

**Larry H. Will, P.E.**

**Broadcast Engineering**

---

1055 Powderhorn Drive  
Glen Mills, PA 19342-9504

PH (610) 399-1826  
FAX (610) 399-0995  
E-Mail [lhwill@verizon.net](mailto:lhwill@verizon.net)

**SONSHINE FAMILY TELEVISION CORPORATION**

**LICENSEE OF WBPH-DT**

**DTV CHANNEL 9**

**BETHLEHEM, PENNSYLVANIA**

**FAC ID# 60850**

**FCC FILE # BPCDT-20080619ALA**

**APPLICATION FOR A MINOR AMENDMENT TO A PENDING  
APPLICATION TO INCREASE POWER AND CHANGE DIRECTIONAL  
ANTENNA**

**EXHIBIT 44 - ALLOCATIONS AND CANADIAN PROTECTION EXHIBIT**

**October 2, 2008**

**SONSHINE FAMILY TELEVISION CORPORATION**

**LICENSEE OF WBPH-DT**

**DTV CHANNEL 9**

**BETHLEHEM, PENNSYLVANIA**

**FAC ID# 60850**

**FCC FILE # BPCDT-20080619ALA**

**EXHIBIT 44**

**ALLOCATIONS AND CANADIAN PROTECTION EXHIBIT**

**ALLOCATION PROTECTION**

This application is for a minor modification of a pending application for a CP (BPCDT-20080619ALA) to specify an increase in ERP from 30 to 89 kW utilizing a revised directional antenna. This office, with assistance from Meintel, Sgrignoli, and Wallace, Inc., has completed a Longley-Rice analysis of the proposed digital operation on TV Channel 9 with an ERP of 89 kW and utilizing a PSI Model PSIVLP4BPHC2 directional antenna and that study shows that no prohibited interference greater than 0.5% population will occur to any other authorized or pending full service digital station or allotment as required by the decision in the Third Periodic Review in MB Docket 07-91. Attached, as Appendix 1, is a summary of the significant results of that study.

