

**TECHNICAL EXHIBIT  
Prepared In Support of  
Application for Minor Change of  
Non-Commercial Digital Television Station  
For Applicant**

**Howard University Television**

**WHUT-DT**

**WASHINGTON, DISTRICT OF COLUMBIA  
CHANNEL 33  
1,000 KW (Omni)  
327.2 Meters (RCAMSL)**

**June 13, 2012**



**Dennis Wallace  
Meintel, Sgrignoli, & Wallace  
1282 Smallwood Drive  
Suite 372  
Waldorf, MD. 20603**

## **Background & Proposed Facilities:**

This Technical Exhibit supports an application by Howard University Television (HUT) for minor modification of the license for digital television station WHUT-DT on DTV Channel 33 at Washington, District of Columbia. Pursuant to the Maximization of Post-Transition DTV facilities, WHUT-DT desires to increase the ERP of their existing channel 33 license to better serve its audience.

WHUT proposes to operate its DTV facility on channel 33 using the same antenna, tower location, and height, and desires only to increase its Effective Radiated Power (ERP) up to the de minimus limits as set for by the FCC.

A study was conducted by Meintel, Sgrignoli, & Wallace utilizing TechWare software. The results of this study indicate that WHUT-DT should be able to operate at 1,000 KW without exceeding the 0.5% interference criteria to other stations. A copy of the completed study is attached hereto.

## **Environmental Considerations**

Under section 1.1306 of the Commission rules, an environmental impact assessment is not required for this request. The proposal does not specify a location in a designated wilderness area, a wildlife preserve, areas of critical habitats, historic district, Indian religious site, or flood plain, and will not involve significant changes in surface features. Additionally, the tower is an existing structure. No changes in the antenna, tower structure, or transmitter site would be required. Only additional transmitter power is required to complete the proposed modification.

The proposed operation was evaluated for human exposure to radiofrequency (RF) energy using the procedures outlined in the Commission's OET Bulletin 65. The proposed antenna will be installed such that its center of radiation is approximately 663.6 meters above the ground level. An ERP of 1,000 kilowatts, horizontally polarized, will be employed. An analysis was conducted using the elevation pattern data provided by the antenna manufacturer. The analysis was conducted using formulas from FCC Bulletin OET-65. The analysis indicated that the power density at the base of the tower (2 meters above ground) is well below the maximum permissible exposure limits for the "uncontrolled/general population" limits. At locations away from the base of the tower and building the calculated power density is even lower, due to the increasing distance away from the antenna.

Additionally, the applicant will restrict access to the tower and building areas to prevent unauthorized personnel from accessing the antenna. The applicant agrees to work with other licensees at the site and will cease operations during periods that personnel will be working on the tower or antenna structure. The applicant will also develop an RF exposure safety program for all workers that will be accessing the site. Any time workers will be working on the tower, the applicant will cease operations of the transmitters.

Based upon the preceding, it is believed that this instant proposal may be categorically excluded from environmental processing under Section 1.1306 of the Commission's Rules; therefore, preparation of an Environmental Assessment is not required.

**Certification**

This statement with associated exhibits was prepared by me or under my direction. All assertions in this statement are true of my own personal knowledge except where otherwise indicated and these latter assertions are based on information from sources known reliable and believed to be true.

Submitted this 13<sup>th</sup> day of June, 2012.

By: \_\_\_\_\_/s/\_\_\_\_\_

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Percent allowed new interference: 0.500  
Percent allowed new interference to non Class A LPTV: 2.000  
TW Census data selected 2000  
Data Base Selected  
/space/software/cdbs/pt\_tvdb.sff

WARNING WARNING WARNING

The following list of station records has been excluded from the analysis due to the fact that they have the same state, city and channel as the proposed station - This could cause the program to not find a potential fail situation

You can force the program to include these records by setting the state of the proposed record to ZZ and re-running the analysis

WHUT-TV 33 WASHINGTON DC BPEDT 20080619AGL  
WHUT-TV 33 WASHINGTON DC BLEDT 20071018AIJ

TV INTERFERENCE and SPACING ANALYSIS PROGRAM

Date: 06-15-2012 Time: 15:24:54

Record Selected for Analysis

WHUT USERRECORD-01 WASHINGTON DC US  
Channel 33 ERP 1000. kW HAAT 258. m RCAMSL 00327 m  
Latitude 038-57-01 Longitude 0077-04-47  
Status APP Zone 1 Border Site number: 01  
Last update Cutoff date Docket  
Comments  
Applicant

Cell Size for Service Analysis 2.0 km/site

Distance Increments for Longley-Rice Analysis 1.00 km

Facility (site # 01) meets maximum height/power limits

Site number	1			
Azimuth (Deg)	ERP (kW)	HAAT (m)	41.0 dBu F(50, 90) (km)	
0.0	1000.000	232.9	86.818	
45.0	1000.000	244.8	88.385	
90.0	1000.000	288.9	95.439	
135.0	1000.000	295.0	96.230	
180.0	1000.000	283.0	94.619	
225.0	1000.000	239.1	87.598	
270.0	1000.000	246.2	88.598	
315.0	1000.000	236.9	87.314	

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

SPACING VIOLATION FOUND BETWEEN STATION

WHUT 33 WASHINGTON DC USERRECORD01 Site # 01

and station

SHORT TO: WHUT-TV 33 WASHINGTON DC DTVPLN DTVP1206  
38 -57-01 77 -04-47  
Req. separation 196.3 Actual separation 0.0 Short 196.3 km

LANDMOBILE SPACING VIOLATIONS FOUND

NONE from Site # 01

Checks to Site Number 01

Proposed facility is 32.7km from FCC Monitoring station at  
Laurel MD  
Bearing: 43.0 degrees ERP: 1000.00 kW HAAT: 241.9 m  
Field = 25.5 mV/m

Proposed facility OK toward West Virginia quiet zone

Proposed facility OK toward Table Mountain

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 33 Proposed Station  
Call WHUT City/State WASHINGTON DC ARN  
USERRECORD01

Stations Potentially Affected by Proposed Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
32	WTAJ-TV	ALTOONA PA	214.1	LIC	BLCDT	20051018ACE
32	WPSG	PHILADELPHIA PA	199.3	CP	BPCDT	20111024ACS
32	WPSG	PHILADELPHIA PA	199.3	LIC	BLCDT	20021025AAS
32	WVIR-TV	CHARLOTTESVILLE VA	162.5	LIC	BLCDT	20040908AAE
33	WMYV	GREENSBORO NC	419.6	LIC	BLCDT	20020430ABD

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33	WCBS-TV	NEW YORK NY	331.1	LIC	BLCDT	20090612AFN
33	WCBS-TV	NEW YORK NY	326.9	APP	BMPCDT	20080619AAZ
33	WCBS-TV	NEW YORK NY	331.1	CP	BPCDT	20090924AAQ
33	WTVZ-TV	NORFOLK VA	243.4	LIC	BLCDT	20090602ABA
33	WNPB-TV	MORGANTOWN WV	245.1	LIC	BLEDT	20100505AGH
33	WNPB-TV	MORGANTOWN WV	245.1	CP MOD	BMPCDT	20120209ABV
34	WJAC-TV	JOHNSTOWN PA	226.8	CP	BPCDT	20080619ADU
34	WJAC-TV	JOHNSTOWN PA	226.8	LIC	BLCDT	20051123AKN
34	WCAU	PHI LADELPHI A PA	199.3	LIC	BLCDT	20090914AAX
34	WPXW-TV	MANASSAS VA	0.0	LIC	BLCDT	20090612AI Z

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Analysis of Interference to Affected Station 1

Analysis of current record

Channel	Call	City/State	Application	Ref. No.
32	WTAJ-TV	ALTOONA PA	BLCDT	-20051018ACE

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
32	WNLO	BUFFALO NY	276.6	LIC	BLCDT	-20070320AAV
32	WPSG	PHI LADELPHI A PA	277.9	CP	BPCDT	-20111024ACS
32	WPSG	PHI LADELPHI A PA	277.9	LIC	BLCDT	-20021025AAS
32	WQPX-TV	SCRANTON PA	247.3	LIC	BLCDT	-20060629AFR
32	WVIR-TV	CHARLOTTESVILLE VA	287.1	LIC	BLCDT	-20040908AAE
33	WHUT-TV	WASHINGTON DC	214.1	PLN	DTVPLN	-DTVP1206
33	WNPB-TV	MORGANTOWN WV	148.2	LIC	BLEDT	-20100505AGH
33	WNPB-TV	MORGANTOWN WV	148.2	CP MOD	BMPCDT	-20120209ABV
33	WHUT	WASHINGTON DC	214.1	APP	USERRECORD-01	

