WBRA-DT CHANNEL 3 MINOR CHANGE IN LICENSED FACILITY APPLICATION FOR MAXIMIZED POST-TRANSITION DTV OPERATION

ROANOKE, VIRGINIA

(Blue Ridge Public Television Inc.)

KESSLER AND GEHMAN ASSOCIATES, INC.
TELECOMMUNICATIONS CONSULTING ENGINEERS

20080618

Prepared by William T. Godfrey, Jr.

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ENGINEERING TECHNICAL STATEMENT PREPARED BY WILLIAM T. GODFREY, JR. OF THE FIRM KESSLER AND GEHMAN ASSOCIATES, INC., TELECOMMUNICATIONS CONSULTING ENGINEERS IN CONNECTION WITH A MINOR CHANGE IN LICENSED FACILITY APPLICATION (BLEDT-20030430AAG) REQUESTING A CONSTRUCTION PERMIT FOR AUTHORIZATION TO OPERATE THE BLUE RIDGE PUBLIC TELEVISION, INC. (BRPTV) DIGITAL TELEVISION BROADCAST FACILITY, WBRA-DT CHANNEL 3, WITH MAXIMIZED PARAMETERS ON ITS POST-TRANSITION DIGITAL CHANNEL AS ADOPTED IN APPENDIX B.

The firm Kessler and Gehman Associates, Inc. (KGA) has been retained by Blue Ridge Public Television, Inc. (BRPTV), Roanoke, VA to prepare engineering studies and the engineering portion of a minor change in licensed facility application (BLEDT-20030430AAG) requesting authorization to maximize the WBRA-DT Channel 3 post-transition DTV facility pursuant to the procedures outlined in the Third Periodic Review Report and Order (MB Docket No. 07-91) and the Public Notice released on May 30, 2008 lifting the freeze on maximization application filings (DA-08-1213). The following table depicts the allotted (Appendix B), licensed (LIC) and proposed (maximization) parameters respectively for the WBRA-DT post-transition DTV facility.

Facility ID	State	City	Call Sign	DTV Chan	DTV ERP (kW)	DTV HAAT (m)	DTV Antenna	DTV Latitude (DDMMSS)	DTV Longitude (DDDMMSS)
Final DTV Table of Allotments (Appendix B) Parameters:									
5981	VA	ROANOKE	WBRA	3	7.25	618.0	Directional	371146	800917
Licensed Parameters (BLEDT-20030430AAG):									
5981	VA	ROANOKE	WBRA	3	7.25	618.0	Directional	371146	800917
Proposed Maximized Parameters:									
5981	VA	ROANOKE	WBRA	3	9.8	614.3	OMNI	371146	800917

Accordingly, BRPTV proposes to maximize operation of the WBRA-DT Channel 3 post-transition DTV facility by making the following modifications to its existing license:

1) Increase maximum Effective Radiated Power (ERP) from 7.5 kW to 9.8 kW.
2) Change from a directional antenna to a nondirectional antenna.
3) Correct antenna Height Above Average Terrain (HAAT).

All other operating parameters shall remain as authorized in the existing license (BLEDT-20030430AAG).

Post-Transition Interference Protection

The proposed facility satisfies the post-transition interference protection provisions of §73.616 of the FCC Rules. Exhibits 10 (Part1) and 11 (Part2) are Longley-Rice interference studies that were computed using a Sun Microsystems SPARC 5 computer work station loaded with the FCC's DTV analysis software. The interference percentages are exactly the same as the FCC calculations since the studies were performed using the same type computers and the same interference analysis software. Exhibit 10 was run to determine the interference predicted to each desired station from the proposed WBRA-DT Channel 3 post-transition DTV maximized facility. The FCC program recognized a mutually exclusive situation between the proposed WBRA-DT maximized facility and the allotted WBRA-DT Appendix B facility because they both had the same community of license (Roanoke) and they both were assigned Channel 3. As a result, the program threw out the allotted Channel 3 facility in the "Before" studies and used the proposed Channel 3 maximized facility in the "After" studies. Therefore, only the populations in the "After" studies are used in Exhibit 10 to identify the population predicted to receive interference from the proposed maximized facility. Exhibit 11 is the exact same study as Exhibit 10 except the community of license was purposely changed from "Roanoke" to "Roanoke_2" for the proposed maximized facility so that the program would not throw out the allotted Channel 3 facility. Referring to Exhibit 11, it can be seen that the "Before" studies now

contain the allotted Channel 3 facility so that the population predicted to be received by the desired stations from the allotted Channel 3 facility can be calculated for masking purposes. The interference studies demonstrate that the proposed facility is predicted to cause 0.0% interference to all post-transition DTV stations considered in the culling list which is well below the 0.5% interference standard. Accordingly, the 0.5% new interference standard pursuant to §V.F. (¶155) of the Third Periodic Review Report and Order has been satisfied.

The DTV Maximum Power and Antenna Heights Table in §73.622(f)(7) of the FCC rules state that the maximum ERP for a DTV station operating on a channel between 2-6 in Zone II with an antenna HAAT of 614.3 m is 9.8 kW based on the following formula:

ERPmax = 57.57-17.08*log10(HAAT) = 57.57-17.08*log10(614.3) = 9.9 dBk = 9.8 kW

§73.622(f)(5) of the FCC Rules states that licensees and permittees assigned a DTV channel in the initial DTV Table of Allotments may request an increase in either ERP in some azimuthal direction or antenna HAAT, or both, that exceed the initial technical facilities specified in Appendix B, up to that needed to provide the same geographic coverage area as the largest station within their market, whichever would allow the largest service area. However, it was determined that the proposed WBRA-DT Channel 3 maximized facility with an ERP of 9.8 kW and an antenna HAAT of 614.3 m would be the largest station in the Roanoke market. Therefore, even though there is room to increase with respect to the 0.5% new interference standard, there is no room to increase the ERP pursuant to §73.622(f)(5,7) of the FCC rules.

Exhibits

Exhibits 1 and 2 represent WBRA's administration data, antenna and antenna structure specifications.

Exhibit 3 depicts the profile view of the proposed antenna on the antenna structure with all the appropriate elevations.

Exhibits 4 (11 deg) and 5 (90 deg) display the elevation pattern and Exhibit 6 displays the elevation pattern tabulation.

Exhibit 7 depicts the location of the WBRA-DT transmitter site on a 1:24000 scale topographic map.

Exhibit 8 is a principal community contour map demonstrating that the proposed (maximized) WBRA-DT Channel 3 post-transition DTV facility's F(50,90) 35.0 dBuV/m Principal Community contour would completely encompass the principal community of Roanoke, VA.

