)	242.8 meters 796.6 feet
Center of radiation of Channel 21 antenna above ground	209.7 meters 688.0 feet
Elevation of site above mean sea level	77.1 meters 253.0 feet
Center of radiation of Channel antenna above mean sea level	286.8 meters 941.0 feet
Overall height above mean sea level of proposed tower (including beacon)	319.9 meters 1049.5 feet
Antenna height above average terrain	205 meters

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

Allocation

An allocation spacing study from the proposed site has not been performed as the proposed DTV 41 dBu facilities are contained within that authorized and the transmitter site will be located at the coordinates authorized for the WDHN-DT outstanding construction permit (FCC File No. 20040803AAT).

Coverage

The average elevation data for 3.2 to 16.1 km along each radial has been determined from the NGDC 3-second database. 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_n , varies from 0.389 to 0.406 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 proposed F(50,90) 48 dBu and 41 dBu coverage contours, the average elevation 3.2 to 16.1 km, and the antenna height above average terrain for the eight radials.

Interference Analysis

An analysis of predicted interference caused by the proposed WDHN-DT service has been performed even as the proposed F(50,90) 41 dBu contour is not predicted to extend in any direction beyond that authorized by the F(50,90) 41 dBu contour of the outstanding construction permit (see Exhibit E-4).

The interference analysis used the FCC's FORTRAN-77 code which was modified only to the extent necessary (primarily input/output handling) for the program to run on a Windows 98/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 km² using 3-second

terrain data sampled approximately every 1.0 km at one degree azimuth intervals with 2000 Census centroids.

Stations were selected from the FCC's Consolidated Database System ("CDBS") 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.

Table II provides a summary of the Longley-Rice interference analysis and demonstrates that no new interference above 0.1% is caused by the proposed operation of WDHN-DT to any potentially affected facility above the outstanding construction permit.

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 applicant 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 ATW28H3H-CH21 antenna or the equivalent as described above with a center of radiation above ground of 209.7 meters. The proposed antenna will be side-mounted on an existing single guyed, uniform, cross-section, steel lattice tower with an overall height of 242.8 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 WDHN-TV, there are no other stations located within 100 meters. The property on which the proposed tower is located is at 5274 East State Highway 52. Access to the tower will be prevented by a 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.

For NTSC, WDHN-TV uses a typical horizontally polarized antenna with a center of radiation 227.9 meters above ground level. The antenna is assumed to have a maximum relative field value of less than 0.2 towards the ground in the vicinity of the tower (from 45 to 90 degrees below the horizontal).

The elevation pattern for WDHN-DT proposed antenna for DTV operation shows a maximum relative field of less than 0.1 towards the ground in the vicinity of the tower (see Exhibit E-2). As mentioned previously, WDHN-DT is proposed to operate at 209.7 meters above ground level (see Exhibit E-1).

The RFF study will consider the following stations:

WDHN-TV Channel 18

WDHN-DT Channel 21

The RF 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 $\mu\text{W}/\text{cm}^2$

F = relative field factor

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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

WDHN-TV NTSC Facility

Channel 18 Freq: 494-500 MHz range
ERP = 1070 kW
Polarization = Horizontal
RCAGL -2 meters = 207.7 meters

WDHN-TV is assumed to have a field factor less than 0.2 at any angle greater than 45 degrees below the horizon. A value of 0.2 will be used in the calculation.

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

Tot ERP = 1070000 watts (Horizontal Only)
R = 207.7 meters
F = 0.2 (field factor)

$$S = 28.0 \mu\text{W}/\text{cm}^2 \quad S = 0.028 \text{ mW}/\text{cm}^2$$

WDHN-TV contributes 0.028 mW/cm² at 2 meters above ground.
The limit for an uncontrolled environment is f/1500 for station broadcasting on 497 MHz.

$(497 \text{ MHz})/1500 = 0.331 \text{ mW/cm}^2$ is the RFF limit for WDHN-TV.

Therefore:

WDHN-TV NTSC facility contributes 8.5% RFF for an uncontrolled environment two meters above ground at tower site.

