

TECHNICAL EXHIBIT
LPTV MINOR CHANGE APPLICATION
FOR CONSTRUCTION PERMIT
STATION W39BW (FACILITY ID 35137)
NEWPORT NEWS, VIRGINIA

OCTOBER 22, 2002

CH 39(+) 150 KW

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Technical Narrative

This technical exhibit supports a minor change application to modify low power television (LPTV) station W39BW on channel 39 at Newport News, Virginia (Facility ID 35137). According to the Federal Communications Commission (FCC) database, station W39BW is currently licensed to operate on channel 39 with a plus (+) carrier offset (BLTT-20000128ACD). A directional antenna (DA) system is employed. The maximum visual effective radiated power (ERP) is 50 kilowatts (kW). The antenna center of radiation is 128 meters (420 feet) above ground level (AGL), and 131 meters (430 feet) above mean sea level (AMSL). The transmitter site coordinates are 36-51-40, 76-21-12 (NAD-27).

Proposed Facilities

Station W39BW proposes to modify its operation by changing to a non-directional (ND) antenna system, increasing the ERP and reducing the antenna height. Although there is no proposed change in transmitter site, there is a small change to the coordinates due to tower registration. The FCC registration number for the supporting structure is 1047304 and the coordinates are 36-51-39, 76-21-13 (NAD-27). There will be no proposed change in the channel (39), carrier offset (plus), or city of assignment (Newport News, VA). It is proposed to install a Scala K723147 non-directional antenna system on the currently authorized tower. The antenna system is a panel type consisting of 10 stacked bays with 4 panels per bay. The proposed antenna system will be installed with the center of

radiation 115.8 meters (380 feet) AGL, and 118.9 meters (390 feet) AMSL (see Figure 1).
The proposed visual ERP will be 150 kW.

NTSC Allocation Considerations

A study has been conducted using the pertinent provisions of the FCC rules to assure that the proposal will not create prohibited interference with other authorized or pending analog (NTSC) full service TV, LPTV, Class A TV, and land mobile radio service (LMRS) stations. There are no LMRS reservations on pertinent channels in the area for protection from the proposed W39BW channel 39 operation. The proposed W39BW operation complies with the FCC's allocation standards with respect to all known analog assignments, except for those listed below.

W24OI, License, Ch.24, Virginia Beach, VA

WERI-LP, License, Ch.39(N), Keysville, VA

W39CO, License, Ch.39(-), Richmond, VA

WVBT(TV), License, Ch.43, Virginia Beach, VA

PRM, Ch.39(0), Richmond, VA, BPRM-20000717ACH

With respect to the 3 LPTV assignments noted above, interference calculations have been made using the procedures outlined in the FCC's OET-69 Bulletin and a 1 kilometer grid. Figure 3 shows the proposed W39BW operation causes no calculated interference to the 3 LPTV assignments. A waiver of the FCC rules is requested based on use of the OET-69 procedures.

With respect to the full service television assignment on channel 43 (WVBT), the proposed W39BW channel 39 operation will involve a short-spacing. The actual separation is 14.8 kilometers and the FCC's normal requirement is 32 kilometers. The FCC's OET-69 Bulletin does not consider an interference condition for the situation between the proposed W39BW operation and WVBT (ie, N-4).

Consideration has also been given to the intermodulation possibility between the proposed W39BW operation on channel 39 and the full service operation of WVBT on channel 43. The channels impacted by the intermodulation combination of channels 39 and 19 (ie, 2 X F1 – F2), are 34, 35, 36, 46, 47 and 48. The following is a list of the closest full service analog TV stations on the potentially intermodulation impacted channels. The bearing and distance from the W39BW site are provided.

