

ENGINEERING STATEMENT  
RE DTV BROADCAST ENGINEERING DATA  
REQUEST FOR SPECIAL TEMPORARY AUTHORITY TO OPERATE  
PRE-TRANSITION LICENSED FACILITIES AFTER THE  
DTV TRANSITION (FCC FILE NO. BLCDT-20080725ABD)  
WJCL-DT, SAVANNAH, GEORGIA  
CHANNEL 23 200 KW ND ERP 413 METERS HAAT

DECEMBER 2008

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 )

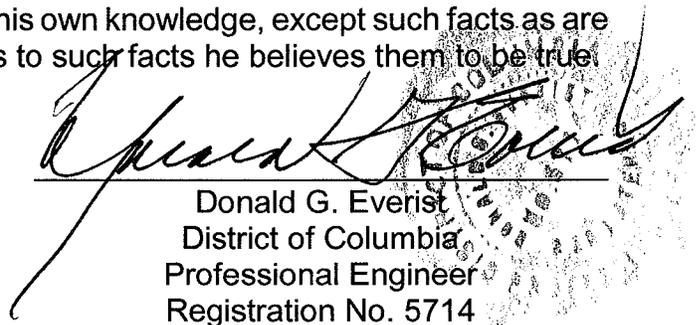
Donald G. Everist, being duly sworn upon his oath, deposes and states that:

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;

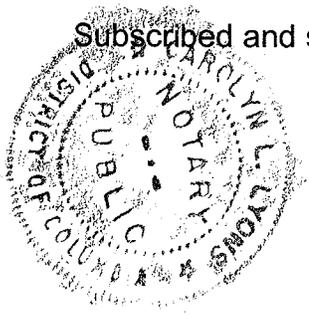
That his qualifications are a matter of record in the Federal Communications Commission;

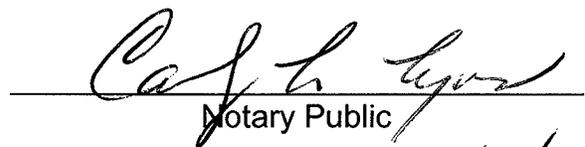
That the attached engineering report was prepared by him or under his supervision and direction and

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 10<sup>th</sup> day of December, 2008.



  
Notary Public

My Commission Expires: 2/28/2013



This engineering statement has been prepared in support of an application to request special temporary authority on behalf of NVT Savannah Licensee, L.L.C., licensee of WJCL(TV), Savannah, Georgia. The purpose of this application is to request special temporary authority to continue licensed pre-transition operation after the DTV transition for a period of approximately six months beyond February 17, 2009 while awaiting shipment and installation of post-transition DTV equipment.

Since this STA requests special temporary authority to operate pursuant to its licensed pre-transition operation (FCC File No. BLCDT-20080725ABD) on Channel 23 with 200 kW non-directional ERP and 413 meters HAAT, it is predicted to serve exactly 100% of the pre-transition digital viewers. The proposed STA operation is predicted to serve 719,088 persons in an area of 28,584 square kilometers, which is 107.8% of the 667,000 persons in an area of 25,120 square kilometers predicted to be served by WJCL-DT in the Final DTV Table of Allotments, and is 105.7% of the 679,928 persons in an area of 25,420 square kilometers predicted to be served by the currently licensed analog operation of WJCL(TV).

WJCL(TV) is licensed to operate on NTSC television Channel 22 with a maximum visual ERP of 3800 kW (directional) and an antenna height above average terrain (“HAAT”) of 436 meters (1430 feet). WJCL-DT has been allocated DTV Channel 22 with facilities of 166.17 kW (directional) ERP and 436 meters HAAT in the revised DTV Table of Allotments.<sup>1</sup>

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<sup>1</sup>“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.

WJCL-DT is authorized to construct Channel 22 post-transition DTV facilities with 1000 kW directional ERP and 436 meters HAAT. Until WJCL-DT can construct its post-transition DTV facilities, it requests special temporary authority to operate pursuant to its licensed pre-transition operation (FCC File No. BLCDDT-20080725ABD) on Channel 23 with 200 kW non-directional ERP and 413 meters HAAT.

The existing WJCL(TV) antenna that will be used for the post-transition operation of WJCL-DT is top-mounted on the existing tower structure with an overall height above ground of 451 meters (1480 feet). The existing transmitter site is located approximately 5.5 km south-southwest of Bloomingdale, Georgia. The registration number for the tower is 1032655. Exhibit E-1 is a vertical sketch of the existing tower and the existing transmitting antenna.

The existing DTV antenna proposed for use in this STA request for Channel 23 is side-mounted on the same tower on which WJCL(TV) NTSC Channel 22 currently operates. There are no AM stations located within 3.2 km of the existing WJCL tower site. There are three licensed FM stations on the same tower as WJCL(TV). There will be no NTSC stations or other full-service DTV facilities within 100 meters of the WJCL(TV) site after February 17, 2009.

The geographic coordinates of the existing site are as follows:

North Latitude: 32° 03' 29"

West Longitude: 81° 20' 19"

NAD-27

Equipment Data  
(no change)

Antenna: ERI, Type AL12 antenna with 1.25° electrical beam tilt. The vertical plane pattern and other exhibits required by Section 73.625(c) are herein included as Exhibit E-2.