WDHN-DT DTV Facility

Channel 21 Freq: 512-518 MHz range
ERP = 1000 kW
Polarization = Horizontal
RCAGL -2 meters = 225.9 meters

WDHN-DT proposed to utilize ERI, Type ATW28H3H-CH21 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 15 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 = 1000000 watts (Horizontal Only)
 $R = 225.9$ meters
 $F = 0.1$ (field factor)

$$S = 7.8 \mu\text{W}/\text{cm}^2 \quad S = 0.0078 \text{ mW}/\text{cm}^2$$

WDHN-DT contributes $0.0078 \text{ mW}/\text{cm}^2$ at 2 meters above ground.
 The limit for an uncontrolled environment is $f/1500$ for station broadcasting on 515 MHz.

$(515 \text{ MHz})/1500 = 0.343 \text{ mW}/\text{cm}^2$ is the RFF limit for WDHN-DT.

Therefore:

WDHN-DT DTV facility contributes 2.3% 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:

$$\text{Total RFF} = 8.5\% + 2.3\% \quad \text{Total RFF} = 10.8\%$$

The total contribution by the NTSC stations and the WDHN-DT proposed DTV operations at 2 meters above ground level is less than 10.8% of the current FCC maximum for general population exposure.

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 as the tower was constructed prior to the requirements specified in WT Docket No. 03-128 and the permittee indicates:

- (a)(1) The existing tower is not located in an officially designated wilderness area.
- (a)(2) The existing tower is not located in an officially designated wildlife preserve.
- (a)(3) The proposed facilities will not affect any listed threatened or endangered species or habitats.
- (a)(3)(ii) The proposed facilities will not jeopardize the continued existence of any proposed endangered or threatened species or likely to result in the destruction or adverse modification of proposed critical habitats.
- (a)(4) The proposed facilities will be located on a tower which was built prior to the adoption of WT Docket No. 03-128 and will not affect any known districts, sites, buildings, structures, or objects significant in American history, architecture, archaeology, engineering, or culture.
- (a)(5) The existing tower is not located near any known Indian religious sites.
- (a)(6) The existing tower is not located in a flood plain.
- (a)(7) The installation 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.

ABOVE GROUND

ABOVE MEAN SEA LEVEL

242.8 METERS (796.6')
241.8 METERS (793.3')

(1049.5') 319.9 METERS
(1046.3') 318.9 METERS

C/R 209.7 METERS

EXISTING WDHN-TV
ANTENNA

286.8 METERS C/R

PROPOSED WDHN-DT
ANTENNA

PAINTING AND LIGHTING
IN ACCORDANCE WITH
F.A.A. RULES AND REGULATIONS

TOWER REGISTRATION
No. 1040389

(NOT TO SCALE)