<u>TV Station</u>	<u>Channel</u>	<u>Bearing</u>	<u>Distance</u>
New TV App., Raleigh, NC	34	237 deg.	236.1 km
WRLH-TV, Richmond, VA	35	301	139.4
WUNP-TV, Roanoke, NC	36	245	147.0
WVFX(TV), Clarksburg, WV	46	309	442.6
WRPX(TV), Rocky Mount, NC	47	243	184.8
WUPN-TV, Greensboro, NC	48	251	330.4

Except for stations WRLH-TV and WUNP-TV, all of the other analog TV stations are adequately spaced so that there would be no intermodulation interference impact to their service areas. The WRLH-TV predicted Grade B contour extends about 85.5 kilometers toward station W39BW. The proposed W39BW predicted 74 dBu contour extends about 30.5 kilometers toward station WRLH-TV. The actual separation (139.4 km) is greater than the required separation to avoid service area overlap (116 km). The WUNP-TV predicted Grade B contour extends about 79 kilometers toward W39BW. The proposed W39BW 74 dBu contour extends about 30.5 kilometers toward WUNP-TV. The actual separation (147 km) is greater than required separation to avoid service area overlap (109.5 km). Therefore, no intermodulation interference is expected to the WRLH-TV and WUNP-TV service areas. A waiver of the FCC rules is requested based on the above showing with respect to the intermodulation separations to WVBT.

Although the petition for rule making (PRM) filed by Television Capitol Corporation of Richmond for a new analog (NTSC) TV allotment on channel 39 at Richmond, Virginia (BPRM-20000717ACH) may not require protection at this time,

consideration has been given to the PRM. Interference calculations have been made using the procedures outlined in the FCC's OET-69 Bulletin and a 1 kilometer grid. Figure 4 shows the interference caused to the Richmond PRM service area from authorized full service TV, and pertinent DTV assignments and allotments. Figure 4 shows that the proposed W39BW operation causes new or unique interference to 3,523 people within the Richmond PRM service area. The proposed W39BW interference (3,523 people) represents 0.37% of the Richmond PRM service population (960,974 people). This complies with the FCC's 0.5% acceptable interference threshold. If necessary, a waiver of the FCC rules is respectfully requested based on use of the OET-69 procedures.

The W39BW site is more than 690 kilometers from the nearest point of the US/Canada border, and more than 1900 kilometers from the closest point of the Mexican border. The W39BW site is 259 kilometers south of the FCC's closest monitoring station at Laurel, Maryland. The W39BW site is more than 202 kilometers east of the National Radio Quiet Zone in Virginia/West Virginia. It is more than 2500 kilometers east of the Table Mountain Radio Quiet Zone in Colorado. The closest radio astronomy site operating on channel 37 is at Green Bank, West Virginia, approximately 353 kilometers northwest of the W39BW site. These distances are sufficient to not be a coordination concern.

DTV Allocation Considerations

Pertinent DTV allotments and assignments on channels 38, 39 and 40 have been examined using the procedures outlined in the FCC's OET-69 Bulletin.¹ Figure 5 shows the calculated interference caused by the proposed W39BW operation to pertinent DTV allotments and assignments. As shown on Figure 5, the proposed W39BW operation complies with the FCC's 0.5% acceptable interference threshold. If necessary, a waiver of the

¹ 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 1 km was employed. An Alpha based processor computer system was employed. The results have been found to be in very close agreement with the results of the FCC implementation of OET Bulletin No. 69.

FCC rules is respectfully requested based on use of the procedures outlined in the FCC's OET-69 Bulletin with respect to DTV assignments and allotments.

Radiofrequency Electromagnetic Field Exposure

The proposed W39BW facilities were evaluated in terms of potential radio frequency (RF) energy exposure at ground level to workers and the general public. A visual ERP of 150 kW with 10% aural power was assumed. A conservative relative field value of 0.3 (-10.5 dB) was assumed for the antenna's downward radiation (see Figure 2). The calculated power density at a point 2 meters (6.6 feet) above ground level is 0.0174 mW/cm^2 . This is less than 5% of the FCC's recommended limit of 0.42 mW/cm^2 for channel 39 for an "uncontrolled" environment. It is less than 1% of the FCC's recommended limit for a "controlled" environment.

Access to the transmitting site will be 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 scheduling work when the stations are at reduced power or shut down. The proposed W39BW operation appears to be otherwise categorically excluded from environmental processing as it complies with all the criteria for such an exclusion in Section 1.1306.

If there are questions concerning this technical exhibit, please communicate with the office of the undersigned.

John A. Lundin

du Treil, Lundin & Rackley, Inc.