Exhibit 9 is a contour map comparing the licensed WBRA-DT Channel 3 F(50,90) 28.0 dBuV/m contour (green) and the proposed (maximized) WBRA-DT Channel 3 F(50,90) 28.0 dBuV/m contour (red).

Exhibits 10 and 11 are Longley-Rice interference studies that were computed using a Sun Microsystems SPARC 5 computer work station loaded with the FCC's DTV analysis software. The exhibits demonstrate compliance with the 0.5% new interference standard.

Environmental Impact

The proposed construction would have no significant environmental impact as defined in §1.1307 of the FCC Rules. The digital transmitter, 1-5/8 inch transmission line and antenna system shall produce an ERP of 9.8 kW (horizontal polarization). It was determined that the maximum lobe of radiation from the base of the tower would occur at approximately 67.0 feet from the base of the tower (186.8-foot radial distance from the antenna center). At

approximately 67.0 feet from the base of the tower, the depression angle of the main lobe will be approximately 69° below the horizontal. At that point, the relative field is 0.156 and the power density six feet above the ground will be approximately 0.0025 mW/cm². This equates to only 0.25% of the Maximum Permissible Exposure (MPE) limits for Occupational/Controlled Exposure and only 1.23% of the MPE limits for General Population/Uncontrolled Exposure authorized by the American National Standards Institute (ANSI). Since operation of the proposed WBRA-DT Channel 3 post-transition DTV facility will not exceed 5.0% of the MPE limit for Occupational/Controlled Exposure or General Population/Uncontrolled Exposure at any point on the ground, the proposed WBRA-DT Channel 3 facility is not considered a "significant contributor" to the RF exposure environment pursuant to OET Bulletin 65, Edition 97-01. Therefore, contributions of exposure from other sources were not accounted for in this analysis. It is safe to conclude that the emissions would be insignificant and well within the maximum allowable requirements.

If other antennas are placed on the tower in the future, the licensee will cooperate with those users by reducing or completely terminating the power to the antenna when maintenance workers are in danger from the electromagnetic radiation emanating from the antenna. It is also understood that additional antennas on the support structure could increase the overall RF exposure levels and it is the responsibility of each licensee to ensure that the total RF exposure resulting from the operation of all antennas on the support structure do not exceed the maximum permissible exposure level at any point on the ground.

Certification

This technical statement was prepared by William T. Godfrey, Telecommunications Consultant with Kessler and Gehman Associates, Inc. having offices in Gainesville, Florida and has been working in the field of radio and television broadcast consulting since 1998. He graduated from the University of North Florida with a Bachelor of Arts degree in Criminal Justice and a minor in Mathematics in 1993. As a Professional in the field of

Telecommunications he states under penalty of perjury that the information contained in this report is true and correct to the best of his knowledge and belief.

KESSLER AND GEHMAN ASSOCIATES, INC.

WILLIAM T. GODFREY, JR.
Telecommunications Technical Consultant 18 June, 2008

WBRA-DT CHANNEL 3 MAXIMIZED DTV FACILITY

Roanoke, Virginia

ENGINEERING SPECIFICATIONS

A. ***Transmitter Site:***
Geographic coordinates (NAD27):

North Latitude: 37° 11' 46"
West Longitude: 080° 09' 17"

Transmitter Site Address: **8149 Honeysuckle Lane**
Roanoke, VA

B. ***Main Studio Address:*** **Blue Ridge PBS**
1215 McNeil Drive S.W.
Roanoke, VA 24015

Post-Transition Facility:
DTV Channel: Number: **3**
Frequency: **60-66 MHz**
Offset: **N/A**

C. ***Antenna Height:***

Height of Site Above Mean Sea Level (AMSL)	**1,140.0 M**
Overall Height of Structure Above Ground (including all appurtenances)	**82.8 M**
Overall Height of Structure Above Mean Sea Level (including all appurtenances)	**1,222.8 M**
Height of Site Above Average Terrain	**559.3 M**
Antenna Height Radiation Center (R/C) Above Ground	**55.0 M**
Antenna Height R/C Above Mean Sea Level	**1,195.0 M**
Average of All Non-Odd Radials	**580.7 M**
Antenna Height R/C Above Average Terrain	**614.3 M**

D. ***System Parameters – Horizontal Polarization:***

Transmitter Power Required:	**1.77 kW**
Maximum Power Input to Antenna:	**1.63 kW**
Transmission Line Loss:	**0.35 dB**
Transmission Line Efficiency:	**92.3%**
Peak Directional Gain at Main Beam:	**7.78 dB**
Peak Directional Gain at Horizontal:	**7.76 dB**
Maximum Effective Radiated Power:	**9.91 dBk**
In Beam Maximum:	**9.80 kW**
Maximum Effective Radiated Power:	**9.89 dBk**
In Horizontal Plane:	**9.74 kW**

WBRA-DT CHANNEL 3 MAXIMIZED DTV FACILITY

ROANOKE, VIRGINIA

DATA FOR PROPOSED NONDIRECTIONAL TRANSMITTING ANTENNA

A. ***Antenna:*** Dielectric Model THA-O4-6/24-1, horizontally polarized, nondirectional, side-mount, panel antenna.

B. ***Electrical Beam Tilt:*** 0.6°

C. ***Mechanical Beam Tilt:*** None

D.

Antenna Gain	**Horizontal Polarization**
Main Beam:	6.00 (7.78 dB)
Horizontal:	5.97 (7.76 dB)

