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**PENN-JERSEY EDUCATIONAL RADIO CORPORATION**

**LICENSEE OF WDVR(FM)**

**CHANNEL 209**

**DELAWARE TOWNSHIP, NEW JERSEY**

**FCC Facility ID #52174**

**FCC FILE No. BLED-19990603KA**

**MINOR CHANGE**

**APPLICATION FOR MODIFICATION OF LICENSE**

**TO SPECIFY A NEW TOWER, HAAT, AND ERP**

**ENGINEERING EXHIBIT 15**

**March 22, 2007**

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**ENGINEERING EXHIBIT 15**

**ALLOCATIONS STUDY**

The instant minor application proposes to change the antenna supporting structure location and height, and the antenna C/R AMSL and HAAT, and the effective radiated power. Specifically we propose to relocate WDVR(FM) to a new 180 foot AG tower at 40-30-36 N, 074-57-34 W (NAD27), utilizing an ERP of 3.8 kW (V) and 0.0063 kW (H), with a C/R at 220.7 meters AMSL, 50 meters AG, 221 meters HAAT, and with an overall structure height of 54.9 meters. The proposed antenna is an ERI Model P300-3A-DA one wavelength spaced 3 bay elliptically polarized antenna with an elevation power gain of 3.0x.

Distances to contours were calculated using a 3 second terrain database and we request processing utilizing 3 second data. HAAT was determined using the EDX 3 second database and routines.

## **GAIN AND LOSS STUDY**

Figure 3 and Table 1 show the allocations situation. As reflected in Figure 4, the proposed modification to WDVR would result in a 60 dBu F(50,50) gain of 16,658 persons over an area of 150.6 km<sup>2</sup> and a loss of 504 persons over an area of 2.8 km<sup>2</sup>. The proposed population is 205,507 persons and the present population is 188,345 persons (Year 2000 census). The net population gain is 8.8 percent and the net population loss is 0.27 percent and thus this proposal qualifies as a minor change application.

This proposal does not create any NCE FM white area.

# PENN-JERSEY EDUCATIONAL RADIO CORPORATION

## LICENSEE OF WDVR(FM)

### CHANNEL 209

### DELAWARE TOWNSHIP, NEW JERSEY

TABLE 1

\*\*\*\*\* FM CHANNEL INTERFERENCE STUDY \*\*\*\*\*

Job title: WDVR  
 Proposed latitude: N 40 30 36.00  
 Proposed longitude: W 74 57 34.00  
 Proposed transmit antenna elevation(AMSL): 221.0 meters  
 Proposed maximum ERP: 3.8000 kW  
 Database file name: F:\FCC\_DATA\FM 11210.EDX  
 Protect maximum contours?: N

Proposed channel: 209A

| CH  | Call    | Record           | City        | ST      | Status    | Bear. | Dist. | Reqd.<br>Dist. | Result |
|---|---------|------------------|-------------|---------|-----------|-------|-------|----------------|--------|
| 212D  | WHCR-FM | 1708             | NEW YORK    | NY      | LIC       | 67.7  | 92.0  | 25.5           |        |
| Prop F(50,10)                               | 100 dBu | 2.3 km + WHCR-F  | F(50,50)    | 60 dBu  | 5.1 km =  | 7.4   |       |                |        |
| Prop F(50,50)                               | 60 dBu  | 25.5 km + WHCR-F | F(50,10)    | 100 dBu | 0.0 km =  | 25.5  |       |                |        |
| 262B  | WHTZ    | 1726             | NEWARK      | NJ      | LIC       | 71.8  | 86.5  | 15.0           |        |
| IF channel separation requirement = 15.0 km |         |                  |             |         |           |       |       |                |        |
| 262B  | WHTZ    | 1735             | NEWARK      | NJ      | LIC       | 71.8  | 86.5  | 15.0           |        |
| IF channel separation requirement = 15.0 km |         |                  |             |         |           |       |       |                |        |
| 212A  | WHPC    | 1755             | GARDEN CITY | NY      | LIC       | 77.6  | 118.2 | 24.1           |        |
| Prop F(50,10)                               | 100 dBu | 2.1 km + WHPC    | F(50,50)    | 60 dBu  | 13.0 km = | 15.1  |       |                |        |
| Prop F(50,50)                               | 60 dBu  | 24.1 km + WHPC   | F(50,10)    | 100 dBu | 0.0 km =  | 24.1  |       |                |        |
| 206A  | WFDU    | 1761             | TEANECK     | NJ      | LIC       | 59.8  | 100.9 | 25.7           |        |
| Prop F(50,10)                               | 100 dBu | 2.4 km + WFDU    | F(50,50)    | 60 dBu  | 21.0 km = | 23.4  |       |                |        |
| Prop F(50,50)                               | 60 dBu  | 25.7 km + WFDU   | F(50,10)    | 100 dBu | 0.0 km =  | 25.7  |       |                |        |
| 206B  | U.N.    | 1763             | NEW YORK    | NY      | VACANT    | 72.0  | 88.0  | 54.4           | 33.6   |
| Prop F(50,10)                               | 100 dBu | 2.2 km + U.N.    | F(50,50)    | 60 dBu  | 52.2 km = | 54.4  |       |                |        |
| Prop F(50,50)                               | 60 dBu  | 25.0 km + U.N.   | F(50,10)    | 100 dBu | 6.0 km =  | 31.0  |       |                |        |
| 206B1                                       | WNYU-FM | 1764             | NEW YORK    | NY      | LIC       | 66.0  | 96.5  | 31.2           |        |
| Prop F(50,10)                               | 100 dBu | 2.3 km + WNYU-F  | F(50,50)    | 60 dBu  | 28.9 km = | 31.2  |       |                |        |
| Prop F(50,50)                               | 60 dBu  | 25.6 km + WNYU-F | F(50,10)    | 100 dBu | 2.9 km =  | 28.5  |       |                |        |