Transmission Line: 445 meters (1460 ft) of ERI, 3", 50 ohm, rigid line or equivalent

Power Data

Transmitter output	20.09 kW	13.03 dBk
Transmission line efficiency/loss	48.8%	3.12 dB
Input power to the antenna	9.8 kW	9.91 dBk
Antenna power gain <sup>2</sup>	20.4	13.1 dB
Effective Radiated Power	200 kW	23.01 dBk

Elevation Data  
(unchanged)

Vertical dimension for Channel 23 side-mounted antenna	9.4 meters 30.8 feet
Overall height above ground of the existing structure with existing antenna	451 meters 1480 feet
Center of radiation of Channel 23 antenna above ground	414.5 meters 1360 feet
Elevation of site above mean sea level	5.8 meters 19 feet
Center of radiation of Channel 23 antenna above mean sea level	420.3 meters 1379 feet

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<sup>2</sup>Referenced from the license application (FCC File No. BLCDDT-20080725ABD).

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Overall height above mean sea level of existing tower and existing antenna (including beacon)	456.8 meters 1499 feet
Antenna height above average terrain	413 meters

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

#### Allocation

An allocation study from the proposed site has been performed and all post-transition DTV stations are found to be fully-spaced according to CDBS. All pre-transition television spacings (both analog and digital) will remain unchanged.

#### Interference Analysis

A study of predicted interference caused by the proposed Channel 23 DTV STA service has been performed using a version of the Longley-Rice program as described in OET Bulletin No. 69 (February 6, 2004) and the Public Notice, "Additional Application Processing Guidelines for Digital Television (DTV)" (August 1998). The FCC's FORTRAN-77 code was modified only to the extent necessary (primarily input/output handling) for the program to run on a Windows XP 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<sup>2</sup> using 3-second terrain data sampled approximately every 1.0 km at one degree azimuth intervals with 2000 census centroids.

The above considers all records in CDBS as of November 17, 2008 and all allotments in the final DTV Table of Allotments, Appendix B released March 6, 2008<sup>3</sup>. The interference analysis to potentially affected stations is summarized in Table I. The new interference to each station is less than 0.5%.

#### Coverage

The average elevation data for 3.2 to 16.1 km along each radial are based upon the WJCL-DT license file (FCC File No. BLC DT-20080725ABD) and the terrain data. This 3-second NGDC profile data conforms very closely to the terrain information of that on file at the Commission.

The F(50,90) DTV coverage contours have 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 0.56 to 0.57 degrees. Since the relative vertical

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<sup>3</sup>Ibid.

field is greater than 90% of the maximum at these depression angles, the maximum power was used in determining the distance to the DTV contour.

Table II includes the distances to the 41 dBu F(50,90) service contour, the 48 dBu F(50,90) community coverage contour, the average elevation 3.2 to 16.1 km, and the antenna height above average terrain calculated every ten degrees in azimuth commencing with True North. Exhibit E-2 shows the 48 and 41 dBu F(50,90) coverage contours on a map and demonstrates that the community of license is covered by the F(50,90) 48 dBu contour. As indicated above, the proposed STA operation is predicted to serve 719,088 persons in an area of 28,584 square kilometers, which is 107.8% of the 667,000 persons in an area of 25,120 square kilometers predicted to be served by WJCL-DT in the Final DTV Table of Allotments.

#### Total Radiofrequency Field Levels at WJCL-DT Tower Site

The total percentage of radiofrequency field levels ("RFF") can be calculated by combining the percentage contribution of each station. Since the proposed operation is post-transition, all analog full-service stations have been omitted from the RFF analysis. The RFF analysis and the stations considered are shown in Table III.

The total "worst-case" post-transition RFF contribution of all stations two meters above the ground near the base of the WJCL-DT tower is less than 9% of the FCC guidelines for an uncontrolled environment and which is no more than 2% of the proposed FCC guidelines for a controlled environment. WJCL-DT will likely not operate its post-transition facilities until 2009, thereby potentially reducing the RFF at the site after analog operations are removed from the tower and the vicinity.

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.