**CANADIAN PROTECTION**

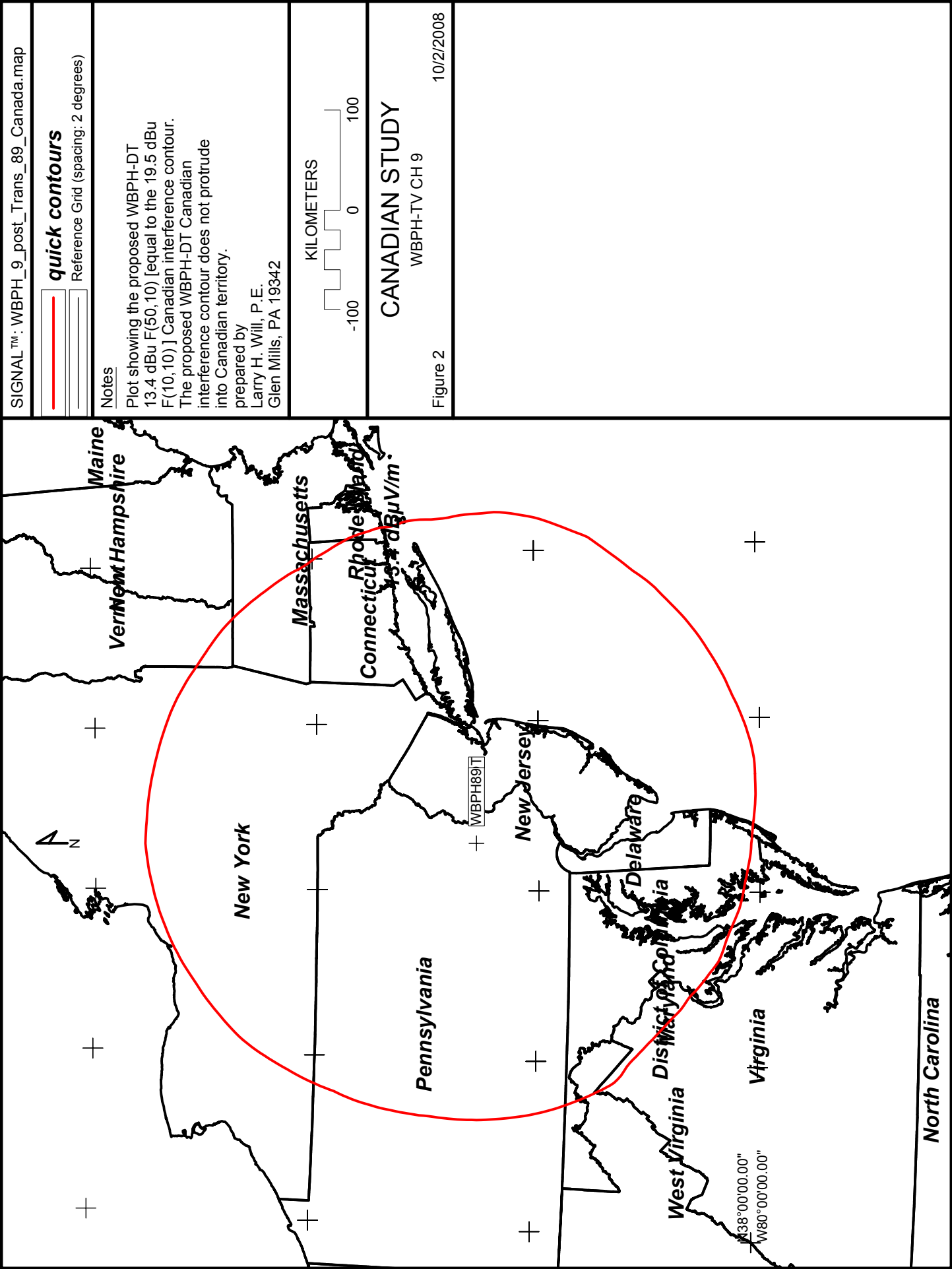
WBPH-TV currently has been coordinated with Canada at 30 kW ERP (DA) with a main lobe oriented to 100 degrees True.

A review of the allocation requirements of the US-Canadian digital L.O.U. shows that, for WBPH-DT, Appendix 2 spacing requirements are fully met. WBPH-DT is located at least 388 km from the nearest point of land in Canada. This distance exceeds all adjacent channel spacing requirements of the L.O.U. Appendix 2 and the tables of Paragraph 4 therein.

The nearest Canadian co-channel DTV allotment is for CFTO-TV, Toronto, ON at 43-38-33N, 079-23-15W or 472.77 km. This facility is a Canadian Class VU. From Table 4.2.8, the minimum required separation into a Canadian VHF Class VU is 276 km. Therefore the proposed WBPH-DT digital operation at 89 kW (DA) fully meets the requirements of the US-Canadian L.O.U. Table 4.2.8 VHF DTV into NTSC co-channel separation requirement.

In addition, Figure 2 attached hereto shows that the proposed operation of WBPH-DT at 89 kW results in the 13.4 dBu F(50,10) contour which is equivalent to the Canadian 19.5 Bu F(10,10) contour to be such as to not penetrate into Canadian territory at any point.

Thus the proposed operation of WBPH-DT at 89 kW (DA) fully complies with the requirements of both channel spacing and interference contour protection requirements of Appendix 2 of the US-Canada L.O.U.



## WBPH-DT MAXIMIZATION CP AMENDMENT APPENDIX 1

Percent allowed new interference: 0.000  
Percent allowed new interference to Class A: 0.000  
TW Census data selected 2000  
Post Transition Data Base Selected /space/software/cdbb/pt\_tvdb.sff

### TV INTERFERENCE and SPACING ANALYSIS PROGRAM

Date: 09-23-2008 Time: 15:19:18

Record Selected for Analysis

WBPH USERRECORD-01 BETHLEHEM PA US  
Channel 09 ERP 89. kW HAAT 278. m RCAMSL 00430 m  
Latitude 040-33-52 Longitude 0075-26-24  
Status APP Zone 1 Border  
Dir Antenna Make usr Model WBPH\_89KW\_ANT 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 9 ERP = 89.00 HAAT = 278.

