

## **ENGINEERING EXHIBIT**

### **Application for Digital Television Station Construction Permit**

prepared for

**CBS Corporation**  
WJZ-TV Baltimore, MD  
Facility ID 25455  
Ch. 13 33.8 kW 295 m

*CBS Corporation (“CBS”)* is the licensee of television station WJZ-TV digital Channel 13, Facility ID 25455, Baltimore, MD. WJZ-TV is licensed to operate at 28.8 kW effective radiated power (“ERP”) with a directional antenna at a height above average terrain (“HAAT”) of 295 meters. *CBS* herein seeks a Construction Permit to increase the ERP to 33.8 kW with the licensed antenna system.

The WJZ-TV transmitting antenna is located on an antenna supporting structure having FCC Antenna Structure Registration number 1035558. No change to the overall structure height and no tower work are required to carry out this proposal.

The antenna is an elliptically polarized Dielectric model THV-9A13/VP-R (39.2 percent vertical polarization). The proposed maximum horizontally polarized ERP is 33.8 kW and the maximum vertically polarized ERP is 13.2 kW. The vertically polarized component does not exceed the horizontally polarized component at any azimuth. The directional antenna’s azimuthal patterns are depicted in Figures 1 and 1A for horizontal and vertical polarization, respectively. The antenna’s elevation pattern is depicted in Figures 2 and 2A.

A map is supplied as Figure 3 which depicts the standard predicted coverage contours. This map includes the location of Baltimore, WJZ-TV’s principal community. As demonstrated thereon,

the proposed facility complies with §73.625(a)(1), as the entire principal community will be encompassed by the 43 dB $\mu$  contour.

The proposed WJZ-TV facility's predicted service population provides a 103.4 percent match of the MB Docket 87-268 Seventh Report and Order Appendix B facility, as detailed in the following table.

Population Summary (2000 Census) OET Bulletin 69 method	Appendix B	Proposed
Within Noise Limited Contour	8,094,973	8,421,507
Not affected by terrain losses	7,849,268	8,139,178
Lost to all interference	396,291	432,270
Net DTV Service	<b>7,452,977</b>	<b>7,706,908</b>
Match of Appendix B	---	<b>103.41%</b>

The proposed facility expands the WJZ-TV service contour beyond that established by Appendix B values. A detailed interference study per OET Bulletin 69<sup>1</sup> shows that the proposal complies with the 0.5 percent limit of new interference caused to pertinent nearby digital television and Class A television stations. **A cell size of 2 km and terrain profile step increment of 0.2 km were employed.** The interference study output report is provided as Table 1.

The proposed 33.8 kW ERP exceeds the maximum allowed for the proposed antenna HAAT of 295 meters currently permitted by §73.622(f)(7). Section 73.622(f)(5) permits the maximum ERP to be exceeded in order to provide the same geographic coverage area as the largest station within the same market. The total area within the proposed WJZ-TV 36 dB $\mu$  contour is 30,260 square kilometers, which does not exceed the authorized coverage contour area of WBAL(DT) (31,781 sq. km, Ch. 11, Baltimore, MD, BPCDT-20100429AAF) as shown in Figure 4. Although WJZ-TV is located in Zone I, ERP in excess of 30 kW has been authorized for other Zone I VHF Channel 7-13

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<sup>1</sup>FCC Office of Engineering and Technology Bulletin number 69, *Longley-Rice Methodology for Evaluating TV Coverage and Interference*, February 6, 2004 ("OET-69"). The implementation of OET-69 for this study followed the guidelines of OET-69 as specified therein. **A cell size of 2 km and terrain profile step increment of 0.2 km were employed.** Comparisons of various results of this computer program (run on a Sun Sparc processor) to the Commission's implementation of OET-69 show excellent correlation.

stations<sup>2</sup> on the basis of the same “largest station in the market” exception in §73.622(f)(5). Thus, the 33.8 kW ERP specified herein is in compliance with §73.622(f)(5) of the Commission’s Rules.<sup>3</sup>

### **Other Allocation Considerations**

The nearest FCC monitoring station is 23.9 km distant at Laurel, MD. Using the FCC propagation curves, the proposed F(50,90) signal level at the monitoring station is 10.35 mV/m, which is slightly (by 0.3 dB) above the 10 mV/m threshold of §73.1030(c) where further analysis may be required. Here, the proposal represents a substantial decrease in signal level from the pre-transition WJZ-TV analog Channel 13 facility (BLCT-20000508AAY), which operated at 316 kW ERP and resulted in a F(50,50) signal of 42.2 mV/m at the monitoring station. Additionally, the proposed WJZ-TV Channel 13 facility would present a signal level which is lower than that of the WBAL Construction Permit facility (BPCDT-20100429AAF, Ch. 11, co-located with WJZ-TV) which is predicted to provide a 11.35 mV/m F(50,90) signal at the monitoring station.

The site is located outside the areas specified in §73.1030(a)(1) and §73.1030(b). There are no authorized AM stations within 3.2 kilometers of the site. The site location is beyond the border zones that would require international coordination.

### **Human Exposure to Radiofrequency Electromagnetic Field**

The proposed operation was evaluated for human exposure to RF energy using the procedures outlined in the Commission’s OET Bulletin Number 65. Based on OET-65 equation (10), and assuming 20 percent antenna relative field in downward elevations (manufacturer’s data shows less than 20 percent relative field at depression angles 20 to 90 degrees), the calculated power density attributable to the proposed facility at locations near the transmitter site at a height of two meters above ground level is  $0.8 \mu\text{W}/\text{cm}^2$ , which is 0.4 percent of the “uncontrolled / general public” maximum permissible exposure limit. This well is below the five percent threshold limit described in

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<sup>2</sup>For example, Zone I station WBPH-TV Ch. 9 Bethlehem, PA was allotted 3.2 kW at 284 meters and was authorized an expansion facility of 89 kW at 284 meters (BPCDT-20080619ALA). Subsequently, WBPH-TV was authorized to increase to 80.6 kW at 302 meters (BMPCDT-20110330AAN, BMPCDT-20100105AAH).

<sup>3</sup>The proposed 33.8 kW / 295 meter parameters is also in compliance with the increased power for VHF stations as proposed in ET Docket No. 10-235 “*Innovation in the Broadcast Television Bands: Allocations, Channel Sharing and Improvements to VHF*”, FCC 10-196, released November 30, 2010.

§1.1307(b) regarding sites with multiple emitters, categorically excluding the applicant from responsibility for taking any corrective action in the areas where the proposal's contribution is less than five percent.

The general public will not be exposed to RF levels attributable to the proposal in excess of the FCC's guidelines. RF exposure warning signs will continue to be posted. With respect to worker safety, the applicant will coordinate exposure procedures with all pertinent stations and will reduce power or cease operation as necessary to protect persons having access to the site, tower or antenna from RF electromagnetic field exposure in excess of FCC guidelines.

This exhibit is limited to the evaluation of exposure to RF electromagnetic field. The WJZ-TV transmitting antenna is top-mounted on an antenna support structure which was constructed prior to March 16, 2001. No tower work or change in structure height is proposed.

### **Certification**

The undersigned hereby certifies that the foregoing statement and associated attachments were prepared by him or under his direction, and that they are true and correct to the best of his knowledge and belief.



Joseph M. Davis, P.E.  
August 9, 2011

**Chesapeake RF Consultants, LLC**  
207 Old Dominion Road  
Yorktown, VA 23692  
703-650-9600

### List of Attachments

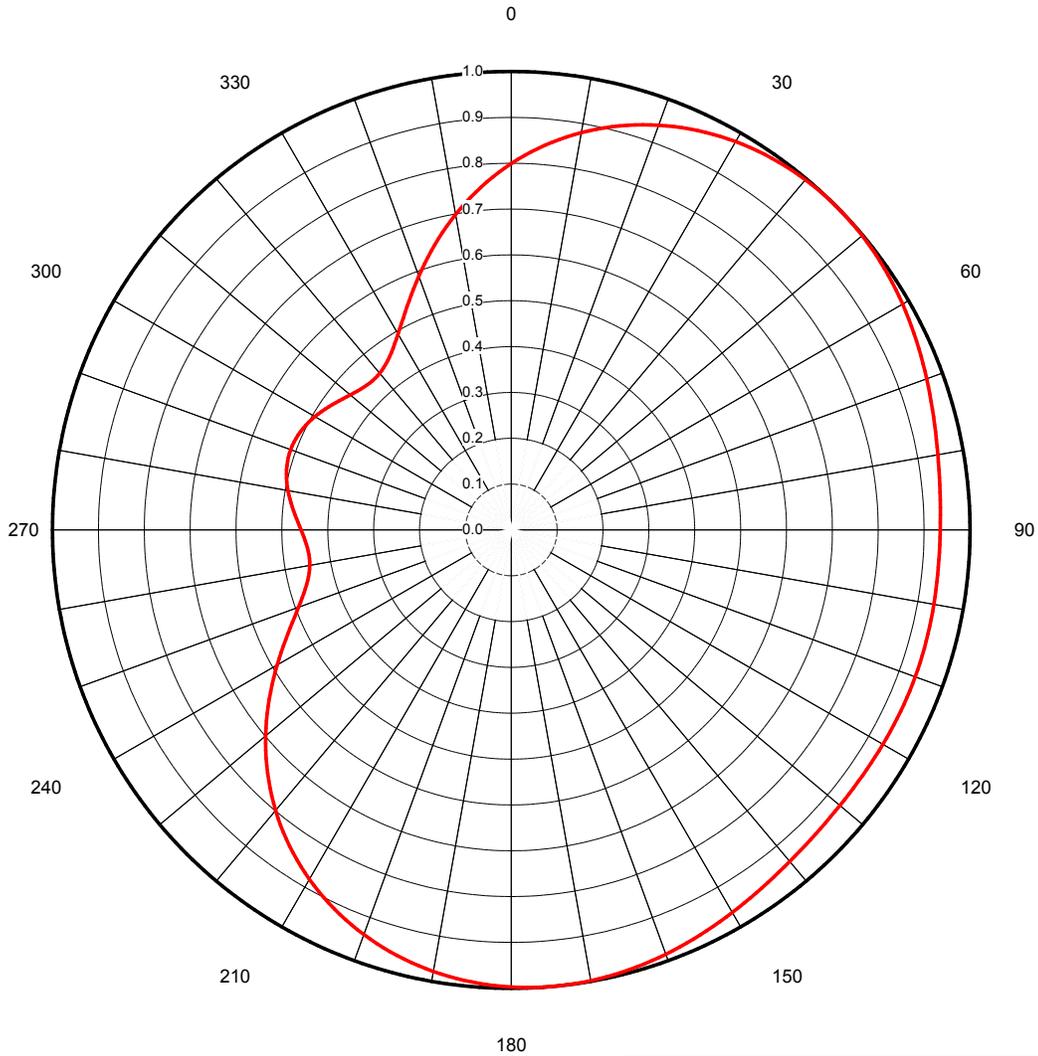
Figure 1, 1A Antenna Azimuthal Pattern  
Figure 2, 2A Antenna Elevation Pattern  
Figure 3 Proposed Coverage Contours  
Figure 4 Maximum ERP per §73.622(f)  
Table 1 OET Bulletin 69 Interference Study  
Form 301 Saved Version of Engineering Sections from FCC Form at Time of Upload