EXISTING GUYED TOWER

0.0 METERS (0.0')

(253.0') 77.1 METERS

EXHIBIT E-1
TOWER SKETCH
FOR THE PROPOSED DTV OPERATION OF
WDHN-DT, DOTHAN, ALABAMA
JANUARY 2007

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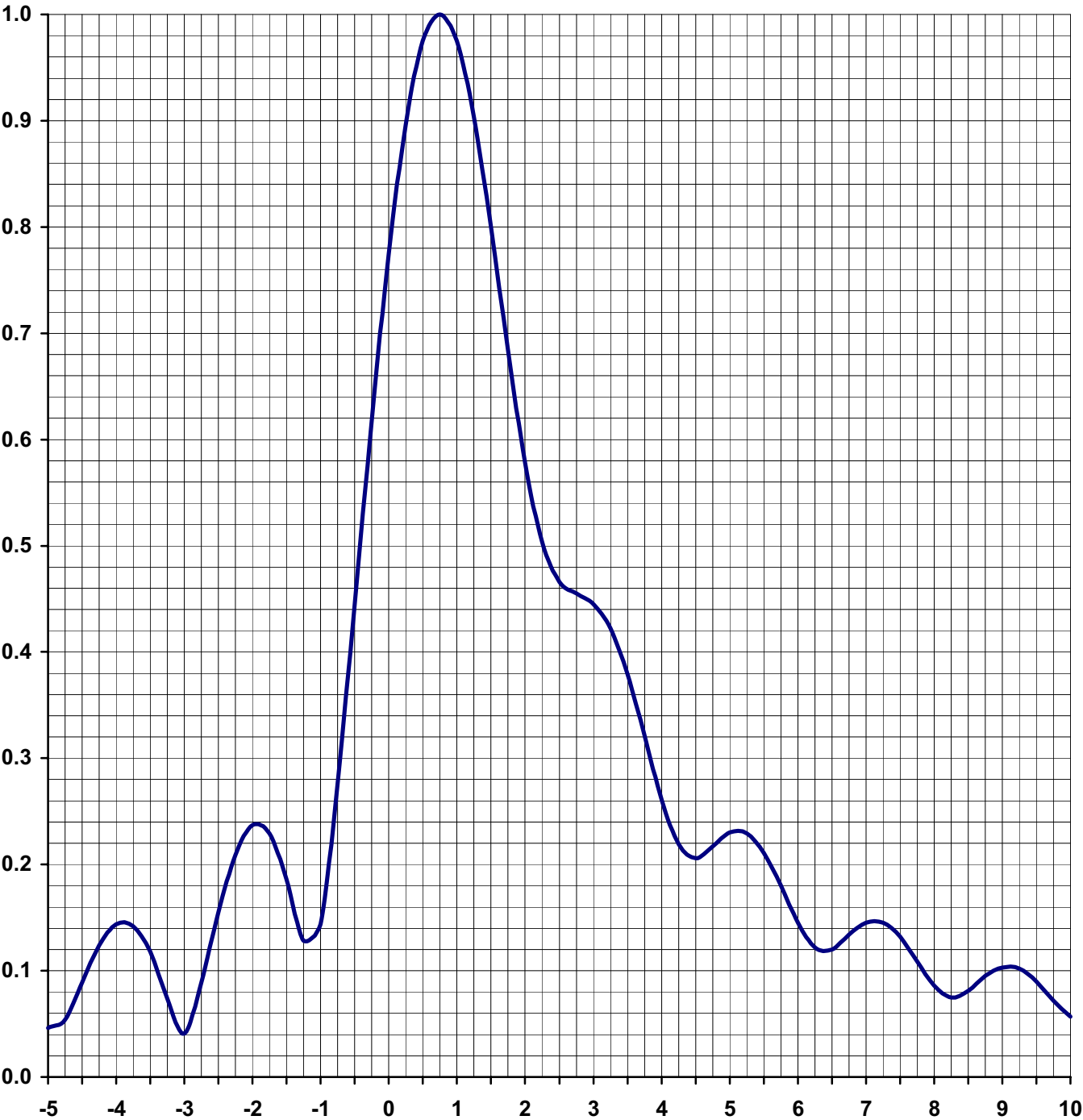
EXHIBIT E-2