| Azimuth<br>(Deg) | ERP<br>(kW) | HAAT<br>(m) | 36.0 dBu F(50,90)<br>(km) |
|------------------|-------------|-------------|---------------------------|
| 0.0              | 89.000      | 306.6       | 111.1                     |
| 45.0             | 89.000      | 304.4       | 110.9                     |
| 90.0             | 89.000      | 287.4       | 109.6                     |
| 135.0            | 44.235      | 267.0       | 102.6                     |
| 180.0            | 17.783      | 230.5       | 93.2                      |
| 225.0            | 13.398      | 208.1       | 89.3                      |
| 270.0            | 12.987      | 307.6       | 94.9                      |
| 315.0            | 30.043      | 313.9       | 102.0                     |

Evaluation toward Class A Stations

No Spacing violations or contour overlap to Class A stations

Class A Evaluation Complete

SPACING VIOLATION FOUND BETWEEN STATION

WBPH        09 BETHLEHEM                    PA USERRECORD01

and station

SHORT TO: WNJB        08 NEW BRUNSWICK                    NJ DTVPLN        DTVP0147  
40 -37-17 74 -30-15  
Req. separation => 20.0 <= 110.0 Actual separation 79.5 Short 30.5( 59.5)  
km

SHORT TO: WGAL        08 LANCASTER                    PA BLCT        19981009KE  
040-02- 4 0076-37- 8  
Req. separation => 9.0 <= 125.0 Actual separation 116.2 Short 8.8(107.2)  
km

SHORT TO: WUSA        09 WASHINGTON                    DC BMLCT        19981223KE  
038-57- 1 0077-04-47  
Req. separation 244.6 Actual separation 227.7 Short 16.9 km

SHORT TO: WUSA        09 WASHINGTON                    DC DTVPLN        DTVP0186  
38 -57-01 77 -04-47  
Req. separation 244.6 Actual separation 227.7 Short 16.9 km

SHORT TO: WUSA        09 WASHINGTON                    DC BMPCDT        20080425ABL  
038-57- 1 0077-04-47  
Req. separation 244.6 Actual separation 227.7 Short 16.9 km

SHORT TO: WWOR-TV 09 SECAUCUS                    NJ BPCT        20040225AAQ  
040-44-54 0073-59-10  
Req. separation 244.6 Actual separation 124.6 Short 120.0 km

SHORT TO: WWOR-TV 09 SECAUCUS                    NJ BLCT        19810514KF  
040-42-43 0074-00-49  
Req. separation 244.6 Actual separation 121.8 Short 122.8 km

SHORT TO: WWOR-TV 09 SECAUCUS                    NJ BSTA        20070406ABE  
040-44-54 0073-59-10  
Req. separation 244.6 Actual separation 124.6 Short 120.0 km

SHORT TO: WBPH-TV 09 BETHLEHEM PA DTVPLN DTVP0217  
 40 -33-52 75 -26-24  
 Req. separation 244.6 Actual separation 0.0 Short 244.6 km

SHORT TO: WCAU 10 PHILADELPHIA PA BLCT 20041119AEQ  
 040-02-30 0075-14-11  
 Req. separation => 9.0 <= 125.0 Actual separation 60.6 Short 64.4 ( 51.6)  
 km

Proposed facility OK to FCC Monitoring Stations

Proposed facility OK toward West Virginia quiet zone

Proposed facility OK toward Table Mountain

Proposed facility is within the Canadian coordination distance  
 Distance to border = 359.1km

Proposed facility is beyond the Mexican coordination distance

Proposed station is OK toward AM broadcast stations

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

| Channel | Call | City/State   | ARN          |
|---------|------|--------------|--------------|
| 09      | WBPH | BETHLEHEM PA | USERRECORD01 |

