TECHNICAL EXHIBIT
APPLICATION FOR DTV CONSTRUCTION PERMIT
IN SUPPORT OF ITS POST-TRANSITION FACILITY
STATION WHAM-DT
ROCHESTER, NEW YORK
CH 13  10.5 KW  152 M

Technical Narrative – "5 Mile Waiver Request"

This Technical Exhibit supports an application for digital television (DTV) station WHAM-DT for its final DTV at Rochester, New York. This application requests a construction permit (CP) for a digital television operation on channel 13 at Rochester, New York with a non-directional effective radiated power of 10.5 kilowatts. WHAM-DT intends to reuse its existing Channel 13 analog transmitting antenna for digital operation.

As non-directional operation is requested, WHAM-DT is requesting processing under the "5 mile waiver" procedure to allow recovery of its noise-limited contour up to the Grade B contour.

Proposed Facilities

Station WHAM-DT proposes to operate DTV channel 13 from its NTSC transmitter site and antenna. The antenna height above average terrain for the channel 13 DTV operation, and also the NTSC facility, will remain at 152 meters. The proposed WHAM-DT effective radiated power exceeds the Commission's *Appendix B* allocated maximum

effective radiated power in some azimuthal directions.[1] Therefore, an allocation study was completed to ensure no prohibited interference would occur.

The proposed DTV transmitter site will be located at its NTSC transmitter site. Therefore, the proposed site location is:

43° 08′ 07″ North Latitude
77° 35′ 03″ West Longitude

A sketch of antenna and pertinent elevations are included as Figure 2.

Figure 3 is a map showing the DTV predicted coverage contour and the associated analog Grade B coverage contour. The extent of the contour has been calculated using the normal FCC prediction method. The Rochester city limits were derived from information contained in the 2000 U.S. Census of Population and Housing.

[1] See Seventh Report And Order And Eighth Further Notice Of Proposed Rule Making in the Matter of Advanced Television Systems and their Impact Upon the Existing Television Broadcast Service, MB Docket 87-268, Released August 6, 2007; Adopted August 1, 2007.

Population Served

The herein proposed WHAM-DT facility is predicted to serve 1,192,902 persons, post-transition based upon the 2000 Census. WHAM-DT's associated Appendix B facility is predicted to serve 1,134,000 persons. Therefore, the herein proposed WHAM-DT facility would serve more than 100% of WHAM-DT's Appendix B population.

Allocation Considerations

The proposed WHAM-DT Channel 13 facility meets the requirements of Section 73.623 of the FCC Rules concerning predicted interference to other Appendix B DTV allotments. Longley-Rice interference analyses were conducted pursuant to the requirements of the FCC Rules; OET Bulletin No. 69; and published FCC guidelines for preparation of such interference analyses. The Longley-Rice interference analyses were conducted using the software developed by du Treil, Lundin & Rackley, Inc. based on the FCC published software routines.[2] Stations selected for analysis were determined pursuant to the distance requirements outlined in the FCC DTV Processing Guidelines Public Notice. The results of the interference analyses for the proposed WHAM-DT facility are summarized herein at Figure 4. As indicated therein, the proposed facility will meet the 0.5% criterion outlined in the FCC Rules and published guidelines with respect to all considered stations.[3]

2 The duTreil, Lundin & Rackley, Inc. DTV interference analysis program is based on the program and procedures outlined by the FCC in the Sixth Report and Order; subsequent Memorandum Opinion and Order; and FCC OET Bulletin No. 69. A nominal grid size resolution of 2 km was employed.
3 Interference analysis results reflect the net change in interference to a given station considering the interference predicted to occur from all other stations (i.e. "masking") including the allotment facility

International Coordination

The herein proposed site is located 55.9 kilometers from the nearest point of the common U.S./Canadian border. Therefore, coordination with Canada is requested, if necessary.