E. ***Transmitter Power Output (TPO):*** 1.77 kW

F. ***Transmission Line:*** 1-5/8 inch 50 ohm FLEXLine®

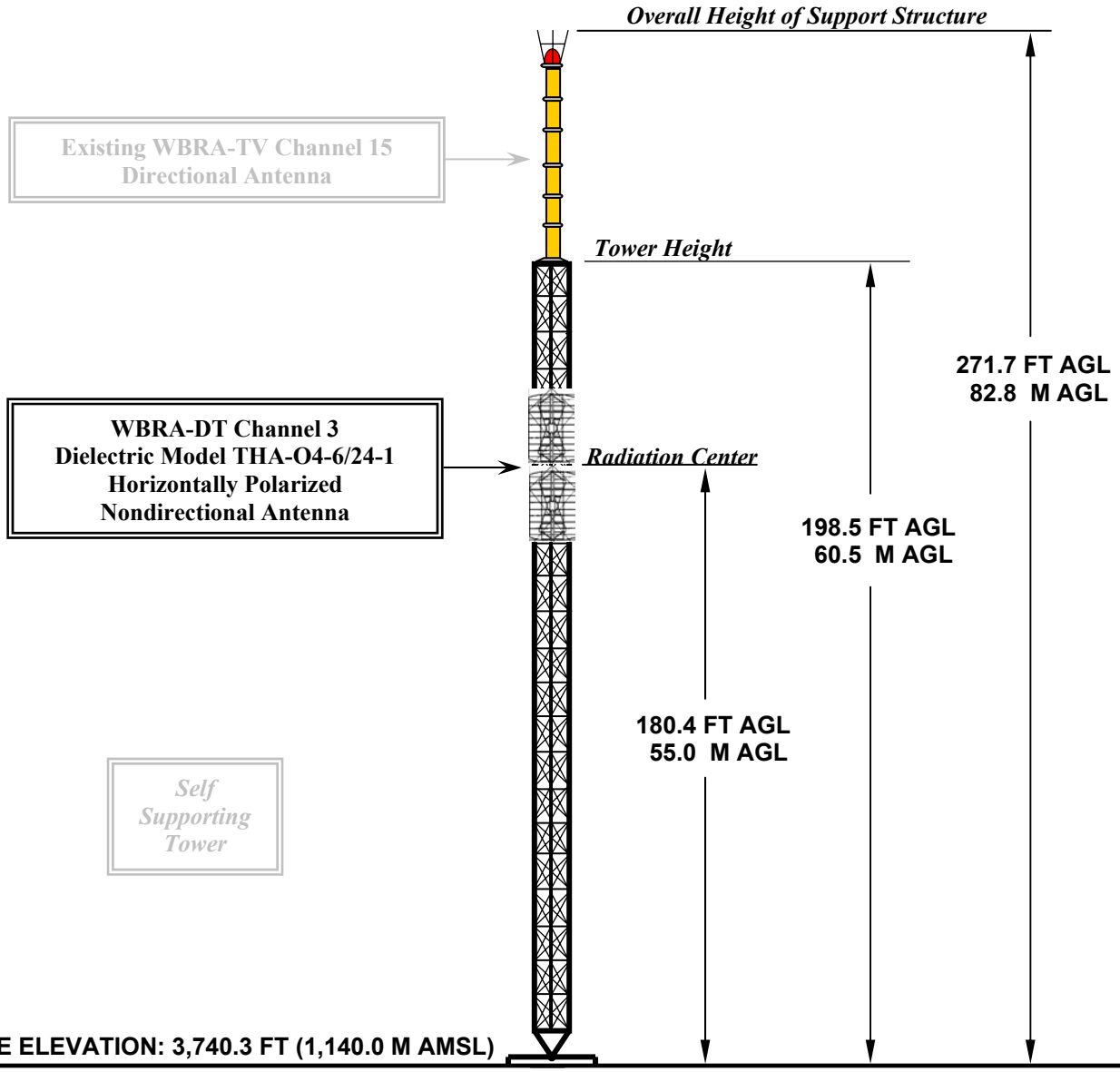
F. ***Transmission Line Efficiency:*** 92.3%

G. ***Transmission Line Length:*** 220 feet (67.1 meters)

H. ***Transmission Line Loss:*** 0.159 dB/100 ft

I. ***Transmission Line Attenuation:*** 0.35 dB

WBRA-DT CHANNEL 3 TOWER ELEVATION VIEW



OVERALL HEIGHT AGL:	82.8 M
OVERALL HEIGHT AMSL:	1,222.8 M
RADIATION CENTER AGL:	55.0 M
RADIATION CENTER AMSL:	1,195.0 M
RADIATION CENTER HAAT:	614.3 M
AVG OF ALL NON-ODD RADIALS:	580.7 M
SITE HAAT:	559.3 M

COORDINATES (NAD 27):