ANTENNA MANUFACTURER DATA

WDHN-DT, DOTHAN, ALABAMA

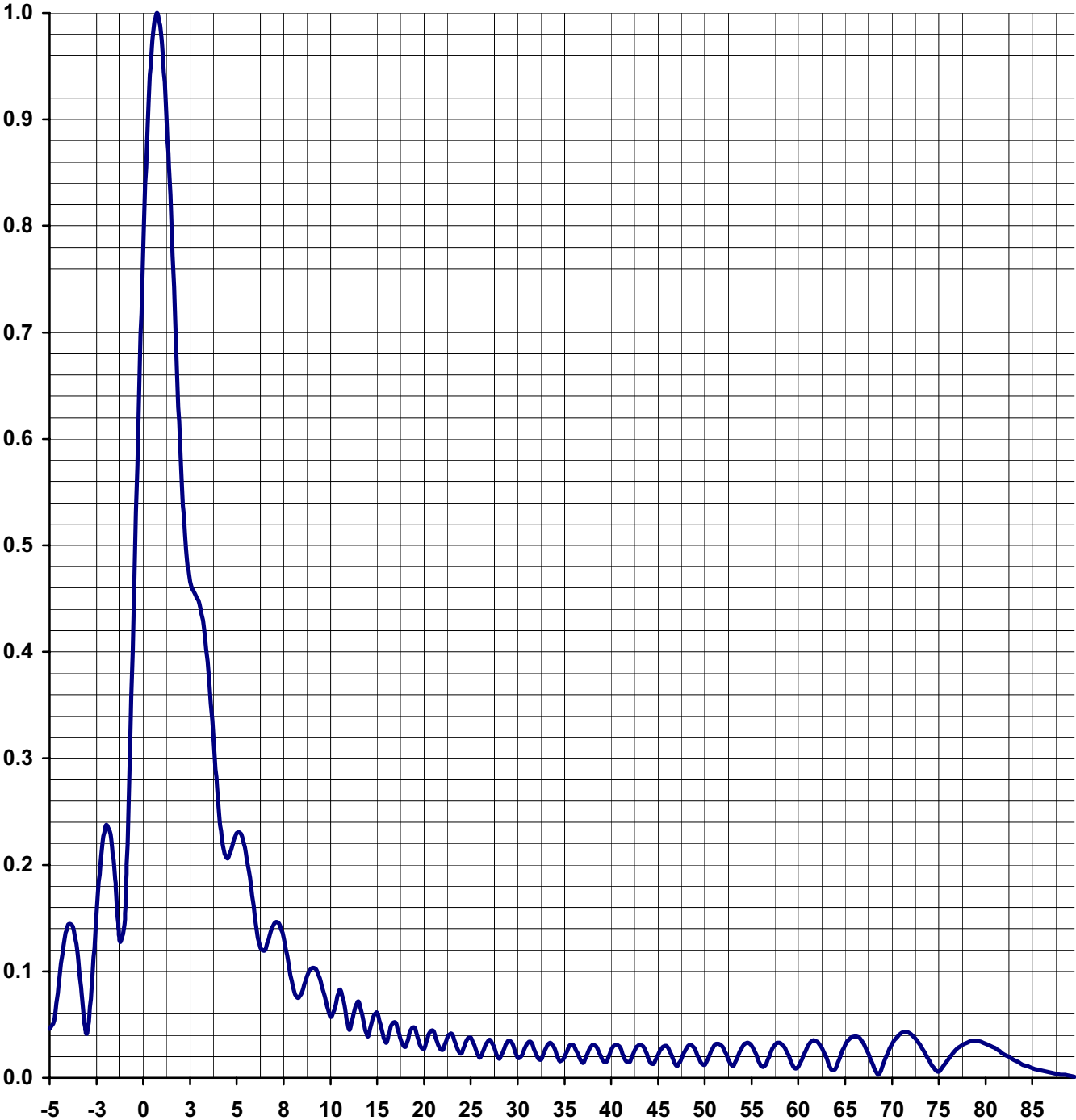
ELEVATION PATTERN

TYPE:	ATW28H3H	
Directivity:	Numeric	dBd
Main Lobe:	28.00	14.47
Horizontal:	16.77	12.25
Beam Tilt:	0.75	
Polarization:	Horizontal	
Frequency:	21 (Digital)	
Location:	Dothan, AL	



ELEVATION PATTERN

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Location:	Dothan, AL	



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			

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TABLE I
COMPUTED COVERAGE DATA
FOR THE PROPOSED DTV OPERATION OF
WDHN-DT, DOTHAN, ALABAMA
CHANNEL 21 1000 KW 205 METERS HAAT
JANUARY 2007