Radiofrequency Electromagnetic Field Exposure

The proposed WHAM-DT facilities were evaluated in terms of potential radiofrequency electromagnetic field exposure at ground level to workers and the general public. The radiation center for the proposed WHAM-DT antenna is located 97 meters above ground level. The maximum effective radiated power is 10.5 kilowatts. A downward relative field value of 0.25 is assumed for the antenna's downward radiation. The calculated power density at a point 2 meters above ground level is 0.003 $mW/cm^2$. This is less than 5 percent of the Commission's recommended limit of 0.2 $mW/cm^2$ for channel 13 for an "uncontrolled" environment.

Access to the transmitting site is restricted and appropriately marked with warning signs. In the event that workers or other authorized personnel enter restricted areas or climb the tower, appropriate measures will be taken to assure worker safety with respect to radio frequency radiation exposure. Such measures include reducing the average exposure by spreading out the work over a longer period of time, wearing "accepted" RFR protective clothing and/or RFR exposure monitors or

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for WHAM-DT. This properly reflects the net interference change for determining compliance with the FCC 0.5% *de minimis* standard.

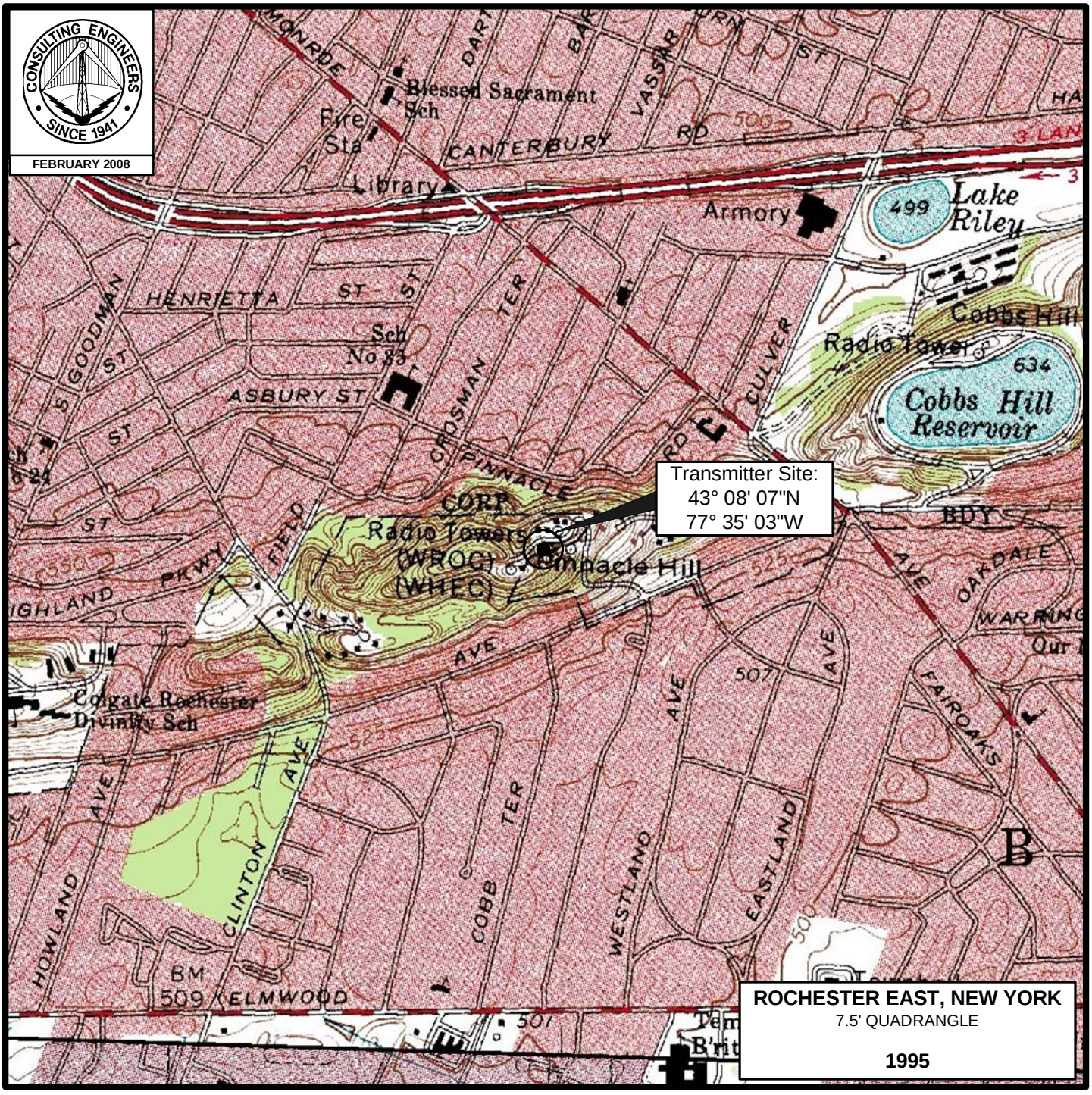
scheduling work when the stations are at reduced power or shut down. The proposed WHAM-DT operation appears to be otherwise categorically excluded from environmental processing.