Proposal causes no interference

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Analysis of Interference to Affected Station 2

Analysis of current record

Channel	Call	City/State	Application	Ref. No.
32	WPSG	PHI LADELPHI A PA	BPCDT	-20111024ACS

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
31	WPPX-TV	WILMINGTON DE	0.0	CP	BPCDT	-20080620AMP
31	WPPX-TV	WILMINGTON DE	0.0	LIC	BLCDT	-20031203AFL
31	WPXN-TV	NEW YORK NY	131.8	LIC	BLCDT	-20110729AAQ
31	WPXN-TV	NEW YORK NY	127.6	APP	BMPCDT	-20080620ALZ
31	WSWB	SCRANTON PA	160.4	LIC	BMLCDT	-20090529AJJ
31	WSWB-DR	SCRANTON PA	160.4	APP	BPRM	-20080619ALI
32	WPX-TV	BOSTON MA	419.6	CP	BPCDT	-20080620ACX
32	WPX-TV	BOSTON MA	419.6	LIC	BLCDT	-20040723ACG
32	WTAJ-TV	ALTOONA PA	277.9	LIC	BLCDT	-20051018ACE
32	WQPX-TV	SCRANTON PA	160.3	LIC	BLCDT	-20060629AFR
32	WVIR-TV	CHARLOTTESVILLE VA	361.7	LIC	BLCDT	-20040908AAE
33	WHUT-TV	WASHINGTON DC	199.3	PLN	DTVPLN	-DTVP1206
33	WCBS-TV	NEW YORK NY	131.8	LIC	BLCDT	-20090612AFN
33	WCBS-TV	NEW YORK NY	127.6	APP	BMPCDT	-20080619AAZ
33	WCBS-TV	NEW YORK NY	131.8	CP	BPCDT	-20090924AAQ

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 33 WHUT WASHINGTON DC 199.3 APP USERRECORD-01  
 Proposal causes no interference

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Analysis of Interference to Affected Station 3

Analysis of current record

Channel	Call	City/State	Application	Ref. No.
32	WPSG	PHILADELPHIA PA	BLCDT	-20021025AAS

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
31	WPPX-TV	WILMINGTON DE	0.0	CP	BPCDT	-20080620AMP
31	WPPX-TV	WILMINGTON DE	0.0	LIC	BLCDT	-20031203AFL
31	WPXN-TV	NEW YORK NY	131.8	LIC	BLCDT	-20110729AAQ
31	WPXN-TV	NEW YORK NY	127.6	APP	BMPEDT	-20080620ALZ
31	WSWB	SCRANTON PA	160.4	LIC	BMLCDT	-20090529AJJ
31	WSWB-DR	SCRANTON PA	160.4	APP	BPRM	-20080619ALI
32	WBPX-TV	BOSTON MA	419.6	CP	BPCDT	-20080620ACX
32	WBPX-TV	BOSTON MA	419.6	LIC	BLCDT	-20040723ACG
32	WTAJ-TV	ALTOONA PA	277.9	LIC	BLCDT	-20051018ACE
32	WOPX-TV	SCRANTON PA	160.3	LIC	BLCDT	-20060629AFR
32	WVIR-TV	CHARLOTTESVILLE VA	361.7	LIC	BLCDT	-20040908AAE
33	WHUT-TV	WASHINGTON DC	199.3	PLN	DTVPLN	-DTVP1206
33	WCBS-TV	NEW YORK NY	131.8	LIC	BLCDT	-20090612AFN
33	WCBS-TV	NEW YORK NY	127.6	APP	BMPEDT	-20080619AAZ
33	WCBS-TV	NEW YORK NY	131.8	CP	BPCDT	-20090924AAQ
33	WHUT	WASHINGTON DC	199.3	APP	USERRECORD-01	

Proposal causes no interference

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Analysis of Interference to Affected Station 4

Analysis of current record

Channel	Call	City/State	Application	Ref. No.
32	WVIR-TV	CHARLOTTESVILLE VA	BLCDT	-20040908AAE

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
31	WAVY-TV	PORTSMOUTH VA	216.7	LIC	BLCDT	-20010409ABP
32	WITN-TV	WASHINGTON NC	306.8	LIC	BLCDT	-20060615ABD
32	WUNL-TV	WINSTON-SALEM NC	244.9	LIC	BLEDT	-20091112ABR
32	WTAJ-TV	ALTOONA PA	287.1	LIC	BLCDT	-20051018ACE
32	WPSG	PHILADELPHIA PA	361.7	CP	BPCDT	-20111024ACS
32	WPSG	PHILADELPHIA PA	361.7	LIC	BLCDT	-20021025AAS
32	WSBN-TV	NORTON VA	384.8	LIC	BLEDT	-20030428ABR
33	WHUT-TV	WASHINGTON DC	162.5	PLN	DTVPLN	-DTVP1206
33	WTVZ-TV	NORFOLK VA	218.1	LIC	BLCDT	-20090602ABA
33	WNPB-TV	MORGANTOWN WV	220.2	LIC	BLEDT	-20100505AGH
33	WNPB-TV	MORGANTOWN WV	220.2	CP MOD	BMPEDT	-20120209ABV
33	WHUT	WASHINGTON DC	162.5	APP	USERRECORD-01	

Total scenarios = 1

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Result key: 1  
 Scenario 1 Affected station 4  
 Before Analysis

Results for: 32A VA CHARLOTTESVILLE BLCDT 20040908AAE LIC  
 HAAT 368.0 m, ATV ERP 1000.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	1658640	33574.7
not affected by terrain losses	1539846	29089.5
lost to NTSC IX	0	0.0
lost to additional IX by ATV	33290	568.7
lost to ATV IX only	33290	568.7
lost to all IX	33290	568.7

Potential Interfering Stations Included in above Scenario 1

32A NC WASHINGTON	BLCDT	20060615ABD	LIC
32A NC WINSTON-SALEM	BLEDT	20091112ABR	LIC
32A PA ALTOONA	BLCDT	20051018ACE	LIC
32A PA PHILADELPHIA	BPCDT	20111024ACS	CP

After Analysis

Results for: 32A VA CHARLOTTESVILLE BLCDT 20040908AAE LIC  
 HAAT 368.0 m, ATV ERP 1000.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	1658640	33574.7
not affected by terrain losses	1539846	29089.5
lost to NTSC IX	0	0.0
lost to additional IX by ATV	33306	572.7
lost to ATV IX only	33306	572.7
lost to all IX	33306	572.7

Potential Interfering Stations Included in above Scenario 1

32A NC WASHINGTON	BLCDT	20060615ABD	LIC
32A NC WINSTON-SALEM	BLEDT	20091112ABR	LIC
32A PA ALTOONA	BLCDT	20051018ACE	LIC
32A PA PHILADELPHIA	BPCDT	20111024ACS	CP
33A DC WASHINGTON	USERRECORD01		APP

Percent new IX = 0.0011%

Worst case new IX 0.0011% Scenario 1

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Analysis of Interference to Affected Station 5

Analysis of current record

Channel	Call	City/State	Application	Ref. No.
33	WMYV	GREENSBORO NC	BLCDT	-20020430ABD

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
32	WITN-TV	WASHINGTON NC	226.5	LIC	BLCDT	-20060615ABD
32	WUNL-TV	WINSTON-SALEM NC	74.9	LIC	BLEDT	-20091112ABR
32	WRLK-TV	COLUMBIA SC	219.2	LIC	BLEDT	-20090622ADI
33	WHUT-TV	WASHINGTON DC	419.6	PLN	DTVPLN	-DTVP1206
33	WEBA-TV	ALLENDALE SC	330.9	LIC	BLEDT	-20050915AAY

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33	WTVZ-TV	NORFOLK VA	315.1	LIC	BLCDT	-20090602ABA
33	WNPB-TV	MORGANTOWN WV	425.6	LIC	BLEDT	-20100505AGH
33	WNPB-TV	MORGANTOWN WV	425.6	CP MOD	BMPEDT	-20120209ABV
34	WSOC-TV	CHARLOTTE NC	105.9	LIC	BLCDT	-20040526ANW
33	WHUT	WASHINGTON DC	419.6	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.
33	WCBS-TV	NEW YORK NY	BLCDT	-20090612AFN

