

Minor Modification W291BV Facility ID No. 141400

This exhibit is for minor modification of translator W291BV Facility ID No. 141400. It specifies a change in primary station, antenna location and elevation, antenna make and model, and operating power.

Antenna Location

The proposed antenna is to be mounted on an existing tower identified by registration number 1012090 at 204 meters above ground. Below as **Figure 1** is an overlap and spacing study, which considered the proposed directional antenna pattern given in **Figure 2**, showing no prohibited contour overlap except that this proposal is within the protected contour of **second** adjacent station WMJI(FM) which is 2,100 meters from the proposed location; and **second** adjacent channel station WHLK(FM) which is co-located with this proposal.

73.1204 Complinace

We will demonstrate that a lack of population and/or other factors allow this proposal to be compliant with 74.1204. The process commonly called “Living Way”, allows for the use of D/U Analysis, also known as “signal strength ratio methodology” to be utilized to demonstrate compliance. In this instant case the facility to be protected is on a second or third adjacent channel and is to be afforded protection from signals 40 dB stronger than the protected facility presents in the location of the proposed translator antenna location.

Concerning WMJI(FM); In **Figure 3** a map showing the predicted 112 dBu signal contour of the protected facility at the proposed translator antenna location is given. This proposal can only cause predicted interference to the protected facility by having a signal exceeding 152 dBu in a habitable/populated area. Utilizing the line of sight equation shown in **Figure 4** it has been determined that a 152 dBu signal developed by 200 watts, as proposed, emitted by an antenna mounted at the proposed 204 meters above ground, will not reach ground level. With examination of the images in **Figure 5** it can be determined that no habitable space extends above this height within the confines of this contour. Thus the provisions of the rules section concerning prohibited overlap will not apply as it has been demonstrated that no actual interference will occur due to a lack of population and other factors as applied in this instant proposal.

Concerning WHLK; This proposal is co-located on the same tower, thus the 11.5 kw WHLK signal will always exceed that of the proposed translator.

Thus the provisions of the rules section concerning prohibited overlap will not apply as it has been demonstrated that no actual interference will occur due to a lack of population and other factors as applied in this instant proposal.

Fill-in and Minor Modification Status

This proposal is to serve as a fill-in translator for station WAKS(FM), Facility ID 49952, Akron, OH. The map of **Figure 6** demonstrates that the proposed 60 dBu contour is contained within that of the WAKS(FM) 60 dBu contour, and that the proposed 60 dBu contour overlaps that of the licensed facility.

International Compliance

The proposed 34 dBu F(50,10) interfering contour as shown in **Figure 6** extends north of the US-Canada border within Lake Erie, and exceeds the 60 km distance limit specified in 47 CFR § 74.1235(d)(3), but it clears all Canadian soil by at least 3.8 kilometers; therefore, the proposed operation would have no impact on any present or future Canadian FM broadcast facilities. The closest point of Canadian land to the contour is Pelee Island, Ontario.

It is understood that in the context of similar applications, Industry Canada has stated that no objection will be made as long as the 34dbu interfering contour falls entirely over water. Applicant asks that a formal notification be sent to Canada by the Commission. Applicant respectfully requests a waiver of the maximum 34dBu distance limit of 47 CFR §74.1235(d)(3), which would serve the public interest by permitting this proposed fill-in FM translator to operate at the proposed site with the maximum effective radiated power of .200kw.

RF Radiation Statement

The proposed facilities were evaluated in terms of potential radio frequency radiation exposure at ground level in accordance with OET Bulletin No. 65, "Evaluating Compliance With FCC-Specified Guidelines for Human Exposure to Radio frequency Radiation."

The proposed antenna system is a composite **ERI 100A-2F-DA two (2) element, full-wave spaced**; antenna mounted 204 meters above ground. As this element type is not modeled in any current computer program, for purposes of this analysis the FM Model program has been set to calculate values for a "worst case" type of antenna element array, "Ring Stub", operated with an effective radiated power of 0.200 Kilowatts in the Horizontal and Vertical plane. At 2 meters above the surface, at 50 meters from the base of the tower, this proposal will contribute worst case, 0.2 microwatts per square centimeter, or 0.02 percent of the allowable ANSI limit for controlled exposure, and 0.1 percent of the allowable limit for uncontrolled exposure. This figure is less than 0.10% of the applicable FCC exposure limit at all locations extending out from the base of the tower. Section 1.1307(b)(3) excludes applications when the calculated level is predicted to be less than 5% of the applicable exposure limit. It is therefore believed that this proposal is in compliance with OET Bulletin Number 65 as required by the Federal Communications Commission.

