



**STATEMENT OF JOHN E. HIDLE, P.E.  
IN SUPPORT OF A PETITION TO AMEND  
THE DIGITAL TELEVISION TABLE OF ALLOTMENTS  
WRGB - SCHENECTADY, NEW YORK  
CH. 35 - 1000 kW - 392 meters HAAT**

Prepared for: WRGB LICENSEE, LLC

I am a Consulting Engineer, an employee in the firm of Carl T. Jones Corporation, with offices located in Springfield, Virginia. My education and experience are a matter of record with the Federal Communications Commission. I am a Licensed Professional Engineer in the Commonwealth of Virginia, No. 7418, and in New York State, No. 63418.

**GENERAL**

This office has been authorized by WRGB LICENSEE, LLC, Licensee of WRGB, channel 6, licensed to Schenectady, New York, to prepare this statement and the associated exhibits, in support of a Petition to Amend the Digital Television (DTV) Post Repack Table of Allotments, §73.622(i) of the FCC Rules. The petitioner requests that §73.622(i) of the Commission's Rules be modified in the following manner.

DTV channel 6 is the channel currently specified in the Digital Television Table of Allotments for WRGB. The petitioner requests herein to substitute DTV channel 35 for DTV channel 6. The proposed arrangement of allotments is made to enhance potential viewers' ability to more easily receive the broadcast signal of WRGB in the Albany-Schenectady-Troy market. The propagation problems associated with the use of low-VHF television channels (2-6) are well established both before and especially after the initial digital transition on June 12, 2009. These propagation and reception problems for channels 2-6 are severe enough for the FCC to have granted, in Zone I where the ERP

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limit is 10 kW, the use of Effective Radiated Powers (ERPs) of more than 3 times the Zone I limit, for several stations, and those stations continue to struggle with propagation problems and viewer complaints.

The licensee of WRGB has been dealing with these severe reception problems since the analog shutdown occurred in June 2009. Before the analog shutdown WRGB was simultaneously operating its digital facility on channel 39 but it was also shutdown on that date. Without the analog signal on channel 6 and the DTV signal on channel 39 WRGB really began to suffer these extreme reception problems, and has for the last 11 years, with very few options for any effective solutions.

For example, shortly after the DTV transition on June 12, 2009, both WRGB and another digital television station broadcasting on channel 6, WPVI-TV in Philadelphia, Pennsylvania, filed applications for new DTV construction permits seeking increases in ERP, in a mutual attempt to ameliorate the extremely serious reception deficiencies that both station's viewers were suffering, and to try to improve the likelihood of potential viewers being able to receive usable signals from the stations. WPVI-TV's application, BPCDT-20090617ADQ, and WRGB's application, BPCDT-20090622ABV, were both granted on March 16, 2011, each construction permit authorizing equal ERPs of 30.2 kW. Subsequently, WPVI-TV obtained authorization to relocate to a different tower 249 meters away, with a lower HAAT, and corresponding slight increase in ERP to 34.0 kW.

WRGB's license application, BLCDT-20110428ABT, was granted on August 15, 2011. WPVI-TV's license application, BLCDT-20111019ACJ, was granted on February 17, 2012. Even after WRGB's authorized ERP increase to 30.2 kW was implemented

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serious reception problems remained unresolved, most of which appear to result from a lack of sufficient signal level at the many viewers' locations. The instant proposal seeks to remedy this very well-known systemic problem in this instance for WRGB and to provide viewers with a significant improvement in reception capability.

It is common knowledge that the use and operation of digital television stations on low-VHF channels, especially channel 6, is an extremely frustrating endeavor. The attendant reception problems for the most part seem particularly intractable. One significant fundamental problem for low-VHF channels is the difficulty of locating receiving antennas that function properly on these channels. Even if low-VHF antennas were readily available the size is prohibitive. VHF antennas that were commonly available for analog reception exhibited very poor performance on the low-VHF channels. In one example, a stacked Yagi VHF antenna was measured and compared to a reference dipole antenna. The antenna's gain measured minus 4 dB on channel 4! This is obviously a significant impediment to digital broadcasting on los-VHF channels. Further, a search for VHF antennas that are currently available reveals that many manufacturers specify their VHF antennas only for channels 7-13.

An additional contributor to reception problems on channel 2-6 is the background noise which exists in that spectrum. Measurements suggest that the "Noise Limited Contour" signal level of 28 dBu is woefully inadequate to support reception on these channels. Even in the Appendix A Technical Data contained in the Sixth Report and Order (FCC 97-115), on page A-3 the Noise-Limited Services are listed for Low-VHF channels to be 37 dBu, for High-VHF channels to be 44 dBu and for UHF channels to be 50 dBu.

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Experiences related by technical personnel at low-VHF stations question even 37 dBu as a viable level for successful reception, and leads to serious questions about the future viability of low-VHF channels.

