

## **ENGINEERING EXHIBIT**

### **Incentive Auction Channel Reassignment**

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

prepared for

#### **WBAL Hearst Television Inc.**

WBAL-TV Baltimore, MD

Facility ID 65696

Ch. 12 30 kW 305 m

*WBAL Hearst Television Inc. (“Hearst”)* is the licensee of digital television station WBAL-TV, Channel 11, Facility ID 65696, Baltimore, MD. Reassignment of WBAL-TV from Channel 11 to Channel 12 was specified in the *Incentive Auction Closing and Channel Reassignment Public Notice (“CCRPN”*, DA 17-317, released April 13, 2017). *Hearst* herein proposes modification of the WBAL-TV Channel 12 Construction Permit (“CP”, file# 0000024625). This application is intended to be filed during the second filing window.<sup>1</sup> The CP authorizes operation at 27.2 kW effective radiated power (“ERP”) at 305 meters antenna height above average terrain. *Hearst* proposes herein to increase the ERP to 30 kW.

As with the current authorization, the proposed Channel 12 facility will employ a new circularly polarized nondirectional antenna system to be top-mounted on the WBAL-TV candelabra tower in lieu of the existing Channel 11 antenna. The existing tower structure corresponds to FCC Antenna Structure Registration number 1035558. No change to the overall structure height will result.

Figure 1 supplies a map that demonstrates compliance with §73.625(a)(1) regarding coverage of the entire principal community. The proposed facility’s predicted population exceeds 95 percent of the *CCRPN* baseline facility’s population.

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<sup>1</sup>Public Notice “*Incentive Auction Task Force and Media Bureau Announce the Opening of the Second Filing Window for Eligible Full Power and Class A Television Station—October 3 Through November 2, 2017*” DA 17-911, released September 20, 2017.

Interference study per FCC OET Bulletin 69<sup>2</sup> shows that the proposal complies with the 0.5 percent limit of new interference caused to pertinent nearby post-auction full service and Class A television stations and reassignments as required by §73.616. The interference study output report is provided as Table 1.

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 12.3 mV/m, which is slightly (by 1.8 dB) above the 10 mV/m threshold of §73.1030(c) where further analysis may be required. Here, the proposal's signal strength at the monitoring station is not appreciably different from the licensed WBAL-TV Channel 11 facility (11.4 mV/m).

The site is not located within the areas requiring coordination with "quiet" zones specified in §73.1030(a) and (b). There are no authorized AM stations within 3 kilometers of the site. The site location is beyond the border areas requiring international coordination.

### **Human Exposure to Radiofrequency Electromagnetic Field (Environmental)**

The proposed operation was evaluated for human exposure to RF energy using the procedures outlined in the FCC's OET Bulletin Number 65. Based on OET-65 equation (10), and considering 15 percent antenna relative field in downward elevations (pattern data shows less than 15 percent relative field at angles 10 to 90 degrees below the antenna), the calculated signal density near the tower at two meters above ground level attributable to the proposed facility is  $0.5 \mu\text{W}/\text{cm}^2$ , which is 0.3 percent of the general population/uncontrolled maximum permitted exposure limit. This is well below the five percent threshold limit described in §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.

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<sup>2</sup>FCC Office of Engineering and Technology Bulletin number 69, *Longley-Rice Methodology for Evaluating TV Coverage and Interference*, February 6, 2004 ("OET-69"). This analysis employed the FCC's current "TVStudy" software with the default application processing template settings, 2 km cell size, and 1 km terrain increment. Comparisons of various results of this computer program (run on a Mac processor) to the FCC's implementation of TVStudy show excellent correlation.

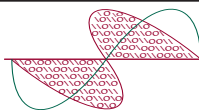
The general public will not be exposed to RF levels attributable to the proposal in excess of the FCC's guidelines. RF exposure warning signs will continue to be posted. With respect to worker safety, the applicant will coordinate exposure procedures with all pertinent stations and will reduce power 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. No increase in structure height is proposed.