*This material was entered August 9, 2011 for filing electronically. Since the FCC's electronic filing system may be accessed by anyone with the applicant's account number and password, and electronic data may otherwise be altered in an unauthorized fashion, we cannot be responsible for changes made subsequent to our entry of this data and related attachments.*

Proposal Number **C-03016**  
 Date **20-Oct-08**  
 Call Letters **WJZ-DT** Channel **13**  
 Location **Baltimore, MD**  
 Customer  
 Antenna Type **THV-9A13/VP-R C150SP**

**AZIMUTH PATTERN**

Gain **1.50 (1.76 dB)** Frequency **213.00 MHz**  
 Calculated / Measured **Calculated** Drawing # **THV-4C150 HP**



**Figure 1**  
**Antenna Azimuthal Pattern**  
**Horizontal Polarization**  
**WJZ-TV Baltimore, MD**  
**Facility ID 25455**  
**Ch. 13 33.8 kW 295 m**

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prepared for  
**CBS Corporation**

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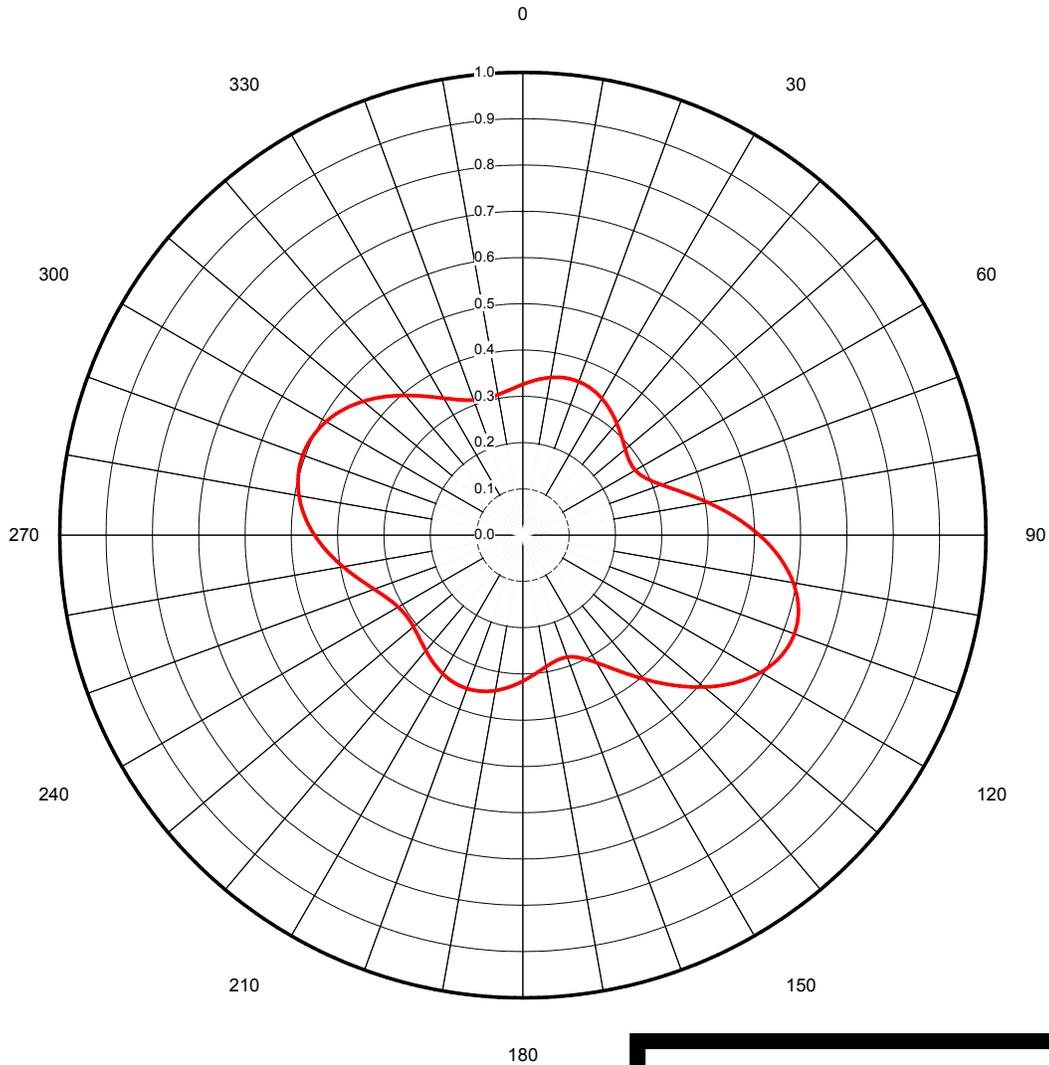
August, 2011

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Date **20-Oct-08**  
Call Letters **WJZ-DT** Channel **13**  
Location **Baltimore, MD**  
Customer  
Antenna Type **THV-9A13/VP-R C150SP**

**AZIMUTH PATTERN/VERTICAL POLARIZATION**

Gain **2.50 (3.98 dB)**  
Calculated / Measured **Calculated**

Frequency **213.00 MHz**  
Drawing # **THV-4C250 VP**



**Figure 1A**  
**Antenna Azimuthal Pattern**  
**Vertical Polarization**  
**WJZ-TV Baltimore, MD**  
**Facility ID 25455**  
**Ch. 13 33.8 kW 295 m**

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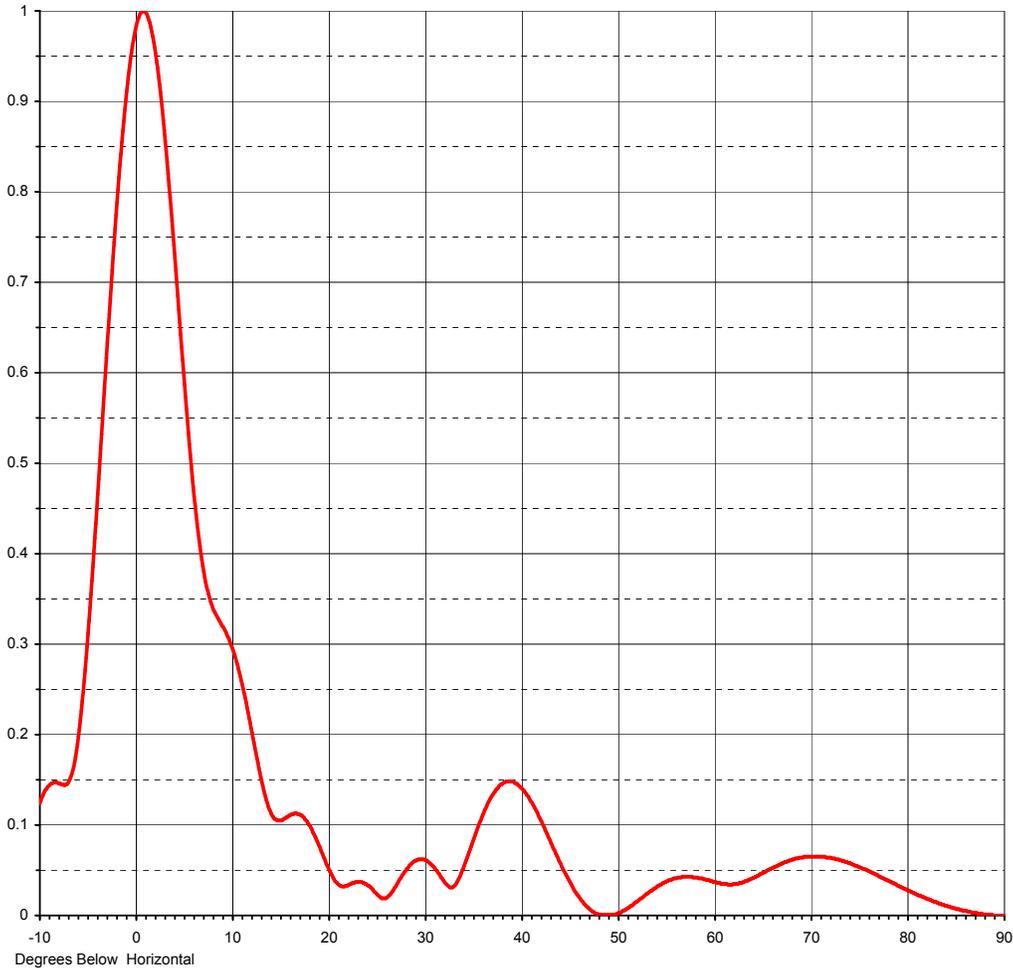
August, 2011



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Call Letters **WJZ-DT** Channel **13**  
Location **Baltimore, MD**  
Customer  
Antenna Type **THV-9A13/VP-R C150SP**

### ELEVATION PATTERN

RMS Gain at Main Lobe	<b>8.00 ( 9.03 dB )</b>	Beam Tilt	<b>0.75 deg</b>
RMS Gain at Horizontal	<b>7.70 ( 8.86 dB )</b>	Frequency	<b>213.00 MHz</b>
Calculated / Measured	<b>Calculated</b>	Drawing #	<b>09V080075-90</b>



**Figure 2**  
**Antenna Elevation Pattern**  
**WJZ-TV Baltimore, MD**  
**Facility ID 25455**  
**Ch. 13 33.8 kW 295 m**