**ATSC 3.0 PERMISSIBLE DTV STANDARD**

A more immediate concern is the future migration to the ATSC 3.0 permissible standard for over-the-air DTV and the multitude of potential benefits expected to accrue. Probably the most anticipated benefit is the ability to reach portable and mobile devices that have become the essence of the ubiquitous smart-phone culture. However, these devices must be small to fit the culture. Therein lies the intractable problem for VHF DTV stations. Channel 2, for example, has a wavelength of 18 feet. A simple half-wave dipole antenna, used as a reference with 0 dB gain, must be 9 feet long. The DTV planning factors set forth in the Sixth Report and Order (FCC 97-115) call for an antenna with 4 dB of gain elevated to 30 feet above the ground to just barely receive a signal at a strength of 28 dBu. An antenna for channel 2 with 4 dB of gain would measure 9 feet wide and at least 18 to 20 feet long. Channel 6 requires an antenna more than 5 feet wide. Channel 13 requires an antenna more than two feet wide. Obviously the required size of antennas for VHF channels precludes their use in the smart-phone culture. Therefore WRGB will be precluded from participation in ATSC 3.0 serving the portable and mobile users of these services. WRGB's licensee has heretofore been unable to consider a truly effective solution to its reception problems, and sees absolutely no viable solution to the portable, mobile problem.

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WRGB's licensee now seeks an effective solution: change from its low-VHF channel 6 to a more suitable UHF channel. The proposal will result in more effective building penetration for indoor antenna reception and will also greatly improve the station's ability to provide ATSC 3.0 service, to the ultimate benefit of the station's viewers.

WRGB's licensee has determined that the proposed migration to channel 35 will be a favorable arrangement of allotments based on the enhanced signal levels that will be delivered to a majority of the population within the station's "protected service area". For example: The percentage of population receiving a signal greater than 100 dBu is 13.6% for channel 6, while the percentage that is predicted to receive a signal greater than 100 dBu is 96.8% for channel 35. The populations predicted for each channel and signal levels are shown in the attached map exhibits. The licensee fervently believes that changing WRGB to operate on channel 35 will solve a vast majority of its current reception problems and is therefore in the public interest.

**TECHNICAL STUDY**

An engineering study of all pertinent allotments, assignments, applications, construction permits and DTV licenses reveals that DTV channel 35 can be allotted to Schenectady, New York in lieu of channel 6, and meet all of the Commission's interference criteria. The allotment reference coordinates for DTV channel 35 at Schenectady, New York are: 42° 37' 31" N.L. and 74° 00' 36" W.L.<sup>1</sup> The Schenectady allotment reference site meets the allotment standards in §73.616(b) with respect to: the requirements set forth

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<sup>1</sup> The channel 35 DTV allotment reference coordinates are the same as the DTV channel 6 allotment reference coordinates (as defined in Section 73.622(i) of the FCC Rules) of the petitioner's licensed WRGB, Schenectady, New York tower site. BMLCDT-20110816AAF (See FCC tower registration number 1231726).

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in §73.616(f); the requirements set forth in §73.623(e), the requirement set forth in §73.623(f), and the principal community coverage requirements set forth in §73.625(a).

The petitioner proposes to install a new Dielectric model TFU-25JSC/VP-R P220 directional antenna for channel 35 at WRGB's current centerline height above mean sea level (AMSL) of 649 meters and 392 meters above average terrain. The proposed changes include the new directional antenna, an increase in ERP to 1000 kW and a change from channel 6 to channel 35. These changes affect the predicted Radio Frequency Radiation Safety considerations which have been revised. All other station parameters are to remain unchanged.

**ALLOCATION CONSIDERATIONS**

A study was performed, using the FCC's software, *tvstudy v2.2.5*, to determine if the instant petition to amend the post-transition Table is predicted to cause new prohibited interference to DTV stations, construction permits or DTV allotments. Results of the study indicate that the instant petition is predicted to cause no new interference greater than 0.5% to the populations served by any full-power DTV station, construction permit or allotment. See Appendix B. These results comply with the 0.5% limit for new post-repack interference set forth in §73.616(e) of the Commission's Rules.

***International DTV Considerations***

The WRGB site is located 366.6 kilometers from the nearest point on the US-Mexican border and the nearest Mexican co-channel station is 438.1 km away. There is vanishingly small probability that the current proposal will have any effect on any Mexican television facility.

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***Class A Television Allocation Considerations***

As required in Section 73.616(f) of the FCC's Rules, the study results contained in Appendix B showed that there is no Class A station that is predicted to be affected by the proposed re-allotment of WRGB to channel 35.

***Land Mobile and FM radio Considerations***

The *tvstudy* results found no Land Mobile violations for this site, and the site is deemed OK toward AM radio stations. .

**RADIO FREQUENCY IMPACT, SAFETY & STATEMENT OF COMPLIANCE**

The licensee is committed to the protection of station personnel and/or tower contractors working in the vicinity of the WRGB antenna and will reduce power or cease operation, when necessary, to ensure protection to personnel.