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
32	WPSG	PHI LADELPHI A PA	131.8	CP	BPCDT	-20111024ACS
32	WPSG	PHI LADELPHI A PA	131.8	LIC	BLCDT	-20021025AAS
32	WOPX-TV	SCRANTON PA	164.5	LIC	BLCDT	-20060629AFR
33	WFSB	HARTFORD CT	150.8	CP	BPCDT	-20110630AAH
33	WFSB	HARTFORD CT	150.8	LIC	BLCDT	-20041029AIL
33	WHUT-TV	WASHINGTON DC	331.1	PLN	DTVPLN	-DTVP1206
33	WPXG-TV	CONCORD NH	349.1	LIC	BLCDT	-20031014AEP
33	WPXG-TV	CONCORD NH	349.1	CP	BPCDT	-20080619AJF
34	WIVT	BINGHAMTON NY	218.9	LIC	BLCDT	-20090819AGR
34	WMHT	SCHENECTADY NY	208.6	LIC	BLEDT	-20040108ALV
34	WCAU	PHI LADELPHI A PA	131.8	LIC	BLCDT	-20090914AAX
33	WHUT	WASHINGTON DC	331.1	APP	USERRECORD-01	

Total scenarios = 8

Result key: 2  
 Scenario 1 Affected station 6  
 Before Analysis

Results for: 33A NY NEW YORK BLCDT 20090612AFN LIC  
 HAAT 397.0 m, ATV ERP 284.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	19826780	28687.1
not affected by terrain losses	19513578	26843.5
lost to NTSC IX	0	0.0
lost to additional IX by ATV	753460	3160.4
lost to ATV IX only	753460	3160.4
lost to all IX	753460	3160.4

Potential Interfering Stations Included in above Scenario 1

32A PA	PHI LADELPHI A	BPCDT	20111024ACS	CP
33A CT	HARTFORD	BPCDT	20110630AAH	CP
33A NH	CONCORD	BLCDT	20031014AEP	LIC
34A PA	PHI LADELPHI A	BLCDT	20090914AAX	LIC
33A DC	WASHINGTON	DTVPLN	DTVP1206	PLN

After Analysis

Results for: 33A NY NEW YORK BLCDT 20090612AFN LIC  
 HAAT 397.0 m, ATV ERP 284.0 kW

POPULATION AREA (sq km)

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within Noise Limited Contour	19826780	28687.1
not affected by terrain losses	19513578	26843.5
lost to NTSC IX	0	0.0
lost to additional IX by ATV	755238	3168.4
lost to ATV IX only	755238	3168.4
lost to all IX	755238	3168.4

Potential Interfering Stations Included in above Scenario 1

32A PA PHILADELPHIA	BPCDT	20111024ACS	CP
33A CT HARTFORD	BPCDT	20110630AAH	CP
33A NH CONCORD	BLCDT	20031014AEP	LIC
34A PA PHILADELPHIA	BLCDT	20090914AAX	LIC
33A DC WASHINGTON	USERRECORD01		APP

Percent new IX = 0.0095%

Result key: 3  
 Scenario 2 Affected station 6  
 Before Analysis

Results for: 33A NY NEW YORK BLCDT 20090612AFN LIC  
 HAAT 397.0 m, ATV ERP 284.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	19826780	28687.1
not affected by terrain losses	19513578	26843.5
lost to NTSC IX	0	0.0
lost to additional IX by ATV	753460	3160.4
lost to ATV IX only	753460	3160.4
lost to all IX	753460	3160.4

Potential Interfering Stations Included in above Scenario 2

32A PA PHILADELPHIA	BPCDT	20111024ACS	CP
33A CT HARTFORD	BPCDT	20110630AAH	CP
33A NH CONCORD	BPCDT	20080619AJF	CP
34A PA PHILADELPHIA	BLCDT	20090914AAX	LIC
33A DC WASHINGTON	DTVPLN	DTVP1206	PLN

After Analysis

Results for: 33A NY NEW YORK BLCDT 20090612AFN LIC  
 HAAT 397.0 m, ATV ERP 284.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	19826780	28687.1
not affected by terrain losses	19513578	26843.5
lost to NTSC IX	0	0.0
lost to additional IX by ATV	755238	3168.4
lost to ATV IX only	755238	3168.4
lost to all IX	755238	3168.4

Potential Interfering Stations Included in above Scenario 2

32A PA PHILADELPHIA	BPCDT	20111024ACS	CP
33A CT HARTFORD	BPCDT	20110630AAH	CP
33A NH CONCORD	BPCDT	20080619AJF	CP
34A PA PHILADELPHIA	BLCDT	20090914AAX	LIC
33A DC WASHINGTON	USERRECORD01		APP

Percent new IX = 0.0095%

Result key: 4  
 Scenario 3 Affected station 6  
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Before Analysis

Results for: 33A NY NEW YORK BLCDT 20090612AFN LIC  
 HAAT 397.0 m, ATV ERP 284.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	19826780	28687.1
not affected by terrain losses	19513578	26843.5
lost to NTSC IX	0	0.0
lost to additional IX by ATV	713699	2940.9
lost to ATV IX only	713699	2940.9
lost to all IX	713699	2940.9

Potential Interfering Stations Included in above Scenario 3

32A PA PHILADELPHIA	BPCDT	20111024ACS	CP
33A CT HARTFORD	BLCDT	20041029AIL	LIC
33A NH CONCORD	BLCDT	20031014AEP	LIC
34A PA PHILADELPHIA	BLCDT	20090914AAX	LIC
33A DC WASHINGTON	DTVPLN	DTVP1206	PLN

After Analysis

Results for: 33A NY NEW YORK BLCDT 20090612AFN LIC  
 HAAT 397.0 m, ATV ERP 284.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	19826780	28687.1
not affected by terrain losses	19513578	26843.5
lost to NTSC IX	0	0.0
lost to additional IX by ATV	715477	2948.9
lost to ATV IX only	715477	2948.9
lost to all IX	715477	2948.9

Potential Interfering Stations Included in above Scenario 3

32A PA PHILADELPHIA	BPCDT	20111024ACS	CP
33A CT HARTFORD	BLCDT	20041029AIL	LIC
33A NH CONCORD	BLCDT	20031014AEP	LIC
34A PA PHILADELPHIA	BLCDT	20090914AAX	LIC
33A DC WASHINGTON	USERRECORD01		APP

Percent new IX = 0.0095%

Result key: 5  
 Scenario 4 Affected station 6  
 Before Analysis

Results for: 33A NY NEW YORK BLCDT 20090612AFN LIC  
 HAAT 397.0 m, ATV ERP 284.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	19826780	28687.1
not affected by terrain losses	19513578	26843.5
lost to NTSC IX	0	0.0
lost to additional IX by ATV	713699	2940.9
lost to ATV IX only	713699	2940.9
lost to all IX	713699	2940.9

Potential Interfering Stations Included in above Scenario 4

32A PA PHILADELPHIA	BPCDT	20111024ACS	CP
33A CT HARTFORD	BLCDT	20041029AIL	LIC
33A NH CONCORD	BPCDT	20080619AJF	CP
34A PA PHILADELPHIA	BLCDT	20090914AAX	LIC
33A DC WASHINGTON	DTVPLN	DTVP1206	PLN

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After Analysis

Results for: 33A NY NEW YORK BLCDT 20090612AFN LIC  
 HAAT 397.0 m, ATV ERP 284.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	19826780	28687.1
not affected by terrain losses	19513578	26843.5
lost to NTSC IX	0	0.0
lost to additional IX by ATV	715477	2948.9
lost to ATV IX only	715477	2948.9
lost to all IX	715477	2948.9

Potential Interfering Stations Included in above Scenario 4

32A PA PHILADELPHIA	BPCDT	20111024ACS	CP
33A CT HARTFORD	BLCDT	20041029AIL	LIC
33A NH CONCORD	BPCDT	20080619AJF	CP
34A PA PHILADELPHIA	BLCDT	20090914AAX	LIC
33A DC WASHINGTON	USERRECORD01		APP

Percent new IX = 0.0095%

Result key: 6  
 Scenario 5 Affected station 6  
 Before Analysis

Results for: 33A NY NEW YORK BLCDT 20090612AFN LIC  
 HAAT 397.0 m, ATV ERP 284.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	19826780	28687.1
not affected by terrain losses	19513578	26843.5
lost to NTSC IX	0	0.0
lost to additional IX by ATV	753460	3160.4
lost to ATV IX only	753460	3160.4
lost to all IX	753460	3160.4

Potential Interfering Stations Included in above Scenario 5

32A PA PHILADELPHIA	BLCDT	20021025AAS	LIC
33A CT HARTFORD	BPCDT	20110630AAH	CP
33A NH CONCORD	BLCDT	20031014AEP	LIC
34A PA PHILADELPHIA	BLCDT	20090914AAX	LIC
33A DC WASHINGTON	DTVPLN	DTVP1206	PLN