*List of Attachments*

Figure 1	Proposed Coverage Contours
Table 1	OET Bulletin 69 Interference Study
Form 2100	Saved Version of Engineering Sections from FCC Form at Time of Upload

**Chesapeake RF Consultants, LLC**

Joseph M. Davis, P.E.	October 9, 2017	
207 Old Dominion Road	Yorktown, VA 23692	703-650-9600

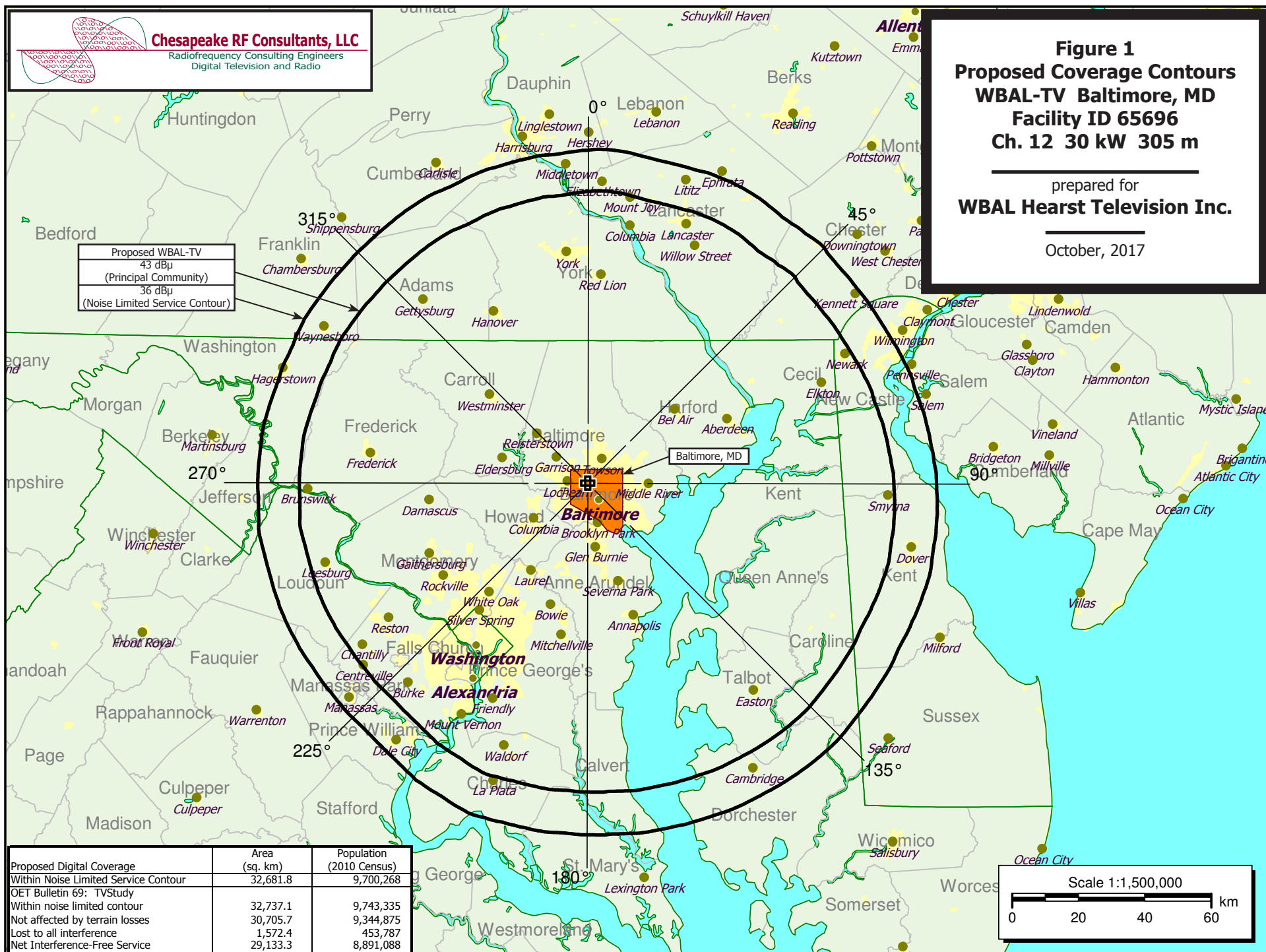


**Chesapeake RF Consultants, LLC**  
Radiofrequency Consulting Engineers  
Digital Television and Radio

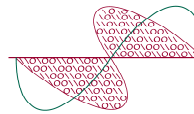
**Figure 1**  
**Proposed Coverage Contours**  
**WBAL-TV Baltimore, MD**  
**Facility ID 65696**  
**Ch. 12 30 kW 305 m**

prepared for  
**WBAL Hearst Television Inc.**

October, 2017



**Table 1 WBAL-TV OET Bulletin 69 Interference Study**  
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**Chesapeake RF Consultants, LLC**  
Radiofrequency Consulting Engineers  
Digital Television and Radio

tvstudy v2.2.3 (6K70F1)

Database: localhost, Study: WBAL-TV TOP PROP 30kW (3417), Model: Longley-Rice  
Start: 2017.10.09 07:54:16