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Sarasota, Florida 34237

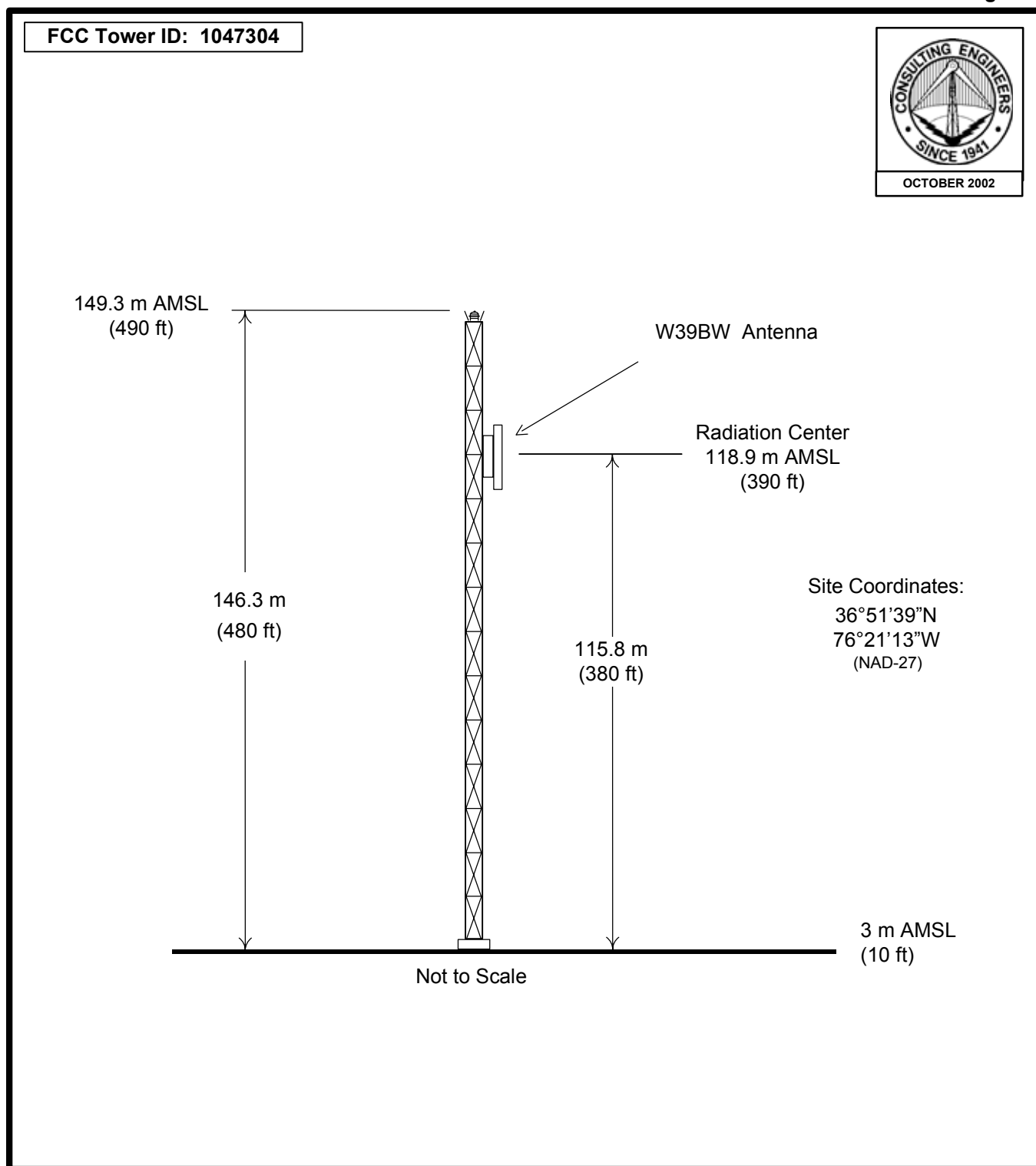
(941) 329-6000 voice

(941) 329-6030 fax

john@DLR.com e-mail

October 22, 2002

Figure 1

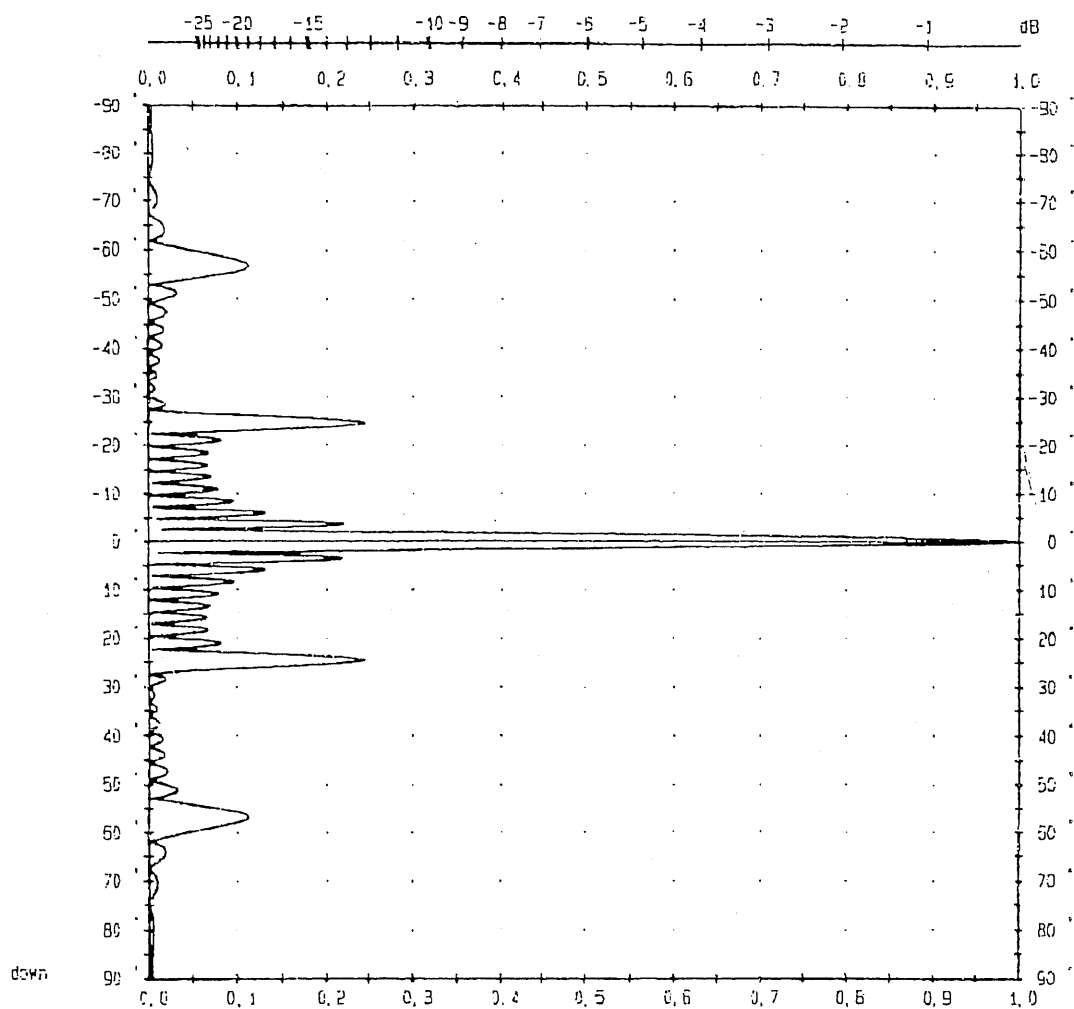


PROPOSED ANTENNA AND SUPPORTING STRUCTURE

STATION W39BW
NEWPORT NEWS, VIRGINIA
CH 39 150 KW

du Treil, Lundin & Rackley, Inc. Sarasota, Florida

Figure 2



frequency in MHz 521.250

amplitude in dB 0

center-freq in dB 14.09

WJHJ Television

SCALA	10 x 4 K723147 panel array	Typ Nr
Medford Oregon	Channel - 39.	61.
WE 30.8.2 15:45		

Study Date: 20021021

Study Start: 16:46:29

INTERFERENCE CAUSED TO LPTV ASSIGNMENTS FROM PROPOSED W39BW

CELL SIZE : 1.0 km

Using offset in determining thresholds

Per 6th Report & Order and FCC OET-69 Bulletin

W24OI 36-51-45 075-58-54 24(Z) 25.1 kW-DA 64 m AMSL 50.0 % 74.0 dBu

VIRGINIA BEACH VA

LIC BLTT-19960603JA

1.00	0.99	0.95	0.89	0.83	0.77	0.70	0.63	0.56	0.49	0.43	0.36
------	------	------	------	------	------	------	------	------	------	------	------