After Analysis

Results for: 33A NY NEW YORK BLCDT 20090612AFN LIC  
 HAAT 397.0 m, ATV ERP 284.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	19826780	28687.1
not affected by terrain losses	19513578	26843.5
lost to NTSC IX	0	0.0
lost to additional IX by ATV	755238	3168.4
lost to ATV IX only	755238	3168.4
lost to all IX	755238	3168.4

Potential Interfering Stations Included in above Scenario 5

32A PA PHILADELPHIA	BLCDT	20021025AAS	LIC
33A CT HARTFORD	BPCDT	20110630AAH	CP
33A NH CONCORD	BLCDT	20031014AEP	LIC
34A PA PHILADELPHIA	BLCDT	20090914AAX	LIC

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 33A DC WASHINGTON USERRECORD01 APP

Percent new IX = 0.0095%

Result key: 7  
 Scenario 6 Affected station 6  
 Before Analysis

Results for: 33A NY NEW YORK BLCDT 20090612AFN LIC  
 HAAT 397.0 m, ATV ERP 284.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	19826780	28687.1
not affected by terrain losses	19513578	26843.5
lost to NTSC IX	0	0.0
lost to additional IX by ATV	753460	3160.4
lost to ATV IX only	753460	3160.4
lost to all IX	753460	3160.4

Potential Interfering Stations Included in above Scenario 6

32A PA PHILADELPHIA	BLCDT	20021025AAS	LIC
33A CT HARTFORD	BPCDT	20110630AAH	CP
33A NH CONCORD	BPCDT	20080619AJF	CP
34A PA PHILADELPHIA	BLCDT	20090914AAX	LIC
33A DC WASHINGTON	DTVPLN	DTVP1206	PLN

After Analysis

Results for: 33A NY NEW YORK BLCDT 20090612AFN LIC  
 HAAT 397.0 m, ATV ERP 284.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	19826780	28687.1
not affected by terrain losses	19513578	26843.5
lost to NTSC IX	0	0.0
lost to additional IX by ATV	755238	3168.4
lost to ATV IX only	755238	3168.4
lost to all IX	755238	3168.4

Potential Interfering Stations Included in above Scenario 6

32A PA PHILADELPHIA	BLCDT	20021025AAS	LIC
33A CT HARTFORD	BPCDT	20110630AAH	CP
33A NH CONCORD	BPCDT	20080619AJF	CP
34A PA PHILADELPHIA	BLCDT	20090914AAX	LIC
33A DC WASHINGTON	USERRECORD01		APP

Percent new IX = 0.0095%

Result key: 8  
 Scenario 7 Affected station 6  
 Before Analysis

Results for: 33A NY NEW YORK BLCDT 20090612AFN LIC  
 HAAT 397.0 m, ATV ERP 284.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	19826780	28687.1
not affected by terrain losses	19513578	26843.5
lost to NTSC IX	0	0.0
lost to additional IX by ATV	713699	2940.9
lost to ATV IX only	713699	2940.9
lost to all IX	713699	2940.9

Potential Interfering Stations Included in above Scenario 7

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32A PA PHI LADELPHIA	BLCDT	20021025AAS	LIC
33A CT HARTFORD	BLCDT	20041029AIL	LIC
33A NH CONCORD	BLCDT	20031014AEP	LIC
34A PA PHI LADELPHIA	BLCDT	20090914AAX	LIC
33A DC WASHINGTON	DTVPLN	DTVP1206	PLN

After Analysis

Results for: 33A NY NEW YORK BLCDT 20090612AFN LIC  
 HAAT 397.0 m, ATV ERP 284.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	19826780	28687.1
not affected by terrain losses	19513578	26843.5
lost to NTSC IX	0	0.0
lost to additional IX by ATV	715477	2948.9
lost to ATV IX only	715477	2948.9
lost to all IX	715477	2948.9

Potential Interfering Stations Included in above Scenario 7

32A PA PHI LADELPHIA	BLCDT	20021025AAS	LIC
33A CT HARTFORD	BLCDT	20041029AIL	LIC
33A NH CONCORD	BLCDT	20031014AEP	LIC
34A PA PHI LADELPHIA	BLCDT	20090914AAX	LIC
33A DC WASHINGTON	USERRECORD01		APP

Percent new IX = 0.0095%

Result key: 9  
 Scenario 8 Affected station 6  
 Before Analysis

Results for: 33A NY NEW YORK BLCDT 20090612AFN LIC  
 HAAT 397.0 m, ATV ERP 284.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	19826780	28687.1
not affected by terrain losses	19513578	26843.5
lost to NTSC IX	0	0.0
lost to additional IX by ATV	713699	2940.9
lost to ATV IX only	713699	2940.9
lost to all IX	713699	2940.9

Potential Interfering Stations Included in above Scenario 8

32A PA PHI LADELPHIA	BLCDT	20021025AAS	LIC
33A CT HARTFORD	BLCDT	20041029AIL	LIC
33A NH CONCORD	BPCDT	20080619AJF	CP
34A PA PHI LADELPHIA	BLCDT	20090914AAX	LIC
33A DC WASHINGTON	DTVPLN	DTVP1206	PLN

After Analysis

Results for: 33A NY NEW YORK BLCDT 20090612AFN LIC  
 HAAT 397.0 m, ATV ERP 284.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	19826780	28687.1
not affected by terrain losses	19513578	26843.5
lost to NTSC IX	0	0.0
lost to additional IX by ATV	715477	2948.9
lost to ATV IX only	715477	2948.9
lost to all IX	715477	2948.9

Potential Interfering Stations Included in above Scenario 8

32A	PA	PHI LADELPHIA	BLCDT	20021025AAS	LIC
33A	CT	HARTFORD	BLCDT	20041029AIL	LIC
33A	NH	CONCORD	BPCDT	20080619AJF	CP
34A	PA	PHI LADELPHIA	BLCDT	20090914AAX	LIC
33A	DC	WASHI NGTON	USERRECORD01		APP

Percent new IX = 0.0095%

Worst case new IX 0.0095% Scenario 1

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Analysis of Interference to Affected Station 7

Analysis of current record

Channel	Call	City/State	Application	Ref. No.
33	WCBS-TV	NEW YORK NY	BMPCDT	-20080619AAZ

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
32	WPSG	PHI LADELPHIA PA	127.6	CP	BPCDT	-20111024ACS
32	WPSG	PHI LADELPHIA PA	127.6	LIC	BLCDT	-20021025AAS
32	WQPX-TV	SCRANTON PA	164.4	LIC	BLCDT	-20060629AFR
33	WFSB	HARTFORD CT	155.3	CP	BPCDT	-20110630AAH
33	WFSB	HARTFORD CT	155.3	LIC	BLCDT	-20041029AIL
33	WHUT-TV	WASHI NGTON DC	326.9	PLN	DTVPLN	-DTVP1206
33	WPXG-TV	CONCORD NH	353.6	LIC	BLCDT	-20031014AEP
33	WPXG-TV	CONCORD NH	353.6	CP	BPCDT	-20080619AJF
34	WIVT	BINGHAMTON NY	219.9	LIC	BLCDT	-20090819AGR
34	WMHT	SCHENECTADY NY	212.6	LIC	BLEDT	-20040108ALV
34	WCAU	PHI LADELPHIA PA	127.6	LIC	BLCDT	-20090914AAX
33	WHUT	WASHI NGTON DC	326.9	APP	USERRECORD-01	

Total scenarios = 4

Result key: 10  
 Scenario 1 Affected station 7  
 Before Analysis

Results for: 33A NY NEW YORK BMPCDT 20080619AAZ APP

HAAT 519.0 m, ATV ERP 225.0 kW	POPULATION	AREA (sq km)
within Noise Limited Contour	20480055	33220.8
not affected by terrain losses	20044865	31049.0
lost to NTSC IX	0	0.0
lost to additional IX by ATV	773144	3689.0
lost to ATV IX only	773144	3689.0
lost to all IX	773144	3689.0

Potential Interfering Stations Included in above Scenario 1

32A	PA	PHI LADELPHIA	BPCDT	20111024ACS	CP
33A	CT	HARTFORD	BPCDT	20110630AAH	CP
33A	NH	CONCORD	BPCDT	20080619AJF	CP
34A	PA	PHI LADELPHIA	BLCDT	20090914AAX	LIC
33A	DC	WASHI NGTON	DTVPLN	DTVP1206	PLN

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After Analysis

Results for: 33A NY NEW YORK                      BPCDT      20080619AAZ    APP  
 HAAT 519.0 m, ATV ERP 225.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	20480055	33220.8
not affected by terrain losses	20044865	31049.0
lost to NTSC IX	0	0.0
lost to additional IX by ATV	774482	3701.0
lost to ATV IX only	774482	3701.0
lost to all IX	774482	3701.0