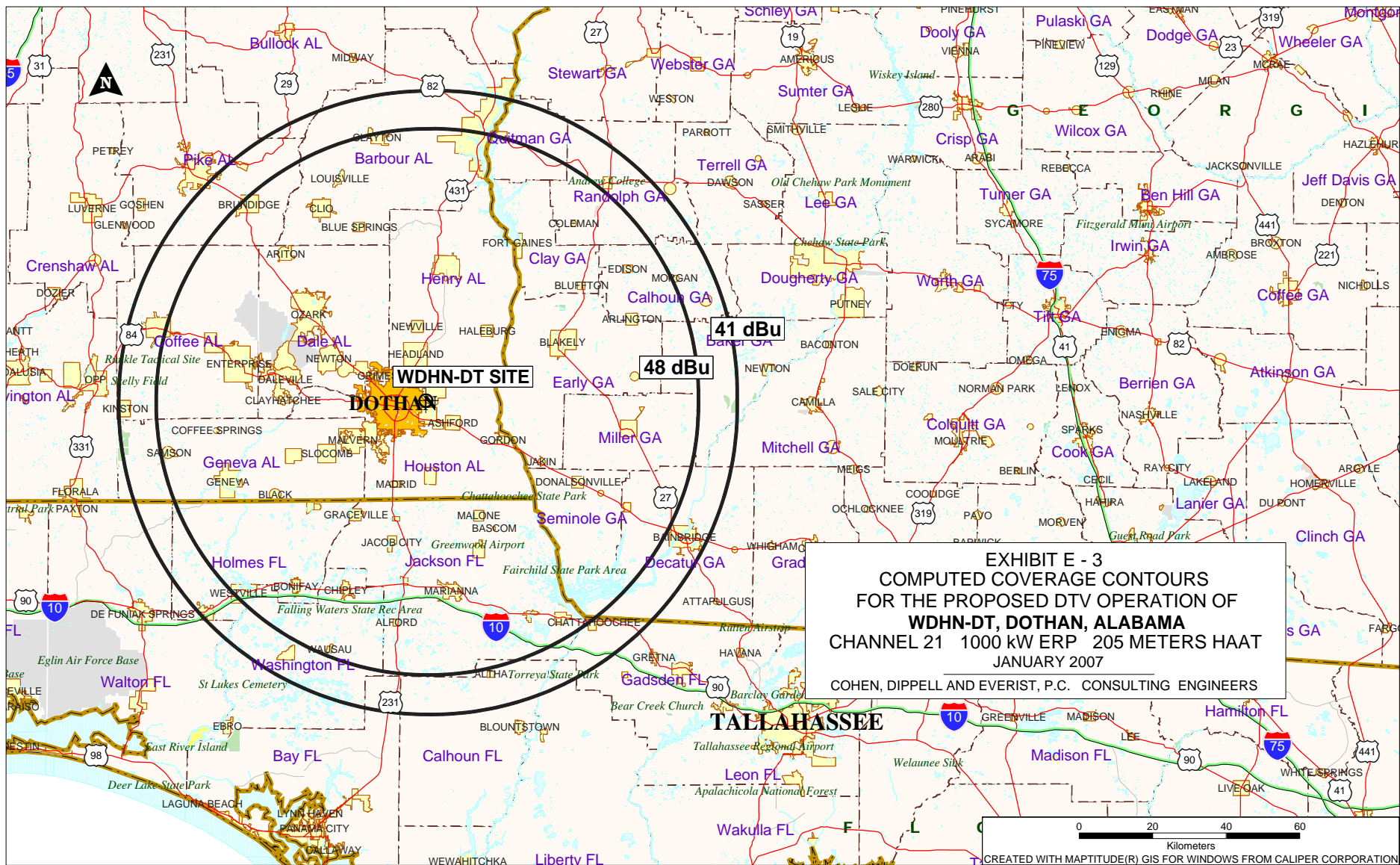
Radial Bearing N ° E, T	Average* Elevation 3.2 to 16.1 km meters	Effective Height meters	Depression Angle	ERP At Radio Horizon kW	Distance to Contour F(50,90)	
					48 dBu City Grade km	41 dBu Noise-Limited km
0	88.4	198.4	0.390	1000	73.5	83.7
45	74.9	211.9	0.403	1000	74.4	85.2
90	80.4	206.4	0.398	1000	74.0	84.6
135	72.1	214.7	0.406	1000	74.6	85.5
180	76.4	210.4	0.402	1000	74.3	85.0
225	82.0	204.8	0.396	1000	73.9	84.4
270	90.0	196.8	0.389	1000	73.4	83.6
315	90.8	196.0	0.388	1000	73.3	83.5
Average	81.9	204.9				