As shown in Appendix A the WRGB channel 35 request for Amendment of the Table of Allotments as proposed herein will operate with a maximum ERP of 1000 kW from an elliptically polarized directional transmitting antenna with a centerline height of 106 meters above ground level (AGL). Considering the elevation pattern submitted elsewhere in this submission, the vertical plane relative field factor is less than 0.100 at all depression angles greater than 9 degrees. The proposed WRGB channel 35 facility is predicted to produce a worst-case power density at two meters above ground level, at 37.9 meters from the tower base, of 18.429  $\mu\text{W}/\text{cm}^2$ , which is 4.61% of the FCC guideline value of 399.33  $\mu\text{W}/\text{cm}^2$  for an "uncontrolled" environment, and 0.922% of the FCC's guideline value for "controlled" environments. Therefore, pursuant to Section 1.1307(b)(3) of the FCC Rules, because the proposed facility would not exceed 5% of the uncontrolled and controlled

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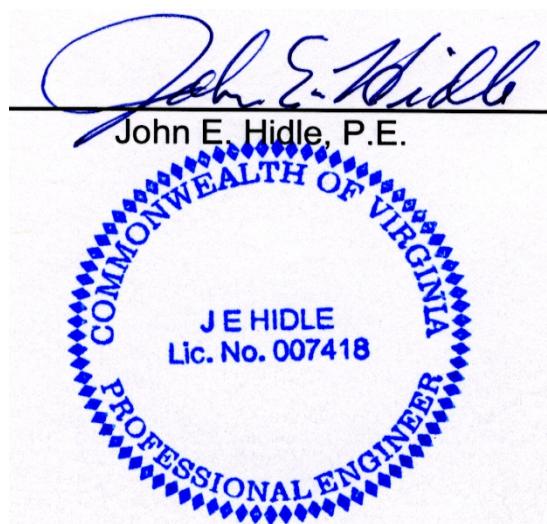
exposure limits, the proposal's power density contribution is considered insignificant.

Further, the Applicant will continue to cooperate/coordinate with other site users and reduce power and/or cease operation during times of service or maintenance of the transmission systems as necessary to avoid potentially harmful exposure to personnel. In light of the above, the proposed facility should be categorically excluded from RF environmental processing under Section 1.1307(b) of the Commission's Rules.

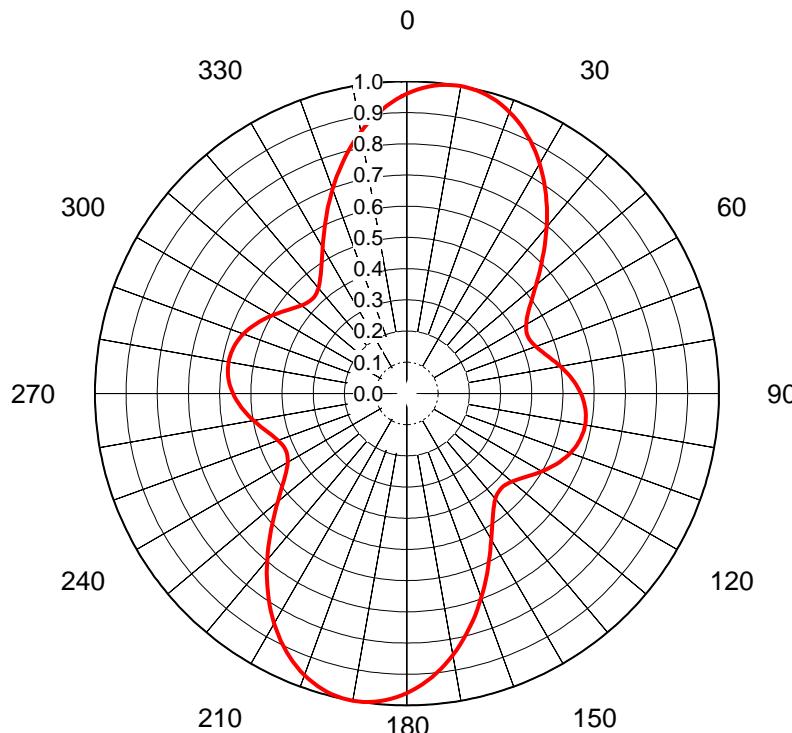
**SUMMARY**

It is submitted that the instant Petition to Amend the DTV Table of Allotments to substitute DTV channel 35 for DTV channel 6 in Schenectady, New York, as described herein, complies with the Rules, Regulations and relevant Policies of the Federal Communications Commission. This statement was prepared by me, or under my direct supervision, and its contents are believed to be true and correct to the best of my knowledge and belief.