It is noted that this statement only addresses the potential for radiofrequency electromagnetic field exposure. All other aspects of the environmental processing analysis will be or already have been provided to the FCC by the tower owner.

Charles Cooper

du Treil, Lundin & Rackley, Inc.
201 Fletcher Avenue
Sarasota, Florida 32437
941.329.6000

February 21, 2008

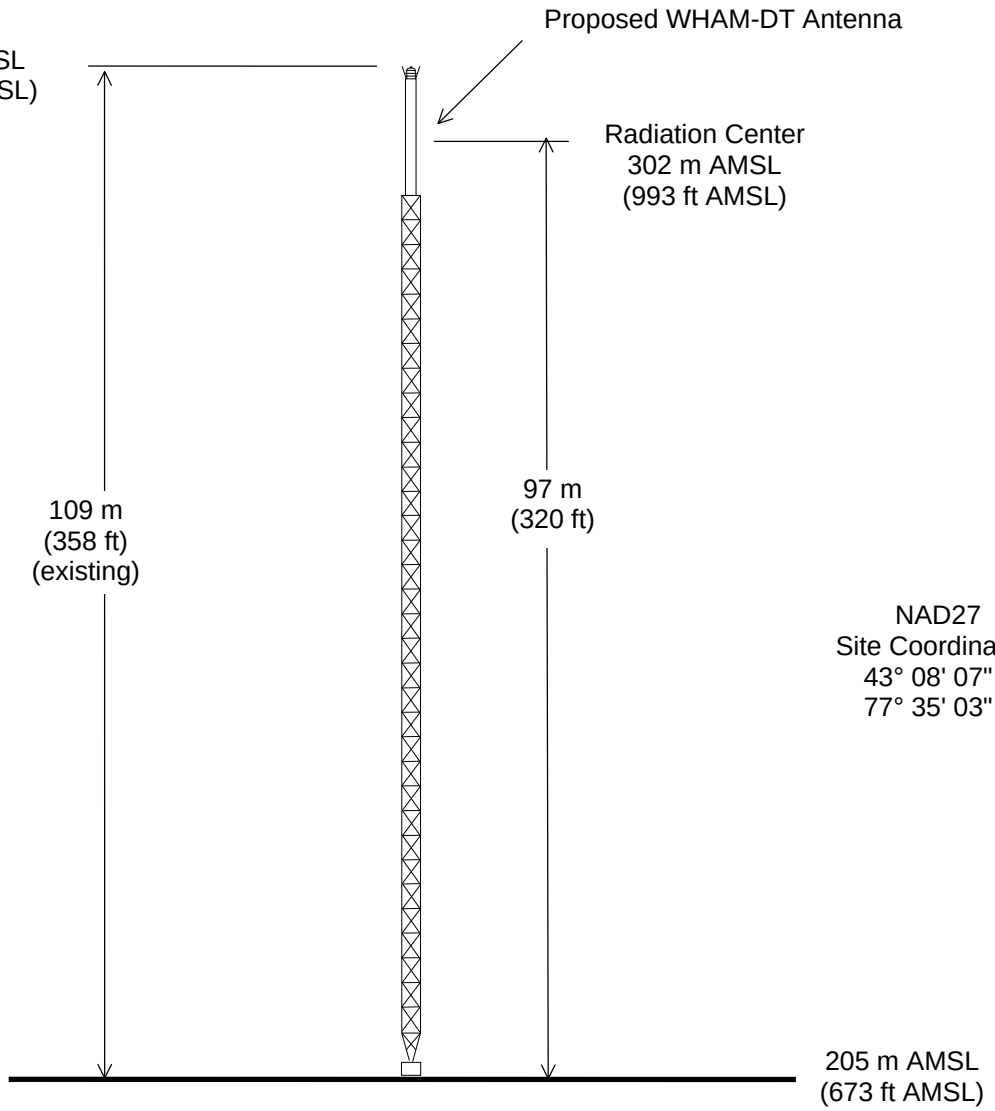



# EXISTING TRANSMITTER SITE

DTV STATION WHAM-DT
ROCHESTER, NEW YORK
CH 13 10.5 KW 152 M

FEBRUARY 2008

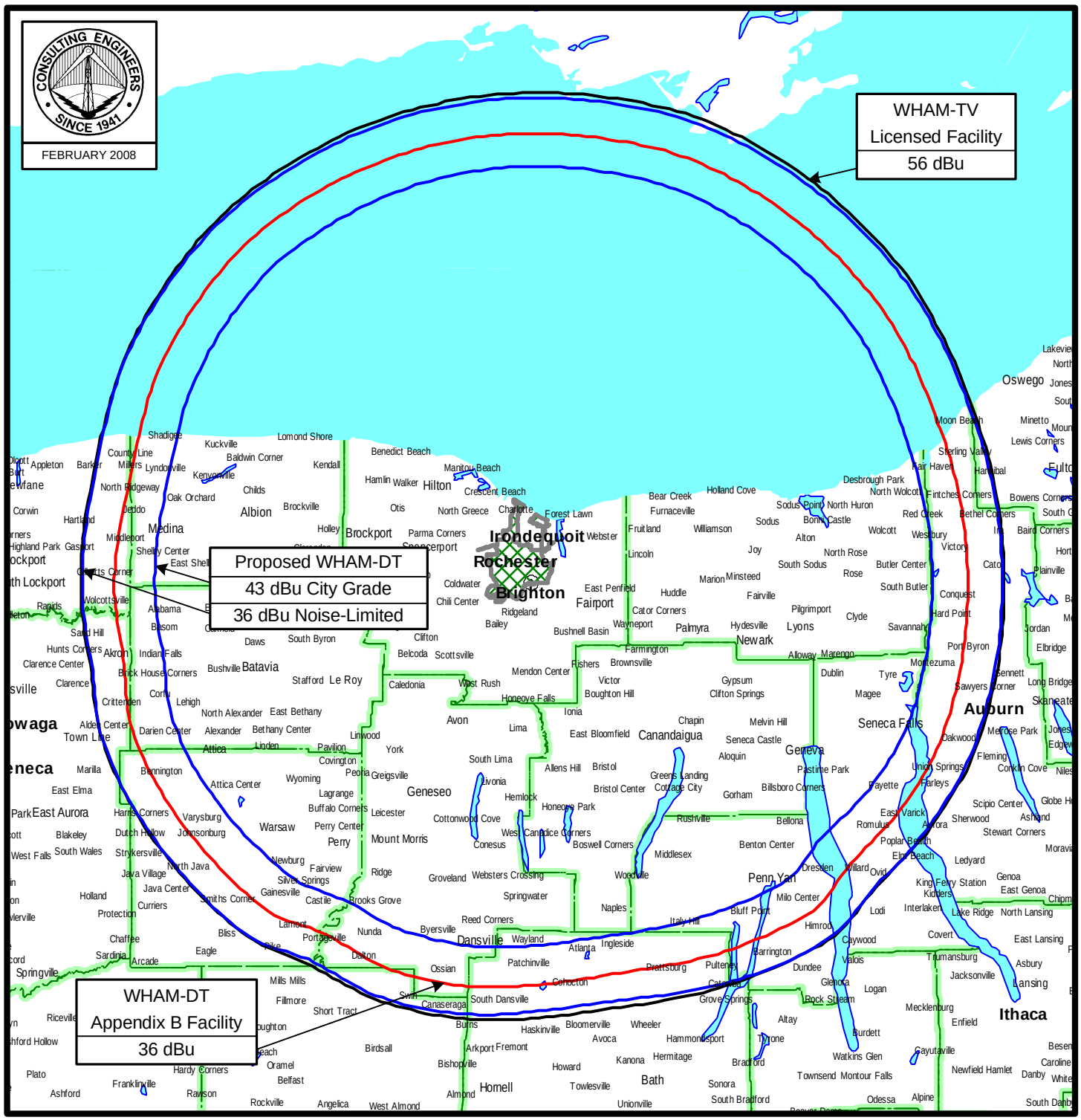
**ASRN: 1011757**




**Not to Scale**

# ANTENNA AND SUPPORTING STRUCTURE

DTV STATION WHAM-DT
ROCHESTER, NEW YORK
CH 13 10.5 KW 152 M




# PREDICTED COVERAGE CONTOURS

STATION WHAM-DT

ROCHESTER, NEW YORK

CH 13 10.5 KW 152 M

du Treil, Lundin & Rackley, Inc Sarasota, Florida

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## Post-Transition OET-69 Interference Analysis