*Based on data from FCC 3-second data base

DTV Channel 21 (512-518 MHz)
Average Elevation 3.2 to 16.1 km 81.9 meters AMSL
Center of Radiation 286.8 meters AMSL
Antenna Height Above Average Terrain 204.9 meters
Effective Radiated Power 1000 kW (30 dBk) Max.

North Latitude: 31° 14' 25"
West Longitude: 85° 18' 43"

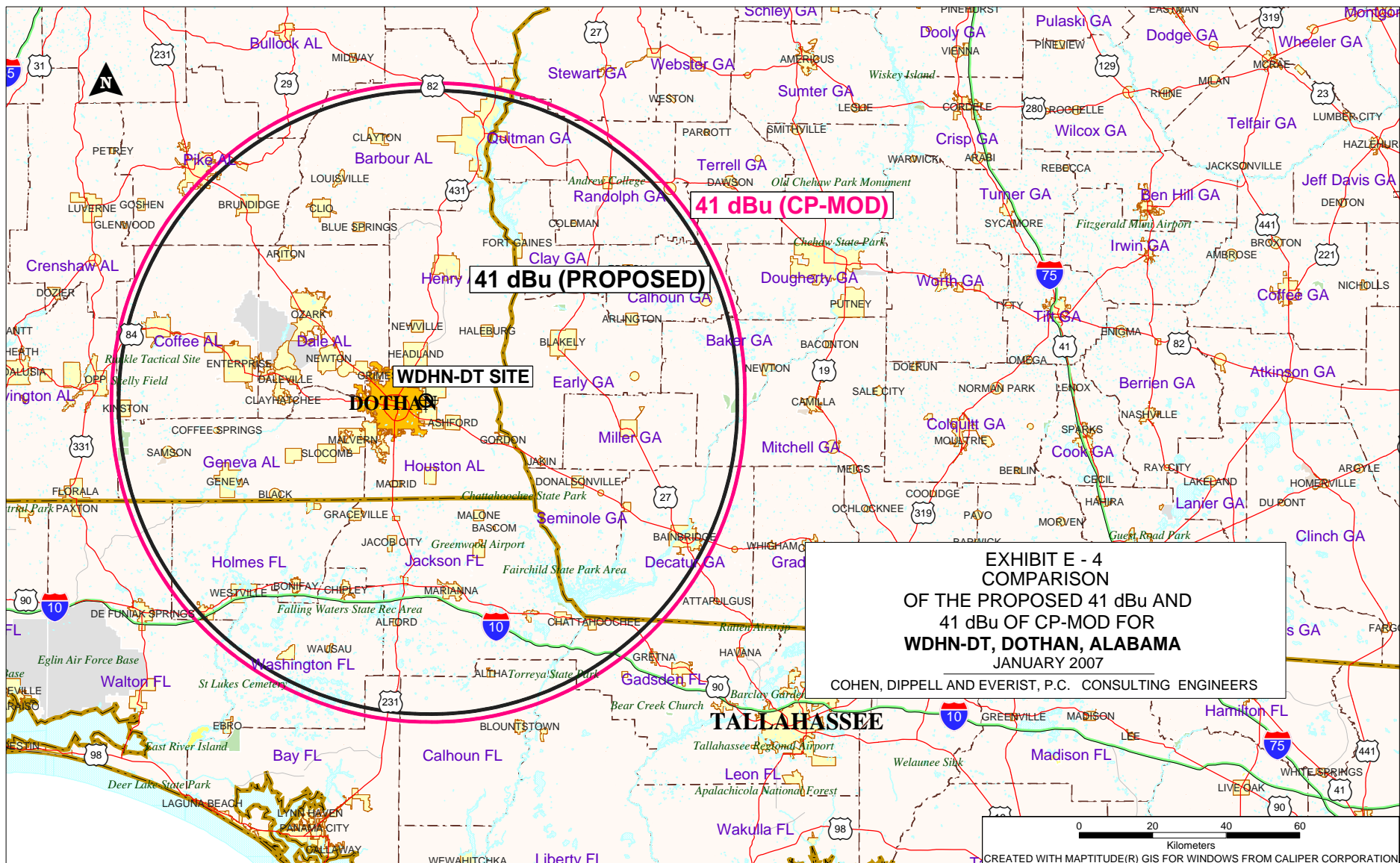
(NAD-27)