|   |         |                  |                  |         |           |       |      |      |
|---|---------|------------------|------------------|---------|-----------|-------|------|------|
| 262B  | WHTZ    | 1790             | NEWARK           | NJ LIC  | 71.2      | 86.7  | 15.0 |      |
| IF channel separation requirement = 15.0 km |         |                  |                  |         |           |       |      |      |
| 212A  | WDFH    | 1861             | OSSINING         | NY LIC  | 51.4      | 121.0 | 23.0 |      |
| Prop F(50,10)                               | 100 dBu | 2.2 km + WDFH    | F(50,50)         | 60 dBu  | 7.5 km =  | 9.7   |      |      |
| Prop F(50,50)                               | 60 dBu  | 23.0 km + WDFH   | F(50,10)         | 100 dBu | 0.0 km =  | 23.0  |      |      |
| 208A  | WSJI    | 2174             | CHERRY HILL      | NJ LIC  | 179.4     | 72.3  | 55.9 | 16.3 |
| Prop F(50,10)                               | 54 dBu  | 39.1 km + WSJI   | F(50,50)         | 60 dBu  | 16.9 km = | 55.9  |      |      |
| Prop F(50,50)                               | 60 dBu  | 25.8 km + WSJI   | F(50,10)         | 54 dBu  | 24.9 km = | 50.7  |      |      |
| 209A  | WNJN-FM | 2177             | ATLANTIC CITY    | NJ LIC  | 168.6     | 118.8 | 80.4 | 38.4 |
| Prop F(50,10)                               | 40 dBu  | 69.7 km + WNJN-F | F(50,50)         | 60 dBu  | 10.7 km = | 80.4  |      |      |
| Prop F(50,50)                               | 60 dBu  | 22.6 km + WNJN-F | F(50,10)         | 40 dBu  | 36.3 km = | 59.0  |      |      |
| 210A  | WJPH    | 2194             | WOODBINE         | NJ LIC  | 176.2     | 136.8 | 45.1 |      |
| Prop F(50,10)                               | 54 dBu  | 37.6 km + WJPH   | F(50,50)         | 60 dBu  | 7.5 km =  | 45.1  |      |      |
| Prop F(50,50)                               | 60 dBu  | 24.9 km + WJPH   | F(50,10)         | 54 dBu  | 10.7 km = | 35.6  |      |      |
| 210A  | WNJM    | 2202             | MANAHAWKIN       | NJ LIC  | 145.4     | 109.2 | 36.0 |      |
| Prop F(50,10)                               | 54 dBu  | 27.1 km + WNJM   | F(50,50)         | 60 dBu  | 8.9 km =  | 36.0  |      |      |
| Prop F(50,50)                               | 60 dBu  | 18.4 km + WNJM   | F(50,10)         | 54 dBu  | 12.5 km = | 30.9  |      |      |
| 212A  | NEW     | 2228             | BEACHWOOD        | NJ APP  | 136.0     | 97.7  | 17.5 |      |
| Prop F(50,10)                               | 100 dBu | 0.0 km + NEW     | F(50,50)         | 60 dBu  | 8.4 km =  | 8.4   |      |      |
| Prop F(50,50)                               | 60 dBu  | 17.5 km + NEW    | F(50,10)         | 100 dBu | 0.0 km =  | 17.5  |      |      |
| 212A  | NEW     | 2232             | TOMS RIVER       | NJ APP  | 131.4     | 99.7  | 17.4 |      |
| Prop F(50,10)                               | 100 dBu | 0.0 km + NEW     | F(50,50)         | 60 dBu  | 14.3 km = | 14.3  |      |      |