Census data selected 2000

Post Transition Data Base Selected
/export/home/cdbs/tvdb.sff_G
TV INTERFERENCE and SPACING ANALYSIS PROGRAM

Date: 02-26-2008  Time: 15:49:58

Record Selected for Analysis

WHAM  USERRECORD-01  ROCHESTER  NY US
Channel 13 ERP 10.5  kW  HAAT  154. m  RCAMSL 00302 m
Latitude 043-08-07  Longitude 0077-35-03
Status APP  Zone 2  Border
Last update  Cutoff date  Docket
Comments
Applicant

Cell Size for Service Analysis 2.0 km/side

Distance Increments for Longley-Rice Analysis 1.00 km

Facility meets maximum height/power limits

| Azimuth (Deg) | ERP (kW) | HAAT (m) | 36.0 dBu F(50,90) (km) |
|---|---|---|---|
| 0.0 | 10.500 | 196.8 | 86.6 |
| 45.0 | 10.500 | 190.7 | 86.1 |
| 90.0 | 10.500 | 165.8 | 84.2 |
| 135.0 | 10.500 | 140.8 | 81.5 |
| 180.0 | 10.500 | 111.3 | 75.5 |
| 225.0 | 10.500 | 132.9 | 80.2 |
| 270.0 | 10.500 | 130.7 | 79.8 |
| 315.0 | 10.500 | 164.1 | 84.0 |

Evaluation toward Class A Stations

No Spacing violations or contour overlap to Class A stations

Class A Evaluation Complete

Proposed facility OK to FCC Monitoring Stations

Proposed facility OK toward West Virginia quite zone

Proposed facility OK toward Table Mountian

Proposed facility is within the Canadian coordination distance
Distance to border =  55.9km

Proposed facility is beyond the Mexican coordination distance

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 Proposed station is 3.03km from AM station
 ROCHESTER            NY WWWG     Status: L Antenna: DAN


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                        Start of Interference Analysis


              Proposed Station
Channel     Call         City/State               ARN
   13      WHAM       ROCHESTER NY               USERRECORD01