N. LATITUDE 37° 11' 46"

W. LONGITUDE 080° 09' 17"

Antenna Structure Registration Number:
1017598

NOTE: NOT TO SCALE

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WBRA-DT CHANNEL 3

ROANOKE, VIRGINIA

20080615 **EXHIBIT 3**

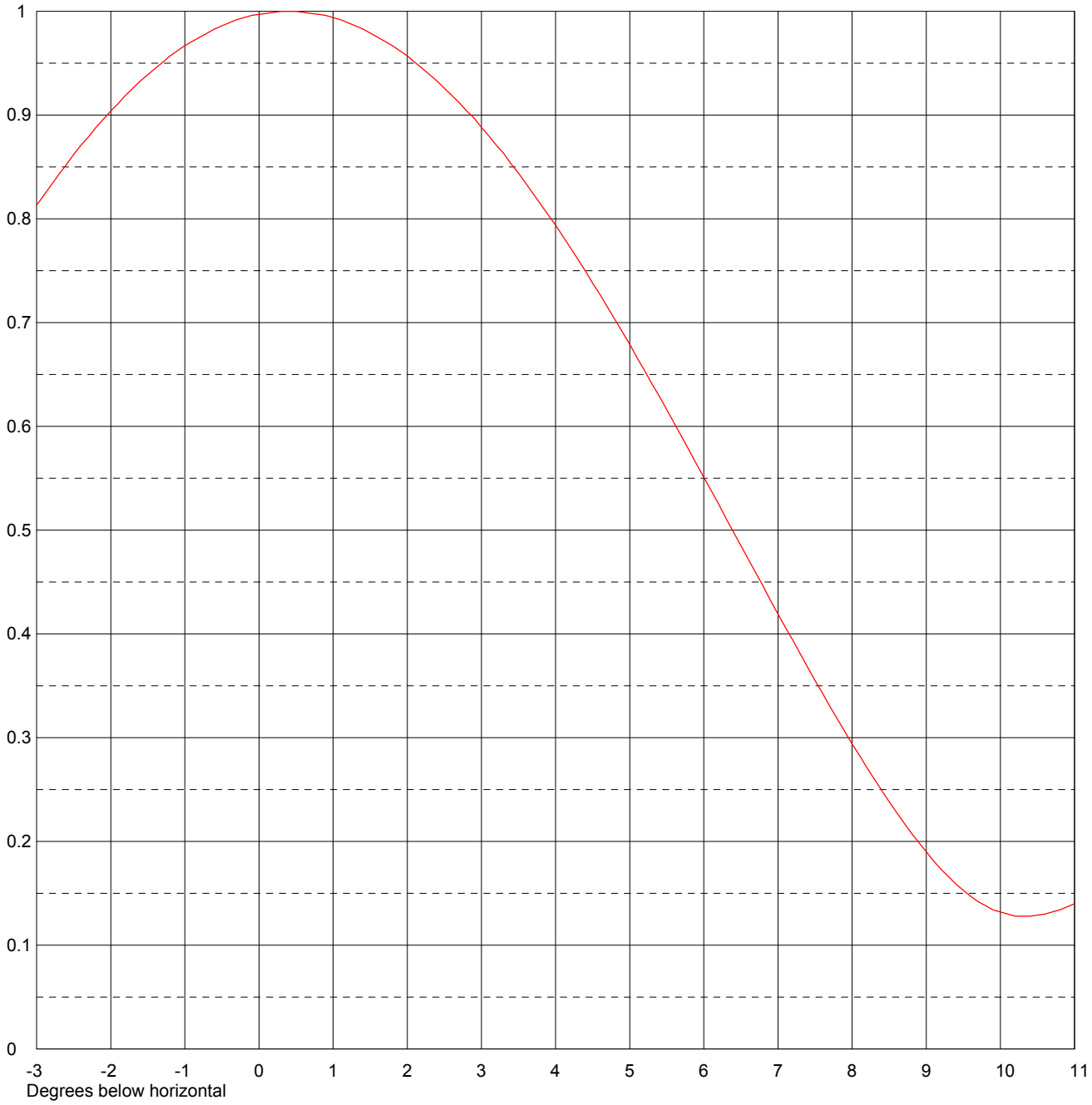
Exhibit No.
4

Dielectric

Date	**18 Jun 2008**		
Call Letters	**WBRA-DT**	Channel	**3**
Location	**Roanoke, VA**		
Customer	**Blue Ridge PBS**		
Antenna Type	**THA-O4-6/24-1**		

ELEVATION PATTERN

RMS Gain at Main Lobe	**6.0 (7.78 dB)**	Beam Tilt	**0.60 Degrees**
RMS Gain at Horizontal	**6.0 (7.78 dB)**	Frequency	**63.00 MHz**
Calculated / Measured	**Calculated**	Drawing #	**06H060060**



Remarks: Exhibit 4

EXHIBIT 4

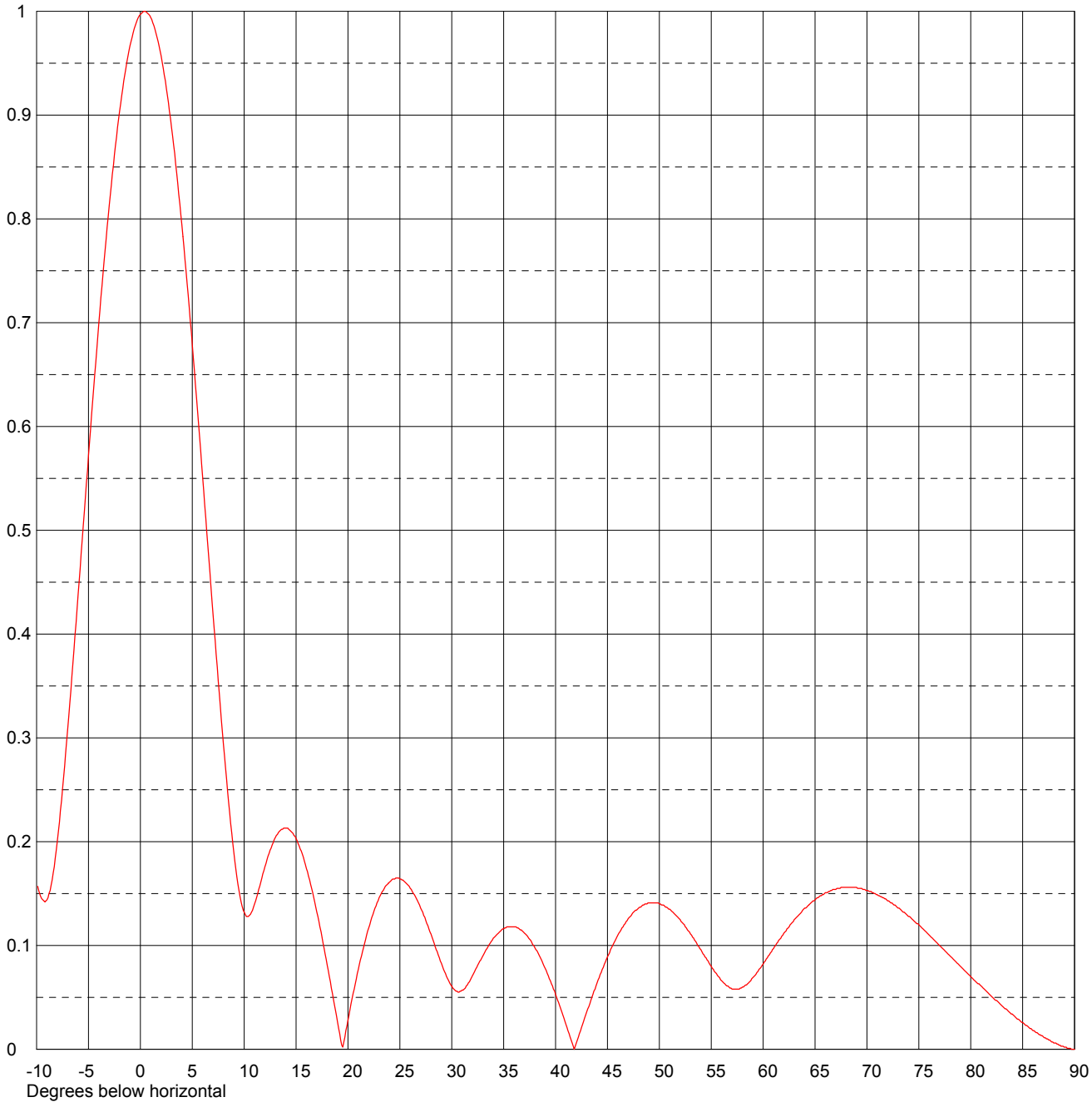
Exhibit No.
5

Dielectric

Date	**18 Jun 2008**		
Call Letters	**WBRA-DT**	Channel	**3**
Location	**Roanoke, VA**		
Customer	**Blue Ridge PBS**		
Antenna Type	**THA-O4-6/24-1**		

ELEVATION PATTERN

RMS Gain at Main Lobe	**6.0 (7.78 dB)**	Beam Tilt	**0.60 Degrees**
RMS Gain at Horizontal	**6.0 (7.78 dB)**	Frequency	**63.00 MHz**
Calculated / Measured	**Calculated**	Drawing #	**06H060060-90**



Remarks: Exhibit 5

EXHIBIT 5

Exhibit No.
EXHIBIT 6

Dielectric

Date	**18 Jun 2008**		
Call Letters	**WBRA-DT**	Channel	**3**
Location	**Roanoke, VA**		
Customer	**Blue Ridge PBS**		
Antenna Type	**THA-O4-6/24-1**		