| Prop F(50,50)                               | 60 dBu  | 17.4 km + NEW    | F(50,10)         | 100 dBu | 0.0 km =  | 17.4  |      |      |
| 212A  | NEW     | 2233             | SOUTH TOMS RIVER | NJ APP  | 133.8     | 89.4  | 17.4 |      |
| Prop F(50,10)                               | 100 dBu | 0.0 km + NEW     | F(50,50)         | 60 dBu  | 3.9 km =  | 3.9   |      |      |
| Prop F(50,50)                               | 60 dBu  | 17.4 km + NEW    | F(50,10)         | 100 dBu | 0.0 km =  | 17.4  |      |      |
| 210A  | WJPH    | 2243             | WOODBINE         | NJ APP  | 176.2     | 136.8 | 46.0 |      |
| Prop F(50,10)                               | 54 dBu  | 37.6 km + WJPH   | F(50,50)         | 60 dBu  | 8.4 km =  | 46.0  |      |      |
| Prop F(50,50)                               | 60 dBu  | 24.9 km + WJPH   | F(50,10)         | 54 dBu  | 11.9 km = | 36.8  |      |      |
| 212A  | WVPH    | 2246             | PISCATAWAY       | NJ LIC  | 84.3      | 41.4  | 23.4 | 18.0 |
| Prop F(50,10)                               | 100 dBu | 1.9 km + WVPH    | F(50,50)         | 60 dBu  | 6.8 km =  | 8.7   |      |      |
| Prop F(50,50)                               | 60 dBu  | 23.4 km + WVPH   | F(50,10)         | 100 dBu | 0.0 km =  | 23.4  |      |      |
| 212D  | WKNJ-FM | 2249             | UNION TOWNSHIP   | NJ LIC  | 73.0      | 64.1  | 24.9 | 39.3 |
| Prop F(50,10)                               | 100 dBu | 2.2 km + WKNJ-F  | F(50,50)         | 60 dBu  | 3.1 km =  | 5.3   |      |      |
| Prop F(50,50)                               | 60 dBu  | 24.9 km + WKNJ-F | F(50,10)         | 100 dBu | 0.0 km =  | 24.9  |      |      |
| 210B1                                       | WKCR-FM | 2252             | NEW YORK         | NY LIC  | 74.0      | 83.1  | 76.8 | 6.3  |
| Prop F(50,10)                               | 54 dBu  | 37.3 km + WKCR-F | F(50,50)         | 60 dBu  | 33.9 km = | 71.1  |      |      |
| Prop F(50,50)                               | 60 dBu  | 24.7 km + WKCR-F | F(50,10)         | 54 dBu  | 52.1 km = | 76.8  |      |      |
| 207D  | WCNJ    | 2258             | HAZLET           | NJ LIC  | 97.9      | 65.5  | 20.1 |      |
| Prop F(50,10)                               | 80 dBu  | 6.3 km + WCNJ    | F(50,50)         | 60 dBu  | 3.2 km =  | 9.5   |      |      |
| Prop F(50,50)                               | 60 dBu  | 20.1 km + WCNJ   | F(50,10)         | 80 dBu  | 0.0 km =  | 20.1  |      |      |
| 208A  | WSOU    | 2272             | SOUTH ORANGE     | NJ LIC  | 66.7      | 65.7  | 57.3 | 8.4  |
| Prop F(50,10)                               | 54 dBu  | 38.8 km + WSOU   | F(50,50)         | 60 dBu  | 18.5 km = | 57.3  |      |      |
| Prop F(50,50)                               | 60 dBu  | 25.6 km + WSOU   | F(50,10)         | 54 dBu  | 27.1 km = | 52.7  |      |      |
| 206A  | WWFM    | 2281             | TRENTON          | NJ LIC  | 136.7     | 38.4  | 17.6 | 20.8 |