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

#### Environmental Assessment

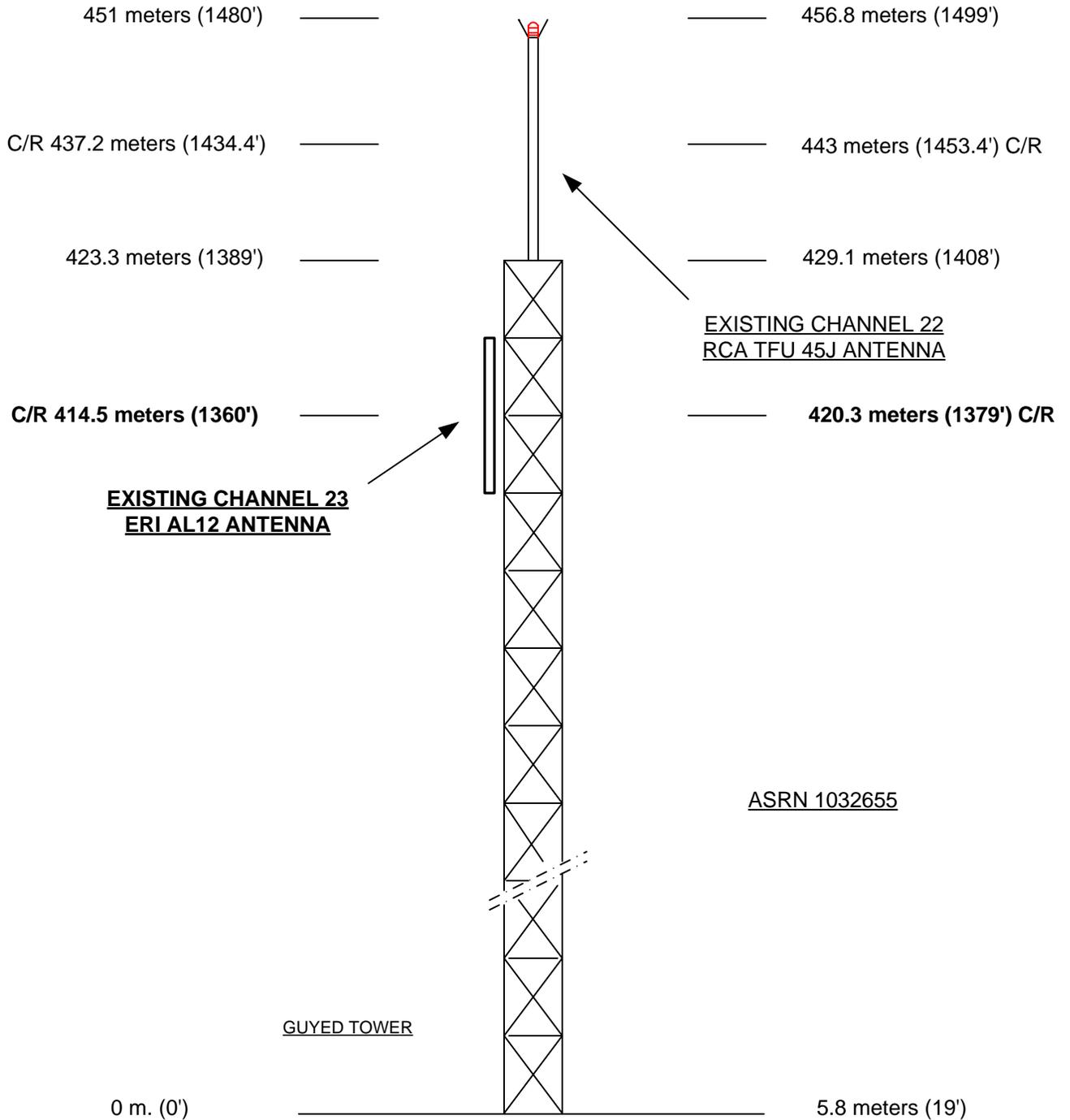
An environmental assessment (“EA”) is categorically excluded under Section 1.1306 of the FCC Rules and Regulations as the tower was constructed prior to the requirements specified in WT Docket No. 03-128 and the licensee indicates:

- (a)(1) The existing tower is not located in an officially designated wilderness area.
- (a)(2) The existing tower is not located in an officially designated wildlife preserve.
- (a)(3) The proposed facilities will not affect any listed threatened or endangered species or habitats.
- (a)(3)(ii) The proposed facilities will not jeopardize the continued existence of any proposed endangered or threatened species or likely to result in the destruction or adverse modification of proposed critical habitats.

- (a)(4) The proposed facilities located on a tower which was built prior to the adoption of WT Docket No. 03-128 and is grandfathered and has not affected any known districts, sites, buildings, structures, or objects significant in American history, architecture, archaeology, engineering, or culture.
- (a)(5) The existing tower is not located near any known Indian religious sites.
- (a)(6) The existing tower is not located in a flood plain.
- (a)(7) Reuse by DTV of the facilities on an existing guyed 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 alter the existing lighting 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 contained in OET Bulletin No. 65, Edition 97-01, dated August 1997 and Supplement A.

ABOVE GROUND

ABOVE MEAN SEA LEVEL



EXISTING CHANNEL 23  
ERI AL12 ANTENNA

EXISTING CHANNEL 22  
RCA TFU 45J ANTENNA

ASRN 1032655

GUYED TOWER

0 m. (0')

5.8 meters (19')

NOT TO SCALE

EXHIBIT E - 1  
VERTICAL SKETCH  
FOR THE PROPOSED DTV  
CHANNEL 23 STA OPERATION OF  
**WJCL-DT, SAVANNAH, GEORGIA**  
DECEMBER 2008

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

COHEN, DIPPELL AND EVERIST, P.C.