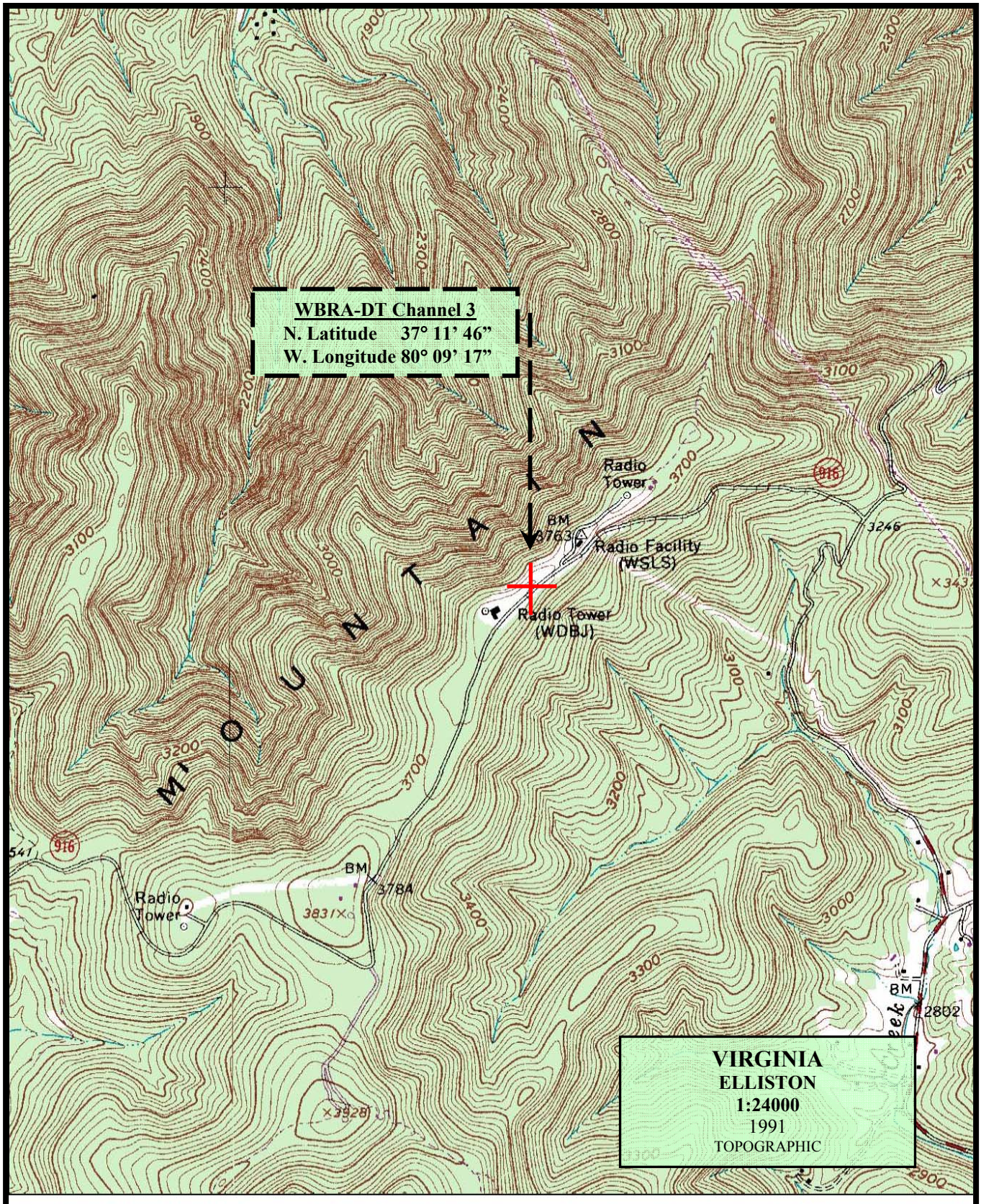
TABULATION OF ELEVATION PATTERN

Elevation Pattern Drawing # **06H060060-90**

Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
-10.0	0.161	2.4	0.933	10.6	0.130	30.5	0.056	51.0	0.135	71.5	0.146
-9.5	0.145	2.6	0.919	10.8	0.134	31.0	0.057	51.5	0.130	72.0	0.143
-9.0	0.144	2.8	0.904	11.0	0.140	31.5	0.062	52.0	0.125	72.5	0.140
-8.5	0.163	3.0	0.888	11.5	0.157	32.0	0.071	52.5	0.118	73.0	0.136
-8.0	0.201	3.2	0.871	12.0	0.176	32.5	0.081	53.0	0.111	73.5	0.132
-7.5	0.251	3.4	0.853	12.5	0.192	33.0	0.090	53.5	0.104	74.0	0.128
-7.0	0.309	3.6	0.834	13.0	0.204	33.5	0.099	54.0	0.096	74.5	0.124
-6.5	0.372	3.8	0.814	13.5	0.211	34.0	0.107	54.5	0.088	75.0	0.120
-6.0	0.438	4.0	0.794	14.0	0.213	34.5	0.112	55.0	0.080	75.5	0.115
-5.5	0.505	4.2	0.772	14.5	0.210	35.0	0.116	55.5	0.073	76.0	0.110
-5.0	0.572	4.4	0.750	15.0	0.203	35.5	0.118	56.0	0.066	76.5	0.105
-4.5	0.637	4.6	0.727	15.5	0.191	36.0	0.118	56.5	0.061	77.0	0.100
-4.0	0.700	4.8	0.703	16.0	0.174	36.5	0.116	57.0	0.058	77.5	0.095
-3.5	0.759	5.0	0.679	16.5	0.155	37.0	0.112	57.5	0.058	78.0	0.090
-3.0	0.813	5.2	0.654	17.0	0.132	37.5	0.106	58.0	0.060	78.5	0.085
-2.8	0.833	5.4	0.629	17.5	0.108	38.0	0.098	58.5	0.063	79.0	0.080
-2.6	0.852	5.6	0.603	18.0	0.081	38.5	0.089	59.0	0.069	79.5	0.075
-2.4	0.871	5.8	0.577	18.5	0.054	39.0	0.078	59.5	0.075	80.0	0.070
-2.2	0.888	6.0	0.551	19.0	0.026	39.5	0.066	60.0	0.082	80.5	0.065
-2.0	0.904	6.2	0.525	19.5	0.002	40.0	0.053	60.5	0.090	81.0	0.061
-1.8	0.919	6.4	0.498	20.0	0.028	40.5	0.039	61.0	0.097	81.5	0.056
-1.6	0.933	6.6	0.472	20.5	0.054	41.0	0.024	61.5	0.105	82.0	0.051
-1.4	0.945	6.8	0.446	21.0	0.077	41.5	0.009	62.0	0.112	82.5	0.047
-1.2	0.957	7.0	0.419	21.5	0.098	42.0	0.006	62.5	0.118	83.0	0.042
-1.0	0.967	7.2	0.394	22.0	0.117	42.5	0.021	63.0	0.125	83.5	0.038
-0.8	0.975	7.4	0.368	22.5	0.133	43.0	0.036	63.5	0.130	84.0	0.034
-0.6	0.983	7.6	0.343	23.0	0.146	43.5	0.050	64.0	0.136	84.5	0.029
-0.4	0.989	7.8	0.318	23.5	0.155	44.0	0.064	64.5	0.140	85.0	0.026
-0.2	0.994	8.0	0.294	24.0	0.161	44.5	0.077	65.0	0.144	85.5	0.022
0.0	0.997	8.2	0.271	24.5	0.164	45.0	0.089	65.5	0.148	86.0	0.018
0.2	0.999	8.4	0.249	25.0	0.164	45.5	0.100	66.0	0.151	86.5	0.015
0.4	1.000	8.6	0.228	25.5	0.161	46.0	0.110	66.5	0.153	87.0	0.012
0.6	0.999	8.8	0.208	26.0	0.155	46.5	0.118	67.0	0.154	87.5	0.009
0.8	0.997	9.0	0.190	26.5	0.147	47.0	0.126	67.5	0.156	88.0	0.006
1.0	0.994	9.2	0.173	27.0	0.136	47.5	0.132	68.0	0.156	88.5	0.004
1.2	0.989	9.4	0.159	27.5	0.124	48.0	0.136	68.5	0.156	89.0	0.002
1.4	0.983	9.6	0.147	28.0	0.111	48.5	0.139	69.0	0.156	89.5	0.001
1.6	0.975	9.8	0.138	28.5	0.096	49.0	0.141	69.5	0.155	90.0	0.000
1.8	0.967	10.0	0.132	29.0	0.083	49.5	0.141	70.0	0.153		
2.0	0.957	10.2	0.128	29.5	0.070	50.0	0.140	70.5	0.151		
2.2	0.945	10.4	0.128	30.0	0.061	50.5	0.138	71.0	0.149		