DATED: November 21, 2020



# Dielectric®



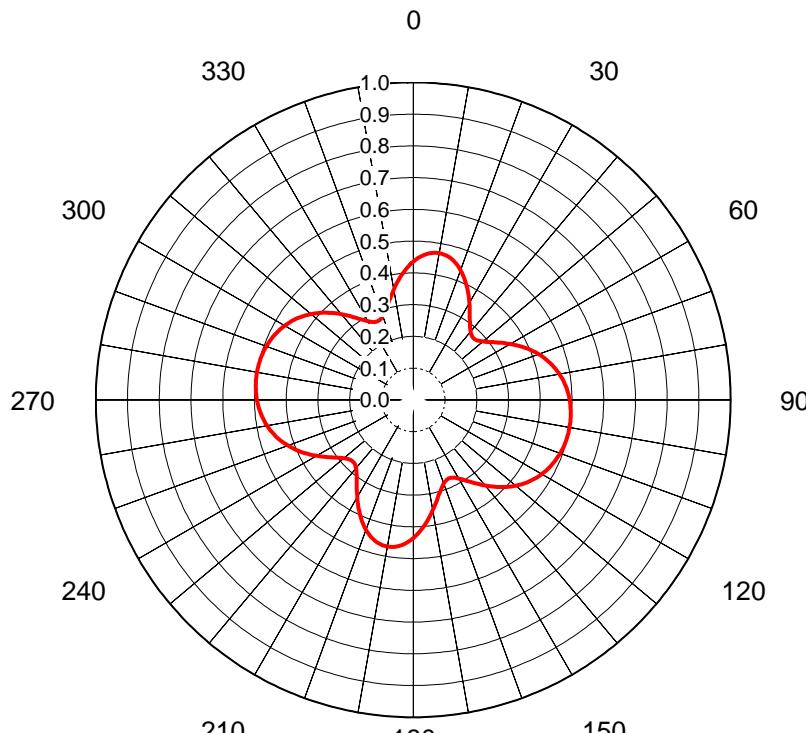
## AZIMUTH PATTERN Horizontal Polarization

In Free Space

|              |                     |
|--------------|---------------------|
| Proposal No. | C-71567-            |
| Date         | 7-Aug-20            |
| Call Letters | WRGB                |
| Channel      | 35                  |
| Frequency    | 599 MHz             |
| Antenna Type | TFU-25JSC/VP-R P220 |
| Gain         | 2.23 (3.48dB)       |
| Calculated   |                     |