TABLE I  
LONGLEY-RICE INTERFERENCE ANALYSIS  
FOR THE PROPOSED STA OPERATION OF  
WJCL-DT, SAVANNAH, GEORGIA  
CHANNEL 23 200 KW ND ERP 413 METERS HAAT  
DECEMBER 2008

<u>Channel</u>	<u>Call</u>	<u>City/State</u>	<u>Dist(km)</u>	<u>Status</u>	<u>FCC File No.</u>	<u>Result</u>
16	WBEK-LP	AUGUSTA GA	170.3	LIC	BLTTL -20001215AAV	No interference
19	WPHJ-CA	VIDALIA GA	110.3	APP	BPTTA -20020523AAY	No interference
22	WJCL	SAVANNAH GA	0	ALLOT		0.07%
22	WJCL-DT	SAVANNAH GA	0	CP MO	BMPCDT -20080619AFS	No interference
23	WUBF-LP	JACKSONVILLE FL	193	CP	BDISTTL -20061024AGD	No interference
23	WMFE-DT	ORLANDO FL	384.8	CP MO	BMPEDT -20010615BEG	No interference
23	WMFE-TV	ORLANDO FL	384.8	ALLOT		No interference
23	WJSP-DT	COLUMBUS GA	327.5	CP MO	BMPEDT -20070907ACX	No interference
23	WJSP-TV	COLUMBUS GA	327.5	ALLOT		0.03%
23	WBTV	CHARLOTTE NC	367.7	ALLOT		0.04%
23	WBTV	CHARLOTTE NC	367.7	LIC	BLCDDT -19991025AEB	0.04%
24	WPXC-DT	BRUNSWICK GA	142	LIC	BLCDDT -20060607ABQ	No interference
24	WPXC-TV	BRUNSWICK GA	142	ALLOT		No interference
24	WPXC-TV	BRUNSWICK GA	142	CP	BPCDDT -20080619AFQ	No interference
24	WTAT-DT	CHARLESTON SC	182.5	CP MO	BMPCDT -20080620ADZ	No interference
24	WTAT-TV	CHARLESTON SC	182.5	ALLOT		No interference
25	W25CQ	STATESBORO GA	45	LIC	BLTT -19990603JE	No interference

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TABLE II  
COMPUTED COVERAGE DATA  
FOR THE PROPOSED DTV OPERATION OF  
WJCL-DT, SAVANNAH, GEORGIA  
CHANNEL 23 200 KW 413 METERS HAAT  
DECEMBER 2008