|               |          |                        |          |         |           |       |              |
|---------------|----------|------------------------|----------|---------|-----------|-------|--------------|
| Prop F(50,10) | 100 dBu  | 0.0 km + WWFM          | F(50,50) | 60 dBu  | 15.7 km = | 15.7  |              |
| Prop F(50,50) | 60 dBu   | 17.6 km + WWFM         | F(50,10) | 100 dBu | 0.0 km =  | 17.6  |              |
| 207D          | WCNJ     | 2282 HAZLET            | NJ CP    |         | 100.6     | 67.7  | 19.8         |
| Prop F(50,10) | 80 dBu   | 6.2 km + WCNJ          | F(50,50) | 60 dBu  | 5.6 km =  | 11.8  |              |
| Prop F(50,50) | 60 dBu   | 19.8 km + WCNJ         | F(50,10) | 80 dBu  | 0.0 km =  | 19.8  |              |
| 212D          | WMSC     | 2285 UPPER MONTCLAIR   | NJ LIC   |         | 58.1      | 75.3  | 25.2         |
| Prop F(50,10) | 100 dBu  | 2.4 km + WMSC          | F(50,50) | 60 dBu  | 3.9 km =  | 6.3   |              |
| Prop F(50,50) | 60 dBu   | 25.2 km + WMSC         | F(50,10) | 100 dBu | 0.0 km =  | 25.2  |              |
| 212A          | 980805MB | 2288 PLAINFIELD        | NJ APP   |         | 75.2      | 46.6  | 24.5 22.1    |
| Prop F(50,10) | 100 dBu  | 2.1 km + 980805        | F(50,50) | 60 dBu  | 7.5 km =  | 9.6   |              |
| Prop F(50,50) | 60 dBu   | 24.5 km + 980805       | F(50,10) | 100 dBu | 0.0 km =  | 24.5  |              |
| 207A          | 990305MA | 2292 DOVER             | NJ APP   |         | 27.6      | 47.3  | 26.5 20.8    |
| Prop F(50,10) | 80 dBu   | 7.2 km + 990305        | F(50,50) | 60 dBu  | 11.1 km = | 18.3  |              |
| Prop F(50,50) | 60 dBu   | 23.0 km + 990305       | F(50,10) | 80 dBu  | 3.5 km =  | 26.5  |              |
| 209A          | WDVR     | 2294 DELAWARE TOWNSHIP | NJ LIC   |         | 75.2      | 0.1   | 107.1 -106.9 |
| Prop F(50,10) | 40 dBu   | 74.2 km + WDVR         | F(50,50) | 60 dBu  | 26.5 km = | 100.7 |              |
| Prop F(50,50) | 60 dBu   | 24.5 km + WDVR         | F(50,10) | 40 dBu  | 82.6 km = | 107.1 |              |
| 207A          | 990719MD | 2296 DOVER             | NJ APP   |         | 34.1      | 48.0  | 24.5 23.4    |
| Prop F(50,10) | 80 dBu   | 7.0 km + 990719        | F(50,50) | 60 dBu  | 7.1 km =  | 14.1  |              |
| Prop F(50,50) | 60 dBu   | 22.2 km + 990719       | F(50,10) | 80 dBu  | 2.3 km =  | 24.5  |              |
| 207A          | 990730ME | 2300 NETCONG           | NJ APP   |         | 27.6      | 47.3  | 28.2 19.1    |
| Prop F(50,10) | 80 dBu   | 7.2 km + 990730        | F(50,50) | 60 dBu  | 16.5 km = | 23.7  |              |
| Prop F(50,50) | 60 dBu   | 23.0 km + 990730       | F(50,10) | 80 dBu  | 5.2 km =  | 28.2  |              |