Further, the applicant will see that signs are posted in the vicinity of the tower, warning of potential radio frequency hazards at the site. The site itself is restricted from public access. The applicant will cooperate with other users of the tower to reduce power of the facility, or discontinue operation, as necessary to limit human exposure to levels less than specified by the Federal

Communications Commission should anyone be required to climb the tower for maintenance or inspection.

Figure 1. Overlap and Spacing Study

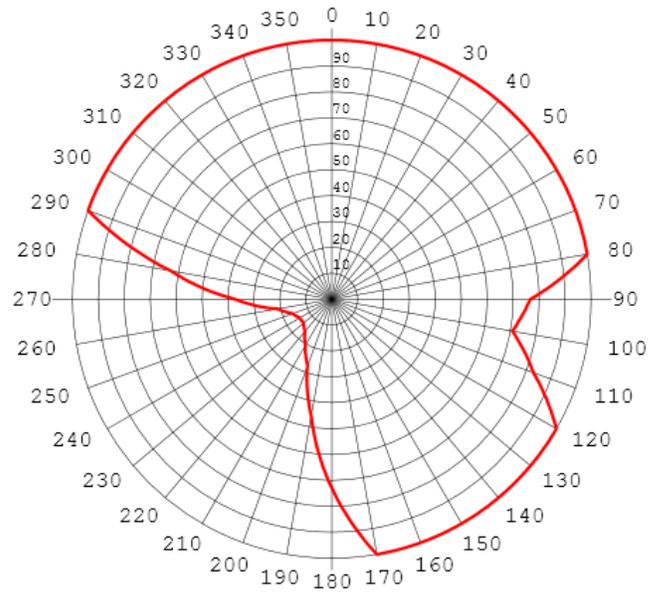
W291BV at WHLK ASR 1012090
Educational Media Foundation

REFERENCE CH# 291D - 106.1 MHz, Pwr= 0.2 kW DA, HAAT= 261.0 M, COR= 524 M DISPLAY DATES
41 22 44.8 N. Average Protected F(50-50)= 20.0 km DATA 01-22-15
81 43 11.5 W. Standard Directional SEARCH 01-22-15

| CH CITY | CALL | TYPE | ANT STATE | AZI. <-- | DIST FILE # | LAT. LNG. | Pwr (kW) HAAT (M) | INT (km) COR (M) | PRO (km) LICENSEE | *IN* (Overlap in km) | *OUT* |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|-------|--------------|-------------|--------------------------|--------------------------|----------------------|---------------------|------------------------------------|-------------------------|--------|
| 289B Cleveland | WMJI | LIC | CN OH | 75.3 | 2.10 BLH19940823KS | 41 23 02.0 81 41 44.0 | 16.000 344 | 6.1 603 | 71.1 Citicasters Licenses, Inc. | -24.0* | -70.8* |
| Grandfathered at 27Kw @ 274M Haat or Equivalent | | | | | | | | | | | |
| 293B Cleveland | WHLK | LIC | CN OH | 297.4 | 0.01 BLH19911002KE | 41 22 45.0 81 43 12.0 | 11.500 316 | 5.3 580 | 65.1 Citicasters Licenses, Inc. | -26.3* | -66.9* |
| 291D Solon | W291BV! | LIC | C OH | 68.7 | 17.59 BLFT20080125AEC | 41 26 11.0 81 31 25.0 | 0.013 88 | 21.7 371 | 6.5 Educational Media Foundati | -24.2 | -50.9 |
| 291B Mansfield | WVNO-FM | LIC | CN OH | 228.0 | 101.79 BLH19911030KB | 40 45 50.0 82 37 04.0 | 40.000 166 | 136.1 545 | 65.9 Johnny Appleseed Broadcast | -41.5* | 1.5 |
| 291A Niles | WBBG | LIC | CN OH | 98.7 | 81.39 BLH19880708KD | 41 15 52.0 80 45 35.0 | 3.000 100 | 79.2 397 | 26.2 Citicasters Licenses, Inc. | -14.8 | 0.7 |
| 238B Cleveland | WFHM-FM | LIC | CX OH | 69.7 | 20.37 BMLH20020812ABY | 41 26 32.0 81 29 28.0 | 31.000 189 | 0.0 489 | 0.0 Salem Media Group, Llc | 14.5R | 5.9M |
| 290B Detroit | WDMK | LIC | DCN MI | 315.2 | 172.63 BLH19840619CK | 42 28 16.0 83 12 03.0 | 20.000 221 | 76.3 429 | 64.6 Radio One Of Detroit, Llc | 74.9 | 63.2 |
| SPECIAL NEGOTIATED SHORT-SPACED ALLOCATION. | | | | | | | | | | | |
| 292B Sarnia | R29991 | DEL | ON | 343.5 | 177.38 163.1 | 42 54 31.0 82 20 19.0 | 50.000 150 | 78.1 338 | 65.0 | 77.5 | 66.8 |
| Special negotiated short spaced allotment | | | | | | | | | | | |
| 292B Sarnia | CHKS-FM | USE ? | CN ON | 341.7 | 174.60 161.2 | 42 52 09.0 82 23 38.0 | 50.000 124 | 74.9 314 | 62.0 | 78.0 | 67.1 |
| 6/17/2011: Data missing from database, entered 6/17/2011. Special negotiated short spaced allotment limited to 50kW ERP and 136.5 m HAAT along 298.5 degree azimuth toward Saginaw, MI 292B1, 26kW ERP and 128.5m HAAT along 236.5 degree azimuth toward Detroit, MI 290B, and 25kW and 128.5m HAAT along 222 degree azimuth toward Detroit, MI 294B(O) Accepted by Commission 980804 | | | | | | | | | | | |
| 290B Pittsburgh | WXDX-FM | LIC | CX PA | 124.0 | 173.71 BLH20080108AAF | 40 29 38.0 80 01 09.0 | 15.500 272 | 74.8 577 | 63.6 Capstar Tx Llc | 79.3 | 68.9 |
| 237A Norwalk | WLKR-FM | LIC | C OH | 262.3 | 79.25 BMLH20000615AFD | 41 16 49.0 82 39 27.0 | 3.300 91 | 0.0 312 | 0.0 Elyria-lorain Broadcasting | 9.5R | 69.8M |
| 291B Guelph | CKLAFM | OPE | CN ON | 26.8 | 263.54 207.8 | 43 29 09.0 80 14 43.0 | 50.000 121 | 171.1 439 | 64.4 | 71.1 | 116.6 |