     Stations Potentially Affected by  Proposed Station

Chan   Call      City/State           Dist(km) Status  Application Ref. No.
 13   WNYA     PITTSFIELD MA             296.5  CP     BSRCCT    -20060317ADH
 13   WNET     NEWARK NJ                 399.6  CP     BDTV      -00000132
 13   WQED     PITTSBURGH PA             358.1  LIC    BLET      -335
 13   WYOU     SCRANTON PA               258.7  CP     BPCDT     -19991103ABM
 13   WVNY     BURLINGTON VT             412.3  CP     BPCDT     -19991027ACA

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     Analysis of Interference to Affected Station   1


Analysis of current record
Channel     Call           City/State        Application Ref. No.
   13      WNYA       PITTSFIELD MA             BSRCCT    -20060317ADH

     Stations Potentially Affecting This Station

Chan   Call      City/State           Dist(km) Status  Application Ref. No.
 12   WNYT     ALBANY NY                 0.0  LIC    BLCDT     -20031022ABL
 13   WJZ-TV   BALTIMORE MD            427.6  CP     BFRCCT    -20050811AAV
 13   WNET     NEWARK NJ               212.7  CP     BDTV      -00000132
 13   WYOU     SCRANTON PA             222.4  CP     BPCDT     -19991103ABM
 13   WPRI-TV  PROVIDENCE RI           239.4  LIC    BLCDT     -20040526ALH
 13   WVNY     BURLINGTON VT           232.1  CP     BPCDT     -19991027ACA
 13   WHAM     ROCHESTER NY            296.5  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.
   13      WNET       NEWARK NJ                 BDTV      -00000132

     Stations Potentially Affecting This Station

Chan   Call      City/State           Dist(km) Status  Application Ref. No.
 12   WHYY-TV  WILMINGTON DE            127.8  CP     BDTV      -00000110
 12   WNYT     ALBANY NY                212.7  LIC    BLCDT     -20031022ABL
 13   WNYA     PITTSFIELD MA            212.7  CP     BSRCCT    -20060317ADH
 13   WJZ-TV   BALTIMORE MD             271.7  CP     BFRCCT    -20050811AAV
 13   WYOU     SCRANTON PA              164.7  CP     BPCDT     -19991103ABM
 13   WPRI-TV  PROVIDENCE RI            262.2  LIC    BLCDT     -20040526ALH
 13   WHAM     ROCHESTER NY             399.6  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.
   13      WQED       PITTSBURGH PA             BLET      -335

     Stations Potentially Affecting This Station

Chan   Call      City/State           Dist(km) Status  Application Ref. No.
 12   WMFD-TV  MANSFIELD OH             226.7  CP     BPCDT     -20040526ABT
 12   WICU-TV  ERIE PA                  179.9  CP     BDTV      -00000108
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 12   WBOYTV   CLARKSBURG WV            132.8  LIC    BLCT      -860107KG
 12   WWPX     MARTINSBURG WV           195.6  LIC    BLCDT     -20021108AAX
 13   WJZ-TV   BALTIMORE MD             308.4  CP     BFRCCT    -20050811AAV
 13   WSYX     COLUMBUS OH              265.6  LIC    BLCDT     -20030801AXM
 13   WTVG     TOLEDO OH                320.1  CP     BDTV      -00000114
 13   WYOU     SCRANTON PA              353.7  CP     BPCDT     -19991103ABM
 13   WSET-TV  LYNCHBURG VA             349.2  CP MOD BMPCDT    -20021001AAJ
 13   WOWK-TV  HUNTINGTON WV            289.1  CP     BFRCCT    -20050815ABI
 13   WHAM     ROCHESTER NY             358.1  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.
   13      WYOU       SCRANTON PA              BPCDT     -19991103ABM

     Stations Potentially Affecting This Station

Chan   Call      City/State           Dist(km) Status  Application Ref. No.
 12   WHYY-TV  WILMINGTON DE            137.6  CP     BDTV      -00000110
 12   WNYT     ALBANY NY                222.4  LIC    BLCDT     -20031022ABL
 13   WNYA     PITTSFIELD MA            222.4  CP     BSRCCT    -20060317ADH
 13   WJZ-TV   BALTIMORE MD             215.7  CP     BFRCCT    -20050811AAV
 13   WNET     NEWARK NJ                164.7  CP     BDTV      -00000132
 13   WQED     PITTSBURGH PA            353.7  LIC    BLET      -335
 13   WPRI-TV  PROVIDENCE RI            389.7  LIC    BLCDT     -20040526ALH
 13   WHAM     ROCHESTER NY             258.7  APP    USERRECORD-01