Study created: 2017.10.09 07:53:27

Study build station data: LMS TV 2017-10-07 LMSTV

Proposal: WBAL-TV D12 DT APP BALTIMORE, MD  
File number: WBAL-TV TOP PROP 30kW  
Facility ID: 65696  
Station data: User record  
Record ID: 1178  
Country: U.S.  
Zone: I

Stations potentially affected by proposal:

IX	Call	Chan	Svc	Status	City, State	File Number	Distance
No	WJZ-TV	D11	DT	CP	BALTIMORE, MD	BLANK0000024506	0.0 km
No	WBRE-TV	D11	DT	LIC	WILKES-BARRE, PA	BLCDT20051123AJX	215.7
No	WNCT-TV	D12	DT	CP	GREENVILLE, NC	BLANK0000028185	446.0
Yes	WNET	D12	DT	CP	NEWARK, NJ	BLANK0000025352	271.8
No	WNYT	D12	DT	LIC	ALBANY, NY	BLANK0000004731	427.6
No	WICU-TV	D12	DT	LIC	ERIE, PA	BLCDT20090619ABT	414.6
No	WICU-TV	D12	DT	APP	ERIE, PA	BPCDT20120619ABB	414.6
Yes	WYOU	D12	DT	CP	SCRANTON, PA	BLANK0000028347	215.7
Yes	WVPT	D12	DD	CP	STAUNTON, VA	BLANK0000028448	264.9
Yes	WBOY-TV	D12	DT	LIC	CLARKSBURG, WV	BLANK0000003150	316.4
Yes	WHYY-TV	D13	DT	CP	WILMINGTON, DE	BLANK0000026205	144.0
Yes	WWPX-TV	D13	DT	CP	MARTINSBURG, WV	BLANK0000027005	122.2

No non-directional AM stations found within 0.8 km

No directional AM stations found within 3.2 km

Record parameters as studied:

Channel: D12  
Latitude: 39 20 5.00 N (NAD83)  
Longitude: 76 39 2.00 W  
Height AMSL: 392.0 m  
HAAT: 305.0 m  
Peak ERP: 30.0 kW  
Antenna: Omnidirectional  
Elev Pattn: Generic  
Elec Tilt: 0.75

36.0 dBu contour:

Azimuth	ERP	HAAT	Distance
0.0 deg	30.0 kW	287.1 m	100.3 km
45.0	30.0	290.9	100.5
90.0	30.0	348.9	104.9
135.0	30.0	385.0	107.7
180.0	30.0	359.7	105.7
225.0	30.0	278.9	100.0
270.0	30.0	264.2	99.4
315.0	30.0	242.3	98.2

Database HAAT does not agree with computed HAAT

Database HAAT: 305 m Computed HAAT: 307 m

ERP exceeds maximum

ERP: 30.0 kW ERP maximum: 29.3 kW

\*\*Proposal service area extends beyond baseline plus 1.0%

Proposal service area population is more than 95.0% of baseline

Distance to Canadian border: 432.9 km

Distance to Mexican border: 2399.4 km

\*\*Proposal is within coordination distance of FCC monitoring station

**Table 1 WBAL-TV OET Bulletin 69 Interference Study**  
(page 2 of 6)



\*\*Proposal exceeds field strength limit at FCC monitoring station  
Conditions at FCC monitoring station: Laurel MD  
Bearing: 218.0 degrees Distance: 23.9 km  
ERP: 30.0 kW HAAT: 293.6 m Field strength: 82.0 dBu, 12.6 mV/m

Proposal is not within the West Virginia quiet zone area

Conditions at Table Mountain receiving zone:  
Bearing: 281.3 degrees Distance: 2433.3 km

Study cell size: 2.00 km  
Profile point spacing: 1.00 km

Maximum new IX to full-service and Class A: 0.50%  
Maximum new IX to LPTV: 2.00%