| 212D          | WKNJ-FM  | 2301 UNION TOWNSHIP    | NJ APP   |         | 70.7      | 62.4  | 25.2 37.2    |
| Prop F(50,10) | 100 dBu  | 2.3 km + WKNJ-F        | F(50,50) | 60 dBu  | 2.3 km =  | 4.6   |              |
| Prop F(50,50) | 60 dBu   | 25.2 km + WKNJ-F       | F(50,10) | 100 dBu | 0.0 km =  | 25.2  |              |
| 207A          | NEW      | 2326 LAKEWOOD          | NJ APP   |         | 129.0     | 81.2  | 19.7         |
| Prop F(50,10) | 80 dBu   | 5.4 km + NEW           | F(50,50) | 60 dBu  | 7.1 km =  | 12.5  |              |
| Prop F(50,50) | 60 dBu   | 17.4 km + NEW          | F(50,10) | 80 dBu  | 2.3 km =  | 19.7  |              |
| 207A          | 990719MD | 2330 DOVER             | NJ APP   |         | 31.0      | 48.7  | 25.1 23.6    |
| Prop F(50,10) | 80 dBu   | 7.0 km + 990719        | F(50,50) | 60 dBu  | 8.7 km =  | 15.7  |              |
| Prop F(50,50) | 60 dBu   | 22.3 km + 990719       | F(50,10) | 80 dBu  | 2.8 km =  | 25.1  |              |
| 207A          | 990730ME | 2332 NETCONG           | NJ APP   |         | 27.6      | 47.3  | 28.3 19.0    |
| Prop F(50,10) | 80 dBu   | 7.2 km + 990730        | F(50,50) | 60 dBu  | 16.8 km = | 24.1  |              |
| Prop F(50,50) | 60 dBu   | 23.0 km + 990730       | F(50,10) | 80 dBu  | 5.3 km =  | 28.3  |              |
| 209A          | WRDR     | 2348 FREEHOLD TOWNSHIP | NJ LIC   |         | 120.5     | 70.0  | 67.9 2.1     |
| Prop F(50,10) | 40 dBu   | 55.8 km + WPDQ-F       | F(50,50) | 60 dBu  | 12.1 km = | 67.9  |              |
| Prop F(50,50) | 60 dBu   | 17.5 km + WPDQ-F       | F(50,10) | 40 dBu  | 45.6 km = | 63.1  |              |
| 206A          | WWFM     | 2349 TRENTON           | NJ APP   |         | 136.7     | 38.4  | 17.6 20.8    |
| Prop F(50,10) | 100 dBu  | 0.0 km + WWFM          | F(50,50) | 60 dBu  | 10.6 km = | 10.6  |              |
| Prop F(50,50) | 60 dBu   | 17.6 km + WWFM         | F(50,10) | 100 dBu | 0.0 km =  | 17.6  |              |
| 212A          | WRPR     | 2350 MAHWAH            | NJ LIC   |         | 45.8      | 91.6  | 23.2         |
| Prop F(50,10) | 100 dBu  | 2.2 km + WRPR          | F(50,50) | 60 dBu  | 6.4 km =  | 8.6   |              |
| Prop F(50,50) | 60 dBu   | 23.2 km + WRPR         | F(50,10) | 100 dBu | 0.0 km =  | 23.2  |              |
| 207A          | WLJP     | 2367 MONROE            | NY LIC   |         | 35.5      | 118.9 | 28.4         |
| Prop F(50,10) | 80 dBu   | 7.1 km + WLJP          | F(50,50) | 60 dBu  | 19.0 km = | 26.1  |              |
| Prop F(50,50) | 60 dBu   | 22.7 km + WLJP         | F(50,10) | 80 dBu  | 5.7 km =  | 28.4  |              |