EXHIBIT 6

Remarks: Exhibit 6



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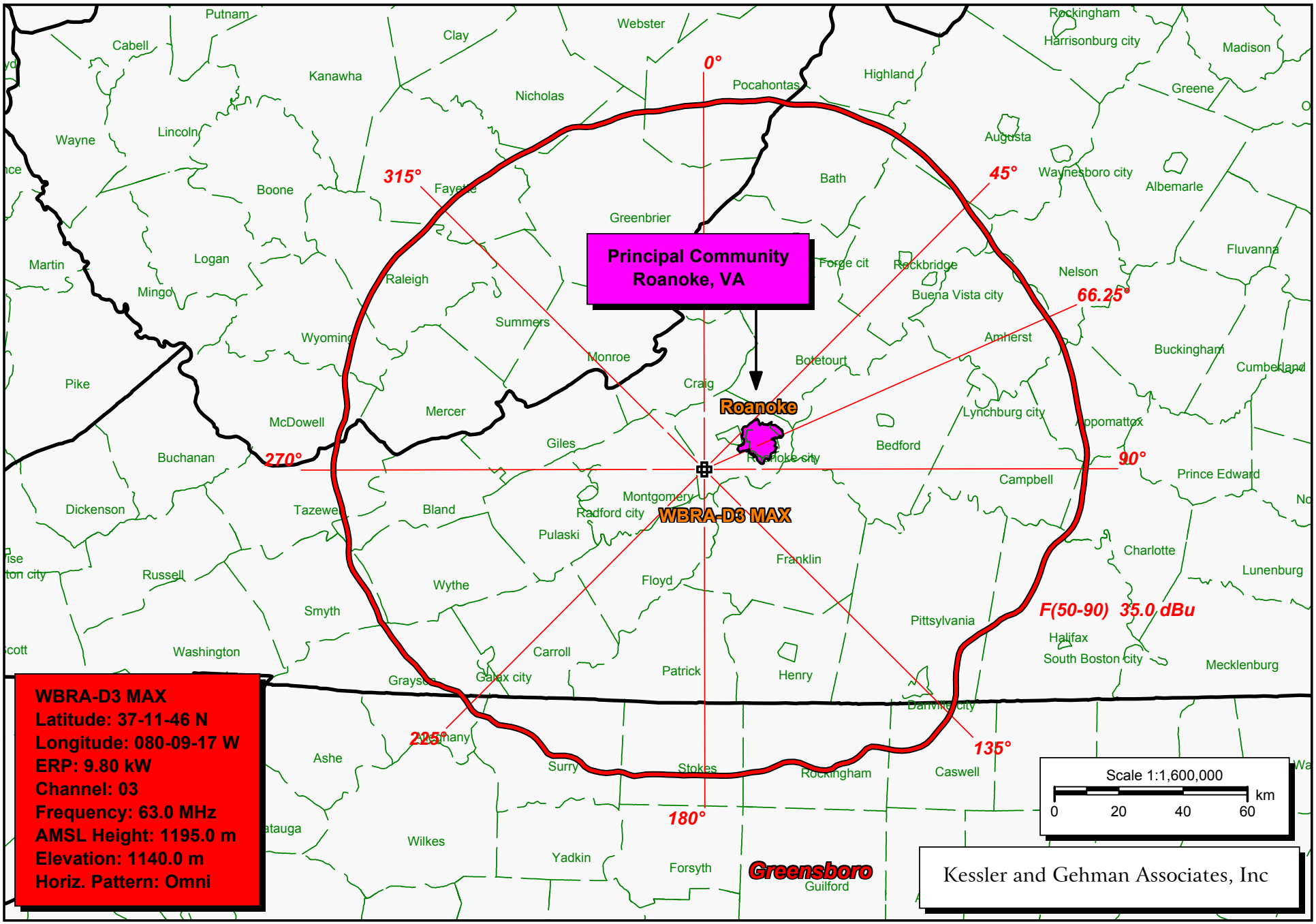
WBRA-DT CHANNEL 3