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Interference to BLANK0000025352 CP, scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WNET	D12	DT	CP	NEWARK, NJ	BLANK0000025352	
Undesireds:	WBAL-TV	D12	DT	BL	BALTIMORE, MD	DTVBL65696	271.7 km
	WBAL-TV	D12	DT	APP	BALTIMORE, MD	WBAL-TV TOP PROP 30kW	271.8
	WPIX	D11	DT	CP	NEW YORK, NY	BMPCDT20080620ALB	0.0
	WNYT	D12	DT	LIC	ALBANY, NY	BLANK0000004731	212.6
	WYOU	D12	DT	CP	SCRANTON, PA	BLANK0000028347	164.7
	WNAC-TV	D12	DT	LIC	PROVIDENCE, RI	BLCDT20090612AFT	262.2
	WHYY-TV	D13	DT	CP	WILMINGTON, DE	BLANK0000026205	127.8
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX
31901.5 20,939,614		29610.6 20,485,106		27383.5 20,004,924		27367.4 20,003,977	0.06 0.00
Undesired		Total IX		Unique IX, before		Unique IX, after	
WBAL-TV D12 DT BL		389.6	94,788	43.9	9,341		
WBAL-TV D12 DT APP		433.8	103,784			60.0 10,288	
WNYT D12 DT LIC		524.2	88,052	214.3	35,976	214.3 35,976	
WYOU D12 DT CP		1711.3	297,941	907.0	104,410	887.0 103,143	
WNAC-TV D12 DT LIC		220.8	57,197	32.2	11,474	32.2 11,474	
WHYY-TV D13 DT CP		511.3	232,284	148.9	99,565	148.9 99,565	

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Interference to BLANK0000025352 CP, scenario 2

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WNET	D12	DT	CP	NEWARK, NJ	BLANK0000025352	
Undesireds:	WBAL-TV	D12	DT	BL	BALTIMORE, MD	DTVBL65696	271.7 km
	WBAL-TV	D12	DT	APP	BALTIMORE, MD	WBAL-TV TOP PROP 30kW	271.8
	WPIX	D11	DT	LIC	NEW YORK, NY	BLCDT20090911ABN	4.6
	WNYT	D12	DT	LIC	ALBANY, NY	BLANK0000004731	212.6
	WYOU	D12	DT	CP	SCRANTON, PA	BLANK0000028347	164.7
	WNAC-TV	D12	DT	LIC	PROVIDENCE, RI	BLCDT20090612AFT	262.2
	WHYY-TV	D13	DT	CP	WILMINGTON, DE	BLANK0000026205	127.8
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX
31901.5 20,939,614		29610.6 20,485,106		27379.4 20,004,284		27363.3 20,003,337	0.06 0.00
Undesired		Total IX		Unique IX, before		Unique IX, after	
WBAL-TV D12 DT BL		389.6	94,788	43.9	9,341		
WBAL-TV D12 DT APP		433.8	103,784			60.0 10,288	
WPIX D11 DT LIC		4.1	640	4.1	640	4.1 640	
WNYT D12 DT LIC		524.2	88,052	214.3	35,976	214.3 35,976	
WYOU D12 DT CP		1711.3	297,941	907.0	104,410	887.0 103,143	
WNAC-TV D12 DT LIC		220.8	57,197	32.2	11,474	32.2 11,474	
WHYY-TV D13 DT CP		511.3	232,284	148.9	99,565	148.9 99,565	

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Interference to BLANK0000028347 CP, scenario 1

Call	Chan	Svc	Status	City, State	File Number	Distance
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**Table 1 WBAL-TV OET Bulletin 69 Interference Study**  
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Desired:	WYOU	D12	DT	CP	SCRANTON, PA	BLANK0000028347	
Undesireds:	WBAL-TV	D12	DT	BL	BALTIMORE, MD	DTVBL65696	215.7 km
	WBAL-TV	D12	DT	APP	BALTIMORE, MD	WBAL-TV TOP PROP 30kW	215.7
	WPIX	D11	DT	CP	NEW YORK, NY	BMPCDT20080620ALB	164.7
	WNET	D12	DT	CP	NEWARK, NJ	BLANK0000025352	164.7
	WNYT	D12	DT	LIC	ALBANY, NY	BLANK0000004731	222.4
	WICU-TV	D12	DT	LIC	ERIE, PA	BLCDT20090619ABT	357.0
	WHYY-TV	D13	DT	CP	WILMINGTON, DE	BLANK0000026205	137.6
	WNYI	D13	DT	APP	ITHACA, NY	BLANK0000029367	175.8

Service area	Terrain-limited	IX-free, before	IX-free, after	Percent New IX
41052.9 3,553,761	34390.1 2,799,743	32473.6 2,606,360	32429.4 2,603,434	0.14 0.11

Undesired	Total IX	Unique IX, before	Unique IX, after
WBAL-TV D12 DT BL	849.5 106,487	404.9 39,017	
WBAL-TV D12 DT APP	921.7 113,274		449.0 41,943
WNET D12 DT CP	1210.7 130,674	721.7 69,460	705.6 67,998
WNYT D12 DT LIC	337.4 12,782	216.7 5,422	216.7 5,422
WHYY-TV D13 DT CP	144.5 35,147	16.1 2,415	12.0 1,090
WNYI D13 DT APP	12.0 426	8.0 261	8.0 261

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Interference to BLANK0000028347 CP, scenario 2