Potential Interfering Stations Included in above Scenario      1

32A PA PHILADELPHIA	BPCDT	20111024ACS	CP
33A CT HARTFORD	BPCDT	20110630AAH	CP
33A NH CONCORD	BPCDT	20080619AJF	CP
34A PA PHILADELPHIA	BLCDT	20090914AAX	LIC
33A DC WASHINGTON	USERRECORD01		APP

Percent new IX = 0.0069%

Result key:                      11  
 Scenario                      2    Affected station                      7  
 Before Analysis

Results for: 33A NY NEW YORK                      BPCDT      20080619AAZ    APP  
 HAAT 519.0 m, ATV ERP 225.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	20480055	33220.8
not affected by terrain losses	20044865	31049.0
lost to NTSC IX	0	0.0
lost to additional IX by ATV	741284	3417.5
lost to ATV IX only	741284	3417.5
lost to all IX	741284	3417.5

Potential Interfering Stations Included in above Scenario      2

32A PA PHILADELPHIA	BPCDT	20111024ACS	CP
33A CT HARTFORD	BLCDT	20041029AIL	LIC
33A NH CONCORD	BPCDT	20080619AJF	CP
34A PA PHILADELPHIA	BLCDT	20090914AAX	LIC
33A DC WASHINGTON	DTVPLN	DTVP1206	PLN

After Analysis

Results for: 33A NY NEW YORK                      BPCDT      20080619AAZ    APP  
 HAAT 519.0 m, ATV ERP 225.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	20480055	33220.8
not affected by terrain losses	20044865	31049.0
lost to NTSC IX	0	0.0
lost to additional IX by ATV	742622	3429.5
lost to ATV IX only	742622	3429.5
lost to all IX	742622	3429.5

Potential Interfering Stations Included in above Scenario      2

32A PA PHILADELPHIA	BPCDT	20111024ACS	CP
33A CT HARTFORD	BLCDT	20041029AIL	LIC
33A NH CONCORD	BPCDT	20080619AJF	CP
34A PA PHILADELPHIA	BLCDT	20090914AAX	LIC
33A DC WASHINGTON	USERRECORD01		APP

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Percent new IX = 0.0069%

Result key: 12  
 Scenario 3 Affected station 7  
 Before Analysis

Results for: 33A NY NEW YORK B MPCDT 20080619AAZ APP

HAAT 519.0 m, ATV ERP 225.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	20480055	33220.8
not affected by terrain losses	20044865	31049.0
lost to NTSC IX	0	0.0
lost to additional IX by ATV	773144	3689.0
lost to ATV IX only	773144	3689.0
lost to all IX	773144	3689.0

Potential Interfering Stations Included in above Scenario 3

32A PA PHILADELPHIA	BLCDT	20021025AAS	LIC
33A CT HARTFORD	BPCDT	20110630AAH	CP
33A NH CONCORD	BPCDT	20080619AJF	CP
34A PA PHILADELPHIA	BLCDT	20090914AAX	LIC
33A DC WASHINGTON	DTVPLN	DTVP1206	PLN

After Analysis

Results for: 33A NY NEW YORK B MPCDT 20080619AAZ APP

HAAT 519.0 m, ATV ERP 225.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	20480055	33220.8
not affected by terrain losses	20044865	31049.0
lost to NTSC IX	0	0.0
lost to additional IX by ATV	774482	3701.0
lost to ATV IX only	774482	3701.0
lost to all IX	774482	3701.0

Potential Interfering Stations Included in above Scenario 3

32A PA PHILADELPHIA	BLCDT	20021025AAS	LIC
33A CT HARTFORD	BPCDT	20110630AAH	CP
33A NH CONCORD	BPCDT	20080619AJF	CP
34A PA PHILADELPHIA	BLCDT	20090914AAX	LIC
33A DC WASHINGTON	USERRECORD01		APP

Percent new IX = 0.0069%

Result key: 13  
 Scenario 4 Affected station 7  
 Before Analysis

Results for: 33A NY NEW YORK B MPCDT 20080619AAZ APP

HAAT 519.0 m, ATV ERP 225.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	20480055	33220.8
not affected by terrain losses	20044865	31049.0
lost to NTSC IX	0	0.0
lost to additional IX by ATV	741284	3417.5
lost to ATV IX only	741284	3417.5
lost to all IX	741284	3417.5

Potential Interfering Stations Included in above Scenario 4



Results for: 33A NY NEW YORK BPCDT 20090924AAQ CP  
 HAAT 397.0 m, ATV ERP 426.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	20109311	30750.3
not affected by terrain losses	19787809	28838.9
lost to NTSC IX	0	0.0
lost to additional IX by ATV	834887	3743.0
lost to ATV IX only	834887	3743.0
lost to all IX	834887	3743.0

Potential Interfering Stations Included in above Scenario 1

32A PA PHILADELPHIA	BPCDT	20111024ACS	CP
33A CT HARTFORD	BPCDT	20110630AAH	CP
33A NH CONCORD	BPCDT	20080619AJF	CP
34A PA PHILADELPHIA	BLCDT	20090914AAX	LIC
33A DC WASHINGTON	DTVPLN	DTVP1206	PLN

After Analysis

Results for: 33A NY NEW YORK BPCDT 20090924AAQ CP  
 HAAT 397.0 m, ATV ERP 426.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	20109311	30750.3
not affected by terrain losses	19787809	28838.9
lost to NTSC IX	0	0.0
lost to additional IX by ATV	835479	3755.0
lost to ATV IX only	835479	3755.0
lost to all IX	835479	3755.0

Potential Interfering Stations Included in above Scenario 1

32A PA PHILADELPHIA	BPCDT	20111024ACS	CP
33A CT HARTFORD	BPCDT	20110630AAH	CP
33A NH CONCORD	BPCDT	20080619AJF	CP
34A PA PHILADELPHIA	BLCDT	20090914AAX	LIC
33A DC WASHINGTON	USERRECORD01		APP

Percent new IX = 0.0031%

Result key: 15  
 Scenario 2 Affected station 8  
 Before Analysis

Results for: 33A NY NEW YORK BPCDT 20090924AAQ CP  
 HAAT 397.0 m, ATV ERP 426.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	20109311	30750.3
not affected by terrain losses	19787809	28838.9
lost to NTSC IX	0	0.0
lost to additional IX by ATV	801593	3471.7
lost to ATV IX only	801593	3471.7
lost to all IX	801593	3471.7

Potential Interfering Stations Included in above Scenario 2

32A PA PHILADELPHIA	BPCDT	20111024ACS	CP
33A CT HARTFORD	BLCDT	20041029AIL	LIC
33A NH CONCORD	BPCDT	20080619AJF	CP
34A PA PHILADELPHIA	BLCDT	20090914AAX	LIC
33A DC WASHINGTON	DTVPLN	DTVP1206	PLN

After Analysis

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Results for: 33A NY NEW YORK BPCDT 20090924AAQ CP  
 HAAT 397.0 m, ATV ERP 426.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	20109311	30750.3
not affected by terrain losses	19787809	28838.9
lost to NTSC IX	0	0.0
lost to additional IX by ATV	802185	3483.7
lost to ATV IX only	802185	3483.7
lost to all IX	802185	3483.7

Potential Interfering Stations Included in above Scenario 2

32A PA PHILADELPHIA	BPCDT	20111024ACS	CP
33A CT HARTFORD	BLCDT	20041029AIL	LIC
33A NH CONCORD	BPCDT	20080619AJF	CP
34A PA PHILADELPHIA	BLCDT	20090914AAX	LIC
33A DC WASHINGTON	USERRECORD01		APP

Percent new IX = 0.0031%

Result key: 16  
 Scenario 3 Affected station 8  
 Before Analysis

Results for: 33A NY NEW YORK BPCDT 20090924AAQ CP  
 HAAT 397.0 m, ATV ERP 426.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	20109311	30750.3
not affected by terrain losses	19787809	28838.9
lost to NTSC IX	0	0.0
lost to additional IX by ATV	834887	3743.0
lost to ATV IX only	834887	3743.0
lost to all IX	834887	3743.0

Potential Interfering Stations Included in above Scenario 3

32A PA PHILADELPHIA	BLCDT	20021025AAS	LIC
33A CT HARTFORD	BPCDT	20110630AAH	CP
33A NH CONCORD	BPCDT	20080619AJF	CP
34A PA PHILADELPHIA	BLCDT	20090914AAX	LIC
33A DC WASHINGTON	DTVPLN	DTVP1206	PLN