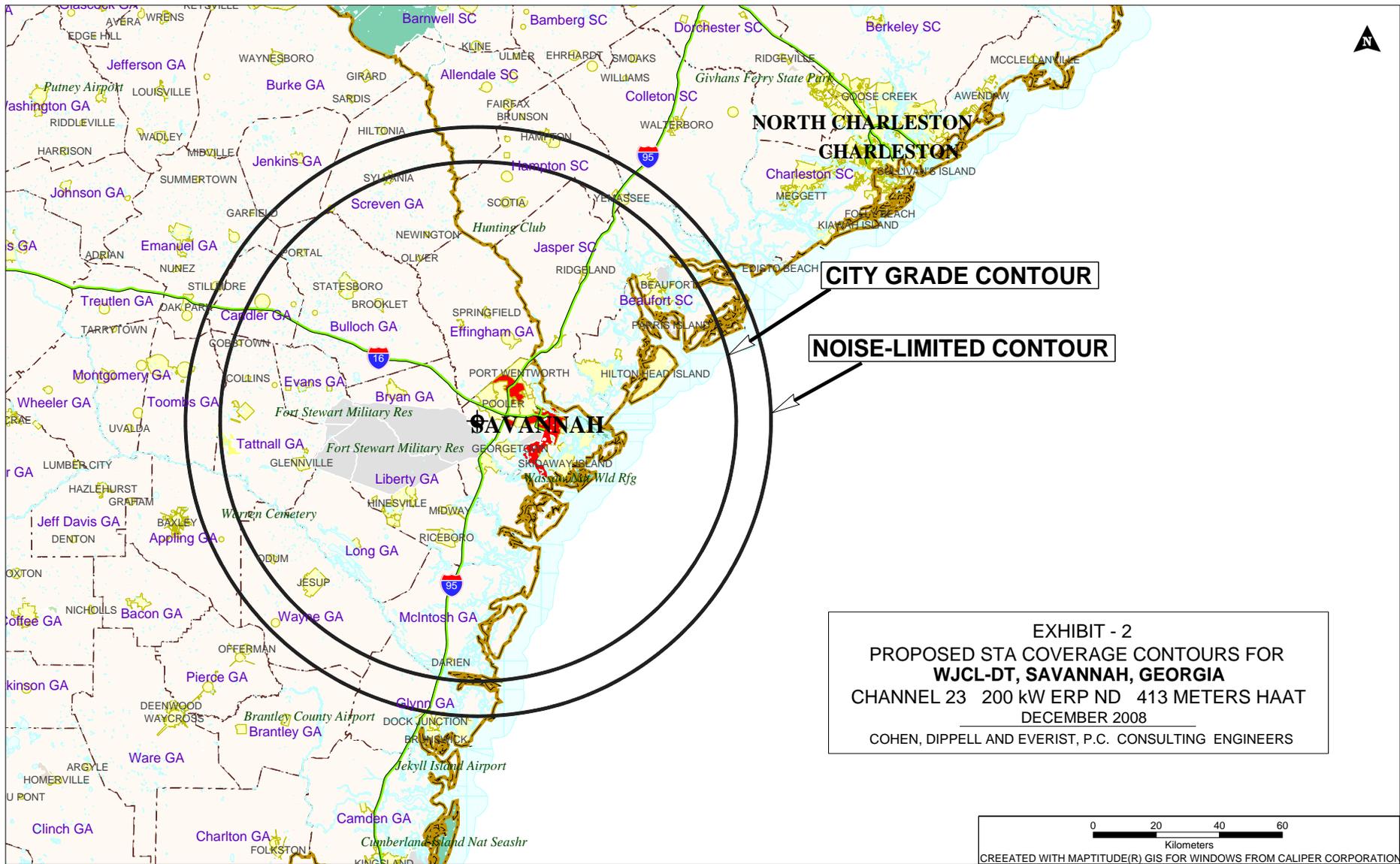
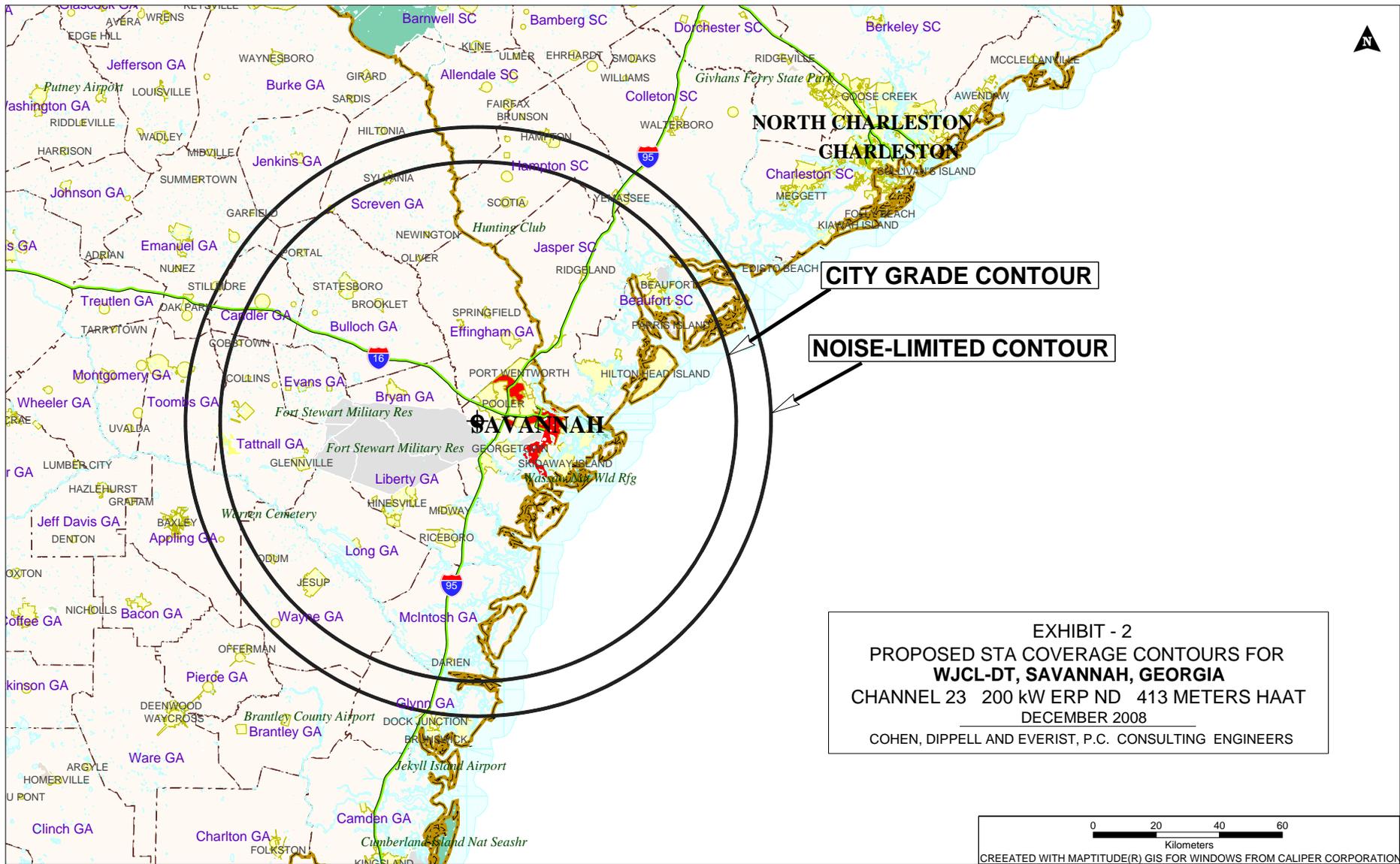
Radial Bearing N ° E, T	Average* Elevation <u>3.2 to 16.1 km</u> meters	Effective Height meters	Depression Angle	ERP At Radio Horizon kW	Distance to Contour F(50,90)	
					<u>48 dBu</u> City Grade km	<u>41 dBu</u> Noise-Limited km
0	10.7	409.6	0.56	200	81.9	92.9
45	5.8	414.5	0.56	200	82.1	93.1
90	5.2	415.1	0.56	200	82.2	93.2
135	4.3	416.0	0.56	200	82.2	93.2
180	3.4	416.9	0.57	200	82.3	93.3
225	5.2	415.1	0.56	200	82.2	93.2
270	11.9	408.4	0.56	200	81.9	92.8
315	9.8	410.5	0.56	200	82.0	93.0
Average	7	413				

\*Based on data from the construction permit application (FCC File No. BPCDT-19981120KE) referenced in the currently licensed operation for WJCL-DT (FCC File No. BLCDT-20080725ABD) from which this special temporary authority request is based.