|   |         |                  |                  |           |            |       |       |      |
|---|---------|------------------|------------------|-----------|------------|-------|-------|------|
| 211A  | WXHD    | 2371             | MOUNT HOPE       | NY LIC    | 17.2       | 106.6 | 32.3  |      |
| Prop F(50,10)                               | 80 dBu  | 8.0 km + WXHD    | F(50,50)         | 60 dBu    | 22.6 km =  | 30.5  |       |      |
| Prop F(50,50)                               | 60 dBu  | 25.2 km + WXHD   | F(50,10)         | 80 dBu    | 7.1 km =   | 32.3  |       |      |
| 212A  | NEW     | 2421             | SPARATA          | NJ APP    | 28.9       | 63.8  | 22.7  |      |
| Prop F(50,10)                               | 100 dBu | 2.2 km + NEW     | F(50,50)         | 60 dBu    | 9.7 km =   | 11.9  |       |      |
| Prop F(50,50)                               | 60 dBu  | 22.7 km + NEW    | F(50,10)         | 100 dBu   | 0.0 km =   | 22.7  |       |      |
| 209B  | WFGB    | 2436             | KINGSTON         | NY LIC    | 22.0       | 188.0 | 155.3 | 32.7 |
| Prop F(50,10)                               | 40 dBu  | 76.2 km + WFGB   | F(50,50)         | 60 dBu    | 55.1 km =  | 131.3 |       |      |
| Prop F(50,50)                               | 60 dBu  | 23.6 km + WFGB   | F(50,10)         | 40 dBu    | 131.7 km = | 155.3 |       |      |
| 210A  | WOEL-FM | 2720             | ELKTON           | MD LIC    | 217.3      | 127.7 | 58.9  |      |
| Prop F(50,10)                               | 54 dBu  | 36.5 km + WOEL-F | F(50,50)         | 60 dBu    | 22.4 km =  | 58.9  |       |      |
| Prop F(50,50)                               | 60 dBu  | 24.1 km + WOEL-F | F(50,10)         | 54 dBu    | 33.5 km =  | 57.6  |       |      |
| 262B  | WPLY    | 2723             | MEDIA            | PA LIC    | 213.6      | 71.3  | 15.0  |      |
| IF channel separation requirement = 15.0 km |         |                  |                  |           |            |       |       |      |
| 206A  | WXHL    | 2733             | CHRISTIANA       | DE LIC    | 213.1      | 110.2 | 25.7  |      |
| Prop F(50,10)                               | 100 dBu | 2.4 km + WXHL    | F(50,50)         | 60 dBu    | 10.7 km =  | 13.1  |       |      |
| Prop F(50,50)                               | 60 dBu  | 25.7 km + WXHL   | F(50,10)         | 100 dBu   | 0.0 km =   | 25.7  |       |      |
| 207A  | WNJB-FM | 2740             | BRIDGETON        | NJ CP MOD | 188.3      | 117.8 | 32.1  |      |
| Prop F(50,10)                               | 80 dBu  | 8.4 km + WNJB-F  | F(50,50)         | 60 dBu    | 18.2 km =  | 26.7  |       |      |
| Prop F(50,50)                               | 60 dBu  | 26.3 km + WNJB-F | F(50,10)         | 80 dBu    | 5.7 km =   | 32.1  |       |      |
| 207A  | WNJB-FM | 2741             | BRIDGETON        | NJ LIC    | 188.3      | 117.8 | 32.1  |      |
| Prop F(50,10)                               | 80 dBu  | 8.4 km + WNJB-F  | F(50,50)         | 60 dBu    | 18.2 km =  | 26.7  |       |      |