0.29	0.21	0.14	0.10	0.10	0.12	0.13	0.12	0.10	0.10	0.14	0.21
------	------	------	------	------	------	------	------	------	------	------	------

0.29	0.36	0.43	0.49	0.56	0.63	0.70	0.77	0.83	0.89	0.95	0.99
------	------	------	------	------	------	------	------	------	------	------	------

Ref Az: 260.0

Using DEFAULT vertical antenna pattern

	Area	Pop
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within Noise Limited Contour	329.0 sq km	204996
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not affected by terrain losses	329.0	204996
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W39BW-P 36-51-39 076-21-13 39(+) 150.0 kW 118.9 m AMSL 10.0 % 74.0 dBu

NEWPORT NEWS, VA

PROPOSAL

Using DEFAULT vertical antenna pattern

D/U Baseline: -9.00 dB

	Area	Pop
Interference	0 sq km	0 (0.0%)

W39CO 37-30-52 077-30-28 39(-) 31.0 kW-DA 211 m AMSL 50.0 % 74.0 dBu

RICHMOND VA

LIC BLTT-20020614AAM

1.00	1.00	1.00	1.00	1.00	0.98	0.94	0.89	0.83	0.76	0.69	0.60
------	------	------	------	------	------	------	------	------	------	------	------

0.48	0.34	0.23	0.19	0.22	0.29	0.32	0.29	0.22	0.19	0.23	0.34
------	------	------	------	------	------	------	------	------	------	------	------

0.48	0.60	0.69	0.76	0.83	0.89	0.94	0.98	1.00	1.00	1.00	1.00
------	------	------	------	------	------	------	------	------	------	------	------

Ref Az: 90.0

Using DEFAULT vertical antenna pattern

	Area	Pop
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within Noise Limited Contour	1320.4 sq km	580486
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not affected by terrain losses	1319.4	580409
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W39BW-P 36-51-39 076-21-13 39(+) 150.0 kW 118.9 m AMSL 10.0 % 74.0 dBu

NEWPORT NEWS, VA

PROPOSAL

Using DEFAULT vertical antenna pattern

D/U Baseline: 28.00 dB

	Area	Pop
Interference	0 sq km	0 (0.0%)

WERI-LP 37-02-24 078-29-02 39(N) 0.15 kW 215 m AMSL 50.0 % 74.0 dBu

KEYSVILLE VA

LIC BLTTL-19931020JK

Using DEFAULT vertical antenna pattern

	Area	Pop
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within Noise Limited Contour	52.9 sq km	1357
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not affected by terrain losses	52.9	1357
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W39BW-P 36-51-39 076-21-13 39(+) 150.0 kW 118.9 m AMSL 10.0 % 74.0 dBu

NEWPORT NEWS, VA

PROPOSAL

Using DEFAULT vertical antenna pattern

D/U Baseline: 45.00 dB

	Area	Pop
Interference	0 sq km	0 (0.0%)

Study end time: 16:47:15

Study Date: 20021021

Study Start: 17:04:41

INTERFERENCE RECEIVED BY RICHMOND PRM FROM PERTINENT SURROUNDING ASSIGNMENTS

CELL SIZE : 1.0 km

Using offset in determining thresholds

Per 6th Report & Order and FCC OET-69 Bulletin

NTSC-PRM 37-30-21 077-41-58 39(Z) 3500.0 kW-DA 385.5 m AMSL 50.0 % 64.1 dBu

RICHMOND VA

ADD BPRM-20000717ACH

0.38 0.28 0.25 0.28 0.38 0.54 0.71 0.87 0.98 1.00 0.95 0.83

0.66 0.48 0.31 0.20 0.18 0.18 0.19 0.19 0.19 0.19 0.19 0.18

0.18 0.20 0.31 0.48 0.66 0.83 0.95 1.00 0.98 0.87 0.71 0.54

Ref Az: 0.0

Using DEFAULT vertical antenna pattern

	Area	Pop
within Noise Limited Contour	14439.7 sq km	960974
not affected by terrain losses	14416.9	960450