DTV Channel 23 (524-530 MHz)  
 Average Elevation 3.2 to 16.1 km 7 meters AMSL  
 Center of Radiation 420.3 meters AMSL  
 Antenna Height Above Average Terrain 413 meters  
 Effective Radiated Power 200 kW (23.01 dBk) Max.

North Latitude: 32° 03' 29"  
 West Longitude: 81° 20' 19"

(NAD-27)



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TABLE III  
RFF ANALYSIS CONSIDERS STATIONS  
IN THE VICINITY OF THE PROPOSED OPERATION OF  
WJCL-DT, SAVANNAH, GEORGIA  
DECEMBER 2008

<u>Call Sign</u>	<u>Status</u>	<u>Channel</u>	<u>Frequency</u> MHz	<u>ERP</u> kW	<u>RCAGL</u> meters	<u>Assumed</u> <u>Relative Field Value</u>	<u>RFF</u> $\mu\text{W}/\text{cm}^2$	<u>Uncontrolled</u> <u>MPE</u> $\mu\text{W}/\text{cm}^2$	<u>% Uncontrolled</u>
WJCL-DT	CP Post-Transition	22	518-524	85 (H)	437.2	0.1	0.15	345	0.04%
WJCL-DT	Proposed STA	23	524-530	200 (H)	414.5	0.1	0.4	351	0.11%
WIXV(FM)	License	238C1	95.5	98 (H&V)	302.2	0.35	8.9	200	4.45%
WJCL-FM	License	243C	96.5	100 (H&V)	355.2	0.3	4.8	200	2.41%
WZAT(FM)	License	271C0	102.1	98 (H&V)	404.2	0.3	3.6	200	<u>1.82%</u>
Total									<8.8%

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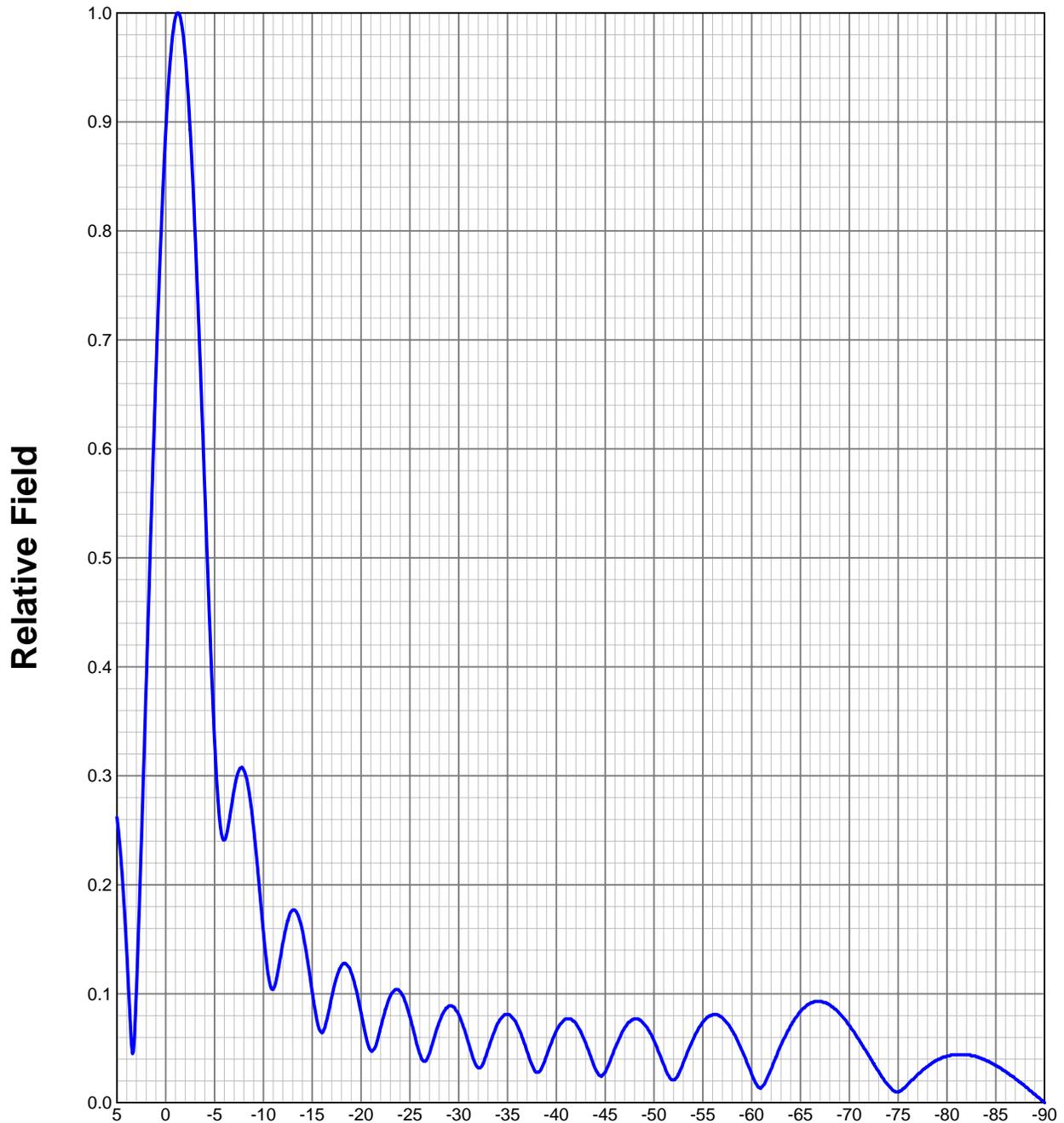
EXHIBIT E-3

ANTENNA MANUFACTURER DATA

WJCL-DT, SAVANNAH, GEORGIA

**ELEVATION PATTERN**

Type:	AL12		Channel:	23
Directivity:	Numeric	dBd	Location:	
Main Lobe:	12.00	10.79	Beam Tilt:	-1.25
Horizontal:	9.53	9.79	Polarization:	Horizontal



Preliminary, subject to final design and review.

