

BERNARD R. SEGAL, P. E.
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ENGINEERING EXHIBIT
APPLICATION FOR MODIFICATION OF
DIGITAL TELEVISION CONSTRUCTION PERMIT
WBAL HEARST-ARGYLE TELEVISION, INC.
STATION WBAL-DT, BALTIMORE, MARYLAND
CH. 59 513 KW (AVG) 312 METERS

Engineering Statement

WBAL Hearst-Argyle Television, Inc. (hereafter, Hearst) is the permittee in BMPCDT-19990317KF for a new DTV facility for station WBAL-DT, Baltimore, Maryland. The outstanding construction permit specifies operation on Channel 59 with average effective radiated power of 603 kW and antenna radiation center height of 312 meters above average terrain. Hearst, now, seeks a modification of the construction permit to reduce the effective radiated power to 513 kW. No other change is proposed.

During the course of construction of the DTV facility, the transmitter manufacturer determined that the output power had to be reduced from 48 kW to 40 kW in order to meet the passband mask requirements. In turn, the authorized effective radiated power must be reduced from 603 kW to the now proposed 513 kW value.

In order to satisfy the CDBS electronic filing requirements, the antenna vertical plane radiation pattern data are resubmitted. Exhibit No.1 provides graphs of the relative field patterns, and Exhibit No 2 is the tabulation of relative field data.

With the reduced power operation specified herein, all of Baltimore continues to be encompassed by the 48 dBu, F(50,90), contour, as required by the Rules. For the sake of completeness, a map showing the contour relative to Baltimore is provided in Exhibit No. 3. Exhibit No. 4 is a tabulation of data used to prepare the map of Exhibit No. 3. The

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Engineering Statement
WBAL-DT, Baltimore, Maryland

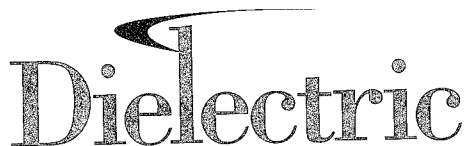
Page 2

terrain elevation data used was copied from the data previously submitted in conjunction with the underlying application that led to the grant of BMPCDT-19990317KF.

The reduction in effective radiated power will not alter the previously determined conclusion that implementation of the proposal will not have a significant impact on the environment.

I declare under penalty of perjury that the foregoing is true and correct. Executed on April 19, 2002.


Bernard R. Segal, P. E.



Proposal Number

DCA-7988

Date

16-Jul-98

Call Letters

WBAL-DTEXHIBIT NO. 1
SHEET 1 OF 2

Location

Baltimore, MDChannel **59**

Customer

Antenna Type

TFU-20GTH-R 04

ELEVATION PATTERN

RMS Gain at Main Lobe

17.50 (12.43 dB)

Beam Tilt

0.75 deg

RMS Gain at Horizontal

15.10 (11.79 dB)