WVIR-DT 37-59-00 078-28-54 32(N) 1000.0 kW-DA 528.4 m AMSL 10.0 % 40.5 dBu

CHARLOTTESVILLE VA 20632 651 DTVSERVICE: 651000 NTSCSERVICE: 649000

CP BPCDT-19991028AEI

0.98 0.94 0.88 0.83 0.82 0.82 0.82 0.85 0.90 0.96 0.99 0.99

0.98 0.98 0.98 0.98 0.99 1.00 1.00 0.99 0.96 0.93 0.92 0.92

0.92 0.94 0.97 0.99 1.00 0.99 0.99 0.98 0.98 0.98 0.99 0.99

Ref Az: 0.0

Using DEFAULT vertical antenna pattern

D/U Baseline: -35.00 dB

	Area	Pop
Interference	40.6 sq km	145

W39BW-P 36-51-39 076-21-13 39(+) 150.0 kW 118.9 m AMSL 10.0 % 74.0 dBu

NEWPORT NEWS, VA

PROPOSAL

Using DEFAULT vertical antenna pattern

D/U Baseline: 28.00 dB

	Area	Pop
Interference	278.5 sq km	6883

DWUNPT 36-17-28 077-50-10 39(0) 50.0 kW-DA 433 m AMSL 10.0 % 41.1 dBu
ROANOKE RAPIDS NC 19289 539 DTVSERVICE: 539000 NTSCSERVICE: 517000

DTVALT DTV ALLOTMENT

0.99	0.99	0.99	0.99	0.99	0.99	0.99	1.00	1.00	1.00	1.00	1.00
1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.99	0.99	0.99	0.99
0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99

Ref Az: 0.0

Using DEFAULT vertical antenna pattern

D/U Baseline: 34.00 dB

	Area	Pop
Interference	644.3 sq km	10892

DWJLAT 38-57-01 077-04-47 39(0) 1000.0 kW-DA 308 m AMSL 10.0 % 41.1 dBu
WASHINGTON DC 23331 6004 DTVSERVICE: 6004000 NTSCSERVICE: 6365000

DTVALT DTV ALLOTMENT

1.00	1.00	0.99	0.98	0.98	0.96	0.93	0.90	0.86	0.82	0.82	0.81
0.81	0.80	0.81	0.82	0.83	0.84	0.85	0.89	0.92	0.95	0.98	0.99
0.98	0.98	0.97	0.97	0.98	0.98	0.99	0.99	0.99	0.99	1.00	1.00

Ref Az: 0.0

Using DEFAULT vertical antenna pattern

D/U Baseline: 34.00 dB

	Area	Pop
Interference	1416.5 sq km	21570

Call Sign	No. cells	Interference Unique Area	Interference Unique Pop
WVIR-D	4	4.0 sq km	30
W39BW-P	201	199.2	3523 (0.37%)
DWUNPT	575	570.0	10323
DWJLAT	1255	1244.0	17860

Study end time: 17:06:18

Study Date: 20021021

Study Start: 16:38:09

INTERFERENCE CAUSED TO DTV ASSIGNMENTS & ALLOTMENTS FROM PROPOSED W39BW

CELL SIZE : 1.0 km

Using offset in determining thresholds

Per 6th Report & Order and FCC OET-69 Bulletin

DWTVZ 36-48-32 076-30-13 38(0) 226.8 kW-DA 283 m AMSL 90.0 % 41.0 dBu
NORFOLK VA 14070 1498 DTVSERVICE: 1498000 NTSCSERVICE: 1498000
DTVALT DTV ALLOTMENT
0.48 0.49 0.44 0.36 0.27 0.23 0.29 0.52 0.75 0.94 1.00 0.95
0.83 0.67 0.47 0.33 0.21 0.14 0.11 0.10 0.10 0.10 0.10 0.10
0.09 0.11 0.13 0.14 0.14 0.13 0.16 0.20 0.24 0.30 0.37 0.44

Ref Az: 0.0

Using DEFAULT vertical antenna pattern

	Area	Pop
within Noise Limited Contour	14083.7 sq km	1498591
not affected by terrain losses	14083.7	1498591