| Deg | Value |
|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|
| 0   | 0.961 | 36  | 0.761 | 72  | 0.449 | 108 | 0.566 | 144 | 0.470 | 180 | 0.961 | 216 | 0.761 | 252 | 0.449 | 288 | 0.566 | 324 | 0.470 |
| 1   | 0.968 | 37  | 0.745 | 73  | 0.454 | 109 | 0.562 | 145 | 0.480 | 181 | 0.968 | 217 | 0.745 | 253 | 0.454 | 289 | 0.562 | 325 | 0.480 |
| 2   | 0.975 | 38  | 0.729 | 74  | 0.460 | 110 | 0.558 | 146 | 0.490 | 182 | 0.975 | 218 | 0.729 | 254 | 0.460 | 290 | 0.558 | 326 | 0.490 |
| 3   | 0.980 | 39  | 0.713 | 75  | 0.466 | 111 | 0.553 | 147 | 0.502 | 183 | 0.980 | 219 | 0.713 | 255 | 0.466 | 291 | 0.553 | 327 | 0.502 |
| 4   | 0.986 | 40  | 0.697 | 76  | 0.473 | 112 | 0.548 | 148 | 0.514 | 184 | 0.986 | 220 | 0.697 | 256 | 0.473 | 292 | 0.548 | 328 | 0.514 |
| 5   | 0.990 | 41  | 0.680 | 77  | 0.479 | 113 | 0.543 | 149 | 0.527 | 185 | 0.990 | 221 | 0.680 | 257 | 0.479 | 293 | 0.543 | 329 | 0.527 |
| 6   | 0.994 | 42  | 0.664 | 78  | 0.486 | 114 | 0.537 | 150 | 0.540 | 186 | 0.994 | 222 | 0.664 | 258 | 0.486 | 294 | 0.537 | 330 | 0.540 |
| 7   | 0.996 | 43  | 0.648 | 79  | 0.493 | 115 | 0.532 | 151 | 0.555 | 187 | 0.996 | 223 | 0.648 | 259 | 0.493 | 295 | 0.532 | 331 | 0.555 |
| 8   | 0.998 | 44  | 0.631 | 80  | 0.499 | 116 | 0.525 | 152 | 0.569 | 188 | 0.998 | 224 | 0.631 | 260 | 0.499 | 296 | 0.525 | 332 | 0.569 |
| 9   | 1.000 | 45  | 0.615 | 81  | 0.506 | 117 | 0.519 | 153 | 0.584 | 189 | 1.000 | 225 | 0.615 | 261 | 0.506 | 297 | 0.519 | 333 | 0.584 |
| 10  | 1.000 | 46  | 0.600 | 82  | 0.513 | 118 | 0.513 | 154 | 0.600 | 190 | 1.000 | 226 | 0.600 | 262 | 0.513 | 298 | 0.513 | 334 | 0.600 |
| 11  | 1.000 | 47  | 0.584 | 83  | 0.519 | 119 | 0.506 | 155 | 0.615 | 191 | 1.000 | 227 | 0.584 | 263 | 0.519 | 299 | 0.506 | 335 | 0.615 |
| 12  | 0.998 | 48  | 0.569 | 84  | 0.525 | 120 | 0.499 | 156 | 0.631 | 192 | 0.998 | 228 | 0.569 | 264 | 0.525 | 300 | 0.499 | 336 | 0.631 |
| 13  | 0.996 | 49  | 0.555 | 85  | 0.532 | 121 | 0.493 | 157 | 0.648 | 193 | 0.996 | 229 | 0.555 | 265 | 0.532 | 301 | 0.493 | 337 | 0.648 |
| 14  | 0.994 | 50  | 0.540 | 86  | 0.537 | 122 | 0.486 | 158 | 0.664 | 194 | 0.994 | 230 | 0.540 | 266 | 0.537 | 302 | 0.486 | 338 | 0.664 |
| 15  | 0.990 | 51  | 0.527 | 87  | 0.543 | 123 | 0.479 | 159 | 0.680 | 195 | 0.990 | 231 | 0.527 | 267 | 0.543 | 303 | 0.479 | 339 | 0.680 |
| 16  | 0.986 | 52  | 0.514 | 88  | 0.548 | 124 | 0.473 | 160 | 0.697 | 196 | 0.986 | 232 | 0.514 | 268 | 0.548 | 304 | 0.473 | 340 | 0.697 |
| 17  | 0.980 | 53  | 0.502 | 89  | 0.553 | 125 | 0.466 | 161 | 0.713 | 197 | 0.980 | 233 | 0.502 | 269 | 0.553 | 305 | 0.466 | 341 | 0.713 |
| 18  | 0.975 | 54  | 0.490 | 90  | 0.558 | 126 | 0.460 | 162 | 0.729 | 198 | 0.975 | 234 | 0.490 | 270 | 0.558 | 306 | 0.460 | 342 | 0.729 |
| 19  | 0.968 | 55  | 0.480 | 91  | 0.562 | 127 | 0.454 | 163 | 0.745 | 199 | 0.968 | 235 | 0.480 | 271 | 0.562 | 307 | 0.454 | 343 | 0.745 |
| 20  | 0.961 | 56  | 0.470 | 92  | 0.566 | 128 | 0.449 | 164 | 0.761 | 200 | 0.961 | 236 | 0.470 | 272 | 0.566 | 308 | 0.449 | 344 | 0.761 |
| 21  | 0.952 | 57  | 0.461 | 93  | 0.569 | 129 | 0.444 | 165 | 0.777 | 201 | 0.952 | 237 | 0.461 | 273 | 0.569 | 309 | 0.444 | 345 | 0.777 |
| 22  | 0.944 | 58  | 0.454 | 94  | 0.572 | 130 | 0.440 | 166 | 0.793 | 202 | 0.944 | 238 | 0.454 | 274 | 0.572 | 310 | 0.440 | 346 | 0.793 |
| 23  | 0.934 | 59  | 0.447 | 95  | 0.574 | 131 | 0.436 | 167 | 0.808 | 203 | 0.934 | 239 | 0.447 | 275 | 0.574 | 311 | 0.436 | 347 | 0.808 |
| 24  | 0.924 | 60  | 0.441 | 96  | 0.576 | 132 | 0.433 | 168 | 0.823 | 204 | 0.924 | 240 | 0.441 | 276 | 0.576 | 312 | 0.433 | 348 | 0.823 |
| 25  | 0.913 | 61  | 0.437 | 97  | 0.578 | 133 | 0.431 | 169 | 0.837 | 205 | 0.913 | 241 | 0.437 | 277 | 0.578 | 313 | 0.431 | 349 | 0.837 |
| 26  | 0.902 | 62  | 0.433 | 98  | 0.579 | 134 | 0.429 | 170 | 0.851 | 206 | 0.902 | 242 | 0.433 | 278 | 0.579 | 314 | 0.429 | 350 | 0.851 |
| 27  | 0.890 | 63  | 0.431 | 99  | 0.580 | 135 | 0.429 | 171 | 0.864 | 207 | 0.890 | 243 | 0.431 | 279 | 0.580 | 315 | 0.429 | 351 | 0.864 |
| 28  | 0.877 | 64  | 0.429 | 100 | 0.580 | 136 | 0.429 | 172 | 0.877 | 208 | 0.877 | 244 | 0.429 | 280 | 0.580 | 316 | 0.429 | 352 | 0.877 |
| 29  | 0.864 | 65  | 0.429 | 101 | 0.580 | 137 | 0.431 | 173 | 0.890 | 209 | 0.864 | 245 | 0.429 | 281 | 0.580 | 317 | 0.431 | 353 | 0.890 |
| 30  | 0.851 | 66  | 0.429 | 102 | 0.579 | 138 | 0.433 | 174 | 0.902 | 210 | 0.851 | 246 | 0.429 | 282 | 0.579 | 318 | 0.433 | 354 | 0.902 |
| 31  | 0.837 | 67  | 0.431 | 103 | 0.578 | 139 | 0.437 | 175 | 0.913 | 211 | 0.837 | 247 | 0.431 | 283 | 0.578 | 319 | 0.437 | 355 | 0.913 |
| 32  | 0.823 | 68  | 0.433 | 104 | 0.576 | 140 | 0.441 | 176 | 0.924 | 212 | 0.823 | 248 | 0.433 | 284 | 0.576 | 320 | 0.441 | 356 | 0.924 |
| 33  | 0.808 | 69  | 0.436 | 105 | 0.574 | 141 | 0.447 | 177 | 0.934 | 213 | 0.808 | 249 | 0.436 | 285 | 0.574 | 321 | 0.447 | 357 | 0.934 |
| 34  | 0.793 | 70  | 0.440 | 106 | 0.572 | 142 | 0.454 | 178 | 0.944 | 214 | 0.793 | 250 | 0.440 | 286 | 0.572 | 322 | 0.454 | 358 | 0.944 |
| 35  | 0.777 | 71  | 0.444 | 107 | 0.569 | 143 | 0.461 | 179 | 0.952 | 215 | 0.777 | 251 | 0.444 | 287 | 0.569 | 323 | 0.461 | 359 | 0.952 |