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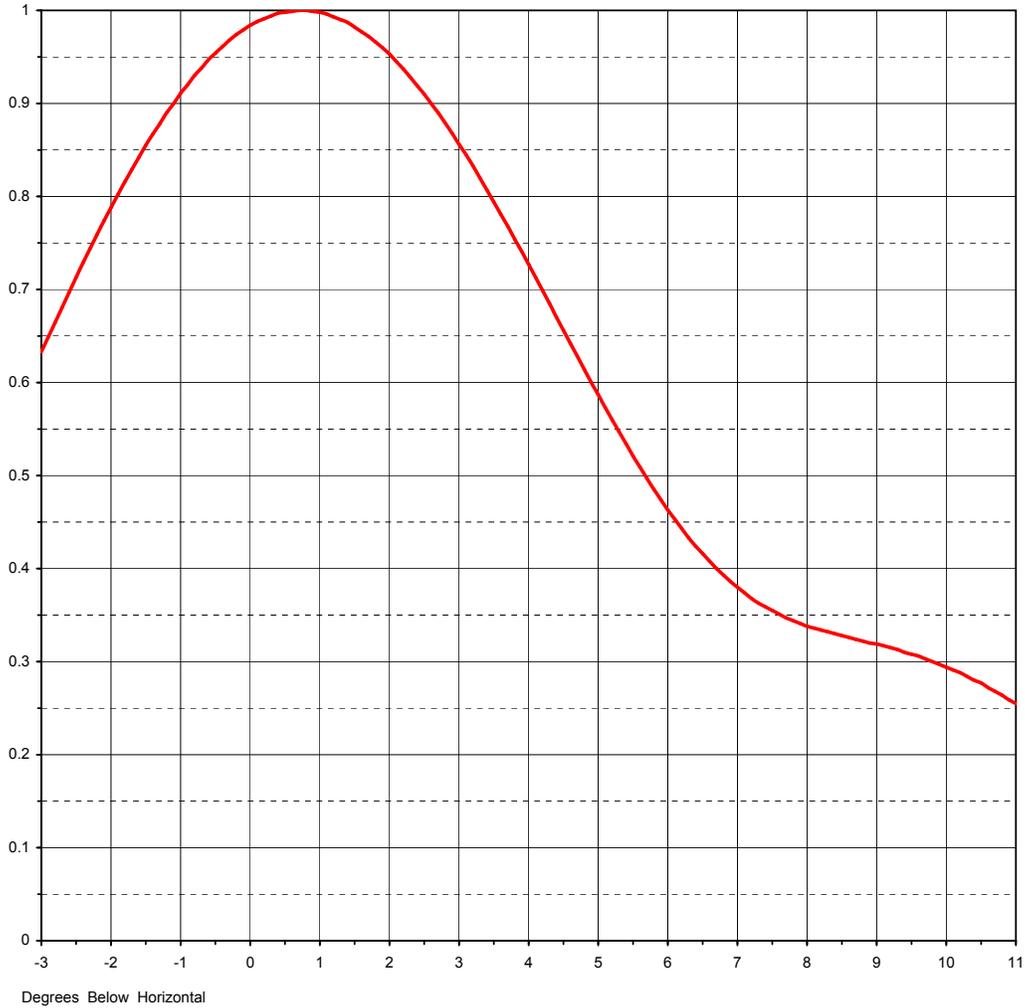
August, 2011



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Call Letters **WJZ-DT** Channel **13**  
Location **Baltimore, MD**  
Customer  
Antenna Type **THV-9A13/VP-R C150SP**

### ELEVATION PATTERN

RMS Gain at Main Lobe	<b>8.00 (9.03 dB)</b>	Beam Tilt	<b>0.75 deg</b>
RMS Gain at Horizontal	<b>7.70 (8.86 dB)</b>	Frequency	<b>213.00 MHz</b>
Calculated / Measured	<b>Calculated</b>	Drawing #	<b>09V080075</b>



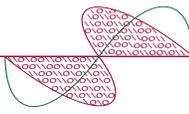
**Figure 2A**  
**Antenna Elevation Pattern - Detail**  
**WJZ-TV Baltimore, MD**  
**Facility ID 25455**  
**Ch. 13 33.8 kW 295 m**

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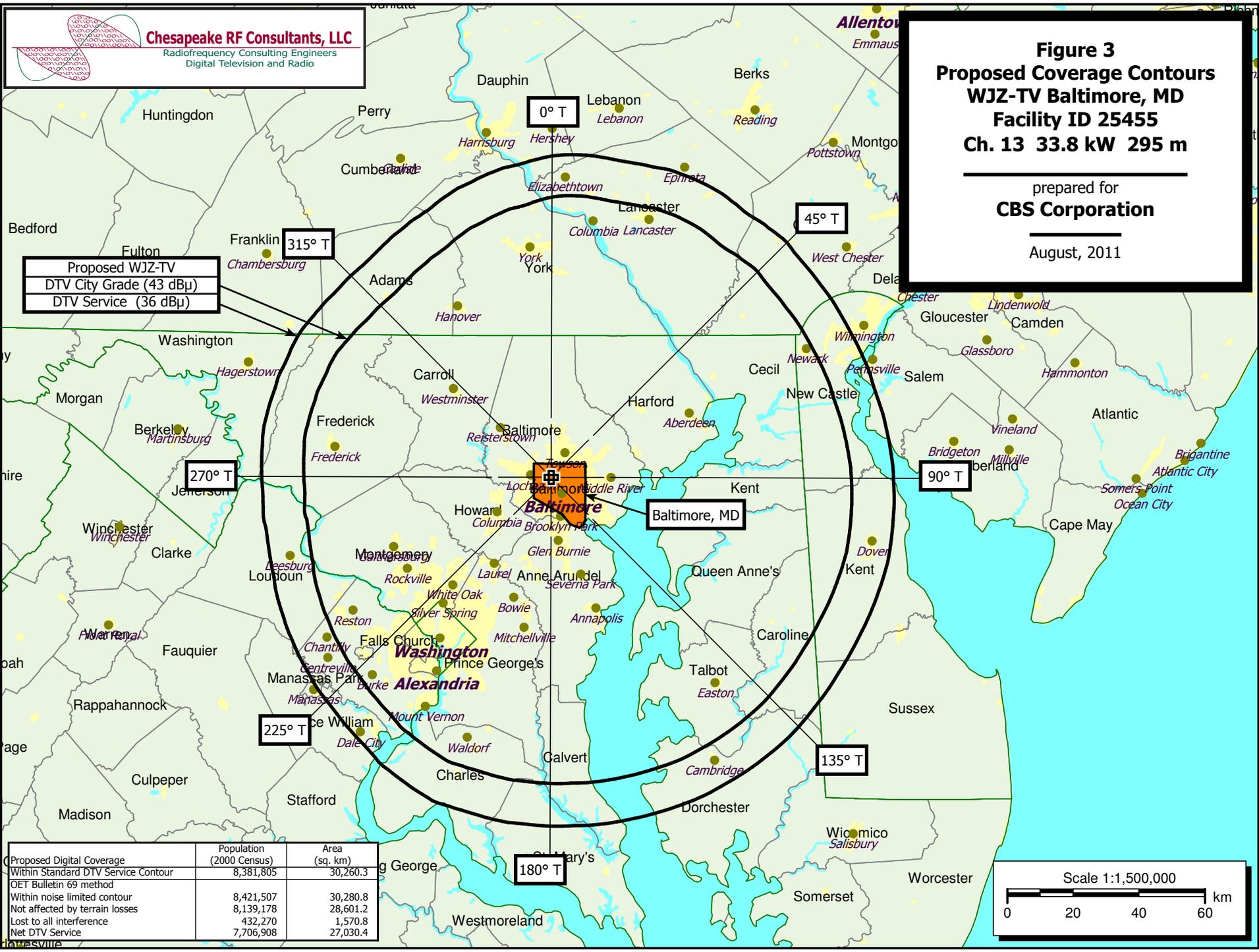


**Chesapeake RF Consultants, LLC**  
 Radiofrequency Consulting Engineers  
 Digital Television and Radio

**Figure 3**  
**Proposed Coverage Contours**  
**WJZ-TV Baltimore, MD**  
**Facility ID 25455**  
**Ch. 13 33.8 kW 295 m**

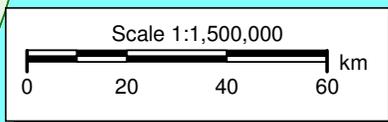
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August, 2011



**Proposed WJZ-TV**  
 DTV City Grade (43 dB $\mu$ )  
 DTV Service (36 dB $\mu$ )

	Population (2000 Census)	Area (sq. km)
Proposed Digital Coverage		
Within Standard DTV Service Contour	8,381,805	30,260.3
OET Bulletin 69 method		
Within noise limited contour	8,421,507	30,280.8
Not affected by terrain losses	8,139,178	28,601.2
Lost to all interference	432,270	1,570.8
Net DTV Service	7,706,908	27,030.4