After Analysis

Results for: 33A NY NEW YORK BPCDT 20090924AAQ CP  
 HAAT 397.0 m, ATV ERP 426.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	20109311	30750.3
not affected by terrain losses	19787809	28838.9
lost to NTSC IX	0	0.0
lost to additional IX by ATV	835479	3755.0
lost to ATV IX only	835479	3755.0
lost to all IX	835479	3755.0

Potential Interfering Stations Included in above Scenario 3

32A PA PHILADELPHIA	BLCDT	20021025AAS	LIC
33A CT HARTFORD	BPCDT	20110630AAH	CP
33A NH CONCORD	BPCDT	20080619AJF	CP
34A PA PHILADELPHIA	BLCDT	20090914AAX	LIC
33A DC WASHINGTON	USERRECORD01		APP

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Percent new IX = 0.0031%

Result key: 17
Scenario 4 Affected station 8
Before Analysis

Results for: 33A NY NEW YORK BPCDT 20090924AAQ CP
HAAT 397.0 m, ATV ERP 426.0 kW
POPULATION AREA (sq km)
within Noise Limited Contour 20109311 30750.3
not affected by terrain losses 19787809 28838.9
lost to NTSC IX 0 0.0
lost to additional IX by ATV 801593 3471.7
lost to ATV IX only 801593 3471.7
lost to all IX 801593 3471.7

Potential Interfering Stations Included in above Scenario 4

32A PA PHILADELPHIA BLCDT 20021025AAS LIC
33A CT HARTFORD BLCDT 20041029AIL LIC
33A NH CONCORD BPCDT 20080619AJF CP
34A PA PHILADELPHIA BLCDT 20090914AAX LIC
33A DC WASHINGTON DTVPLN DTVP1206 PLN

After Analysis

Results for: 33A NY NEW YORK BPCDT 20090924AAQ CP
HAAT 397.0 m, ATV ERP 426.0 kW
POPULATION AREA (sq km)
within Noise Limited Contour 20109311 30750.3
not affected by terrain losses 19787809 28838.9
lost to NTSC IX 0 0.0
lost to additional IX by ATV 802185 3483.7
lost to ATV IX only 802185 3483.7
lost to all IX 802185 3483.7

Potential Interfering Stations Included in above Scenario 4

32A PA PHILADELPHIA BLCDT 20021025AAS LIC
33A CT HARTFORD BLCDT 20041029AIL LIC
33A NH CONCORD BPCDT 20080619AJF CP
34A PA PHILADELPHIA BLCDT 20090914AAX LIC
33A DC WASHINGTON USERRECORD01 APP

Percent new IX = 0.0031%

Worst case new IX 0.0031% Scenario 1

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Analysis of Interference to Affected Station 9

Analysis of current record

Channel Call City/State Application Ref. No.
33 WTVZ-TV NORFOLK VA BLCDT -20090602ABA

Stations Potentially Affecting This Station

Chan Call City/State Dist(km) Status Application Ref. No.
32 WITN-TV WASHINGTON NC 179.2 LIC BLCDT -20060615ABD
32 WVIR-TV CHARLOTTEVILLE VA 218.1 LIC BLCDT -20040908AAE

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33	WHUT-TV	WASHINGTON	DC	243.4	PLN	DTVPLN -DTVP1206
33	WMYV	GREENSBORO	NC	315.1	LIC	BLCDT -20020430ABD
33	WNPB-TV	MORGANTOWN	WV	428.8	LIC	BLEDT -20100505AGH
33	WNPB-TV	MORGANTOWN	WV	428.8	CP MOD	BMPEDT -20120209ABV
33	WHUT	WASHINGTON	DC	243.4	APP	USERRECORD-01

Total scenarios = 1

Result key: 18  
 Scenario 1 Affected station 9  
 Before Analysis

Results for: 33A VA NORFOLK		BLCDT	20090602ABA	LIC
HAAT 376.0 m, ATV ERP 960.0 kW				
		POPULATION	AREA (sq km)	
within Noise Limited Contour		2016333	34127.4	
not affected by terrain losses		2016333	34127.4	
lost to NTSC IX		0	0.0	
lost to additional IX by ATV		737	76.3	
lost to ATV IX only		737	76.3	
lost to all IX		737	76.3	

Potential Interfering Stations Included in above Scenario 1

32A NC WASHINGTON	BLCDT	20060615ABD	LIC
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After Analysis

Results for: 33A VA NORFOLK		BLCDT	20090602ABA	LIC
HAAT 376.0 m, ATV ERP 960.0 kW				
		POPULATION	AREA (sq km)	
within Noise Limited Contour		2016333	34127.4	
not affected by terrain losses		2016333	34127.4	
lost to NTSC IX		0	0.0	
lost to additional IX by ATV		1702	164.7	
lost to ATV IX only		1702	164.7	
lost to all IX		1702	164.7	

Potential Interfering Stations Included in above Scenario 1

32A NC WASHINGTON	BLCDT	20060615ABD	LIC
33A DC WASHINGTON	USERRECORD01		APP

Percent new IX = 0.0479%

Worst case new IX 0.0479% Scenario 1

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### Analysis of Interference to Affected Station 10

#### Analysis of current record

Channel	Call	City/State	Application	Ref. No.
33	WNPB-TV	MORGANTOWN WV	BLEDT	-20100505AGH

#### Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
32	WTAJ-TV	ALTOONA PA	148.2	LIC	BLCDT	-20051018ACE
32	WVIR-TV	CHARLOTTEVILLE VA	220.2	LIC	BLCDT	-20040908AAE

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33	WHUT-TV	WASHINGTON DC	245.1	PLN	DTVPLN	-DTVP1206
33	WMYV	GREENSBORO NC	425.6	LIC	BLCDT	-20020430ABD
33	WGRZ	BUFFALO NY	350.6	LIC	BLCDT	-20050705AAG
33	WSTR-TV	CINCINNATI OH	412.2	LIC	BLCDT	-20091117ACS
33	WTVZ-TV	NORFOLK VA	428.8	LIC	BLCDT	-20090602ABA
34	WJAC-TV	JOHNSTOWN PA	100.2	CP	BPCDT	-20080619ADU
34	WJAC-TV	JOHNSTOWN PA	100.2	LIC	BLCDT	-20051123AKN
33	WHUT	WASHINGTON DC	245.1	APP	USERRECORD-01	

Total scenarios = 2

Result key: 19  
 Scenario 1 Affected station 10  
 Before Analysis

Results for: 33A WV MORGANTOWN			BLEDT	20100505AGH	LIC
HAAT	457.0 m,	ATV ERP	92.0 kW		
		POPULATION		AREA (sq km)	
within Noise Limited Contour		1340845		21447.0	
not affected by terrain losses		1221594		19198.9	
lost to NTSC IX		0		0.0	
lost to additional IX by ATV		5538		260.5	
lost to ATV IX only		5538		260.5	
lost to all IX		5538		260.5	

Potential Interfering Stations Included in above Scenario 1

32A PA ALTOONA	BLCDT	20051018ACE	LIC
33A NY BUFFALO	BLCDT	20050705AAG	LIC
34A PA JOHNSTOWN	BPCDT	20080619ADU	CP
33A DC WASHINGTON	DTVPLN	DTVP1206	PLN

After Analysis

Results for: 33A WV MORGANTOWN			BLEDT	20100505AGH	LIC
HAAT	457.0 m,	ATV ERP	92.0 kW		
		POPULATION		AREA (sq km)	
within Noise Limited Contour		1340845		21447.0	
not affected by terrain losses		1221594		19198.9	
lost to NTSC IX		0		0.0	
lost to additional IX by ATV		7037		380.7	
lost to ATV IX only		7037		380.7	
lost to all IX		7037		380.7	

Potential Interfering Stations Included in above Scenario 1

32A PA ALTOONA	BLCDT	20051018ACE	LIC
33A NY BUFFALO	BLCDT	20050705AAG	LIC
34A PA JOHNSTOWN	BPCDT	20080619ADU	CP
33A DC WASHINGTON	USERRECORD01		APP

Percent new IX = 0.1233%

Result key: 20  
 Scenario 2 Affected station 10  
 Before Analysis

Results for: 33A WV MORGANTOWN			BLEDT	20100505AGH	LIC
HAAT	457.0 m,	ATV ERP	92.0 kW		
		POPULATION		AREA (sq km)	
within Noise Limited Contour		1340845		21447.0	
not affected by terrain losses		1221594		19198.9	

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lost to NTSC IX	0	0.0	
lost to additional IX by ATV	4672	220.4	
lost to ATV IX only	4672	220.4	
lost to all IX	4672	220.4	

Potential Interfering Stations Included in above Scenario 2

32A PA ALTOONA	BLCDT	20051018ACE	LIC
33A NY BUFFALO	BLCDT	20050705AAG	LIC
34A PA JOHNSTOWN	BLCDT	20051123AKN	LIC
33A DC WASHINGTON	DTVPLN	DTVP1206	PLN