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## AZIMUTH PATTERN Vertical Polarization

In Free Space

|              |                     |
|--------------|---------------------|
| Proposal No. | C-71567-            |
| Date         | 7-Aug-20            |
| Call Letters | WRGB                |
| Channel      | 35                  |
| Frequency    | 599 MHz             |
| Antenna Type | TFU-25JSC/VP-R P220 |
| Gain         | 1.53 (1.84dB)       |
| Calculated   |                     |

| Deg | Value |
|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|
| 0   | 0.435 | 36  | 0.303 | 72  | 0.432 | 108 | 0.495 | 144 | 0.323 | 180 | 0.435 | 216 | 0.303 | 252 | 0.432 | 288 | 0.495 | 324 | 0.323 |     |       |     |       |
| 1   | 0.442 | 37  | 0.297 | 73  | 0.437 | 109 | 0.494 | 145 | 0.316 | 181 | 0.442 | 217 | 0.297 | 253 | 0.437 | 289 | 0.494 | 325 | 0.316 |     |       |     |       |
| 2   | 0.447 | 38  | 0.290 | 74  | 0.442 | 110 | 0.493 | 146 | 0.309 | 182 | 0.447 | 218 | 0.290 | 254 | 0.442 | 290 | 0.493 | 326 | 0.309 |     |       |     |       |
| 3   | 0.452 | 39  | 0.285 | 75  | 0.447 | 111 | 0.491 | 147 | 0.303 | 183 | 0.452 | 219 | 0.285 | 255 | 0.447 | 291 | 0.491 | 327 | 0.303 |     |       |     |       |
| 4   | 0.457 | 40  | 0.281 | 76  | 0.452 | 112 | 0.489 | 148 | 0.297 | 184 | 0.457 | 220 | 0.281 | 256 | 0.452 | 292 | 0.489 | 328 | 0.297 |     |       |     |       |
| 5   | 0.461 | 41  | 0.277 | 77  | 0.456 | 113 | 0.487 | 149 | 0.291 | 185 | 0.461 | 221 | 0.277 | 257 | 0.456 | 293 | 0.487 | 329 | 0.291 |     |       |     |       |
| 6   | 0.464 | 42  | 0.274 | 78  | 0.460 | 114 | 0.485 | 150 | 0.286 | 186 | 0.464 | 222 | 0.274 | 258 | 0.460 | 294 | 0.485 | 330 | 0.286 |     |       |     |       |
| 7   | 0.466 | 43  | 0.273 | 79  | 0.464 | 115 | 0.483 | 151 | 0.282 | 187 | 0.466 | 223 | 0.273 | 259 | 0.464 | 295 | 0.483 | 331 | 0.282 |     |       |     |       |
| 8   | 0.468 | 44  | 0.272 | 80  | 0.468 | 116 | 0.480 | 152 | 0.278 | 188 | 0.468 | 224 | 0.272 | 260 | 0.468 | 296 | 0.480 | 332 | 0.278 |     |       |     |       |
| 9   | 0.469 | 45  | 0.272 | 81  | 0.471 | 117 | 0.477 | 153 | 0.275 | 189 | 0.469 | 225 | 0.272 | 261 | 0.471 | 297 | 0.477 | 333 | 0.275 |     |       |     |       |
| 10  | 0.469 | 46  | 0.273 | 82  | 0.474 | 118 | 0.474 | 154 | 0.273 | 190 | 0.469 | 226 | 0.273 | 262 | 0.474 | 298 | 0.474 | 334 | 0.273 |     |       |     |       |
| 11  | 0.469 | 47  | 0.275 | 83  | 0.477 | 119 | 0.471 | 155 | 0.272 | 191 | 0.469 | 227 | 0.275 | 263 | 0.477 | 299 | 0.471 | 335 | 0.272 |     |       |     |       |
| 12  | 0.468 | 48  | 0.278 | 84  | 0.480 | 120 | 0.468 | 156 | 0.272 | 192 | 0.468 | 228 | 0.278 | 264 | 0.480 | 300 | 0.468 | 336 | 0.272 |     |       |     |       |
| 13  | 0.466 | 49  | 0.282 | 85  | 0.483 | 121 | 0.464 | 157 | 0.273 | 193 | 0.466 | 229 | 0.282 | 265 | 0.483 | 301 | 0.464 | 337 | 0.273 |     |       |     |       |
| 14  | 0.464 | 50  | 0.286 | 86  | 0.485 | 122 | 0.460 | 158 | 0.274 | 194 | 0.464 | 230 | 0.286 | 266 | 0.485 | 302 | 0.460 | 338 | 0.274 |     |       |     |       |
| 15  | 0.461 | 51  | 0.291 | 87  | 0.487 | 123 | 0.456 | 159 | 0.277 | 195 | 0.461 | 231 | 0.291 | 267 | 0.487 | 303 | 0.456 | 339 | 0.277 |     |       |     |       |