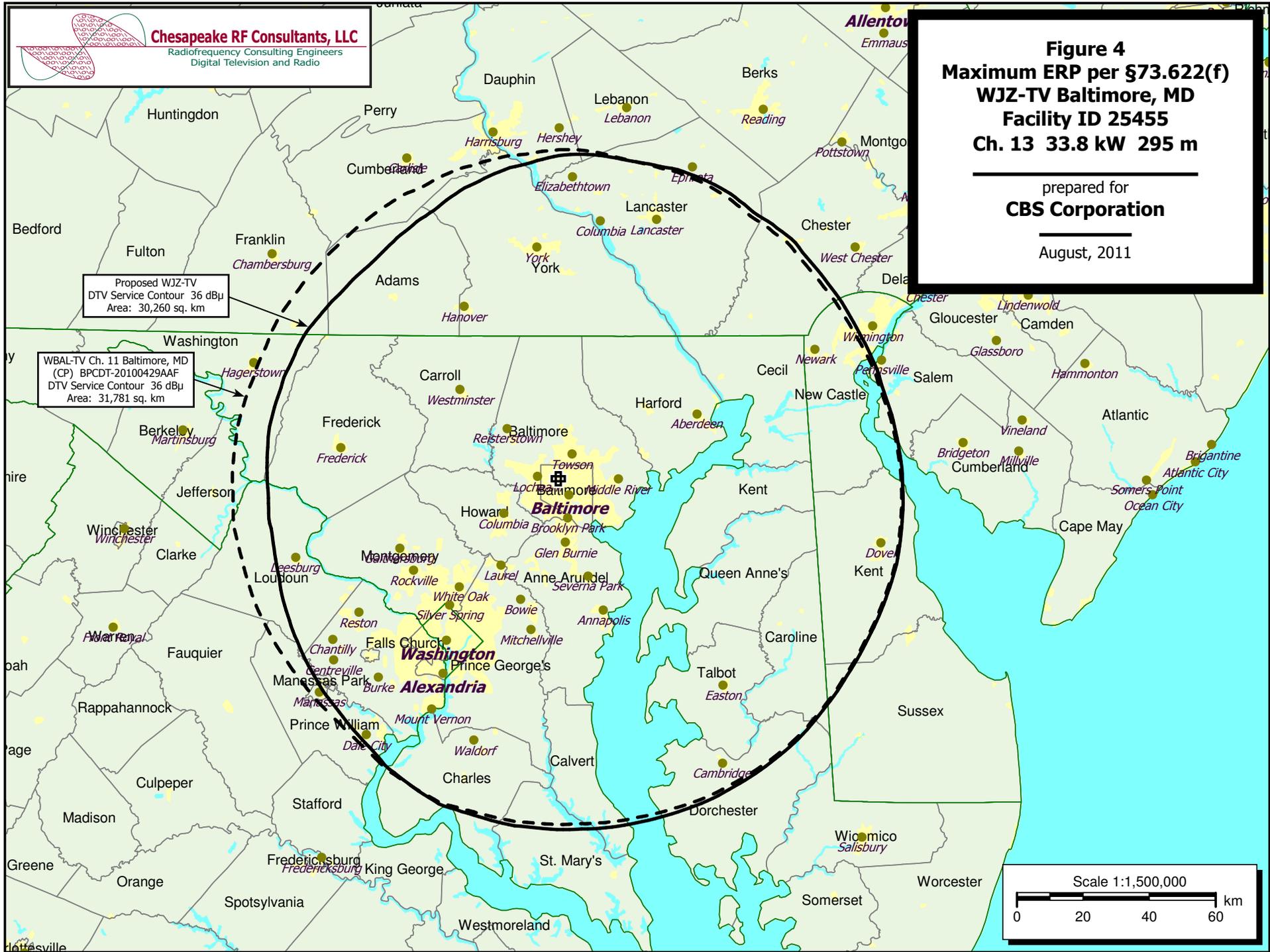


**Figure 4**  
**Maximum ERP per §73.622(f)**  
**WJZ-TV Baltimore, MD**  
**Facility ID 25455**  
**Ch. 13 33.8 kW 295 m**

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**CBS Corporation**  
 August, 2011

Proposed WJZ-TV  
 DTV Service Contour 36 dBμ  
 Area: 30,260 sq. km

WBAL-TV Ch. 11 Baltimore, MD  
 (CP) BPCDT-20100429AAF  
 DTV Service Contour 36 dBμ  
 Area: 31,781 sq. km



**Table 1 WJZ-TV OET Bulletin 69 Interference Study**  
(worst-case scenarios shown page 1 of 14)

TW Census data selected 2000  
Data Base Selected  
/space/software/cdbs/pt\_tvdb.sff

TV INTERFERENCE and SPACING ANALYSIS PROGRAM

Date: 08-05-2011 Time: 10:45:24

Record Selected for Analysis

WJZ-TV USERRECORD-01 BALTIMORE MD US  
Channel 13 ERP 33.8 kW HAAT 295. m RCAMSL 00378 m  
Latitude 039-20-05 Longitude 0076-39-03  
Status APP Zone 1 Border Site number: 01  
Dir Antenna Make CDB Model 0000000085234 Beam tilt N Ref Azimuth 0.  
Last update Cutoff date Docket  
Comments  
Applicant

Cell Size for Service Analysis 2.0 km/side

Distance Increments for Longley-Rice Analysis 0.20 km

Facility (site # 01) does not meet maximum height/power limits  
Channel 13 ERP = 33.80 HAAT = 295.

Site number	1			
Azimuth (Deg)	ERP (kW)	HAAT (m)	36.0 dBu F(50,90) (km)	
0.0	21.578	276.7	97.3	
45.0	33.766	275.2	100.8	
90.0	29.549	337.7	103.8	
135.0	29.834	370.9	106.6	
180.0	33.598	346.8	105.6	
225.0	18.962	267.9	96.0	
270.0	7.090	252.4	87.6	
315.0	6.905	229.6	86.0	

Evaluation toward Class A Stations from site # 01

No Spacing violations or contour overlap  
to Class A stations from site # 01

Class A Evaluation Complete

Checks to Site Number 01

Proposed facility OK to FCC Monitoring Stations

Proposed facility OK toward West Virginia quiet zone

Proposed facility OK toward Table Mountain

**Table 1 WJZ-TV OET Bulletin 69 Interference Study**  
(worst-case scenarios shown page 2 of 14)

Proposed facility is beyond the Canadian coordination distance

Proposed facility is beyond the Mexican coordination distance

Proposed station is OK toward AM broadcast stations

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Start of Interference Analysis

Channel	Call	City/State	ARN
13	WJZ-TV	BALTIMORE MD	USERRECORD01

Stations Potentially Affected by Proposed Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
12	WHYY-TV	WILMINGTON DE	144.0	CP MOD	BMPEDT	20091204ADC
12	WWBT	RICHMOND VA	216.4	LIC	BLCDDT	20090803ABS
12	WWPX-TV	MARTINSBURG WV	122.2	LIC	BLCDDT	20021108AAX
13	WQAV-LP	ATLANTIC CITY NJ	188.6	APP	BSTA	20070910ACO
13	WQAV-LP	ATLANTIC CITY NJ	188.6	CP	BDISTVA	20080627AAI
13	WQAV-LP	ATLANTIC CITY NJ	188.6	APP	BDISTVA	20070910ACL
13	WNET	NEWARK NJ	275.8	LIC	BLEDT	20090612ADI
13	WNET	NEWARK NJ	271.7	APP	BMPCDT	20090709AGX
13	WSCP-LP	BELLEFONTE PA	186.5	CP	BPTVA	20080804AAV
13	WQED	PITTSBURGH PA	308.4	LIC	BLEDT	20091127ABD
13	WYOU	SCRANTON PA	215.7	LIC	BLCDDT	20051123AJU
13	WVEC	HAMPTON VA	280.4	LIC	BLCDDT	20090612AJJ
13	WSET-TV	LYNCHBURG VA	343.6	LIC	BLCDDT	20091013ABE

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Analysis of Interference to Affected Station 1

Channel	Call	City/State	Application	Ref. No.
12	WHYY-TV	WILMINGTON DE	BMPEDT	-20091204ADC

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
11	WBAL-TV	BALTIMORE MD	144.0	LIC	BLCDDT	-20090619ABW
11	WBAL-TV	BALTIMORE MD	144.0	CP	BPCDDT	-20100429AAF
11	WPIX	NEW YORK NY	127.8	APP	BMPCDT	-20080620ALB
11	WPIX	NEW YORK NY	132.0	LIC	BLCDDT	-20090911ABN
11	WBRE-TV	WILKES-BARRE PA	137.7	LIC	BLCDDT	-20051123AJX
12	WNYT	ALBANY NY	304.9	LIC	BLCDDT	-20100505AHT
12	WNAC-TV	PROVIDENCE RI	389.7	LIC	BLCDDT	-20090612AFB
12	WWBT	RICHMOND VA	343.3	LIC	BLCDDT	-20090803ABS
12	WWPX-TV	MARTINSBURG WV	250.0	LIC	BLCDDT	-20021108AAX
13	WJZ-TV	BALTIMORE MD	144.0	PLN	DTVPLN	-DTVPO431
13	WNET	NEWARK NJ	132.0	LIC	BLEDT	-20090612ADI
13	WNET	NEWARK NJ	127.8	APP	BMPCDT	-20090709AGX
13	WYOU	SCRANTON PA	137.7	LIC	BLCDDT	-20051123AJU
13	WJZ-TV	BALTIMORE MD	144.0	APP	USERRECORD-01	

Total scenarios = 4

Result key: 2  
Scenario 2 Affected station 1

**Table 1 WJZ-TV OET Bulletin 69 Interference Study**  
(worst-case scenarios shown page 3 of 14)

Before Analysis

Results for: 12A DE WILMINGTON BMPEDT 20091204ADC CP  
HAAT 294.0 m, ATV ERP 30.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	9761555	29633.0
not affected by terrain losses	9419719	28080.2
lost to NTSC IX	0	0.0
lost to additional IX by ATV	303222	508.2
lost to ATV IX only	303222	508.2
lost to all IX	303222	508.2

Potential Interfering Stations Included in above Scenario 2

11A MD BALTIMORE	BPCDT	20100429AAF	CP
11A NY NEW YORK	BMPCDT	20080620ALB	APP
12A NY ALBANY	BLCDDT	20100505AHT	LIC
12A RI PROVIDENCE	BLCDDT	20090612AFT	LIC
12A VA RICHMOND	BLCDDT	20090803ABS	LIC
12A WV MARTINSBURG	BLCDDT	20021108AAX	LIC
13A NJ NEWARK	BLEDDT	20090612ADI	LIC
13A MD BALTIMORE	DTVPLN	DTVP0431	PLN

After Analysis

Results for: 12A DE WILMINGTON BMPEDT 20091204ADC CP  
HAAT 294.0 m, ATV ERP 30.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	9761555	29633.0
not affected by terrain losses	9419719	28080.2
lost to NTSC IX	0	0.0
lost to additional IX by ATV	303792	528.4
lost to ATV IX only	303792	528.4
lost to all IX	303792	528.4

Potential Interfering Stations Included in above Scenario 2

11A MD BALTIMORE	BPCDT	20100429AAF	CP
11A NY NEW YORK	BMPCDT	20080620ALB	APP
12A NY ALBANY	BLCDDT	20100505AHT	LIC
12A RI PROVIDENCE	BLCDDT	20090612AFT	LIC
12A VA RICHMOND	BLCDDT	20090803ABS	LIC
12A WV MARTINSBURG	BLCDDT	20021108AAX	LIC
13A NJ NEWARK	BLEDDT	20090612ADI	LIC
13A MD BALTIMORE	USERRECORD01		APP