| Prop F(50,50)                               | 60 dBu  | 26.3 km + WNJB-F | F(50,10)         | 80 dBu    | 5.7 km =   | 32.1  |       |      |
| 208D  | WDNR    | 2753             | CHESTER          | PA LIC    | 205.1      | 79.5  | 43.4  | 36.1 |
| Prop F(50,10)                               | 54 dBu  | 40.4 km + WDNR   | F(50,50)         | 60 dBu    | 3.0 km =   | 43.4  |       |      |
| Prop F(50,50)                               | 60 dBu  | 26.6 km + WDNR   | F(50,10)         | 54 dBu    | 4.2 km =   | 30.8  |       |      |
| 209A  | WGLS-FM | 2773             | GLASSBORO        | NJ LIC    | 197.8      | 95.0  | 93.2  | 1.9  |
| Prop F(50,10)                               | 40 dBu  | 77.5 km + WGLS-F | F(50,50)         | 60 dBu    | 15.7 km =  | 93.2  |       |      |
| Prop F(50,50)                               | 60 dBu  | 25.5 km + WGLS-F | F(50,10)         | 40 dBu    | 51.2 km =  | 76.7  |       |      |
| 211B  | WRTI    | 2799             | PHILADELPHIA     | PA LIC    | 204.3      | 57.4  | 59.5  | -2.1 |
| Prop F(50,10)                               | 80 dBu  | 8.5 km + WRTI    | F(50,50)         | 60 dBu    | 51.0 km =  | 59.5  |       |      |
| Prop F(50,50)                               | 60 dBu  | 26.5 km + WRTI   | F(50,10)         | 80 dBu    | 19.3 km =  | 45.8  |       |      |
| 206A  | WYBF    | 2802             | RADNOR TOWNSHIP  | PA LIC    | 215.1      | 61.6  | 24.4  | 37.1 |
| Prop F(50,10)                               | 100 dBu | 2.3 km + WYBF    | F(50,50)         | 60 dBu    | 11.2 km =  | 13.5  |       |      |
| Prop F(50,50)                               | 60 dBu  | 24.4 km + WYBF   | F(50,10)         | 100 dBu   | 0.0 km =   | 24.4  |       |      |
| 212A  | WXLV    | 2811             | SCHNECKSVILLE    | PA LIC    | 287.3      | 57.7  | 23.8  | 33.9 |
| Prop F(50,10)                               | 100 dBu | 2.2 km + WXLV    | F(50,50)         | 60 dBu    | 16.6 km =  | 18.8  |       |      |
| Prop F(50,50)                               | 60 dBu  | 23.8 km + WXLV   | F(50,10)         | 100 dBu   | 0.0 km =   | 23.8  |       |      |
| 207A  | WRDV    | 2813             | WARMINSTER       | PA LIC    | 200.4      | 36.1  | 29.1  | 7.0  |
| Prop F(50,10)                               | 80 dBu  | 8.2 km + WRDV    | F(50,50)         | 60 dBu    | 10.6 km =  | 18.8  |       |      |
| Prop F(50,50)                               | 60 dBu  | 25.8 km + WRDV   | F(50,10)         | 80 dBu    | 3.3 km =   | 29.1  |       |      |
| 212A  | WESS    | 2822             | EAST STROUDSBURG | PA LIC    | 341.7      | 57.0  | 15.1  |      |
| Prop F(50,10)                               | 100 dBu | 0.0 km + WESS    | F(50,50)         | 60 dBu    | 10.2 km =  | 10.2  |       |      |
| Prop F(50,50)                               | 60 dBu  | 15.1 km + WESS   | F(50,10)         | 100 dBu   | 0.0 km =   | 15.1  |       |      |
| 206A  | WXVU    | 2834             | VILLANOVA        | PA LIC    | 211.3      | 62.0  | 25.4  | 36.5 |