Terrain database is NGDC 30 SEC, R= 73.215 qualifying spacings or FCC minimum spacings in KM, M= Margin in KM
Contour distances are on direct line to and from reference station. Reference Zone= , Co to 3rd adjacent.
All separation margins (if shown) include rounding. Call signs with exclamation marks need not be protected.
Ant Column: (D= DA Standard, Z= DA 73.215, N= Not DA 73.215, _= Omni), Polarization (C,H,V,E), Beamtilt(Y,N,X)
"*"affixed to 'IN' or 'OUT' values = site inside restricted contour.
< = Station meets FCC minimum distance spacing for its class.

Figure 2. Antenna Pattern



| Azi | Rel | dBk | kW | dB | Azi | Rel | dBk | kW | dB |
|-----|-------|--------|-------|-------|-----|-------|--------|-------|--------|
| 0 | 1.000 | -6.99 | 0.200 | 0.00 | 180 | 0.729 | -9.74 | 0.106 | -2.75 |
| 10 | 1.000 | -6.99 | 0.200 | 0.00 | 190 | 0.456 | -13.81 | 0.042 | -6.82 |
| 20 | 1.000 | -6.99 | 0.200 | 0.00 | 200 | 0.273 | -18.27 | 0.015 | -11.28 |
| 30 | 1.000 | -6.99 | 0.200 | 0.00 | 210 | 0.204 | -20.80 | 0.008 | -13.81 |
| 40 | 1.000 | -6.99 | 0.200 | 0.00 | 220 | 0.161 | -22.85 | 0.005 | -15.86 |
| 50 | 1.000 | -6.99 | 0.200 | 0.00 | 230 | 0.142 | -23.94 | 0.004 | -16.95 |
| 60 | 1.000 | -6.99 | 0.200 | 0.00 | 240 | 0.143 | -23.88 | 0.004 | -16.89 |
| 70 | 1.000 | -6.99 | 0.200 | 0.00 | 250 | 0.161 | -22.85 | 0.005 | -15.86 |
| 80 | 1.000 | -6.99 | 0.200 | 0.00 | 260 | 0.212 | -20.46 | 0.009 | -13.47 |
| 90 | 0.765 | -9.32 | 0.117 | -2.33 | 270 | 0.372 | -15.58 | 0.028 | -8.59 |
| 100 | 0.707 | -10.00 | 0.100 | -3.01 | 280 | 0.631 | -10.99 | 0.080 | -4.00 |
| 110 | 0.827 | -8.64 | 0.137 | -1.65 | 290 | 1.000 | -6.99 | 0.200 | 0.00 |
| 120 | 1.000 | -6.99 | 0.200 | 0.00 | 300 | 1.000 | -6.99 | 0.200 | 0.00 |
| 130 | 1.000 | -6.99 | 0.200 | 0.00 | 310 | 1.000 | -6.99 | 0.200 | 0.00 |
| 140 | 1.000 | -6.99 | 0.200 | 0.00 | 320 | 1.000 | -6.99 | 0.200 | 0.00 |
| 150 | 1.000 | -6.99 | 0.200 | 0.00 | 330 | 1.000 | -6.99 | 0.200 | 0.00 |
| 160 | 1.000 | -6.99 | 0.200 | 0.00 | 340 | 1.000 | -6.99 | 0.200 | 0.00 |
| 170 | 1.000 | -6.99 | 0.200 | 0.00 | 350 | 1.000 | -6.99 | 0.200 | 0.00 |