Percent new IX = 0.0063%

Worst case new IX 0.0063% Scenario 2

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Analysis of Interference to Affected Station 2

Analysis of current record

Channel	Call	City/State	Application Ref. No.
12	WWBT	RICHMOND VA	BLCDDT -20090803ABS

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
11	WBAL-TV	BALTIMORE MD	216.4	LIC	BLCDDT -20090619ABW

**Table 1 WJZ-TV OET Bulletin 69 Interference Study**  
(worst-case scenarios shown page 4 of 14)

11	WBAL-TV	BALTIMORE MD	216.4	CP	BPCDDT	-20100429AAF
11	WTVB	DURHAM NC	224.0	LIC	BLCDDT	-20100929AGW
11	WVPT	STAUNTON VA	175.0	CP	BPEDT	-20081022ABK
11	WVPT	STAUNTON VA	175.0	LIC	BLEDDT	-20021220ADX
12	WHYY-TV	WILMINGTON DE	343.3	CP MOD	BMPEDT	-20091204ADC
12	WCTI-TV	NEW BERN NC	267.4	LIC	BLCDDT	-20090622ADO
12	WBOY-TV	CLARKSBURG WV	315.7	CP	BPCDDT	-20080620AMD
12	WWPX-TV	MARTINSBURG WV	222.3	LIC	BLCDDT	-20021108AAX
13	WJZ-TV	BALTIMORE MD	216.4	PLN	DTVPLN	-DTVP0431
13	WVEC	HAMPTON VA	119.5	LIC	BLCDDT	-20090612AJJ
13	WSET-TV	LYNCHBURG VA	189.4	LIC	BLCDDT	-20091013ABE
13	WJZ-TV	BALTIMORE MD	216.4	APP	USERRECORD-01	

Proposed station is beyond the site to nearest cell evaluation distance

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Analysis of Interference to Affected Station 3

Analysis of current record

Channel	Call	City/State	Application Ref. No.
12	WWPX-TV	MARTINSBURG WV	BLCDDT -20021108AAX

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
11	WBAL-TV	BALTIMORE MD	122.2	LIC	BLCDDT -20090619ABW
11	WBAL-TV	BALTIMORE MD	122.2	CP	BPCDDT -20100429AAF
11	WPCW	JEANNETTE PA	202.5	LIC	BLCDDT -20090626AAT
11	WPCW	JEANNETTE PA	202.5	CP MOD	BMPCDDT -20080616ABM
11	WVPT	STAUNTON VA	179.9	CP	BPEDT -20081022ABK
11	WVPT	STAUNTON VA	179.9	LIC	BLEDDT -20021220ADX
12	WHYY-TV	WILMINGTON DE	250.0	CP MOD	BMPEDT -20091204ADC
12	WMFD-TV	MANSFIELD OH	413.3	LIC	BLCDDT -20081112ALJ
12	WICU-TV	ERIE PA	332.6	LIC	BLCDDT -20090619ABT
12	WWBT	RICHMOND VA	222.3	LIC	BLCDDT -20090803ABS
12	WBOY-TV	CLARKSBURG WV	195.6	CP	BPCDDT -20080620AMD
13	WJZ-TV	BALTIMORE MD	122.2	PLN	DTVPLN -DTVP0431
13	WQED	PITTSBURGH PA	195.6	LIC	BLEDDT -20091127ABD
13	WJZ-TV	BALTIMORE MD	122.2	APP	USERRECORD-01

Total scenarios = 2

Result key: 5

Scenario 1 Affected station 3

Before Analysis

Results for: 12A WV MARTINSBURG BLCDDT 20021108AAX LIC  
HAAT 314.0 m, ATV ERP 23.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	3259722	31619.1
not affected by terrain losses	2659476	25853.0
lost to NTSC IX	0	0.0
lost to additional IX by ATV	395787	1076.9
lost to ATV IX only	395787	1076.9
lost to all IX	395787	1076.9

Potential Interfering Stations Included in above Scenario 1

**Table 1 WJZ-TV OET Bulletin 69 Interference Study**  
(worst-case scenarios shown page 5 of 14)

11A MD BALTIMORE	BLCDT	20090619ABW	LIC
12A DE WILMINGTON	BMPEDT	20091204ADC	CP
12A VA RICHMOND	BLCDT	20090803ABS	LIC
12A WV CLARKSBURG	BPCDT	20080620AMD	CP
13A MD BALTIMORE	DTVPLN	DTVP0431	PLN

After Analysis

Results for: 12A WV MARTINSBURG BLCDT 20021108AAX LIC  
HAAT 314.0 m, ATV ERP 23.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	3259722	31619.1
not affected by terrain losses	2659476	25853.0
lost to NTSC IX	0	0.0
lost to additional IX by ATV	397224	1092.9
lost to ATV IX only	397224	1092.9
lost to all IX	397224	1092.9

Potential Interfering Stations Included in above Scenario 1

11A MD BALTIMORE	BLCDT	20090619ABW	LIC
12A DE WILMINGTON	BMPEDT	20091204ADC	CP
12A VA RICHMOND	BLCDT	20090803ABS	LIC
12A WV CLARKSBURG	BPCDT	20080620AMD	CP
13A MD BALTIMORE	USERRECORD01		APP

Percent new IX = 0.0635%

Worst case new IX 0.0635% Scenario 1

#####

Analysis of Interference to Affected Station 4

Analysis of current record

Channel	Call	City/State	Application Ref. No.
13	WQAV-LP	ATLANTIC CITY NJ	BSTA -20070910ACO

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
12	WHYY-TV	WILMINGTON DE	101.9	CP MOD	BMPEDT -20091204ADC
13	WNYA	PITTSFIELD MA	367.3	LIC	BLCDT -20090619ADK
13	WJZ-TV	BALTIMORE MD	188.6	PLN	DTVPLN -DTVP0431
13	WNET	NEWARK NJ	160.4	LIC	BLEDT -20090612ADI
13	WNET	NEWARK NJ	156.0	APP	BMPEDT -20090709AGX
13	WWJT-LD	PHILADELPHIA PA	90.6	CP	BDCCDTL -20060920AAY
13	WYOU	SCRANTON PA	236.4	LIC	BLCDT -20051123AJU
13	WPRI-TV	PROVIDENCE RI	388.0	LIC	BLCDT -20040526ALH
13	WPRI-TV	PROVIDENCE RI	388.0	CP	BPCDT -20080619AHJ
13	WVEC	HAMPTON VA	332.1	LIC	BLCDT -20090612AJJ
13	WJZ-TV	BALTIMORE MD	188.6	APP	USERRECORD-01

Proposal causes no interference

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Analysis of Interference to Affected Station 5

**Table 1 WJZ-TV OET Bulletin 69 Interference Study**  
(worst-case scenarios shown page 6 of 14)

Analysis of current record

Channel	Call	City/State	Application Ref. No.
13	WQAV-LP	ATLANTIC CITY NJ	BDISTVA -20080627AAI

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
12	WHYY-TV	WILMINGTON DE	101.9	CP MOD	BMPEDT -20091204ADC
13	WNYA	PITTSFIELD MA	367.3	LIC	BLCDT -20090619ADK
13	WJZ-TV	BALTIMORE MD	188.6	PLN	DTVPLN -DTVP0431
13	WNET	NEWARK NJ	160.4	LIC	BLEDT -20090612ADI
13	WNET	NEWARK NJ	156.0	APP	BMPEDT -20090709AGX
13	WWJT-LD	PHILADELPHIA PA	90.6	CP	BDCCDTL -20060920AAY
13	WYOU	SCRANTON PA	236.4	LIC	BLCDT -20051123AJU
13	WPRI-TV	PROVIDENCE RI	388.0	LIC	BLCDT -20040526ALH
13	WPRI-TV	PROVIDENCE RI	388.0	CP	BPCDT -20080619AHJ
13	WVEC	HAMPTON VA	332.1	LIC	BLCDT -20090612AJJ
13	WJZ-TV	BALTIMORE MD	188.6	APP	USERRECORD-01

Proposal causes no interference

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Analysis of Interference to Affected Station 6

Analysis of current record

Channel	Call	City/State	Application Ref. No.
13	WQAV-LP	ATLANTIC CITY NJ	BDISTVA -20070910ACL

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
12	WHYY-TV	WILMINGTON DE	101.9	CP MOD	BMPEDT -20091204ADC
13	WNYA	PITTSFIELD MA	367.3	LIC	BLCDT -20090619ADK
13	WJZ-TV	BALTIMORE MD	188.6	PLN	DTVPLN -DTVP0431
13	WNET	NEWARK NJ	160.4	LIC	BLEDT -20090612ADI
13	WNET	NEWARK NJ	156.0	APP	BMPEDT -20090709AGX
13	WWJT-LD	PHILADELPHIA PA	90.6	CP	BDCCDTL -20060920AAY
13	WYOU	SCRANTON PA	236.4	LIC	BLCDT -20051123AJU
13	WPRI-TV	PROVIDENCE RI	388.0	LIC	BLCDT -20040526ALH
13	WPRI-TV	PROVIDENCE RI	388.0	CP	BPCDT -20080619AHJ
13	WVEC	HAMPTON VA	332.1	LIC	BLCDT -20090612AJJ
13	WJZ-TV	BALTIMORE MD	188.6	APP	USERRECORD-01

Proposal causes no interference

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Analysis of Interference to Affected Station 7

Analysis of current record

Channel	Call	City/State	Application Ref. No.
13	WNET	NEWARK NJ	BLEDT -20090612ADI

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
12	WHYY-TV	WILMINGTON DE	132.0	CP MOD	BMPEDT -20091204ADC
12	WNYT	ALBANY NY	208.6	LIC	BLCDT -20100505AHT

**Table 1 WJZ-TV OET Bulletin 69 Interference Study**  
(worst-case scenarios shown page 7 of 14)

13	WNYA	PITTSFIELD MA	209.9	LIC	BLCDDT	-20090619ADK
13	WJZ-TV	BALTIMORE MD	275.8	PLN	DTVPLN	-DTVPO431
13	WHAM-TV	ROCHESTER NY	398.5	LIC	BLCDDT	-20110121ABX
13	WYOU	SCRANTON PA	165.6	LIC	BLCDDT	-20051123AJU
13	WPRI-TV	PROVIDENCE RI	258.2	LIC	BLCDDT	-20040526ALH
13	WPRI-TV	PROVIDENCE RI	258.2	CP	BPCDDT	-20080619AHJ
13	WJZ-TV	BALTIMORE MD	275.8	APP	USERRECORD-01	