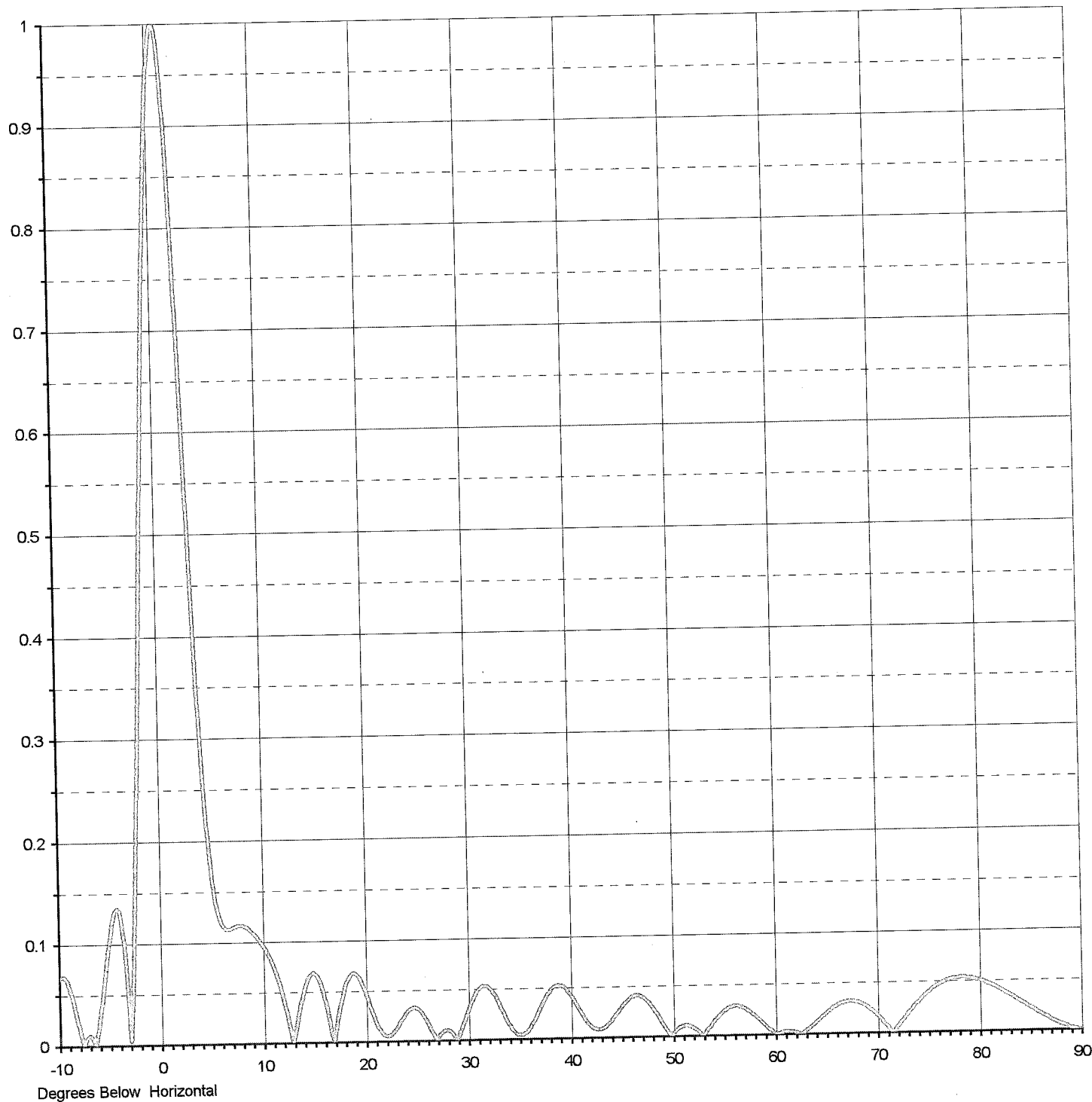
Frequency

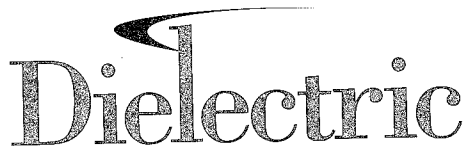
743.00 MHz

Calculated / Measured

Calculated

Drawing #

20G175075-90



Proposal Number

DCA-7988

Date

16-Jul-98

Call Letters

WBAL-DT

EXHIBIT NO. 1

SHEET 2 OF 2

Location

Baltimore, MDChannel **59**

Customer

Antenna Type

TFU-20GTH-R 04

ELEVATION PATTERN

RMS Gain at Main Lobe **17.50 (12.43 dB)**RMS Gain at Horizontal **15.10 (11.79 dB)**Calculated / Measured **Calculated**