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WYOU	D12	DT	CP	SCRANTON, PA	BLANK0000028347	
Undesireds:	WBAL-TV	D12	DT	BL	BALTIMORE, MD	DTVBL65696	215.7 km
	WBAL-TV	D12	DT	APP	BALTIMORE, MD	WBAL-TV TOP PROP 30kW	215.7
	WPIX	D11	DT	CP	NEW YORK, NY	BMPCDT20080620ALB	164.7
	WNET	D12	DT	CP	NEWARK, NJ	BLANK0000025352	164.7
	WNYT	D12	DT	LIC	ALBANY, NY	BLANK0000004731	222.4
	WICU-TV	D12	DT	LIC	ERIE, PA	BLCDT20090619ABT	357.0
	WHYY-TV	D13	DT	CP	WILMINGTON, DE	BLANK0000026205	137.6

Service area	Terrain-limited	IX-free, before	IX-free, after	Percent New IX
41052.9 3,553,761	34390.1 2,799,743	32481.6 2,606,621	32437.4 2,603,695	0.14 0.11

Undesired	Total IX	Unique IX, before	Unique IX, after
WBAL-TV D12 DT BL	849.5 106,487	404.9 39,017	
WBAL-TV D12 DT APP	921.7 113,274		449.0 41,943
WNET D12 DT CP	1210.7 130,674	721.7 69,460	705.6 67,998
WNYT D12 DT LIC	337.4 12,782	220.7 5,587	220.7 5,587
WHYY-TV D13 DT CP	144.5 35,147	16.1 2,415	12.0 1,090

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Interference to BLANK0000028448 CP, scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WVPT	D12	DD	CP	STAUNTON, VA	BLANK0000028448	
Undesireds:	WBAL-TV	D12	DT	BL	BALTIMORE, MD	DTVBL65696	264.9 km
	WBAL-TV	D12	DT	APP	BALTIMORE, MD	WBAL-TV TOP PROP 30kW	264.9
	WVNS-TV	D11	DT	CP	LEWISBURG, WV	BLANK0000028464	129.6
	WYMT-TV	D12	DT	LIC	HAZARD, KY	BLCDT20040109ACY	356.9
	WNCT-TV	D12	DT	CP	GREENVILLE, NC	BLANK0000028185	355.1
	WBOY-TV	D12	DT	LIC	CLARKSBURG, WV	BLANK0000003150	152.5

Service area	Terrain-limited	IX-free, before	IX-free, after	Percent New IX
27131.5 930,909	23378.4 809,257	22498.1 788,394	22470.3 787,589	0.12 0.10

Undesired	Total IX	Unique IX, before	Unique IX, after
WBAL-TV D12 DT BL	401.1 8,230	341.4 6,669	
WBAL-TV D12 DT APP	432.9 9,162		369.2 7,474
WVNS-TV D11 DT CP	4.0 0	4.0 0	4.0 0
WYMT-TV D12 DT LIC	11.9 3	4.0 0	4.0 0
WNCT-TV D12 DT CP	422.8 13,738	295.2 10,265	291.3 10,138
WBOY-TV D12 DT LIC	196.0 2,925	100.3 453	100.3 453

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Interference to BLANK0000028448 CP, scenario 2



**Table 1 WBAL-TV OET Bulletin 69 Interference Study**  
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Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WVPT	D12	DD	CP	STAUNTON, VA	BLANK0000028448	
Undesireds:	WBAL-TV	D12	DT	BL	BALTIMORE, MD	DTVBL65696	264.9 km
	WBAL-TV	D12	DT	APP	BALTIMORE, MD	WBAL-TV TOP PROP 30kW	264.9
	WVNS-TV	D11	DT	APP	LEWISBURG, WV	BLANK0000029985	129.6
	WYMT-TV	D12	DT	LIC	HAZARD, KY	BLCDDT20040109ACY	356.9
	WNCT-TV	D12	DT	CP	GREENVILLE, NC	BLANK0000028185	355.1
	WBOY-TV	D12	DT	LIC	CLARKSBURG, WV	BLANK0000003150	152.5
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX
27131.5 930,909		23378.4 809,257		22474.3 788,076		22446.5 787,271	0.12 0.10

Undesired	Total IX	Unique IX, before	Unique IX, after
WBAL-TV D12 DT BL	401.1 8,230	341.4 6,669	
WBAL-TV D12 DT APP	432.9 9,162		369.2 7,474
WVNS-TV D11 DT APP	27.7 318	27.7 318	
WYMT-TV D12 DT LIC	11.9 3	4.0 0	4.0 0
WNCT-TV D12 DT CP	422.8 13,738	295.2 10,265	291.3 10,138
WBOY-TV D12 DT LIC	196.0 2,925	100.3 453	100.3 453