Total scenarios = 2

Result key: 8  
Scenario 2 Affected station 7  
Before Analysis

Results for: 13A NJ NEWARK				BLEDDT	20090612ADI	LIC
HAAT 405.0 m, ATV ERP 9.3 kW						
	POPULATION	AREA (sq km)				
within Noise Limited Contour	20140809	30993.4				
not affected by terrain losses	19743222	28710.9				
lost to NTSC IX	0	0.0				
lost to additional IX by ATV	365795	1819.6				
lost to ATV IX only	365795	1819.6				
lost to all IX	365795	1819.6				

Potential Interfering Stations Included in above Scenario 2

12A DE WILMINGTON	BMPEDT	20091204ADC	CP
13A MA PITTSFIELD	BLCDDT	20090619ADK	LIC
13A PA SCRANTON	BLCDDT	20051123AJU	LIC
13A RI PROVIDENCE	BPCDDT	20080619AHJ	CP
13A MD BALTIMORE	DTVPLN	DTVPO431	PLN

After Analysis

Results for: 13A NJ NEWARK				BLEDDT	20090612ADI	LIC
HAAT 405.0 m, ATV ERP 9.3 kW						
	POPULATION	AREA (sq km)				
within Noise Limited Contour	20140809	30993.4				
not affected by terrain losses	19743222	28710.9				
lost to NTSC IX	0	0.0				
lost to additional IX by ATV	373532	1867.5				
lost to ATV IX only	373532	1867.5				
lost to all IX	373532	1867.5				

Potential Interfering Stations Included in above Scenario 2

12A DE WILMINGTON	BMPEDT	20091204ADC	CP
13A MA PITTSFIELD	BLCDDT	20090619ADK	LIC
13A PA SCRANTON	BLCDDT	20051123AJU	LIC
13A RI PROVIDENCE	BPCDDT	20080619AHJ	CP
13A MD BALTIMORE	USERRECORD01		APP

Percent new IX = 0.0399%

Worst case new IX 0.0399% Scenario 2

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Analysis of Interference to Affected Station 8

**Table 1 WJZ-TV OET Bulletin 69 Interference Study**  
(worst-case scenarios shown page 8 of 14)

Analysis of current record					
Channel	Call	City/State	Application	Ref. No.	
13	WNET	NEWARK NJ	BMPCDT	-20090709AGX	

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
12	WHYY-TV	WILMINGTON DE	127.8	CP MOD	BMPEDT	-20091204ADC
12	WNYT	ALBANY NY	212.6	LIC	BLCDDT	-20100505AHT
13	WNYA	PITTSFIELD MA	213.9	LIC	BLCDDT	-20090619ADK
13	WJZ-TV	BALTIMORE MD	271.7	PLN	DTVPLN	-DTVPO431
13	WHAM-TV	ROCHESTER NY	399.5	LIC	BLCDDT	-20110121ABX
13	WYOU	SCRANTON PA	164.7	LIC	BLCDDT	-20051123AJU
13	WPRI-TV	PROVIDENCE RI	262.2	LIC	BLCDDT	-20040526ALH
13	WPRI-TV	PROVIDENCE RI	262.2	CP	BPCDDT	-20080619AHJ
13	WJZ-TV	BALTIMORE MD	271.7	APP	USERRECORD-01	

Total scenarios = 2

Result key: 10  
Scenario 2 Affected station 8  
Before Analysis

Results for: 13A NJ NEWARK				BMPCDT	20090709AGX	APP
HAAT 507.0 m, ATV ERP 4.0 kW						
	POPULATION	AREA (sq km)				
within Noise Limited Contour	20172282	31168.6				
not affected by terrain losses	19750132	28813.1				
lost to NTSC IX	0	0.0				
lost to additional IX by ATV	419602	1780.6				
lost to ATV IX only	419602	1780.6				
lost to all IX	419602	1780.6				

Potential Interfering Stations Included in above Scenario 2

12A DE WILMINGTON	BMPEDT	20091204ADC	CP
13A MA PITTSFIELD	BLCDDT	20090619ADK	LIC
13A PA SCRANTON	BLCDDT	20051123AJU	LIC
13A RI PROVIDENCE	BPCDDT	20080619AHJ	CP
13A MD BALTIMORE	DTVPLN	DTVPO431	PLN

After Analysis

Results for: 13A NJ NEWARK				BMPCDT	20090709AGX	APP
HAAT 507.0 m, ATV ERP 4.0 kW						
	POPULATION	AREA (sq km)				
within Noise Limited Contour	20172282	31168.6				
not affected by terrain losses	19750132	28813.1				
lost to NTSC IX	0	0.0				
lost to additional IX by ATV	423878	1836.5				
lost to ATV IX only	423878	1836.5				
lost to all IX	423878	1836.5				

Potential Interfering Stations Included in above Scenario 2

12A DE WILMINGTON	BMPEDT	20091204ADC	CP
13A MA PITTSFIELD	BLCDDT	20090619ADK	LIC
13A PA SCRANTON	BLCDDT	20051123AJU	LIC
13A RI PROVIDENCE	BPCDDT	20080619AHJ	CP
13A MD BALTIMORE	USERRECORD01		APP

Percent new IX = 0.0221%

**Table 1 WJZ-TV OET Bulletin 69 Interference Study**  
(worst-case scenarios shown page 9 of 14)

Worst case new IX 0.0221% Scenario 2

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Analysis of Interference to Affected Station 9

Analysis of current record

Channel	Call	City/State	Application	Ref. No.
13	WSCP-LP	BELLEFONTE PA	BPTVA	-20080804AAV

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
13	WNYA	PITTSFIELD MA	387.3	LIC	BLCDDT	-20090619ADK
13	WJZ-TV	BALTIMORE MD	186.5	PLN	DTVPLN	-DTVP0431
13	WNET	NEWARK NJ	328.9	LIC	BLEDT	-20090612ADI
13	WNET	NEWARK NJ	326.6	APP	BMPCDDT	-20090709AGX
13	WHAM-TV	ROCHESTER NY	269.9	LIC	BLCDDT	-20110121ABX
13	WQED	PITTSBURGH PA	177.6	LIC	BLEDT	-20091127ABD
13	WYOU	SCRANTON PA	177.1	LIC	BLCDDT	-20051123AJU
13	WJZ-TV	BALTIMORE MD	186.5	APP	USERRECORD-01	

Proposal causes no interference

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Analysis of Interference to Affected Station 10

Analysis of current record

Channel	Call	City/State	Application	Ref. No.
13	WQED	PITTSBURGH PA	BLEDT	-20091127ABD

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
12	WMFD-TV	MANSFIELD OH	226.7	LIC	BLCDDT	-20081112ALJ
12	WICU-TV	ERIE PA	179.8	LIC	BLCDDT	-20090619ABT
12	WBOY-TV	CLARKSBURG WV	132.8	CP	BPCDDT	-20080620AMD
12	WWPX-TV	MARTINSBURG WV	195.6	LIC	BLCDDT	-20021108AAX
13	WJZ-TV	BALTIMORE MD	308.4	PLN	DTVPLN	-DTVP0431
13	WHAM-TV	ROCHESTER NY	358.1	LIC	BLCDDT	-20110121ABX
13	WTVG	TOLEDO OH	320.1	LIC	BLCDDT	-20110415ABN
13	WYOU	SCRANTON PA	353.7	LIC	BLCDDT	-20051123AJU
13	WSET-TV	LYNCHBURG VA	349.2	LIC	BLCDDT	-20091013ABE
13	WOWK-TV	HUNTINGTON WV	289.1	CP	BMPCDDT	-20080620AJA
13	WJZ-TV	BALTIMORE MD	308.4	APP	USERRECORD-01	

Total scenarios = 1

Result key: 11  
Scenario 1 Affected station 10  
Before Analysis

Results for: 13A PA PITTSBURGH BLEDT 20091127ABD LIC  
HAAT 210.0 m, ATV ERP 25.0 kW  
within Noise Limited Contour POPULATION 3403614 AREA (sq km) 27698.8

**Table 1 WJZ-TV OET Bulletin 69 Interference Study**  
(worst-case scenarios shown page 10 of 14)

not affected by terrain losses 3157500 24918.1  
lost to NTSC IX 0 0.0  
lost to additional IX by ATV 23654 220.4  
lost to ATV IX only 23654 220.4  
lost to all IX 23654 220.4

Potential Interfering Stations Included in above Scenario 1

Call	City/State	Application	Ref. No.
13A NY ROCHESTER		BLCDDT	20110121ABX LIC
13A OH TOLEDO		BLCDDT	20110415ABN LIC
13A PA SCRANTON		BLCDDT	20051123AJU LIC
13A VA LYNCHBURG		BLCDDT	20091013ABE LIC
13A WV HUNTINGTON		BMPCDDT	20080620AJA CP
13A MD BALTIMORE		DTVPLN	DTVP0431 PLN

After Analysis

Results for: 13A PA PITTSBURGH BLEDT 20091127ABD LIC  
HAAT 210.0 m, ATV ERP 25.0 kW  
POPULATION 3403614 AREA (sq km) 27698.8  
within Noise Limited Contour 3403614 27698.8  
not affected by terrain losses 3157500 24918.1  
lost to NTSC IX 0 0.0  
lost to additional IX by ATV 23654 220.4  
lost to ATV IX only 23654 220.4  
lost to all IX 23654 220.4

Potential Interfering Stations Included in above Scenario 1

Call	City/State	Application	Ref. No.
13A NY ROCHESTER		BLCDDT	20110121ABX LIC
13A OH TOLEDO		BLCDDT	20110415ABN LIC
13A PA SCRANTON		BLCDDT	20051123AJU LIC
13A VA LYNCHBURG		BLCDDT	20091013ABE LIC
13A WV HUNTINGTON		BMPCDDT	20080620AJA CP
13A MD BALTIMORE		USERRECORD01	APP

Percent new IX = 0.0000%

Worst case new IX 0.0000% Scenario 1

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Analysis of Interference to Affected Station 11