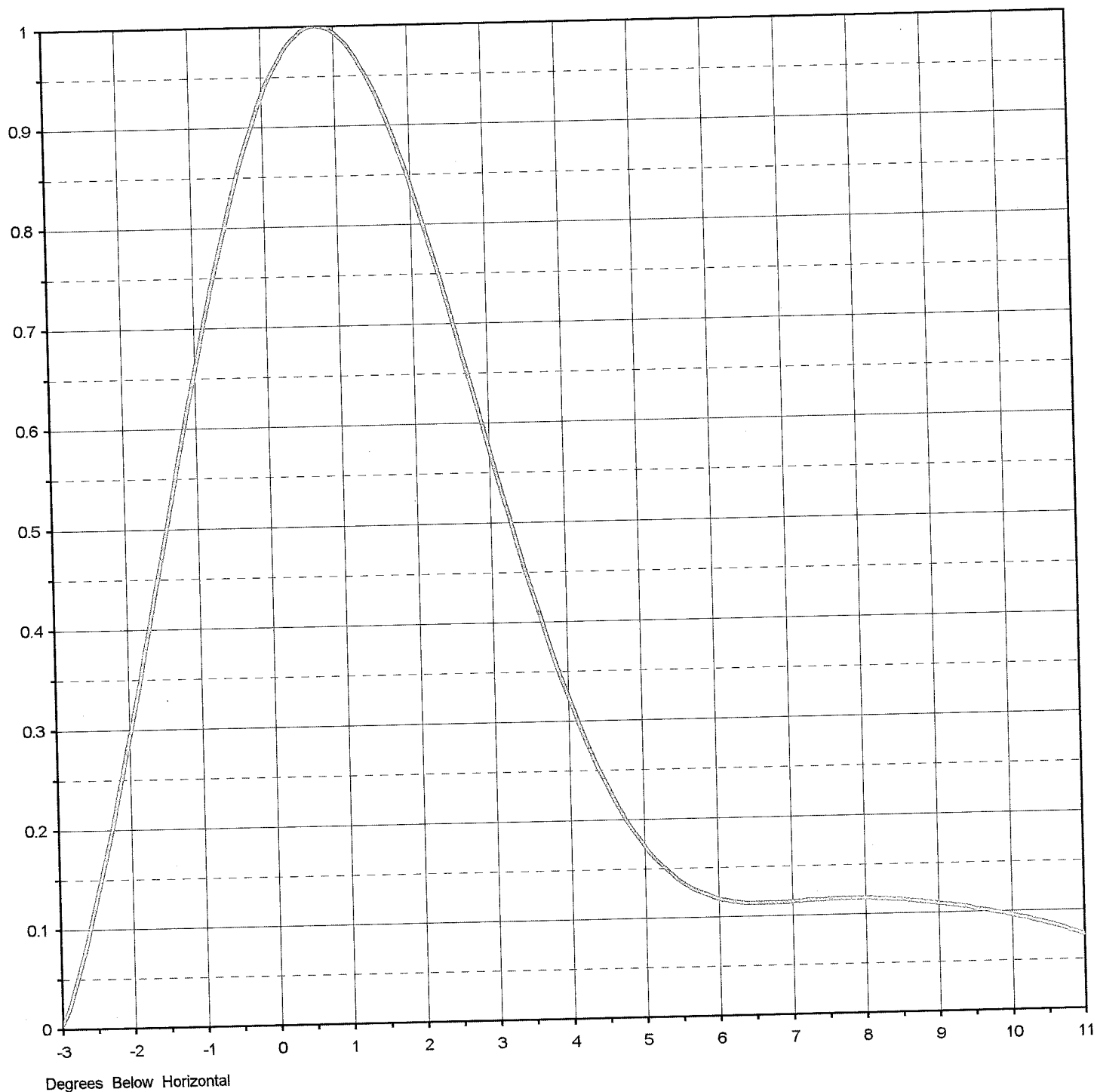
Beam Tilt

0.75 deg

Frequency

743.00 MHz

Drawing #

20G175075

Proposal Number **DCA-7988**Date **16-Jul-98**Call Letters **WBAL-DT** Channel **59**Location **Baltimore, MD**