Interference to BLANK0000003150 LIC, scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WBOY-TV	D12	DT	LIC	CLARKSBURG, WV	BLANK0000003150	
Undesireds:	WBAL-TV	D12	DT	BL	BALTIMORE, MD	DTVBL65696	316.4 km
	WBAL-TV	D12	DT	APP	BALTIMORE, MD	WBAL-TV TOP PROP 30kW	316.4
	WPCW	D11	DT	LIC	JEANNETTE, PA	BLCDDT20090626AAT	137.0
	WVNS-TV	D11	DT	CP	LEWISBURG, WV	BLANK0000028464	171.2
	WYMT-TV	D12	DT	LIC	HAZARD, KY	BLCDDT20040109ACY	340.6
	WKRC-TV	D12	DT	LIC	CINCINNATI, OH	BLCDDT20090622AFI	359.9
	WMFD-TV	D12	DT	LIC	MANSFIELD, OH	BLCDDT20081112ALJ	254.8
	WICU-TV	D12	DT	LIC	ERIE, PA	BLCDDT20090619ABT	310.1
	WVPT	D12	DD	CP	STAUNTON, VA	BLANK0000028448	152.5
	WVFX	D13	DT	CP	CLARKSBURG, WV	BLANK0000027584	2.1
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX
26747.7 711,302		23988.4 621,367		23663.7 613,905		23655.8 613,719	0.03 0.03

Undesired	Total IX	Unique IX, before	Unique IX, after
WBAL-TV D12 DT BL	27.8 487	27.8 487	
WBAL-TV D12 DT APP	35.7 673		35.7 673
WPCW D11 DT LIC	20.2 1,349	20.2 1,349	
WYMT-TV D12 DT LIC	55.9 859	32.0 400	32.0 400
WKRC-TV D12 DT LIC	4.0 110	0.0 0	0.0 0
WMFD-TV D12 DT LIC	160.5 4,720	128.5 3,641	128.5 3,641
WICU-TV D12 DT LIC	12.1 885	0.0 0	0.0 0
WVPT D12 DD CP	28.1 0	28.1 0	28.1 0
WVFX D13 DT CP	56.2 506	52.2 241	52.2 241

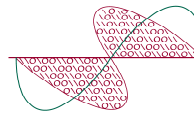
Interference to BLANK0000003150 LIC, scenario 2

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WBOY-TV	D12	DT	LIC	CLARKSBURG, WV	BLANK0000003150	
Undesireds:	WBAL-TV	D12	DT	BL	BALTIMORE, MD	DTVBL65696	316.4 km
	WBAL-TV	D12	DT	APP	BALTIMORE, MD	WBAL-TV TOP PROP 30kW	316.4
	WPCW	D11	DT	LIC	JEANNETTE, PA	BLCDDT20090626AAT	137.0
	WVNS-TV	D11	DT	CP	LEWISBURG, WV	BLANK0000028464	171.2
	WYMT-TV	D12	DT	LIC	HAZARD, KY	BLCDDT20040109ACY	340.6
	WKRC-TV	D12	DT	LIC	CINCINNATI, OH	BLCDDT20090622AFI	359.9
	WMFD-TV	D12	DT	LIC	MANSFIELD, OH	BLCDDT20081112ALJ	254.8
	WICU-TV	D12	DT	APP	ERIE, PA	BPCDDT20120619ABB	310.1
	WVPT	D12	DD	CP	STAUNTON, VA	BLANK0000028448	152.5
	WVFX	D13	DT	CP	CLARKSBURG, WV	BLANK0000027584	2.1
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX
26747.7 711,302		23988.4 621,367		23663.7 613,905		23655.8 613,719	0.03 0.03

Undesired	Total IX	Unique IX, before	Unique IX, after
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**Table 1 WBAL-TV OET Bulletin 69 Interference Study**  
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**Chesapeake RF Consultants, LLC**  
Radiofrequency Consulting Engineers  
Digital Television and Radio

WBAL-TV D12 DT BL	27.8	487	27.8	487		
WBAL-TV D12 DT APP	35.7	673			35.7	673
WPCW D11 DT LIC	20.2	1,349	20.2	1,349	20.2	1,349
WYMT-TV D12 DT LIC	55.9	859	32.0	400	32.0	400
WKRC-TV D12 DT LIC	4.0	110	0.0	0	0.0	0
WMFD-TV D12 DT LIC	160.5	4,720	124.4	3,478	124.4	3,478
WICU-TV D12 DT APP	16.1	1,048	0.0	0	0.0	0
WVPT D12 DD CP	28.1	0	28.1	0	28.1	0
WVFX D13 DT CP	56.2	506	52.2	241	52.2	241