Analysis of current record

Channel	Call	City/State	Application	Ref. No.
13	WYOU	SCRANTON PA	BLCDDT	-20051123AJU

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
12	WHYY-TV	WILMINGTON DE	137.7	CP MOD	BMPEDT	-20091204ADC
12	WNYT	ALBANY NY	222.4	LIC	BLCDDT	-20100505AHT
13	WNYA	PITTSFIELD MA	224.2	LIC	BLCDDT	-20090619ADK
13	WJZ-TV	BALTIMORE MD	215.7	PLN	DTVPLN	-DTVP0431
13	WNET	NEWARK NJ	165.6	LIC	BLEDT	-20090612ADI
13	WNET	NEWARK NJ	164.7	APP	BMPCDDT	-20090709AGX
13	WHAM-TV	ROCHESTER NY	258.7	LIC	BLCDDT	-20110121ABX
13	WQED	PITTSBURGH PA	353.7	LIC	BLEDT	-20091127ABD
13	WPRI-TV	PROVIDENCE RI	389.7	LIC	BLCDDT	-20040526ALH

**Table 1 WJZ-TV OET Bulletin 69 Interference Study**

(worst-case scenarios shown page 11 of 14)

13 WPRI-TV PROVIDENCE RI 389.7 CP BPCDT -20080619AHJ  
 13 WJZ-TV BALTIMORE MD 215.7 APP USERRECORD-01

Total scenarios = 2

Result key: 13  
 Scenario 2 Affected station 11  
 Before Analysis

Results for: 13A PA SCRANTON BLCDT 20051123AJU LIC

HAAT 471.0 m, ATV ERP 30.0 kW  
 POPULATION AREA (sq km)  
 within Noise Limited Contour 3340487 40815.2  
 not affected by terrain losses 2528485 34140.8  
 lost to NTSC IX 0 0.0  
 lost to additional IX by ATV 150242 1414.2  
 lost to ATV IX only 150242 1414.2  
 lost to all IX 150242 1414.2

Potential Interfering Stations Included in above Scenario 2

12A DE WILMINGTON BMPEDT 20091204ADC CP  
 13A MA PITTSFIELD BLCDT 20090619ADK LIC  
 13A NJ NEWARK BMPCDT 20090709AGX APP  
 13A NY ROCHESTER BLCDT 20110121ABX LIC  
 13A PA PITTSBURGH BLEDT 20091127ABD LIC  
 13A MD BALTIMORE DTVP0431 PLN

After Analysis

Results for: 13A PA SCRANTON BLCDT 20051123AJU LIC

HAAT 471.0 m, ATV ERP 30.0 kW  
 POPULATION AREA (sq km)  
 within Noise Limited Contour 3340487 40815.2  
 not affected by terrain losses 2528485 34140.8  
 lost to NTSC IX 0 0.0  
 lost to additional IX by ATV 162049 1510.3  
 lost to ATV IX only 162049 1510.3  
 lost to all IX 162049 1510.3

Potential Interfering Stations Included in above Scenario 2

12A DE WILMINGTON BMPEDT 20091204ADC CP  
 13A MA PITTSFIELD BLCDT 20090619ADK LIC  
 13A NJ NEWARK BMPCDT 20090709AGX APP  
 13A NY ROCHESTER BLCDT 20110121ABX LIC  
 13A PA PITTSBURGH BLEDT 20091127ABD LIC  
 13A MD BALTIMORE USERRECORD01 APP

Percent new IX = 0.4965%

Worst case new IX 0.4965% Scenario 2

#####

Analysis of Interference to Affected Station 12

Analysis of current record

Channel Call City/State Application Ref. No.  
 13 WVEC HAMPTON VA BLCDT -20090612AJJ

**Table 1 WJZ-TV OET Bulletin 69 Interference Study**

(worst-case scenarios shown page 12 of 14)

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
12	WCTI-TV	NEW BERN NC	205.7	LIC	BLCDT	-20090622ADO
12	WWBT	RICHMOND VA	119.5	LIC	BLCDT	-20090803ABS
13	WJZ-TV	BALTIMORE MD	280.4	PLN	DTVP0431	-DTVP0431
13	WBTW	FLORENCE SC	375.0	LIC	BLCDT	-20090612AIR
13	WBTW	FLORENCE SC	375.0	CP	BPCDT	-20080410AAT
13	WSET-TV	LYNCHBURG VA	286.3	LIC	BLCDT	-20091013ABE
13	WJZ-TV	BALTIMORE MD	280.4	APP	USERRECORD-01	

Total scenarios = 1

Result key: 14  
 Scenario 1 Affected station 12  
 Before Analysis

Results for: 13A VA HAMPTON BLCDT 20090612AJJ LIC

HAAT 363.0 m, ATV ERP 35.0 kW  
 POPULATION AREA (sq km)  
 within Noise Limited Contour 2038054 36189.1  
 not affected by terrain losses 2038054 36185.1  
 lost to NTSC IX 0 0.0  
 lost to additional IX by ATV 106680 940.2  
 lost to ATV IX only 106680 940.2  
 lost to all IX 106680 940.2

Potential Interfering Stations Included in above Scenario 1

12A VA RICHMOND BLCDT 20090803ABS LIC  
 13A VA LYNCHBURG BLCDT 20091013ABE LIC  
 13A MD BALTIMORE DTVP0431 PLN

After Analysis

Results for: 13A VA HAMPTON BLCDT 20090612AJJ LIC

HAAT 363.0 m, ATV ERP 35.0 kW  
 POPULATION AREA (sq km)  
 within Noise Limited Contour 2038054 36189.1  
 not affected by terrain losses 2038054 36185.1  
 lost to NTSC IX 0 0.0  
 lost to additional IX by ATV 107615 1036.6  
 lost to ATV IX only 107615 1036.6  
 lost to all IX 107615 1036.6

Potential Interfering Stations Included in above Scenario 1

12A VA RICHMOND BLCDT 20090803ABS LIC  
 13A VA LYNCHBURG BLCDT 20091013ABE LIC  
 13A MD BALTIMORE USERRECORD01 APP

Percent new IX = 0.0484%

Worst case new IX 0.0484% Scenario 1

#####

Analysis of Interference to Affected Station 13

**Table 1 WJZ-TV OET Bulletin 69 Interference Study**  
(worst-case scenarios shown page 13 of 14)

Analysis of current record  
Channel Call City/State Application Ref. No.  
13 WSET-TV LYNCHBURG VA BLCDDT -20091013ABE

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
12	WWBT	RICHMOND VA	189.4	LIC	BLCDDT -20090803ABS
12	WBOY-TV	CLARKSBURG WV	227.2	CP	BPCDDT -20080620AMD
13	WJZ-TV	BALTIMORE MD	343.6	PLN	DTVPLN -DTVP0431
13	WLOS	ASHEVILLE NC	349.5	LIC	BLCDDT -20101014ABR
13	WLOS	ASHEVILLE NC	349.5	CP MOD	BMPCDDT -20080620AKA
13	WLOS	ASHEVILLE NC	349.5	CP	BPCDDT -20080317AGL
13	WQED	PITTSBURGH PA	349.2	LIC	BLEDDT -20091127ABD
13	WBTV	FLORENCE SC	328.8	LIC	BLCDDT -20090612AIR
13	WBTV	FLORENCE SC	328.8	CP	BPCDDT -20080410AAT
13	WVEC	HAMPTON VA	286.3	LIC	BLCDDT -20090612AJJ
13	WOWK-TV	HUNTINGTON WV	261.6	CP	BMPCDDT -20080620AJA
13	WJZ-TV	BALTIMORE MD	343.6	APP	USERRECORD-01

Total scenarios = 6

Result key: 15  
Scenario 1 Affected station 13  
Before Analysis

Results for: 13A VA LYNCHBURG BLCDDT 20091013ABE LIC  
HAAT 625.0 m, ATV ERP 28.7 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	1478874	47343.9
not affected by terrain losses	1274030	39991.1
lost to NTSC IX	0	0.0
lost to additional IX by ATV	17211	894.6
lost to ATV IX only	17211	894.6
lost to all IX	17211	894.6

Potential Interfering Stations Included in above Scenario 1

13A NC ASHEVILLE	BLCDDT	20101014ABR	LIC
13A SC FLORENCE	BLCDDT	20090612AIR	LIC
13A VA HAMPTON	BLCDDT	20090612AJJ	LIC
13A WV HUNTINGTON	BMPCDDT	20080620AJA	CP
13A MD BALTIMORE	DTVPLN	DTVP0431	PLN

After Analysis

Results for: 13A VA LYNCHBURG BLCDDT 20091013ABE LIC  
HAAT 625.0 m, ATV ERP 28.7 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	1478874	47343.9
not affected by terrain losses	1274030	39991.1
lost to NTSC IX	0	0.0
lost to additional IX by ATV	17319	914.6
lost to ATV IX only	17319	914.6
lost to all IX	17319	914.6

Potential Interfering Stations Included in above Scenario 1

13A NC ASHEVILLE	BLCDDT	20101014ABR	LIC
13A SC FLORENCE	BLCDDT	20090612AIR	LIC

**Table 1 WJZ-TV OET Bulletin 69 Interference Study**  
(worst-case scenarios shown page 14 of 14)

13A VA HAMPTON BLCDDT 20090612AJJ LIC  
13A WV HUNTINGTON BMPCDDT 20080620AJA CP  
13A MD BALTIMORE USERRECORD01 APP

Percent new IX = 0.0086%

Worst case new IX 0.0086% Scenario 1

#####

Analysis of Interference to Affected Station 14

Analysis of current record  
Channel Call City/State Application Ref. No.  
13 WJZ-TV BALTIMORE MD USERRECORD-01

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
12	WHYY-TV	WILMINGTON DE	144.0	CP MOD	BMPEDT -20091204ADC
12	WWBT	RICHMOND VA	216.4	LIC	BLCDDT -20090803ABS
12	WWPX-TV	MARTINSBURG WV	122.2	LIC	BLCDDT -20021108AAX
13	WNET	NEWARK NJ	275.8	LIC	BLEDDT -20090612ADI
13	WNET	NEWARK NJ	271.7	APP	BMPCDDT -20090709AGX
13	WQED	PITTSBURGH PA	308.4	LIC	BLEDDT -20091127ABD
13	WYOU	SCRANTON PA	215.7	LIC	BLCDDT -20051123AJJ
13	WVEC	HAMPTON VA	280.4	LIC	BLCDDT -20090612AJJ
13	WSET-TV	LYNCHBURG VA	343.6	LIC	BLCDDT -20091013ABE