| 16  | 0.457 | 52  | 0.297 | 88  | 0.489 | 124 | 0.452 | 160 | 0.281 | 196 | 0.457 | 232 | 0.297 | 268 | 0.489 | 304 | 0.452 | 340 | 0.281 |     |       |     |       |
| 17  | 0.452 | 53  | 0.303 | 89  | 0.491 | 125 | 0.447 | 161 | 0.285 | 197 | 0.452 | 233 | 0.303 | 269 | 0.491 | 305 | 0.447 | 341 | 0.285 |     |       |     |       |
| 18  | 0.447 | 54  | 0.309 | 90  | 0.493 | 126 | 0.442 | 162 | 0.291 | 198 | 0.447 | 234 | 0.309 | 270 | 0.493 | 306 | 0.442 | 342 | 0.291 |     |       |     |       |
| 19  | 0.442 | 55  | 0.316 | 91  | 0.494 | 127 | 0.437 | 163 | 0.297 | 199 | 0.442 | 235 | 0.316 | 271 | 0.494 | 307 | 0.437 | 343 | 0.297 |     |       |     |       |
| 20  | 0.435 | 56  | 0.323 | 92  | 0.495 | 128 | 0.432 | 164 | 0.303 | 200 | 0.435 | 236 | 0.323 | 272 | 0.495 | 308 | 0.432 | 344 | 0.303 |     |       |     |       |
| 21  | 0.429 | 57  | 0.330 | 93  | 0.496 | 129 | 0.426 | 165 | 0.311 | 201 | 0.429 | 237 | 0.330 | 273 | 0.496 | 309 | 0.426 | 345 | 0.311 |     |       |     |       |
| 22  | 0.422 | 58  | 0.337 | 94  | 0.497 | 130 | 0.421 | 166 | 0.319 | 202 | 0.422 | 238 | 0.337 | 274 | 0.497 | 310 | 0.421 | 346 | 0.319 |     |       |     |       |
| 23  | 0.414 | 59  | 0.345 | 95  | 0.498 | 131 | 0.415 | 167 | 0.327 | 203 | 0.414 | 239 | 0.345 | 275 | 0.498 | 311 | 0.415 | 347 | 0.327 |     |       |     |       |
| 24  | 0.406 | 60  | 0.352 | 96  | 0.499 | 132 | 0.408 | 168 | 0.335 | 204 | 0.406 | 240 | 0.352 | 276 | 0.499 | 312 | 0.408 | 348 | 0.335 |     |       |     |       |
| 25  | 0.398 | 61  | 0.360 | 97  | 0.499 | 133 | 0.402 | 169 | 0.344 | 205 | 0.398 | 241 | 0.360 | 277 | 0.499 | 313 | 0.402 | 349 | 0.344 |     |       |     |       |
| 26  | 0.389 | 62  | 0.367 | 98  | 0.500 | 134 | 0.395 | 170 | 0.353 | 206 | 0.389 | 242 | 0.367 | 278 | 0.500 | 314 | 0.395 | 350 | 0.353 |     |       |     |       |
| 27  | 0.380 | 63  | 0.374 | 99  | 0.500 | 135 | 0.388 | 171 | 0.362 | 207 | 0.380 | 243 | 0.374 | 279 | 0.500 | 315 | 0.388 | 351 | 0.362 |     |       |     |       |
| 28  | 0.371 | 64  | 0.381 | 100 | 0.500 | 136 | 0.381 | 172 | 0.371 | 208 | 0.371 | 244 | 0.381 | 280 | 0.500 | 316 | 0.381 | 352 | 0.371 |     |       |     |       |
| 29  | 0.362 | 65  | 0.388 | 101 | 0.500 | 137 | 0.374 | 173 | 0.380 | 209 | 0.362 | 245 | 0.388 | 281 | 0.500 | 317 | 0.374 | 353 | 0.380 |     |       |     |       |
| 30  | 0.353 | 66  | 0.395 | 102 | 0.500 | 138 | 0.367 | 174 | 0.389 | 210 | 0.353 | 246 | 0.395 | 282 | 0.500 | 318 | 0.367 | 354 | 0.389 |     |       |     |       |
| 31  | 0.344 | 67  | 0.402 | 103 | 0.499 | 139 | 0.360 | 175 | 0.398 | 211 | 0.344 | 247 | 0.402 | 283 | 0.499 | 319 | 0.360 | 355 | 0.398 |     |       |     |       |
| 32  | 0.335 | 68  | 0.408 | 104 | 0.499 | 140 | 0.352 | 176 | 0.406 | 212 | 0.335 | 248 | 0.408 | 284 | 0.499 | 320 | 0.352 | 356 | 0.406 |     |       |     |       |
| 33  | 0.327 | 69  | 0.415 | 105 | 0.498 | 141 | 0.345 | 177 | 0.414 | 213 | 0.327 | 249 | 0.415 | 285 | 0.498 | 321 | 0.345 | 357 | 0.414 |     |       |     |       |
| 34  | 0.319 | 70  | 0.421 | 106 | 0.497 | 142 | 0.337 | 178 | 0.422 | 214 | 0.319 | 250 | 0.421 | 286 | 0.497 | 322 | 0.337 | 358 | 0.422 |     |       |     |       |
| 35  | 0.311 | 71  | 0.426 | 107 | 0.496 | 143 | 0.330 | 179 | 0.429 | 215 | 0.311 | 251 | 0.426 | 287 | 0.496 | 323 | 0.330 | 359 | 0.429 |     |       |     |       |