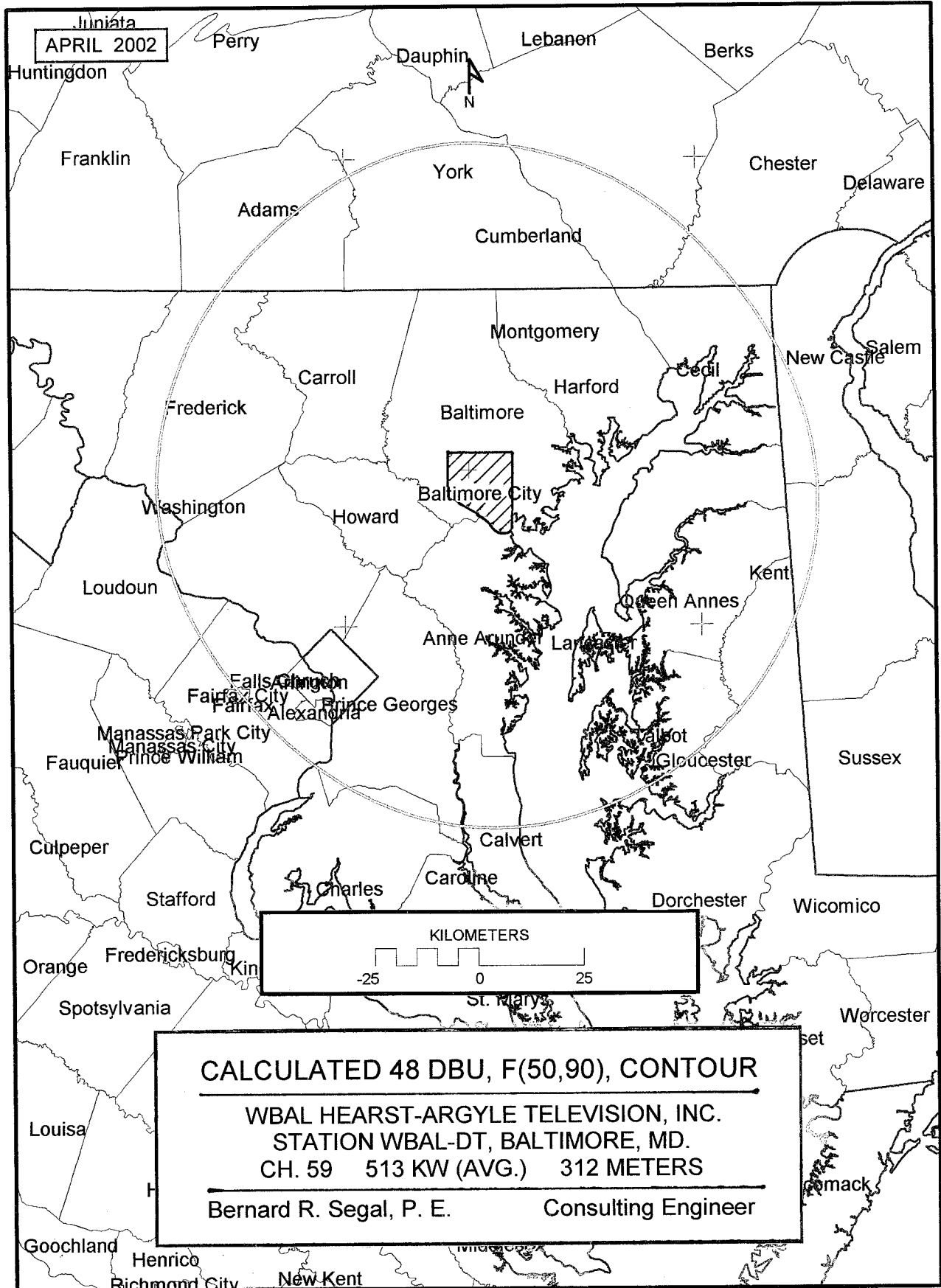
Customer

Antenna Type **TFU-20GTH-R 04**

TABULATION OF ELEVATION PATTERN

Elevation Pattern Drawing #: **20G175075-90**

Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
-10.0	0.066	2.4	0.741	10.6	0.087	30.5	0.040	51.0	0.010	71.5	0.001
-9.5	0.068	2.6	0.687	10.8	0.083	31.0	0.049	51.5	0.011	72.0	0.007
-9.0	0.057	2.8	0.631	11.0	0.078	31.5	0.053	52.0	0.009	72.5	0.013
-8.5	0.037	3.0	0.575	11.5	0.064	32.0	0.052	52.5	0.005	73.0	0.020
-8.0	0.014	3.2	0.520	12.0	0.045	32.5	0.046	53.0	0.001	73.5	0.026
-7.5	0.004	3.4	0.467	12.5	0.022	33.0	0.037	53.5	0.007	74.0	0.031
-7.0	0.010	3.6	0.417	13.0	0.003	33.5	0.026	54.0	0.013	74.5	0.036
-6.5	0.001	3.8	0.369	13.5	0.028	34.0	0.015	54.5	0.019	75.0	0.040
-6.0	0.028	4.0	0.326	14.0	0.050	34.5	0.008	55.0	0.024	75.5	0.044
-5.5	0.066	4.2	0.287	14.5	0.064	35.0	0.004	55.5	0.027	76.0	0.047
-5.0	0.105	4.4	0.252	15.0	0.069	35.5	0.005	56.0	0.029	76.5	0.050
-4.5	0.131	4.6	0.221	15.5	0.062	36.0	0.010	56.5	0.029	77.0	0.052
-4.0	0.130	4.8	0.195	16.0	0.046	36.5	0.018	57.0	0.027	77.5	0.053
-3.5	0.089	5.0	0.174	16.5	0.022	37.0	0.028	57.5	0.024	78.0	0.054
-3.0	0.004	5.2	0.156	17.0	0.006	37.5	0.038	58.0	0.020	78.5	0.054
-2.8	0.043	5.4	0.142	17.5	0.032	38.0	0.046	58.5	0.015	79.0	0.053
-2.6	0.096	5.6	0.131	18.0	0.053	38.5	0.051	59.0	0.010	79.5	0.052
-2.4	0.156	5.8	0.124	18.5	0.065	39.0	0.052	59.5	0.005	80.0	0.051
-2.2	0.221	6.0	0.118	19.0	0.068	39.5	0.050	60.0	0.001	80.5	0.049
-2.0	0.290	6.2	0.115	19.5	0.062	40.0	0.044	60.5	0.001	81.0	0.047
-1.8	0.362	6.4	0.113	20.0	0.050	40.5	0.035	61.0	0.003	81.5	0.044
-1.6	0.436	6.6	0.113	20.5	0.034	41.0	0.026	61.5	0.003	82.0	0.041
-1.4	0.510	6.8	0.113	21.0	0.020	41.5	0.018	62.0	0.002	82.5	0.038