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Interference to BLANK0000026205 CP, scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WHYY-TV	D13	DT	CP	WILMINGTON, DE	BLANK0000026205	
Undesireds:	WBAL-TV	D12	DT	BL	BALTIMORE, MD	DTVBL65696	144.0 km
	WBAL-TV	D12	DT	APP	BALTIMORE, MD	WBAL-TV TOP PROP 30kW	144.0
	WNET	D12	DT	CP	NEWARK, NJ	BLANK0000025352	127.8
	WYOU	D12	DT	CP	SCRANTON, PA	BLANK0000028347	137.6
	WGBY-TV	D13	DT	CP	SPRINGFIELD, MA	BLANK0000025429	326.8
	WNYI	D13	DT	APP	ITHACA, NY	BLANK0000029367	309.4
	WWPX-TV	D13	DT	CP	MARTINSBURG, WV	BLANK0000027005	250.0
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX
29492.0 10,379,045		27895.6 9,978,369		27334.5 9,786,092		27330.5 9,785,987	0.01 0.00
Undesired			Total IX	Unique IX, before		Unique IX, after	
WBAL-TV D12 DT BL	47.6		1,840	0.0		0	
WBAL-TV D12 DT APP	55.6		2,321			4.0 105	
WNET D12 DT CP	148.3		128,001	120.2 117,401		120.2 117,401	
WYOU D12 DT CP	4.0		101	4.0 101		4.0 101	
WGBY-TV D13 DT CP	52.0		14,764	20.0 3,920		20.0 3,920	
WNYI D13 DT APP	47.9		16,429	36.0 15,701		36.0 15,701	
WWPX-TV D13 DT CP	348.9		44,310	293.3 41,986		289.3 41,610	

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Interference to BLANK0000026205 CP, scenario 2

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WHYY-TV	D13	DT	CP	WILMINGTON, DE	BLANK0000026205	
Undesireds:	WBAL-TV	D12	DT	BL	BALTIMORE, MD	DTVBL65696	144.0 km
	WBAL-TV	D12	DT	APP	BALTIMORE, MD	WBAL-TV TOP PROP 30kW	144.0
	WNET	D12	DT	CP	NEWARK, NJ	BLANK0000025352	127.8
	WYOU	D12	DT	CP	SCRANTON, PA	BLANK0000028347	137.6
	WGBY-TV	D13	DT	CP	SPRINGFIELD, MA	BLANK0000025429	326.8
	WWPX-TV	D13	DT	CP	MARTINSBURG, WV	BLANK0000027005	250.0
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX
29492.0 10,379,045		27895.6 9,978,369		27370.5 9,801,793		27366.5 9,801,688	0.01 0.00
Undesired			Total IX	Unique IX, before		Unique IX, after	
WBAL-TV D12 DT BL	47.6		1,840	0.0		0	
WBAL-TV D12 DT APP	55.6		2,321			4.0 105	
WNET D12 DT CP	148.3		128,001	120.2 117,401		120.2 117,401	
WYOU D12 DT CP	4.0		101	4.0 101		4.0 101	
WGBY-TV D13 DT CP	52.0		14,764	24.0 4,164		24.0 4,164	
WWPX-TV D13 DT CP	348.9		44,310	301.3 42,470		297.3 42,094	

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Interference to BLANK0000027005 CP, scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WWPX-TV	D13	DT	CP	MARTINSBURG, WV	BLANK0000027005	
Undesireds:	WBAL-TV	D12	DT	BL	BALTIMORE, MD	DTVBL65696	122.2 km
	WBAL-TV	D12	DT	APP	BALTIMORE, MD	WBAL-TV TOP PROP 30kW	122.2
	WHYY-TV	D13	DT	CP	WILMINGTON, DE	BLANK0000026205	250.0
	WSKY-TV	D13	DT	CP	MANTEO, NC	BLANK0000027680	361.0
	WVFX	D13	DT	CP	CLARKSBURG, WV	BLANK0000027584	196.6
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX

**Table 1 WBAL-TV OET Bulletin 69 Interference Study**  
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31666.2	3,856,032	25641.8	3,163,217	24862.4	2,920,610	24850.5	2,920,480	0.05	0.00
Undesired		Total IX		Unique IX, before		Unique IX, after			
WBAL-TV D12 DT BL	350.1	91,257		218.7		35,126			
WBAL-TV D12 DT APP	374.0	102,290				230.6		35,256	
WHYY-TV D13 DT CP	392.3	175,713		200.8		44,995		192.8	
WSKY-TV D13 DT CP	188.4	128,700		128.4		31,464		128.4	
WVFX D13 DT CP	52.1	1,646		40.0		304		40.0	
								304	