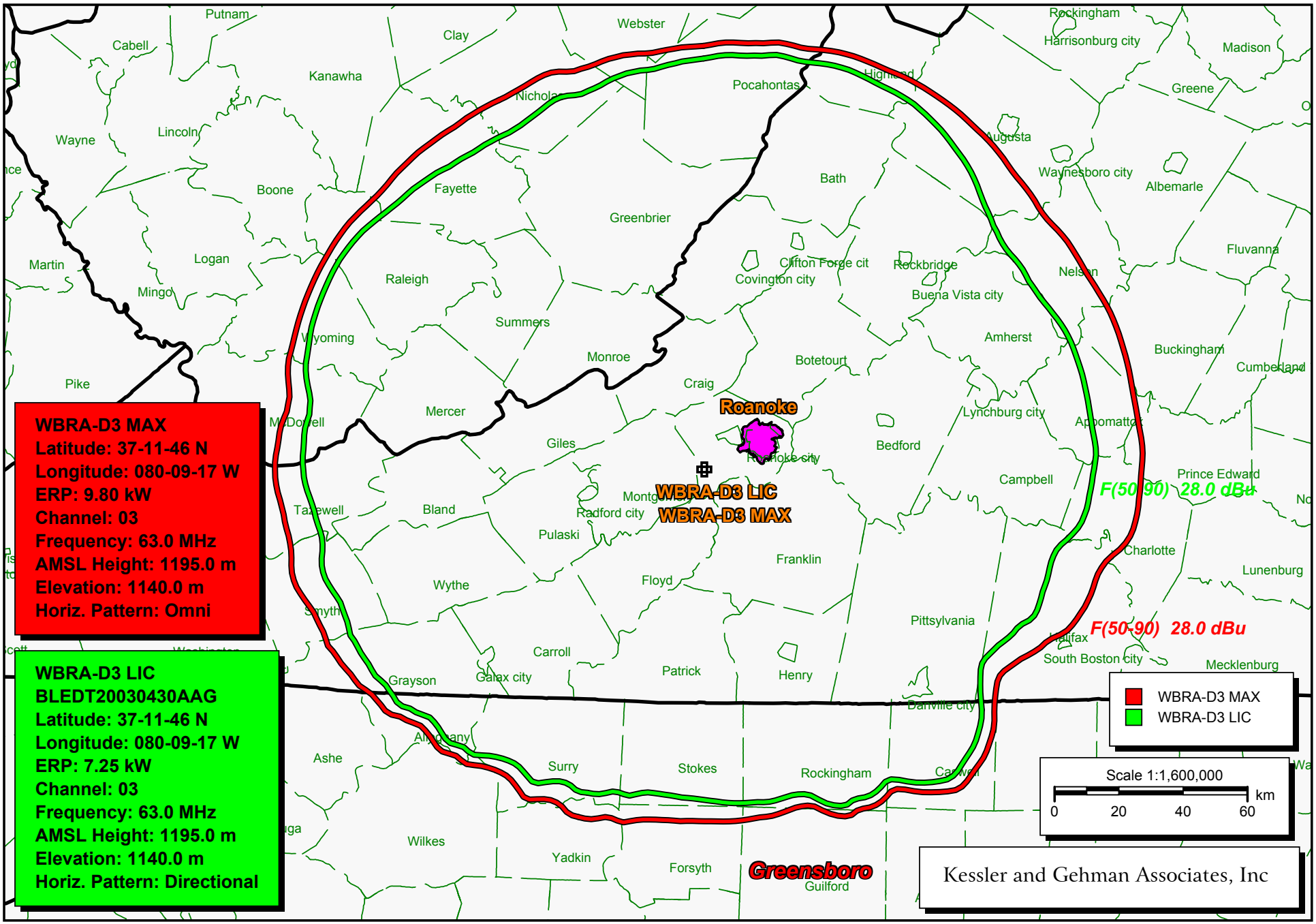
ROANOKE, VIRGINIA

20080616 **EXHIBIT 7**



WBRA-DT Channel 3 F(50,90) 35.0 dBuV/m Principal Community Contour

EXHIBIT 8



WBRA-D3 License (green) vs. WBRA-D3 Proposed (red) EXHIBIT 9

TV INTERFERENCE and SPACING ANALYSIS PROGRAM

Date: 06-13-2008 Time: 13:24:04

Record Selected for Analysis

WBRA-D3 USERRECORD-01 ROANOKE VA US
Channel 03 ERP 9.9 kW HAAT 616. m RCAMSL 01195 m
Latitude 037-11-46 Longitude 0080-09-17
Status APP Zone 2 Border
Dir Antenna Make usr Model USRPAT01 Beam tilt N Ref Azimuth 0.
Last update Cutoff date Docket
Comments
Applicant

Cell Size for Service Analysis 2.0 km/side

Distance Increments for Longley-Rice Analysis 1.00 km

Facility does not meet maximum height/power limits
Channel 3 ERP = 9.90 HAAT = 616.

Azimuth (Deg)	ERP (kW)	HAAT (m)	28.0 dBu F(50,90) (km)
0.0	9.547	665.5	130.9
45.0	4.544	699.5	124.2
90.0	3.446	764.6	124.0
135.0	8.489	561.2	122.6
180.0	6.706	359.7	105.7
225.0	9.344	498.5	118.9
270.0	6.194	697.8	127.6
315.0	6.977	684.4	128.3

Evaluation toward Class A Stations

No Spacing violations or contour overlap to Class A stations

Class A Evaluation Complete

SPACING VIOLATION FOUND BETWEEN STATION

WBRA-D3 03 ROANOKE VA USERRECORD01

and station

```
 SHORT TO: WBRA-TV  03 ROANOKE              VA BDTV      1674
 37 -11-46  080 -09-17
 Req. separation 273.6 Actual separation   0.0 Short 273.6 km


 Proposed facility OK to FCC Monitoring Stations

 Proposed facility OK toward West Virginia quite zone

 Proposed facility OK toward Table Mountian

 Proposed facility is beyond the Canadian coordination distance

 Proposed facility is beyond the Mexican coordination distance

 Proposed station is OK toward AM broadcast stations

**********************************************************************
                         Start of Interference Analysis


              Proposed Station
Channel     Call         City/State               ARN
   03      WBRA-D3    ROANOKE VA                 USERRECORD01

     Stations Potentially Affected by  Proposed Station

Chan   Call      City/State           Dist(km) Status  Application Ref. No.

%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%

     Analysis of Interference to Affected Station   1


Analysis of current record
Channel     Call           City/State        Application Ref. No.
   03      WBRA-D3    ROANOKE VA                USERRECORD-01

     Stations Potentially Affecting This Station

Chan   Call      City/State           Dist(km) Status  Application Ref. No.

 Total scenarios =   1


Result key:        1
Scenario        1  Affected station        1
Before Analysis

Results for:  3A VA ROANOKE              USERRECORD01           APP
   HAAT  616.0 m, ATV ERP    9.9 kW
                                    POPULATION   AREA (sq km)
   within Noise Limited Contour      1585989      47385.2
   not affected by terrain losses    1522186      44750.0
```

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

Potential Interfering Stations Included in above Scenario 1

##

FINISHED FINISHED FINISHED FINISHED FINISHED FINISHED

TV INTERFERENCE and SPACING ANALYSIS PROGRAM

Date: 06-13-2008 Time: 13:26:30

Record Selected for Analysis

WBRA-D3 USERRECORD-01 ROANOKE_2 VA US
Channel 03 ERP 9.9 kW HAAT 616. m RCAMSL 01195 m
Latitude 037-11-46 Longitude 0080-09-17
Status APP Zone 2 Border
Dir Antenna Make usr Model USRPAT01 Beam tilt N Ref Azimuth 0.
Last update Cutoff date Docket
Comments
Applicant

Cell Size for Service Analysis 2.0 km/side

Distance Increments for Longley-Rice Analysis 1.00 km

Facility does not meet maximum height/power limits
Channel 3 ERP = 9.90 HAAT = 616.