|   |          |                  |          |         |           |       |      |
|---|----------|------------------|----------|---------|-----------|-------|------|
| Prop F(50,10)                               | 100 dBu  | 2.4 km + WXVU    | F(50,50) | 60 dBu  | 7.5 km =  | 9.9   |      |
| Prop F(50,50)                               | 60 dBu   | 25.4 km + WXVU   | F(50,10) | 100 dBu | 0.0 km =  | 25.4  |      |
| 207A  | 971009ME | 2839 COATESVILLE | PA APP   | 233.6   | 90.5      | 29.2  |      |
| Prop F(50,10)                               | 80 dBu   | 7.7 km + 971009  | F(50,50) | 60 dBu  | 15.6 km = | 23.2  |      |
| Prop F(50,50)                               | 60 dBu   | 24.3 km + 971009 | F(50,10) | 80 dBu  | 4.9 km =  | 29.2  |      |
| 207A  | 980204MA | 2841 COATESVILLE | PA APP   | 233.6   | 90.5      | 27.8  |      |
| Prop F(50,10)                               | 80 dBu   | 7.7 km + 980204  | F(50,50) | 60 dBu  | 11.5 km = | 19.2  |      |
| Prop F(50,50)                               | 60 dBu   | 24.3 km + 980204 | F(50,10) | 80 dBu  | 3.6 km =  | 27.8  |      |
| 207A  | 980512MB | 2845 COATESVILLE | PA APP   | 233.5   | 90.4      | 27.6  |      |
| Prop F(50,10)                               | 80 dBu   | 7.7 km + 980512  | F(50,50) | 60 dBu  | 10.6 km = | 18.3  |      |
| Prop F(50,50)                               | 60 dBu   | 24.3 km + 980512 | F(50,10) | 80 dBu  | 3.3 km =  | 27.6  |      |
| 207A  | 980512MF | 2846 COATESVILLE | PA APP   | 233.6   | 90.7      | 29.2  |      |
| Prop F(50,10)                               | 80 dBu   | 7.7 km + 980512  | F(50,50) | 60 dBu  | 15.2 km = | 22.9  |      |
| Prop F(50,50)                               | 60 dBu   | 24.3 km + 980512 | F(50,10) | 80 dBu  | 4.9 km =  | 29.2  |      |
| 209A  | 980512MI | 2847 MORGANTOWN  | PA APP   | 241.8   | 88.8      | 87.9  | 0.9  |
| Prop F(50,10)                               | 40 dBu   | 79.1 km + 980512 | F(50,50) | 60 dBu  | 8.8 km =  | 87.9  |      |
| Prop F(50,50)                               | 60 dBu   | 25.5 km + 980512 | F(50,10) | 40 dBu  | 29.4 km = | 54.9  |      |
| 262B  | WPLY     | 2849 MEDIA       | PA LIC   | 204.9   | 57.1      | 15.0  |      |
| IF channel separation requirement = 15.0 km |          |                  |          |         |           |       |      |
| 207A  | WJCS     | 2856 ALLENTOWN   | PA LIC   | 278.6   | 41.2      | 28.1  | 13.0 |
| Prop F(50,10)                               | 80 dBu   | 7.5 km + WJCS    | F(50,50) | 60 dBu  | 15.6 km = | 23.1  |      |
| Prop F(50,50)                               | 60 dBu   | 23.8 km + WJCS   | F(50,10) | 80 dBu  | 4.3 km =  | 28.1  |      |
| 206A  | NEW      | 2894 NEW TRIPOLI | PA APP   | 288.3   | 74.7      | 24.0  |      |
| Prop F(50,10)                               | 100 dBu  | 2.3 km + NEW     | F(50,50) | 60 dBu  | 17.3 km = | 19.6  |      |
| Prop F(50,50)                               | 60 dBu   | 24.0 km + NEW    | F(50,10) | 100 dBu | 0.0 km =  | 24.0  |      |
| 262B  | WPLY     | 2901 MEDIA       | PA CP    | 204.9   | 57.1      | 15.0  |      |
| IF channel separation requirement = 15.0 km |          |                  |          |         |           |       |      |
| 208A  | WWPJ     | 2907 PEN ARGYL   | PA LIC   | 328.6   | 48.7      | 42.3  | 6.4  |
| Prop F(50,10)                               | 54 dBu   | 26.5 km + WWPJ   | F(50,50) | 60 dBu  | 15.8 km = | 42.3  |      |
| Prop F(50,50)                               | 60 dBu   | 18.1 km + WWPJ   | F(50,10) | 54 dBu  | 24.0 km = | 42.0  |      |
| 206A  | WSFX     | 2911 NANTICOKE   | PA LIC   | 311.6   | 115.6     | 23.3  |      |
| Prop F(50,10)                               | 100 dBu  | 2.1 km + WSFX    | F(50,50) | 60 dBu  | 5.7 km =  | 7.8   |      |
| Prop F(50,50)                               | 60 dBu   | 23.3 km + WSFX   | F(50,10) | 100 dBu | 0.0 km =  | 23.3  |      |
| 206A  | 951205MB | 2928 HAWLEY      | PA CP    | 350.3   | 101.6     | 20.3  |      |
| Prop F(50,10)                               | 100 dBu  | 2.0 km + 951205  | F(50,50) | 60 dBu  | 10.9 km = | 12.9  |      |
| Prop F(50,50)                               | 60 dBu   | 20.3 km + 951205 | F(50,10) | 100 dBu | 0.0 km =  | 20.3  |      |
| 210B  | WVIA-FM  | 2959 SCRANTON    | PA LIC   | 314.5   | 107.2     | 86.4  | 20.8 |
| Prop F(50,10)                               | 54 dBu   | 34.3 km + WVIA-F | F(50,50) | 60 dBu  | 42.8 km = | 77.1  |      |
| Prop F(50,50)                               | 60 dBu   | 22.9 km + WVIA-F | F(50,10) | 54 dBu  | 63.5 km = | 86.4  |      |
| 209B1                                       | WTMD     | 3414 TOWSON      | MD LIC   | 229.1   | 187.5     | 111.5 |      |
| Prop F(50,10)                               | 40 dBu   | 76.8 km + WTMD   | F(50,50) | 60 dBu  | 24.9 km = | 101.7 |      |
| Prop F(50,50)                               | 60 dBu   | 24.0 km + WTMD   | F(50,10) | 40 dBu  | 87.6 km = | 111.5 |      |
| 208B  | WITF-FM  | 3462 HARRISBURG  | PA LIC   | 264.2   | 163.0     | 106.0 |      |
| Prop F(50,10)                               | 54 dBu   | 38.9 km + WITF-F | F(50,50) | 60 dBu  | 53.6 km = | 92.5  |      |
| Prop F(50,50)                               | 60 dBu   | 25.5 km + WITF-F | F(50,10) | 54 dBu  | 80.5 km = | 106.0 |      |

\*\*\*\*\* End of channel 209 study \*\*\*\*\*