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Interference to proposal, scenario 1  
4.86% interference

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WBAL-TV	D12	DT	APP	BALTIMORE, MD	WBAL-TV TOP PROP 30kW	
Undesireds:	WNET	D12	DT	CP	NEWARK, NJ	BLANK0000025352	271.8 km
	WYOU	D12	DT	CP	SCRANTON, PA	BLANK0000028347	215.7
	WVPT	D12	DD	CP	STAUNTON, VA	BLANK0000028448	264.9
	WHYY-TV	D13	DT	CP	WILMINGTON, DE	BLANK0000026205	144.0
	WWPX-TV	D13	DT	CP	MARTINSBURG, WV	BLANK0000027005	122.2

Service area	Terrain-limited	IX-free	Percent IX
32737.1 9,743,335	30705.7 9,344,875	29133.3 8,891,088	5.12 4.86

Undesired		Total IX		Unique IX		Prcnt Unique IX	
WNET D12 DT CP	84.5	27,866		8.1		561	
WYOU D12 DT CP	1395.9	404,861		1227.9		338,020	
WVPT D12 DD CP	192.5	68,750		128.5		45,830	
WHYY-TV D13 DT CP	59.8	25,521		4.0		26	
WWPX-TV D13 DT CP	35.8	1,178		19.9		467	
						0.03 0.01	
						4.00 3.62	
						0.42 0.49	
						0.01 0.00	
						0.06 0.00	

**Channel and  
Facility  
Information**

Section	Question	Response
Proposed Community of License	Facility ID	65696
	State	Maryland
	City	BALTIMORE
	DTV Channel	12
Facility Type	Facility Type	Commercial
	Station Type	Main
Zone	Zone	1

**Antenna Location  
Data**

Section	Question	Response
Antenna Structure Registration	Do you have an FCC Antenna Structure Registration (ASR) Number?	Yes
	ASR Number	1035558
Coordinates (NAD83)	Latitude	39° 20' 05.0" N+
	Longitude	076° 39' 02.0" W-
	Structure Type	GTOWER-Guyed Structure Used for Communication Purposes
	Overall Structure Height	304.0 meters
	Support Structure Height	271.0 meters
	Ground Elevation (AMSL)	97.0 meters
Antenna Data	Height of Radiation Center Above Ground Level	295 meters
	Height of Radiation Center Above Average Terrain	305 meters
	Height of Radiation Center Above Mean Sea Level	392.0 meters
	Effective Radiated Power	30.0 kW

**Antenna  
Technical Data**

Section	Question	Response
Antenna Type	Antenna Type	Non-Directional
	Do you have an Antenna ID?	
	Antenna ID	
Antenna Manufacturer and Model	Manufacturer:	DIE
	Model	THV-9A12/CP-R O4
	Rotation	
	Electrical Beam Tilt	0.75
	Mechanical Beam Tilt	Not Applicable
	toward azimuth	
	Polarization	Circular
DTV and DTS: Elevation Pattern	Does the proposed antenna propose elevation radiation patterns that vary with azimuth for reasons other than the use of mechanical beam tilt?	No
	Uploaded file for elevation antenna (or radiation) pattern data	

**Construction  
Permit  
Certifications**

Section	Question	Response
<b>Post-Incentive Auction Expedited Processing</b>	It will operate on the DTV channel for this station as established in the post-incentive auction channel reassignment public notice.	Yes
	It will operate post-incentive auction facilities that do not expand the noise-limited service contour in any direction beyond that established by the post-incentive auction channel reassignment public notice.	No
	It will operate post-incentive auction facilities that match or reduce by no more than five percent with respect to predicted population from those defined in the post-incentive auction channel reassignment public notice.	Yes
	The antenna structure to be used by this facility has been registered by the Commission and will not require re-registration to support the proposed antenna, OR the FAA has previously determined that the proposed structure will not adversely affect 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
<b>Environmental Effect</b>	Would a Commission grant of Authorization for this location be an action which may have a significant environmental effect? (See Section 1.1306 of 47 C.F.R.)	No
<b>Broadcast Facility</b>	The proposed facility complies with the applicable engineering standards and assignment requirements of 47 C. F.R. Sections 73.616, 73.622(i), 73.623(e), 73.625, 73.1030, and 73.1125.	Yes