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TABLE II
LONGLEY-RICE ANALYSIS
ABOVE THE OUTSTANDING CONSTRUCTION PERMIT
(FCC FILE NO. BMPCDT-20040803AAT
FOR THE PROPOSED OPERATION OF
WDHN-DT, DOTHAN, ALABAMA
CHANNEL 21 1000 KW ERP ND 205 METERS HAAT
JANUARY 2007

<u>Channel</u>	<u>Call</u>	<u>City/State</u>	<u>Dist(km)</u>	<u>Status</u>	<u>Application Ref. No.</u>	<u>Result</u>
14	WABW-TV	PELHAM GA	115.4	LIC	BLET-19881018KE	no interference
18	WDHN	DOTHAN AL	0.2	LIC	BLCT-2038	no interference
20	WMPV-DT	MOBILE AL	225.8	ALLOT		no interference
20	WCOV-TV	MONTGOMERY AL	152.7	LIC	BLCT-2256	no interference
20	WCOV-TV	MONTGOMERY AL	114.6	CP	BPCT-20041103ADU	-0.03%
20	WABW-DT	PELHAM GA	115.4	ALLOT		0.00%
21	WTTO	HOMEWOOD AL	286.2	LIC	BLCT-19820513KE	0.08%
21	WTTO	HOMEWOOD AL	286.2	CP	BPCT-20041104AKN	0.07%
21	WMPV-TV	MOBILE AL	225.8	LIC	BLCT-19860103KF	0.00%
21	WMPV-TV	MOBILE AL	225.8	CP	BPCT-20010905AAD	0.00%
21	WCLF-DT	CLEARWATER FL	419.5	ALLOT		no interference
21	WPBA-DT	ATLANTA GA	294.5	LIC	BLEDT-20041013ABK	0.00%
21	WPBA-DT	ATLANTA GA	294.6	ALLOT		0.00%
21	WPXC-TV	BRUNSWICK GA	321	LIC	BLCT-19900412KE	no interference
21	WPXC-TV	BRUNSWICK GA	343.6	CP	BPCT-20010629ABD	0.00%
21	WPXC-TV	BRUNSWICK GA	343.2	APP	BPCT-20041222ABB	no interference
22	WBMM	TUSKEGEE AL	109.8	LIC	BLCT-20020726ABV	-0.07%
22	WPFN-CA	PANAMA CITY FL	125.7	LIC	BLTTL-19970408JA	no interference
22	WTXL-DT	TALLAHASSEE FL	142.9	LIC	BLCDD-20060627ABK	0.00%
22	WTXL-DT	TALLAHASSEE FL	143	ALLOT		0.00%
24	WWEO-CA	DE FUNIAK SPRINGS FL	94	LIC	BLTTL-19891109JK	no interference
25	WACS-TV	DAWSON GA	105.6	LIC	BLET-169	no interference
28	WPGX	PANAMA CITY FL	96.3	LIC	BLCT-19880628KF	no interference
28	WPGX	PANAMA CITY FL	96.3	CP	BPCT-20040217ADH	no interference



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
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- 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	Relationship to Applicant (e.g., Consulting Engineer)	
Signature	Date	
Mailing Address		
City	State or Country (if foreign address)	ZIP Code
Telephone Number (include area code)	E-Mail Address (if available)	

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).