After Analysis

Results for: 33A WV MORGANTOWN	BLEDT	20100505AGH	LIC
HAAT 457.0 m, ATV ERP 92.0 kW			
	POPULATION	AREA (sq km)	
within Noise Limited Contour	1340845	21447.0	
not affected by terrain losses	1221594	19198.9	
lost to NTSC IX	0	0.0	
lost to additional IX by ATV	6262	344.6	
lost to ATV IX only	6262	344.6	
lost to all IX	6262	344.6	

Potential Interfering Stations Included in above Scenario 2

32A PA ALTOONA	BLCDT	20051018ACE	LIC
33A NY BUFFALO	BLCDT	20050705AAG	LIC
34A PA JOHNSTOWN	BLCDT	20051123AKN	LIC
33A DC WASHINGTON	USERRECORD01		APP

Percent new IX = 0.1307%

Worst case new IX 0.1307% Scenario 2

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### Analysis of Interference to Affected Station 11

Analysis of current record

Channel	Call	City/State	Application	Ref. No.
33	WNPB-TV	MORGANTOWN WV	BMPEDT	-20120209ABV

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
32	WTAJ-TV	ALTOONA PA	148.2	LIC	BLCDT	-20051018ACE
32	WVIR-TV	CHARLOTTESVILLE VA	220.2	LIC	BLCDT	-20040908AAE
33	WHUT-TV	WASHINGTON DC	245.1	PLN	DTVPLN	-DTVP1206
33	WMYV	GREENSBORO NC	425.6	LIC	BLCDT	-20020430ABD
33	WGRZ	BUFFALO NY	350.6	LIC	BLCDT	-20050705AAG
33	WSTR-TV	CINCINNATI OH	412.2	LIC	BLCDT	-20091117ACS
33	WTVZ-TV	NORFOLK VA	428.8	LIC	BLCDT	-20090602ABA
34	WJAC-TV	JOHNSTOWN PA	100.2	CP	BPCDT	-20080619ADU
34	WJAC-TV	JOHNSTOWN PA	100.2	LIC	BLCDT	-20051123AKN
33	WHUT	WASHINGTON DC	245.1	APP	USERRECORD-01	

Total scenarios = 2

Result key: 21

Scenario 1 Affected station 11  
 Before Analysis

Results for: 33A WV MORGANTOWN BMPEDT 20120209ABV CP  
 HAAT 457.0 m, ATV ERP 168.3 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	1652579	23799.0
not affected by terrain losses	1495408	21350.6
lost to NTSC IX	0	0.0
lost to additional IX by ATV	7191	316.6
lost to ATV IX only	7191	316.6
lost to all IX	7191	316.6

Potential Interfering Stations Included in above Scenario 1

32A PA ALTOONA	BLCDT	20051018ACE	LIC
34A PA JOHNSTOWN	BPCDT	20080619ADU	CP
33A DC WASHINGTON	DTVPLN	DTVP1206	PLN

After Analysis

Results for: 33A WV MORGANTOWN BMPEDT 20120209ABV CP  
 HAAT 457.0 m, ATV ERP 168.3 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	1652579	23799.0
not affected by terrain losses	1495408	21350.6
lost to NTSC IX	0	0.0
lost to additional IX by ATV	9594	468.8
lost to ATV IX only	9594	468.8
lost to all IX	9594	468.8

Potential Interfering Stations Included in above Scenario 1

32A PA ALTOONA	BLCDT	20051018ACE	LIC
34A PA JOHNSTOWN	BPCDT	20080619ADU	CP
33A DC WASHINGTON	USERRECORD01		APP

Percent new IX = 0.1615%

Result key: 22  
 Scenario 2 Affected station 11  
 Before Analysis

Results for: 33A WV MORGANTOWN BMPEDT 20120209ABV CP  
 HAAT 457.0 m, ATV ERP 168.3 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	1652579	23799.0
not affected by terrain losses	1495408	21350.6
lost to NTSC IX	0	0.0
lost to additional IX by ATV	5687	268.5
lost to ATV IX only	5687	268.5
lost to all IX	5687	268.5

Potential Interfering Stations Included in above Scenario 2

32A PA ALTOONA	BLCDT	20051018ACE	LIC
34A PA JOHNSTOWN	BLCDT	20051123AKN	LIC
33A DC WASHINGTON	DTVPLN	DTVP1206	PLN

After Analysis

Results for: 33A WV MORGANTOWN BMPEDT 20120209ABV CP  
 HAAT 457.0 m, ATV ERP 168.3 kW

	whut_cp_renew_study POPULATION	AREA (sq km)
within Noise Limited Contour	1652579	23799.0
not affected by terrain losses	1495408	21350.6
lost to NTSC IX	0	0.0
lost to additional IX by ATV	8090	420.8
lost to ATV IX only	8090	420.8
lost to all IX	8090	420.8

Potential Interfering Stations Included in above Scenario 2

32A PA ALTOONA	BLCDT	20051018ACE	LIC
34A PA JOHNSTOWN	BLCDT	20051123AKN	LIC
33A DC WASHINGTON	USERRECORD01		APP

Percent new IX = 0.1613%

Worst case new IX 0.1615% Scenario 1

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### Analysis of Interference to Affected Station 12

Analysis of current record

Channel	Call	City/State	Application	Ref. No.
34	WJAC-TV	JOHNSTOWN PA	BPCDT	-20080619ADU

### Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
33	WHUT-TV	WASHINGTON DC	226.8	PLN	DTVPLN	-DTVP1206
33	WNPB-TV	MORGANTOWN WV	100.2	LIC	BLEDT	-20100505AGH
33	WNPB-TV	MORGANTOWN WV	100.2	CP MOD	BMPEDT	-20120209ABV
34	WIVT	BINGHAMTON NY	315.9	LIC	BLCDT	-20090819AGR
34	WQHS-DT	CLEVELAND OH	254.7	CP	BPCDT	-20090629ACU
34	WQHS-DT	CLEVELAND OH	254.7	LIC	BLCDT	-20031030AGJ
34	WCAU	PHILADELPHIA PA	320.1	LIC	BLCDT	-20090914AAX
34	WPXW-TV	MANASSAS VA	226.8	LIC	BLCDT	-20090612AIZ
34	WPBY-TV	HUNTINGTON WV	346.2	LIC	BLEDT	-20120214AAS
35	WDCA	WASHINGTON DC	226.2	LIC	BLCDT	-20070411AAH
35	WDCA	WASHINGTON DC	226.2	CP	BPCDT	-20080620ANP
35	WOUC-TV	CAMBRIDGE OH	198.1	LIC	BLEDT	-20050427AAB
33	WHUT	WASHINGTON DC	226.8	APP	USERRECORD-01	

Proposal causes no interference

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### Analysis of Interference to Affected Station 13

Analysis of current record

Channel	Call	City/State	Application	Ref. No.
34	WJAC-TV	JOHNSTOWN PA	BLCDT	-20051123AKN

### Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
33	WHUT-TV	WASHINGTON DC	226.8	PLN	DTVPLN	-DTVP1206
33	WNPB-TV	MORGANTOWN WV	100.2	LIC	BLEDT	-20100505AGH
33	WNPB-TV	MORGANTOWN WV	100.2	CP MOD	BMPEDT	-20120209ABV
34	WIVT	BINGHAMTON NY	315.9	LIC	BLCDT	-20090819AGR

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34	WQHS-DT	CLEVELAND OH	254.7	CP	BPCDT	-20090629ACU
34	WQHS-DT	CLEVELAND OH	254.7	LIC	BLCDT	-20031030AGJ
34	WCAU	PHI LADELPHIA PA	320.1	LIC	BLCDT	-20090914AAX
34	WPXW-TV	MANASSAS VA	226.8	LIC	BLCDT	-20090612AI Z
34	WPBY-TV	HUNTINGTON WV	346.2	LIC	BLEDT	-20120214AAS
35	WDCA	WASHI NGTON DC	226.2	LIC	BLCDT	-20070411AAH
35	WDCA	WASHI NGTON DC	226.2	CP	BPCDT	-20080620ANP
35	WOUC-TV	CAMBRI DGE OH	198.1	LIC	BLEDT	-20050427AAB
33	WHUT	WASHI NGTON DC	226.8	APP	USERRECORD-01	

Proposal causes no interference

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### Analysis of Interference to Affected Station 14

#### Analysis of current record

Channel	Call	City/State	Application	Ref. No.
34	WCAU	PHI LADELPHIA PA	BLCDT	-20090914AAX

#### Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
33	WHUT-TV	WASHI NGTON DC	199.3	PLN	DTVPLN	-DTVP1206
33	WCBS-TV	NEW YORK NY	131.8	LIC	BLCDT	-20090612AFN
33	WCBS-TV	NEW YORK NY	127.6	APP	BMPCDT	-20080619AAZ
33	WCBS-TV	NEW YORK NY	131.8	CP	BPCDT	-20090924AAQ
34	WIVT	BINGHAMTON NY	232.1	LIC	BLCDT	-20090819AGR
34	WMHT	SCHENECTADY NY	304.8	LIC	BLEDT	-20040108ALV
34	WJAC-TV	JOHNSTOWN PA	320.1	CP	BPCDT	-20080619ADU
34	WJAC-TV	JOHNSTOWN PA	320.1	LIC	BLCDT	-20051123AKN
34	WPXW-TV	MANASSAS VA	199.3	LIC	BLCDT	-20090612AI Z
35	WDCA	WASHI NGTON DC	199.1	LIC	BLCDT	-20070411AAH
35	WDCA	WASHI NGTON DC	199.1	CP	BPCDT	-20080620ANP
35	WYBE	PHI LADELPHIA PA	0.0	LIC	BLEDT	-20091222ARE
33	WHUT	WASHI NGTON DC	199.3	APP	USERRECORD-01	

Proposal causes no interference

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### Analysis of Interference to Affected Station 15

#### Analysis of current record

Channel	Call	City/State	Application	Ref. No.
34	WPXW-TV	MANASSAS VA	BLCDT	-20090612AI Z

#### Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
33	WHUT-TV	WASHI NGTON DC	0.0	PLN	DTVPLN	-DTVP1206
34	WIVT	BINGHAMTON NY	358.8	LIC	BLCDT	-20090819AGR
34	WJAC-TV	JOHNSTOWN PA	226.8	CP	BPCDT	-20080619ADU
34	WJAC-TV	JOHNSTOWN PA	226.8	LIC	BLCDT	-20051123AKN
34	WCAU	PHI LADELPHIA PA	199.3	LIC	BLCDT	-20090914AAX
35	WDCA	WASHI NGTON DC	0.7	LIC	BLCDT	-20070411AAH
35	WDCA	WASHI NGTON DC	0.7	CP	BPCDT	-20080620ANP
35	WYBE	PHI LADELPHIA PA	199.3	LIC	BLEDT	-20091222ARE
33	WHUT	WASHI NGTON DC	0.0	APP	USERRECORD-01	

Proposal causes no interference

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Analysis of Interference to Affected Station 16

Analysis of current record

Channel	Call	City/State	Application Ref. No.
33	WHUT	WASHINGTON DC	USERRECORD-01

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
32	WTAJ-TV	ALTOONA PA	214.1	LIC	BLCDT -20051018ACE
32	WPSG	PHI LADELPHI A PA	199.3	CP	BPCDT -20111024ACS
32	WPSG	PHI LADELPHI A PA	199.3	LIC	BLCDT -20021025AAS
32	WVIR-TV	CHARLOTTESVILLE VA	162.5	LIC	BLCDT -20040908AAE
33	WMYV	GREENSBORO NC	419.6	LIC	BLCDT -20020430ABD
33	WCBS-TV	NEW YORK NY	331.1	LIC	BLCDT -20090612AFN
33	WCBS-TV	NEW YORK NY	326.9	APP	BMPCDT -20080619AAZ
33	WCBS-TV	NEW YORK NY	331.1	CP	BPCDT -20090924AAQ
33	WTVZ-TV	NORFOLK VA	243.4	LIC	BLCDT -20090602ABA
33	WNPB-TV	MORGANTOWN WV	245.1	LIC	BLEDT -20100505AGH
33	WNPB-TV	MORGANTOWN WV	245.1	CP MOD	BMPEDT -20120209ABV
34	WJAC-TV	JOHNSTOWN PA	226.8	CP	BPCDT -20080619ADU
34	WJAC-TV	JOHNSTOWN PA	226.8	LIC	BLCDT -20051123AKN
34	WCAU	PHI LADELPHI A PA	199.3	LIC	BLCDT -20090914AAX
34	WPXW-TV	MANASSAS VA	0.0	LIC	BLCDT -20090612AIZ

Total scenarios = 6

Result key: 23  
 Scenario 1 Affected station 16  
 Before Analysis

Results for: 33A DC WASHINGTON	USERRECORD01	APP
HAAT 258.0 m, ATV ERP 1000.0 kW		
	POPULATION	AREA (sq km)
within Noise Limited Contour	7360131	26442.2
not affected by terrain losses	7313335	25541.8
lost to NTSC IX	0	0.0
lost to additional IX by ATV	17855	336.1
lost to ATV IX only	17855	336.1
lost to all IX	17855	336.1

Potential Interfering Stations Included in above Scenario 1

33A NY NEW YORK	BLCDT	20090612AFN	LIC
33A VA NORFOLK	BLCDT	20090602ABA	LIC
33A WV MORGANTOWN	BLEDT	20100505AGH	LIC

Result key: 24  
 Scenario 2 Affected station 16  
 Before Analysis

Results for: 33A DC WASHINGTON	USERRECORD01	APP
HAAT 258.0 m, ATV ERP 1000.0 kW		
	POPULATION	AREA (sq km)
within Noise Limited Contour	7360131	26442.2
not affected by terrain losses	7313335	25541.8
lost to NTSC IX	0	0.0
lost to additional IX by ATV	18617	360.1

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lost to ATV IX only 18617 360.1  
 lost to all IX 18617 360.1

Potential Interfering Stations Included in above Scenario 2

33A NY NEW YORK BLCDT 20090612AFN LIC  
 33A VA NORFOLK BLCDT 20090602ABA LIC  
 33A WV MORGANTOWN BMPEDT 20120209ABV CP

Result key: 25  
 Scenario 3 Affected station 16  
 Before Analysis

Results for: 33A DC WASHINGTON USERRECORD01 APP  
 HAAT 258.0 m, ATV ERP 1000.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	7360131	26442.2
not affected by terrain losses	7313335	25541.8
lost to NTSC IX	0	0.0
lost to additional IX by ATV	17855	336.1
lost to ATV IX only	17855	336.1
lost to all IX	17855	336.1

Potential Interfering Stations Included in above Scenario 3

33A NY NEW YORK BPCDT 20090924AAQ CP  
 33A VA NORFOLK BLCDT 20090602ABA LIC  
 33A WV MORGANTOWN BLEDT 20100505AGH LIC

Result key: 26  
 Scenario 4 Affected station 16  
 Before Analysis

Results for: 33A DC WASHINGTON USERRECORD01 APP  
 HAAT 258.0 m, ATV ERP 1000.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	7360131	26442.2
not affected by terrain losses	7313335	25541.8
lost to NTSC IX	0	0.0
lost to additional IX by ATV	18617	360.1
lost to ATV IX only	18617	360.1
lost to all IX	18617	360.1

Potential Interfering Stations Included in above Scenario 4

33A NY NEW YORK BPCDT 20090924AAQ CP  
 33A VA NORFOLK BLCDT 20090602ABA LIC  
 33A WV MORGANTOWN BMPEDT 20120209ABV CP

Result key: 27  
 Scenario 5 Affected station 16  
 Before Analysis

Results for: 33A DC WASHINGTON USERRECORD01 APP  
 HAAT 258.0 m, ATV ERP 1000.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	7360131	26442.2
not affected by terrain losses	7313335	25541.8
lost to NTSC IX	0	0.0
lost to additional IX by ATV	17855	336.1
lost to ATV IX only	17855	336.1
lost to all IX	17855	336.1

Potential Interfering Stations Included in above Scenario 5

33A NY NEW YORK	BMPCDT	20080619AAZ	APP
33A VA NORFOLK	BLCDDT	20090602ABA	LIC
33A WV MORGANTOWN	BLEDT	20100505AGH	LIC

Result key: 28  
 Scenario 6 Affected station 16  
 Before Analysis

Results for: 33A DC WASHINGTON USERRECORD01 APP  
 HAAT 258.0 m, ATV ERP 1000.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	7360131	26442.2
not affected by terrain losses	7313335	25541.8
lost to NTSC IX	0	0.0
lost to additional IX by ATV	18617	360.1
lost to ATV IX only	18617	360.1
lost to all IX	18617	360.1

Potential Interfering Stations Included in above Scenario 6

33A NY NEW YORK	BMPCDT	20080619AAZ	APP
33A VA NORFOLK	BLCDDT	20090602ABA	LIC
33A WV MORGANTOWN	BMPEDT	20120209ABV	CP

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