## TABULATED DATA FOR ELEVATION PATTERN

Type: AL12

PolarizationHorizontal

ANGLEFIELD	dB	ANGLEFIELD	dB	ANGLEFIELD	dB	ANGLEFIELD	dB	ANGLEFIELD	dB					
5.00	0.262	-11.63	-6.75	0.273	-11.28	-27.00	0.045	-26.94	-50.50	0.046	-26.74	-74.00	0.016	-35.92
4.75	0.241	-12.36	-7.00	0.287	-10.84	-27.50	0.060	-24.44	-51.00	0.035	-29.12	-74.50	0.011	-39.17
4.50	0.214	-13.39	-7.25	0.298	-10.52	-28.00	0.074	-22.62	-51.50	0.025	-32.04	-75.00	0.010	-40.00
4.25	0.179	-14.92	-7.50	0.305	-10.31	-28.50	0.084	-21.51	-52.00	0.021	-33.56	-75.50	0.013	-37.72
4.00	0.140	-17.08	-7.75	0.307	-10.24	-29.00	0.089	-21.01	-52.50	0.026	-31.70	-76.00	0.017	-35.39
3.75	0.095	-20.45	-8.00	0.305	-10.31	-29.50	0.088	-21.11	-53.00	0.037	-28.64	-76.50	0.021	-33.56
3.50	0.053	-25.51	-8.25	0.298	-10.50	-30.00	0.081	-21.83	-53.50	0.048	-26.38	-77.00	0.026	-31.70
3.25	0.054	-25.35	-8.50	0.287	-10.84	-30.50	0.069	-23.22	-54.00	0.058	-24.73	-77.50	0.030	-30.46
3.00	0.103	-19.74	-8.75	0.272	-11.32	-31.00	0.055	-25.19	-54.50	0.067	-23.48	-78.00	0.033	-29.63
2.75	0.167	-15.52	-9.00	0.252	-11.97	-31.50	0.040	-27.96	-55.00	0.074	-22.62	-78.50	0.037	-28.64
2.50	0.237	-12.51	-9.25	0.230	-12.77	-32.00	0.032	-29.90	-55.50	0.079	-22.05	-79.00	0.039	-28.18
2.25	0.309	-10.19	-9.50	0.206	-13.72	-32.50	0.036	-28.87	-56.00	0.081	-21.83	-79.50	0.041	-27.74
2.00	0.383	-8.34	-9.75	0.181	-14.85	-33.00	0.049	-26.20	-56.50	0.081	-21.83	-80.00	0.043	-27.33
1.75	0.458	-6.79	-10.00	0.157	-16.08	-33.50	0.062	-24.15	-57.00	0.078	-22.16	-80.50	0.044	-27.13
1.50	0.531	-5.50	-10.50	0.117	-18.64	-34.00	0.073	-22.73	-57.50	0.073	-22.73	-81.00	0.044	-27.13
1.25	0.602	-4.41	-11.00	0.104	-19.66	-34.50	0.079	-22.05	-58.00	0.066	-23.61	-81.50	0.044	-27.13
1.00	0.670	-3.48	-11.50	0.121	-18.34	-35.00	0.081	-21.83	-58.50	0.058	-24.73	-82.00	0.044	-27.13
0.75	0.734	-2.69	-12.00	0.147	-16.65	-35.50	0.078	-22.16	-59.00	0.048	-26.38	-82.50	0.043	-27.33
0.50	0.792	-2.03	-12.50	0.167	-15.55	-36.00	0.071	-22.97	-59.50	0.037	-28.64	-83.00	0.042	-27.54
0.25	0.845	-1.46	-13.00	0.177	-15.04	-36.50	0.060	-24.44	-60.00	0.026	-31.70	-83.50	0.041	-27.74
0.00	0.891	-1.00	-13.50	0.173	-15.24	-37.00	0.047	-26.56	-60.50	0.017	-35.39	-84.00	0.039	-28.18
-0.25	0.930	-0.63	-14.00	0.158	-16.03	-37.50	0.035	-29.12	-61.00	0.014	-37.08	-84.50	0.037	-28.64
-0.50	0.960	-0.35	-14.50	0.132	-17.59	-38.00	0.028	-31.06	-61.50	0.021	-33.56	-85.00	0.034	-29.37
-0.75	0.982	-0.15	-15.00	0.102	-19.83	-38.50	0.032	-29.90	-62.00	0.031	-30.17	-85.50	0.032	-29.90
-1.00	0.996	-0.03	-15.50	0.075	-22.50	-39.00	0.043	-27.33	-62.50	0.042	-27.54	-86.00	0.029	-30.75
-1.25	1.000	0.00	-16.00	0.064	-23.88	-39.50	0.055	-25.19	-63.00	0.053	-25.51	-86.50	0.025	-32.04
-1.50	0.996	-0.03	-16.50	0.076	-22.38	-40.00	0.066	-23.61	-63.50	0.062	-24.15	-87.00	0.022	-33.15
-1.75	0.982	-0.15	-17.00	0.097	-20.26	-40.50	0.073	-22.73	-64.00	0.071	-22.97	-87.50	0.019	-34.42
-2.00	0.961	-0.35	-17.50	0.115	-18.79	-41.00	0.077	-22.27	-64.50	0.078	-22.16	-88.00	0.015	-36.48
-2.25	0.931	-0.63	-18.00	0.126	-17.99	-41.50	0.077	-22.27	-65.00	0.084	-21.51	-88.50	0.011	-39.17
-2.50	0.893	-0.98	-18.50	0.127	-17.92	-42.00	0.073	-22.73	-65.50	0.088	-21.11	-89.00	0.008	-41.94
-2.75	0.849	-1.42	-19.00	0.119	-18.49	-42.50	0.065	-23.74	-66.00	0.091	-20.82	-89.50	0.004	-47.96
-3.00	0.799	-1.95	-19.50	0.104	-19.66	-43.00	0.055	-25.19	-66.50	0.093	-20.63	-90.00	0.000	-40.00
-3.25	0.744	-2.56	-20.00	0.083	-21.62	-43.50	0.043	-27.33	-67.00	0.093	-20.63			
-3.50	0.686	-3.27	-20.50	0.061	-24.29	-44.00	0.031	-30.17	-67.50	0.092	-20.72			
-3.75	0.625	-4.09	-21.00	0.048	-26.38	-44.50	0.025	-32.04	-68.00	0.090	-20.92			
-4.00	0.562	-5.01	-21.50	0.052	-25.68	-45.00	0.028	-31.06	-68.50	0.086	-21.31			
-4.25	0.500	-6.03	-22.00	0.069	-23.22	-45.50	0.038	-28.40	-69.00	0.082	-21.72			
-4.50	0.439	-7.15	-22.50	0.086	-21.31	-46.00	0.050	-26.02	-69.50	0.077	-22.27			
-4.75	0.383	-8.34	-23.00	0.098	-20.18	-46.50	0.060	-24.44	-70.00	0.071	-22.97			
-5.00	0.332	-9.58	-23.50	0.104	-19.66	-47.00	0.069	-23.22	-70.50	0.065	-23.74			
-5.25	0.291	-10.72	-24.00	0.102	-19.83	-47.50	0.074	-22.62	-71.00	0.058	-24.73			
-5.50	0.261	-11.67	-24.50	0.093	-20.63	-48.00	0.077	-22.27	-71.50	0.050	-26.02			
-5.75	0.245	-12.22	-25.00	0.079	-22.05	-48.50	0.076	-22.38	-72.00	0.043	-27.33			
-6.00	0.241	-12.36	-25.50	0.062	-24.15	-49.00	0.072	-22.85	-72.50	0.036	-28.87			
-6.25	0.247	-12.15	-26.00	0.045	-26.94	-49.50	0.066	-23.61	-73.00	0.029	-30.75			
-6.50	0.259	-11.73	-26.50	0.038	-28.40	-50.00	0.057	-24.88	-73.50	0.022	-33.15			