Stations Potentially Affected by Proposed Station

| Chan | Call    | City/State       | Dist(km) | Status | Application | Ref. No.     |
|------|---------|------------------|----------|--------|-------------|--------------|
| 08   | WNJB    | NEW BRUNSWICK NJ | 124.4    | CP MOD | BMPEDT      | -20070125ACC |
| 08   | WNJB    | NEW BRUNSWICK NJ | 79.2     | PLN    | DTVPLN      | -DTVP0147    |
| 08   | WICZ-TV | BINGHAMTON NY    | 171.1    | LIC    | BLCDDT      | -20060320AFC |
| 08   | WICZ-TV | BINGHAMTON NY    | 171.1    | PLN    | DTVPLN      | -DTVP0151    |
| 08   | WGAL    | LANCASTER PA     | 116.0    | CP MOD | BMPCDDT     | -20080616ABJ |
| 08   | WGAL    | LANCASTER PA     | 116.0    | PLN    | DTVPLN      | -DTVP0159    |
| 09   | WEDN    | NORWICH CT       | 294.2    | APP    | BPEDT       | -20080619AFA |
| 09   | WEDN    | NORWICH CT       | 294.2    | PLN    | DTVPLN      | -DTVP0185    |
| 09   | WEDN    | NORWICH CT       | 294.2    | CP     | BPEDT       | -20080206AAH |
| 09   | WUSA    | WASHINGTON DC    | 227.6    | PLN    | DTVPLN      | -DTVP0186    |
| 09   | WUSA    | WASHINGTON DC    | 227.6    | CP MOD | BMPCDDT     | -20080425ABL |
| 09   | WMUR-TV | MANCHESTER NH    | 417.3    | PLN    | DTVPLN      | -DTVP0210    |
| 09   | WMUR-TV | MANCHESTER NH    | 417.2    | CP     | BPCDDT      | -20080407ABS |
| 09   | WVER    | RUTLAND VT       | 394.0    | LIC    | BLEDT       | -20050608AGC |
| 09   | WVER    | RUTLAND VT       | 394.0    | PLN    | DTVPLN      | -DTVP0230    |
| 10   | WWSI-DR | ATLANTIC CITY NJ | 138.9    | APP    | BPRM        | -20080619ALT |
| 10   | WHTM-TV | HARRISBURG PA    | 130.7    | APP    | BPCDDT      | -20080620AGL |
| 10   | WHTM-TV | HARRISBURG PA    | 130.7    | PLN    | DTVPLN      | -DTVP0289    |
| 10   | WHTM-TV | HARRISBURG PA    | 130.7    | LIC    | BLCDDT      | -20040812AAH |

%%%

Only significant results are shown in Table 1

**TABLE 1 – SUMMARY OF SIGNIFICANT RESULTS**

| <b>STATION</b> | <b>FILE NO.</b>           | <b>INTERFERENCE</b> | <b>SCENARIO</b> |
|----------------|---------------------------|---------------------|-----------------|
| <b>WNJB</b>    | <b>DTVPLN-P0147</b>       | <b>0.4303%</b>      | <b>6</b>        |
| <b>WNJB</b>    | <b>BMPEDT-20070125ACC</b> | <b>0.0406%</b>      | <b>6</b>        |
| <b>WGAL</b>    | <b>BMPCT-20080616ABJ</b>  | <b>0.2852%</b>      | <b>33</b>       |
| <b>WGAL</b>    | <b>DTVPLN-P0159</b>       | <b>0.2910%</b>      | <b>33</b>       |
| <b>WEDN</b>    | <b>BPEDT-20080206AAH</b>  | <b>0.2274%</b>      | <b>1</b>        |
| <b>WUSA</b>    | <b>BMPCT-20080425ABL</b>  | <b>0.4288%</b>      | <b>5</b>        |
| <b>WUSA</b>    | <b>DTVPLN-P0186</b>       | <b>0.3621%</b>      | <b>5</b>        |
| <b>WWSI</b>    | <b>BPRM-20080619ALT</b>   | <b>0.0000%</b>      | <b>1</b>        |
| <b>WHTM</b>    | <b>BPCDT-20080620AGL</b>  | <b>0.0557%</b>      | <b>105</b>      |
| <b>WHTM</b>    | <b>DTVPLN-P0289</b>       | <b>0.0156%</b>      | <b>73</b>       |