Total scenarios = 2

Result key: 21  
Scenario 1 Affected station 14  
Before Analysis

Results for: 13A MD BALTIMORE USERRECORD01 APP  
HAAT 295.0 m, ATV ERP 33.8 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	8421507	30280.8
not affected by terrain losses	8139178	28601.2
lost to NTSC IX	0	0.0
lost to additional IX by ATV	432270	1570.8
lost to ATV IX only	432270	1570.8
lost to all IX	432270	1570.8

Potential Interfering Stations Included in above Scenario 1

12A DE WILMINGTON	BMPEDT	20091204ADC	CP
12A WV MARTINSBURG	BLCDDT	20021108AAX	LIC
13A NJ NEWARK	BLEDDT	20090612ADI	LIC
13A PA PITTSBURGH	BLEDDT	20091127ABD	LIC
13A PA SCRANTON	BLCDDT	20051123AJJ	LIC
13A VA HAMPTON	BLCDDT	20090612AJJ	LIC
13A VA LYNCHBURG	BLCDDT	20091013ABE	LIC

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FINISHED FINISHED FINISHED FINISHED FINISHED FINISHED

SECTION III-D - DTV Engineering	
<b>Complete Questions 1-5, and provide all data and information for the proposed facility, as requested in Technical Specifications, Items 1-13.</b>	
<p><b>Pre-Transition Certification Checklist:</b> 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 change 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.</p> <p><b>Post-Transition Expedited Processing.</b> 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 within 45 days of the effective date of Section 73.616 of the rules adopted in the Report and Order in the Third DTV Periodic Review proceeding, MB Docket No. 07-91.</p>	
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.	<input checked="" type="radio"/> Yes <input type="radio"/> 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.	<input type="radio"/> Yes <input type="radio"/> 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.	<input type="radio"/> Yes <input type="radio"/> 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").	<input type="radio"/> Yes <input checked="" type="radio"/> No <input type="radio"/> 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.	<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A
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. Applicant must <b>submit the Exhibit</b> called for in Item 13.	<input checked="" type="radio"/> Yes <input type="radio"/> No
3. Pursuant to 47 C.F.R. Section 73.625, the DTV coverage contour of the proposed facility will encompass the allotted principal community.	<input checked="" type="radio"/> Yes <input type="radio"/> 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.	<input checked="" type="radio"/> Yes <input type="radio"/> No
5. The antenna structure to be used by this facility has been registered by the Commission and will not require registration 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.	<input checked="" type="radio"/> Yes <input type="radio"/> No

SECTION III-D - DTV Engineering	
<b>TECHNICAL SPECIFICATIONS</b>	
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.	
<b>TECH BOX</b>	
1. Channel Number:	DTV 13 Analog TV, if any
2. Zone:	<input checked="" type="radio"/> I <input type="radio"/> II <input type="radio"/> III
3. Antenna Location Coordinates: (NAD 27)	Latitude: Degrees 39 Minutes 20 Seconds 05 <input checked="" type="radio"/> North <input type="radio"/> South  Longitude: Degrees 76 Minutes 39 Seconds 03 <input checked="" type="radio"/> West <input type="radio"/> East
4. Antenna Structure Registration Number: 1035558	<input type="checkbox"/> Not Applicable <input type="checkbox"/> Notification filed with FAA
5. Antenna Location Site Elevation Above Mean Sea Level:	97 meters
6. Overall Tower Height Above Ground Level:	304 meters
7. Height of Radiation Center Above Ground Level:	281 meters
8. Height of Radiation Center Above Average Terrain :	295 meters
9. Maximum Effective Radiated Power (average power):	33.8 kW

10. Antenna Specifications:

a. Manufacturer DIE Model THV-9A13/VP-R C150SP

b. Electrical Beam Tilt:  
0.75 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 45]

d. Polarization:  
 Horizontal  Circular  Elliptical

e. Directional Antenna Relative Field Values:  Not applicable (Nondirectional)

[For a composite directional (not off-the-shelf) antenna, press the following button to fill in the relative field values subform.]  
[Relative Field Values]

**10e. Directional Antenna Relative Field Values**

[Fill in this subform for a composite directional (not off-the-shelf) antenna, only.]

e. Directional Antenna Relative Field Values:

Rotation (Degrees):  No Rotation

Degrees	Value	Degrees	Value	Degrees	Value	Degrees	Value	Degrees	Value	Degrees	Value
0	0.799	10	0.88	20	0.939	30	0.978	40	0.997	50	0.999
60	0.985	70	0.964	80	0.944	90	0.935	100	0.935	110	0.937
120	0.935	130	0.935	140	0.944	150	0.964	160	0.985	170	0.999
180	0.997	190	0.978	200	0.939	210	0.88	220	0.799	230	0.699
240	0.589	250	0.493	260	0.446	270	0.458	280	0.494	290	0.512
300	0.494	310	0.458	320	0.446	330	0.493	340	0.589	350	0.699
Additional Azimuths		46	1	174	1						

[Relative Field Polar Plot](#)

If a directional antenna is proposed, the requirements of 47 C.F.R. Sections 73.625(c) must be satisfied. **Exhibit required.** [Exhibit 46]

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 47]

If "No," attach as an Exhibit justification therefor, 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 48]

13. **Environmental Protection Act. Submit in an Exhibit** the following: [Exhibit 49]

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.

**PREPARERS CERTIFICATION ON SECTION III MUST BE COMPLETED AND SIGNED.**

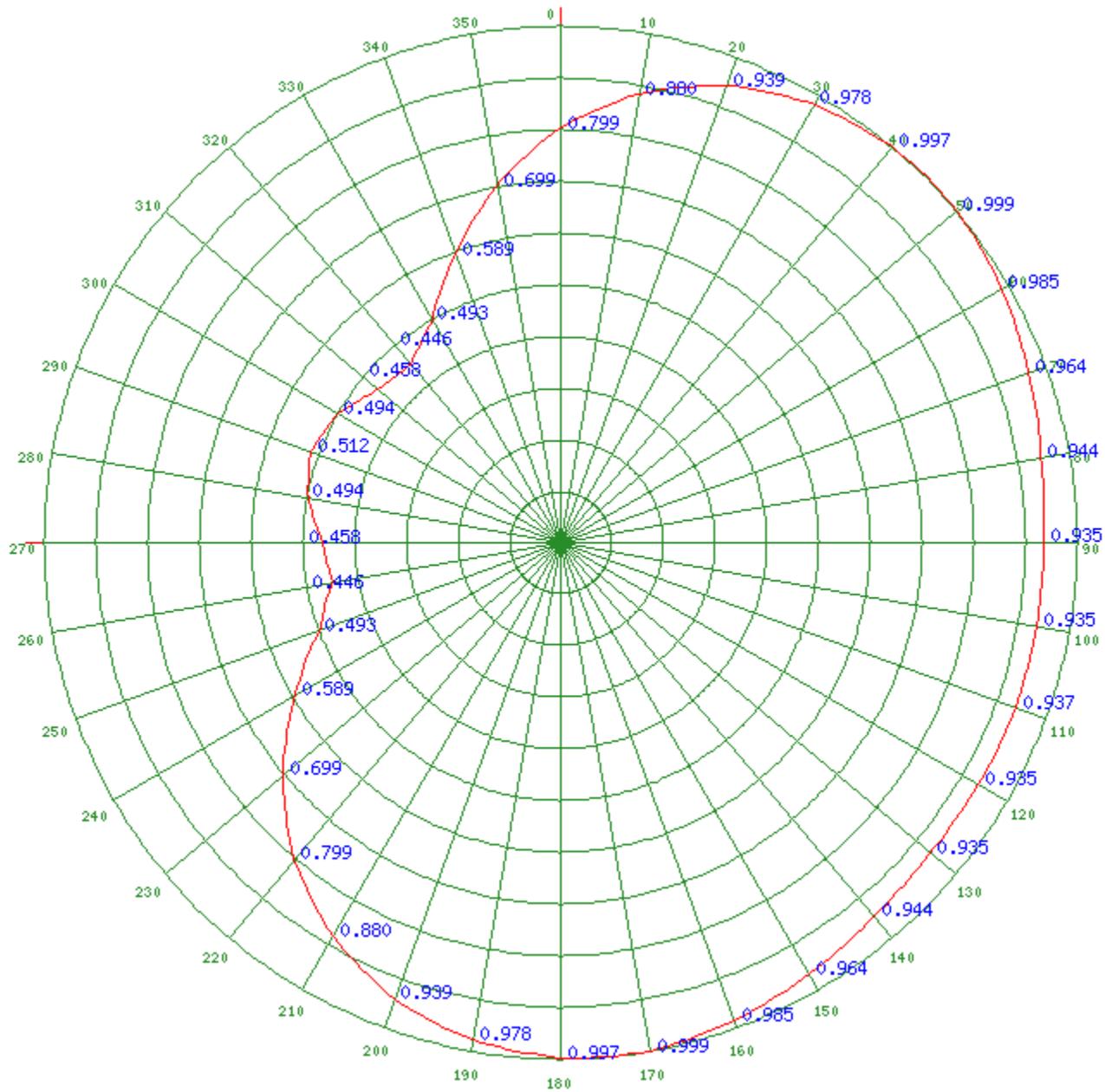
**SECTION III - PREPARER'S CERTIFICATION**

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 JOSEPH M. DAVIS, P.E.	Relationship to Applicant (e.g., Consulting Engineer) CONSULTING ENGINEER	
Signature	Date 8/9/2011	
Mailing Address CHESAPEAKE RF CONSULTANTS, LLC 207 OLD DOMINION ROAD		
City YORKTOWN	State or Country (if foreign address) VA	Zip Code 23692 -
Telephone Number (include area code) 7036509600	E-Mail Address (if available) JOSEPH.DAVIS@RF-CONSULTANTS.COM	

Any specified rotation has already been applied to the plotted pattern.  
Field strength values shown on a rotated pattern may differ from the listed values  
because intermediate azimuths are interpolated between entered azimuths.

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