W39BW-P 36-51-39 076-21-13 39(+) 150.0 kW 118.9 m AMSL 10.0 % 74.0 dBu
NEWPORT NEWS, VA
PROPOSAL

Using DEFAULT vertical antenna pattern

D/U Baseline: -49.00 dB

	Area	Pop
Interference	0 sq km	0 (0.0%)

WTVZ-DT 36-48-31 076-30-13 38(N) 1000.0 kW-DA 363.5 m AMSL 90.0 % 41.0 dBu
NORFOLK VA 14070 1498 DTVSERVICE: 1498000 NTSCSERVICE: 1498000
CP MOD BMPCDT-20010730ABJ
0.81 0.89 0.97 1.00 0.97 0.89 0.81 0.82 0.89 0.89 0.83 0.92
0.95 0.86 0.78 0.70 0.55 0.32 0.13 0.06 0.03 0.04 0.03 0.06
0.13 0.32 0.55 0.70 0.78 0.86 0.95 0.92 0.83 0.89 0.89 0.82

Ref Az: 0.0

Using DEFAULT vertical antenna pattern

	Area	Pop
within Noise Limited Contour	26976.5 sq km	1742471
not affected by terrain losses	26976.5	1742471

W39BW-P 36-51-39 076-21-13 39(+) 150.0 kW 118.9 m AMSL 10.0 % 74.0 dBu
NEWPORT NEWS, VA
PROPOSAL

Using DEFAULT vertical antenna pattern

D/U Baseline: -49.00 dB

	Area	Pop
Interference	0 sq km	0 (0.0%)

DWUNPT 36-17-28 077-50-10 39(0) 50.0 kW-DA 433 m AMSL 90.0 % 41.1 dBu
ROANOKE RAPIDS NC 19289 539 DTVSERVICE: 539000 NTSCSERVICE: 517000
DTVALT DTV ALLOTMENT

0.99	0.99	0.99	0.99	0.99	0.99	0.99	1.00	1.00	1.00	1.00	1.00
1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.99	0.99	0.99	0.99
0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99

Ref Az: 0.0

Using DEFAULT vertical antenna pattern

USING NTSC GRADE B FOR SERVICE AREA

	Area	Pop
within Noise Limited Contour	19473.1 sq km	547956
not affected by terrain losses	19459.3	547771

W39BW-P 36-51-39 076-21-13 39(+) 150.0 kW 118.9 m AMSL 10.0 % 74.0 dBu
NEWPORT NEWS, VA
PROPOSAL

Using DEFAULT vertical antenna pattern

D/U Baseline: 2.00 dB

	Area	Pop
Interference	32.5 sq km	527 (0.1%)

WUNP-DT 36-17-27 077-50-11 39(N) 57.6 kW-DA 408 m AMSL 90.0 % 41.1 dBu
ROANOKE RAPIDS NC 19289 539 DTVSERVICE: 539000 NTSCSERVICE: 517000
LIC BLEDT-20020207ABH

0.64	0.64	0.63	0.61	0.59	0.58	0.57	0.58	0.61	0.65	0.70	0.76
0.82	0.87	0.91	0.95	0.98	0.99	1.00	1.00	0.98	0.95	0.92	0.88
0.83	0.77	0.71	0.66	0.62	0.58	0.57	0.57	0.59	0.61	0.63	0.64

Ref Az: 0.0

Using DEFAULT vertical antenna pattern

	Area	Pop
within Noise Limited Contour	17491.4 sq km	515381
not affected by terrain losses	17481.6	515242

W39BW-P 36-51-39 076-21-13 39(+) 150.0 kW 118.9 m AMSL 10.0 % 74.0 dBu
NEWPORT NEWS, VA
PROPOSAL

Using DEFAULT vertical antenna pattern

D/U Baseline: 2.00 dB

	Area	Pop
Interference	27.5 sq km	906 (0.17%)

WJLA-DT 38-57-01 077-04-47 39(N) 646.0 kW 327 m AMSL 90.0 % 41.1 dBu
WASHINGTON DC 23331 6004 DTVSERVICE: 6004000 NTSCSERVICE: 6365000
LIC BLCDDT-19981112KG

Using DEFAULT vertical antenna pattern

	Area	Pop
within Noise Limited Contour	23547.6 sq km	6370119
not affected by terrain losses	22799.0	6339537