 Total scenarios =   1


Result key:        1
Scenario        1  Affected station        4
Before Analysis

Results for: 13A PA SCRANTON             BPCDT     19991103ABM  CP
   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   2637684      33868.4
   lost to NTSC IX                        0          0.0
   lost to additional IX by ATV      151753       1650.6
   lost to ATV IX only               151753       1650.6
   lost to all IX                    151753       1650.6

 Potential Interfering Stations Included in above Scenario     1

12A DE WILMINGTON           BDTV      00000110     CP
13A MD BALTIMORE            BFRCCT    20050811AAV  CP
13A NJ NEWARK               BDTV      00000132     CP
13A PA PITTSBURGH           BLET      335          LIC
13A RI PROVIDENCE           BLCDT     20040526ALH  LIC

After Analysis

Results for: 13A PA SCRANTON             BPCDT     19991103ABM  CP
   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   2637684      33868.4
   lost to NTSC IX                        0          0.0
   lost to additional IX by ATV      157342       1746.7
   lost to ATV IX only               157342       1746.7
   lost to all IX                    157342       1746.7

 Potential Interfering Stations Included in above Scenario     1

12A DE WILMINGTON           BDTV      00000110     CP
13A MD BALTIMORE            BFRCCT    20050811AAV  CP
13A NJ NEWARK               BDTV      00000132     CP
13A PA PITTSBURGH           BLET      335          LIC
13A RI PROVIDENCE           BLCDT     20040526ALH  LIC
13A NY ROCHESTER            USERRECORD01           APP

Percent new IX =    0.2248%
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**Figure 4**

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Worst case new IX    0.2248% Scenario      1

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     Analysis of Interference to Affected Station   5


Analysis of current record
Channel     Call           City/State        Application Ref. No.
   13      WVNY       BURLINGTON VT             BPCDT     -19991027ACA

     Stations Potentially Affecting This Station

Chan   Call      City/State           Dist(km) Status  Application Ref. No.
 13   WNYA     PITTSFIELD MA            232.1  CP     BSRCCT    -20060317ADH
 13   WPRI-TV  PROVIDENCE RI            319.6  LIC    BLCDT     -20040526ALH
 13   WHAM     ROCHESTER NY             412.3  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      WHAM       ROCHESTER NY              USERRECORD-01

     Stations Potentially Affecting This Station

Chan   Call      City/State           Dist(km) Status  Application Ref. No.
 13   WNYA     PITTSFIELD MA            296.5  CP     BSRCCT    -20060317ADH
 13   WNET     NEWARK NJ                399.6  CP     BDTV      -00000132
 13   WQED     PITTSBURGH PA            358.1  LIC    BLET      -335
 13   WYOU     SCRANTON PA              258.7  CP     BPCDT     -19991103ABM
 13   WVNY     BURLINGTON VT            412.3  CP     BPCDT     -19991027ACA

 Total scenarios =   1


Result key:        2
Scenario        1  Affected station        6
Before Analysis

Results for: 13A NY ROCHESTER            USERRECORD01           APP
   HAAT  154.0 m, ATV ERP   10.5 kW
                                 POPULATION   AREA (sq km)
   within Noise Limited Contour     1240515      21299.8
   not affected by terrain losses   1200330      20101.5
   lost to NTSC IX                        0          0.0
   lost to additional IX by ATV        7428        233.2
   lost to ATV IX only                 7428        233.2
   lost to all IX                      7428        233.2

 Potential Interfering Stations Included in above Scenario     1

13A PA SCRANTON             BPCDT     19991103ABM  CP

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