Azimuth (Deg)	ERP (kW)	HAAT (m)	28.0 dBu F(50,90) (km)
0.0	9.547	665.5	130.9
45.0	4.544	699.5	124.2
90.0	3.446	764.6	124.0
135.0	8.489	561.2	122.6
180.0	6.706	359.7	105.7
225.0	9.344	498.5	118.9
270.0	6.194	697.8	127.6
315.0	6.977	684.4	128.3

Evaluation toward Class A Stations

No Spacing violations or contour overlap to Class A stations

Class A Evaluation Complete

SPACING VIOLATION FOUND BETWEEN STATION

WBRA-D3 03 ROANOKE_2 VA USERRECORD01

and station

```
 SHORT TO: WBRA-TV  03 ROANOKE              VA BDTV      1674
 37 -11-46  080 -09-17
 Req. separation 273.6 Actual separation   0.0 Short 273.6 km


 Proposed facility OK to FCC Monitoring Stations

 Proposed facility OK toward West Virginia quite zone

 Proposed facility OK toward Table Mountian

 Proposed facility is beyond the Canadian coordination distance

 Proposed facility is beyond the Mexican coordination distance

 Proposed station is OK toward AM broadcast stations

**********************************************************************
                         Start of Interference Analysis


              Proposed Station
Channel     Call         City/State              ARN
   03      WBRA-D3    ROANOKE_2 VA               USERRECORD01

     Stations Potentially Affected by  Proposed Station

Chan   Call      City/State           Dist(km) Status  Application Ref. No.
 03   WBRA-TV  ROANOKE VA                 0.0  LIC    BDTV      -1674

%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%

     Analysis of Interference to Affected Station   1


Analysis of current record
Channel     Call           City/State        Application Ref. No.
   03      WBRA-TV    ROANOKE VA               BDTV      -1674

     Stations Potentially Affecting This Station

Chan   Call      City/State           Dist(km) Status  Application Ref. No.
 03   WBRA-D3  ROANOKE_2 VA               0.0  APP    USERRECORD-01

 Total scenarios =   2


Result key:        1
Scenario        1  Affected station        1
Before Analysis

Results for:  3A VA ROANOKE              BDTV      1674         LIC
   HAAT  618.0 m, ATV ERP    7.2 kW
                                  POPULATION   AREA (sq km)
```

```
   within Noise Limited Contour     1529076      44879.3
   not affected by terrain losses   1469233      42351.8
   lost to NTSC IX                        0          0.0
   lost to additional IX by ATV           0          0.0
   lost to ATV IX only                    0          0.0
   lost to all IX                         0          0.0

 Potential Interfering Stations Included in above Scenario     1


After Analysis

Results for:  3A VA ROANOKE              BDTV      1674         LIC
   HAAT  618.0 m, ATV ERP    7.2 kW
                                POPULATION   AREA (sq km)
   within Noise Limited Contour     1529076      44879.3
   not affected by terrain losses   1469233      42351.8
   lost to NTSC IX                        0          0.0
   lost to additional IX by ATV     1192456      30309.5
   lost to ATV IX only              1192456      30309.5
   lost to all IX                   1192456      30309.5

 Potential Interfering Stations Included in above Scenario     1

 3A VA ROANOKE_2            USERRECORD01           APP

 The following station failed the de minimis interference criteria.
  3D VA ROANOKE_2            USERRECORD01
 ERP    9.90 kW  HAAT   616.0 m  RCAMSL  1195.0 m
 Antenna usr USRPAT01

 Due to interference to the following station and scenario:     1
  3D VA ROANOKE              BDTV      1674
 ERP    7.25 kW  HAAT   618.0 m  RCAMSL  1195.0 m
 Antenna CDB 00000000039733

 Percent Service lost without proposal:      0.0  to BDTV      1674
 Percent Service lost with proposal:        81.2  to BDTV      1674


Result key:        2
Scenario        2  Affected station        1
Before Analysis

Results for:  3A VA ROANOKE              BDTV      1674         LIC
   HAAT  618.0 m, ATV ERP    7.2 kW
                                POPULATION   AREA (sq km)
   within Noise Limited Contour     1529076      44879.3
   not affected by terrain losses   1469233      42351.8
   lost to NTSC IX                        0          0.0
   lost to additional IX by ATV           0          0.0
   lost to ATV IX only                    0          0.0
   lost to all IX                         0          0.0

 Potential Interfering Stations Included in above Scenario     2
```

After Analysis

Results for: 3A VA ROANOKE BDTV 1674 LIC
HAAT 618.0 m, ATV ERP 7.2 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	1529076	44879.3
not affected by terrain losses	1469233	42351.8
lost to NTSC IX	0	0.0
lost to additional IX by ATV	1192456	30309.5
lost to ATV IX only	1192456	30309.5
lost to all IX	1192456	30309.5

Potential Interfering Stations Included in above Scenario 2

3A VA ROANOKE_2 USERRECORD01 APP

The following station failed the de minimis interference criteria.
3D VA ROANOKE_2 USERRECORD01
ERP 9.90 kW HAAT 616.0 m RCAMSL 1195.0 m
Antenna usr USRPAT01

Due to interference to the following station and scenario: 2
3D VA ROANOKE BDTV 1674
ERP 7.25 kW HAAT 618.0 m RCAMSL 1195.0 m
Antenna CDB 00000000039733

Percent Service lost without proposal: 0.0 to BDTV 1674
Percent Service lost with proposal: 81.2 to BDTV 1674

Proposed station is MX
3A VA ROANOKE_2 USERRECORD01 APP

Proposal MX with group in scenario 2 of station 1

##

Analysis of Interference to Affected Station 2

Analysis of current record

Channel	Call	City/State	Application Ref. No.
03	WBRA-D3	ROANOKE_2 VA	USERRECORD-01

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
03	WBRA-TV	ROANOKE VA	0.0	LIC	BDTV -1674

Total scenarios = 1

Result key: 3
Scenario 1 Affected station 2
Before Analysis

Results for: 3A VA ROANOKE_2 USERRECORD01 APP
HAAT 616.0 m, ATV ERP 9.9 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	1585989	47385.2
not affected by terrain losses	1522186	44750.0
lost to NTSC IX	0	0.0
lost to additional IX by ATV	1226925	31829.7
lost to ATV IX only	1226925	31829.7
lost to all IX	1226925	31829.7

Potential Interfering Stations Included in above Scenario 1

3A VA ROANOKE BDTV 1674 LIC

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