-1.2	0.584	7.0	0.114	21.5	0.010	42.0	0.012	62.5	0.000	83.0	0.035
-1.0	0.655	7.2	0.115	22.0	0.005	42.5	0.009	63.0	0.003	83.5	0.032
-0.8	0.722	7.4	0.115	22.5	0.006	43.0	0.008	63.5	0.007	84.0	0.029
-0.6	0.784	7.6	0.116	23.0	0.012	43.5	0.011	64.0	0.011	84.5	0.026
-0.4	0.840	7.8	0.116	23.5	0.020	44.0	0.016	64.5	0.017	85.0	0.023
-0.2	0.889	8.0	0.116	24.0	0.028	44.5	0.023	65.0	0.021	85.5	0.020
0.0	0.930	8.2	0.115	24.5	0.032	45.0	0.029	65.5	0.025	86.0	0.017
0.2	0.961	8.4	0.114	25.0	0.032	45.5	0.035	66.0	0.028	86.5	0.014
0.4	0.984	8.6	0.113	25.5	0.028	46.0	0.040	66.5	0.030	87.0	0.011
0.6	0.997	8.8	0.111	26.0	0.019	46.5	0.041	67.0	0.032	87.5	0.008
0.8	1.000	9.0	0.109	26.5	0.009	47.0	0.040	67.5	0.032	88.0	0.006
1.0	0.994	9.2	0.107	27.0	0.001	47.5	0.036	68.0	0.031	88.5	0.004
1.2	0.979	9.4	0.105	27.5	0.008	48.0	0.030	68.5	0.029	89.0	0.002
1.4	0.955	9.6	0.102	28.0	0.010	48.5	0.022	69.0	0.026	89.5	0.001
1.6	0.924	9.8	0.101	28.5	0.007	49.0	0.013	69.5	0.022	90.0	0.000
1.8	0.886	10.0	0.098	29.0	0.002	49.5	0.005	70.0	0.017		
2.0	0.842	10.2	0.094	29.5	0.014	50.0	0.002	70.5	0.011		
2.2	0.793	10.4	0.091	30.0	0.027	50.5	0.007	71.0	0.005		



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EXHIBIT NO. 4

WBAL-DT, BALTIMORE, MARYLAND
CH. 59 513 KW (AVG.) 312 METERS

Tabulation of Average Elevations, and
Distances to the 48 dBu, F(50,90) Contour

Site Coordinates: 39° 20' 05" North Latitude
76° 39' 03" West Longitude

Antenna Radiation Center: 396 m AMSL

<u>Azimuth</u> (Deg. T.)	<u>Radiation Center</u> Above 3.2-16.1 km Terrain Avg (meters)	<u>Distance to</u> 48 dBu, F(50,90) Contour (km)
0	296	77.8
45	294	77.8
90	355	84.1
135	387	86.7
180	364	84.9
225	286	77.0
270	270	75.5
315	248	73.6

Average: 312*

*The average is for the eight standard radials.