Preliminary, subject to final design and review.

**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:

Manufacturer	Model
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a.  Not Applicable

b. Electrical Beam Tilt: \_\_\_\_\_ degrees  Not Applicable

c. Mechanical Beam Tilt: \_\_\_\_\_ degrees toward azimuth \_\_\_\_\_ degrees True  Not Applicable

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

d. Polarization:  Horizontal  Circular  Elliptical

**TECH BOX**

e. Directional Antenna Relative Field Values:  Not applicable (Nondirectional)  
 Rotation: \_\_\_\_\_ °  No rotation

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

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

Exhibit No.

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

Exhibit No.

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

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

Exhibit No.

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

Exhibit No.

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

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

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

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

13. **Petition for Rulemaking/Counterproposal to Add New FM Channel to FM Table of Allotments.** If the application is being submitted concurrently with a Petition for Rulemaking or Counterproposal to Amend the FM Table of Allotments (47 C.F.R. Section 73.202) to add a new FM channel allotment, petitioner/counter-proponent certifies that, if the FM channel allotment requested is allotted, petitioner/counter-proponent will apply to participate in the auction of the channel allotment requested and specified in this application.

Yes  No  N/A

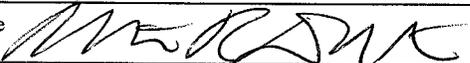
I certify that the statements in this application are true, complete, and correct to the best of my knowledge and belief, and are made in 'good faith. I acknowledge that all certifications and attached Exhibits are considered material representations. I hereby waive any claim to the use of any particular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

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

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

### SECTION III PREPARER'S CERTIFICATION

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

Name Martin R. Doczkat	Relationship to Applicant (e.g., Consulting Engineer) Consulting Engineer	
Signature 	Date December 10, 2008	
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).