Rotation Angle = 0

Figure 3. Contour Map

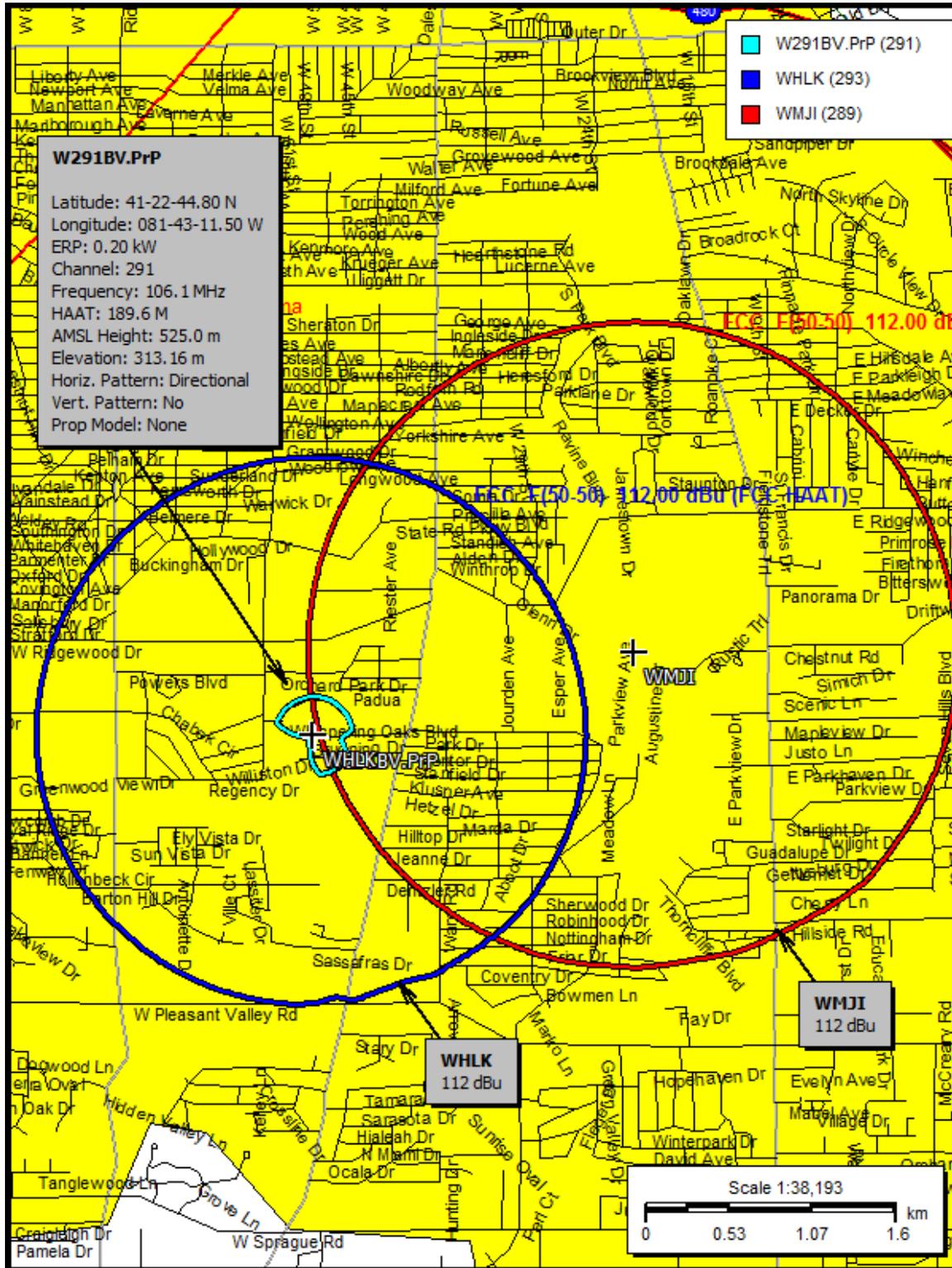


Figure 4. Signal Level at Distance

| | | | |
|-----------------------|--------------|-----|---------------------------------------------------|
| ERP | 0.2 | kw | |
| Calculated IX contour | 154 | dbu | |
| | | | |
| | | | Distance to interfering contour meters (hypot) |
| Relative Field | Downward ERP | | |
| 1 | 0.2000 | | 1.9793 |

Figure 5. Image of Proposed Support Tower



Figure 6. Map of 60 and 34 dBu Contours