W39BW-P 36-51-39 076-21-13 39(+) 150.0 kW 118.9 m AMSL 10.0 % 74.0 dBu
NEWPORT NEWS, VA

PROPOSAL

Using DEFAULT vertical antenna pattern

D/U Baseline: 2.00 dB

	Area	Pop
Interference	9.0 sq km	176 (0.003%)

WJLA-DT 38-57-01 077-04-47 39(N) 1000.0 kW-DA 327 m AMSL 90.0 % 41.1 dBu
WASHINGTON DC 23331 6004 DTVSERVICE: 6004000 NTSCSERVICE: 6365000
CP BPCDDT-19990706KE

0.99	0.96	0.79	0.69	0.86	0.89	0.71	0.66	0.86	0.98	0.96	0.79
0.69	0.86	0.89	0.70	0.66	0.86	0.98	0.96	0.79	0.69	0.86	0.89
0.70	0.66	0.86	0.98	0.95	0.79	0.72	0.88	0.87	0.66	0.64	0.86

Ref Az: 0.0

Using DEFAULT vertical antenna pattern

	Area	Pop
within Noise Limited Contour	23680.3 sq km	6369112
not affected by terrain losses	22876.8	6337929

W39BW-P 36-51-39 076-21-13 39(+) 150.0 kW 118.9 m AMSL 10.0 % 74.0 dBu
NEWPORT NEWS, VA

PROPOSAL

Using DEFAULT vertical antenna pattern

D/U Baseline: 2.00 dB

	Area	Pop
Interference	11.0 sq km	396 (0.006%)

DWJLAT 38-57-01 077-04-47 39(0) 1000.0 kW-DA 308 m AMSL 90.0 % 41.1 dBu
WASHINGTON DC 23331 6004 DTVSERVICE: 6004000 NTSCSERVICE: 6365000
DTVALT DTV ALLOTMENT

1.00	1.00	0.99	0.98	0.98	0.96	0.93	0.90	0.86	0.82	0.82	0.81
0.81	0.80	0.81	0.82	0.83	0.84	0.85	0.89	0.92	0.95	0.98	0.99
0.98	0.98	0.97	0.97	0.98	0.98	0.99	0.99	0.99	0.99	1.00	1.00

Ref Az: 0.0

Using DEFAULT vertical antenna pattern

USING NTSC GRADE B FOR SERVICE AREA

	Area	Pop
within Noise Limited Contour	26045.6 sq km	6515132
not affected by terrain losses	24765.9	6458854

W39BW-P 36-51-39 076-21-13 39(+) 150.0 kW 118.9 m AMSL 10.0 % 74.0 dBu
NEWPORT NEWS, VA
PROPOSAL

Using DEFAULT vertical antenna pattern

D/U Baseline: 2.00 dB

	Area	Pop
Interference	24.9 sq km	178 (0.003%)

WTKR-DR 36-48-56 076-28-00 40(N) 1000.0 kW 315 m AMSL 90.0 % 41.2 dBu
NORFOLK VA
ADD BPRM-20000414AAC

Using DEFAULT vertical antenna pattern

	Area	Pop
within Noise Limited Contour	29950.1 sq km	1762520
not affected by terrain losses	29950.1	1762520

W39BW-P 36-51-39 076-21-13 39(+) 150.0 kW 118.9 m AMSL 10.0 % 74.0 dBu
NEWPORT NEWS, VA
PROPOSAL

Using DEFAULT vertical antenna pattern

D/U Baseline: -48.00 dB

	Area	Pop
Interference	0 sq km	0 (0.0%)

WTKR-DT 36-48-31 076-30-13 40(N) 950.0 kW 380 m AMSL 90.0 % 41.2 dBu

NORFOLK VA

CP BPCDT-20001116ABE

Using DEFAULT vertical antenna pattern

	Area	Pop
within Noise Limited Contour	33316.5 sq km	1843524
not affected by terrain losses	33316.5	1843524

W39BW-P 36-51-39 076-21-13 39(+) 150.0 kW 118.9 m AMSL 10.0 % 74.0 dBu

NEWPORT NEWS, VA

PROPOSAL

Using DEFAULT vertical antenna pattern

D/U Baseline: -48.00 dB

	Area	Pop
Interference	0 sq km	0 (0.0%)

Study end time: 16:46:36