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## ELEVATION PATTERN

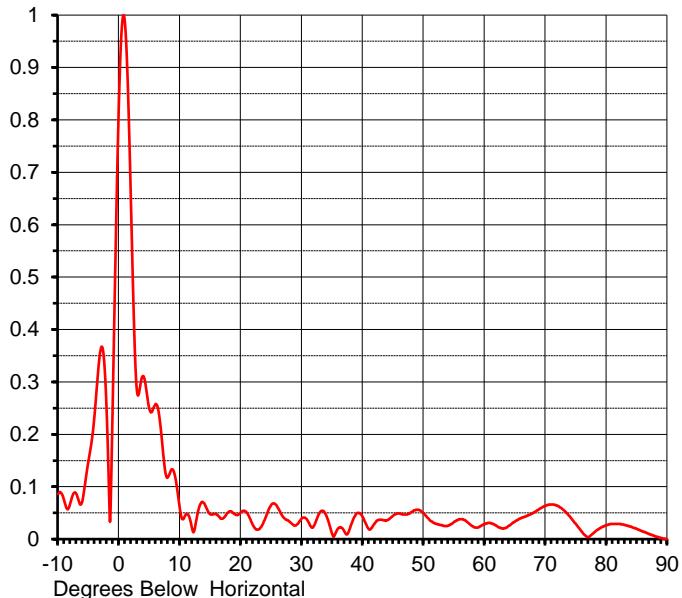
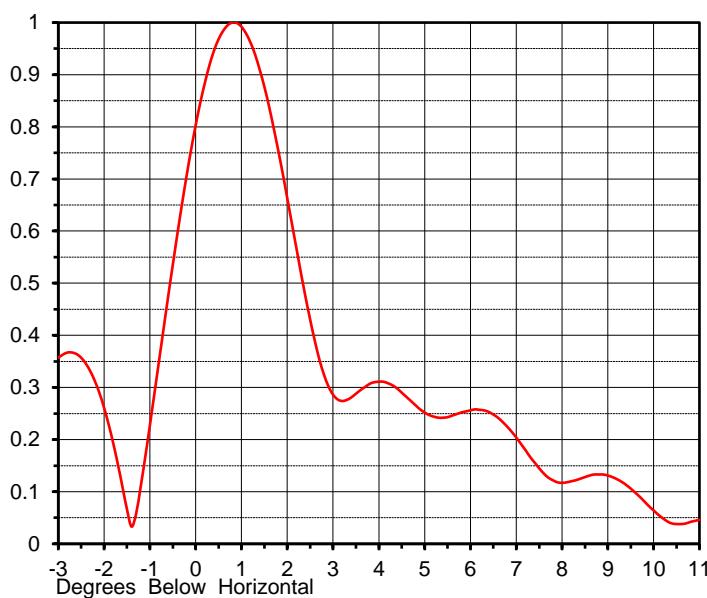
Proposal No. C-71567-  
 Date 7-Aug-20  
 Call Letters WRGB  
 Channel 35  
 Frequency 599 MHz  
 Antenna Type TFU-25JSC/VP-R P220

RMS Directivity at Main Lobe  
 RMS Directivity at Horizontal

**22.0 ( 13.42 dB )**  
**15.7 ( 11.96 dB )**

Calculated

Beam Tilt 0.75 deg  
 Pattern Number 25J220075

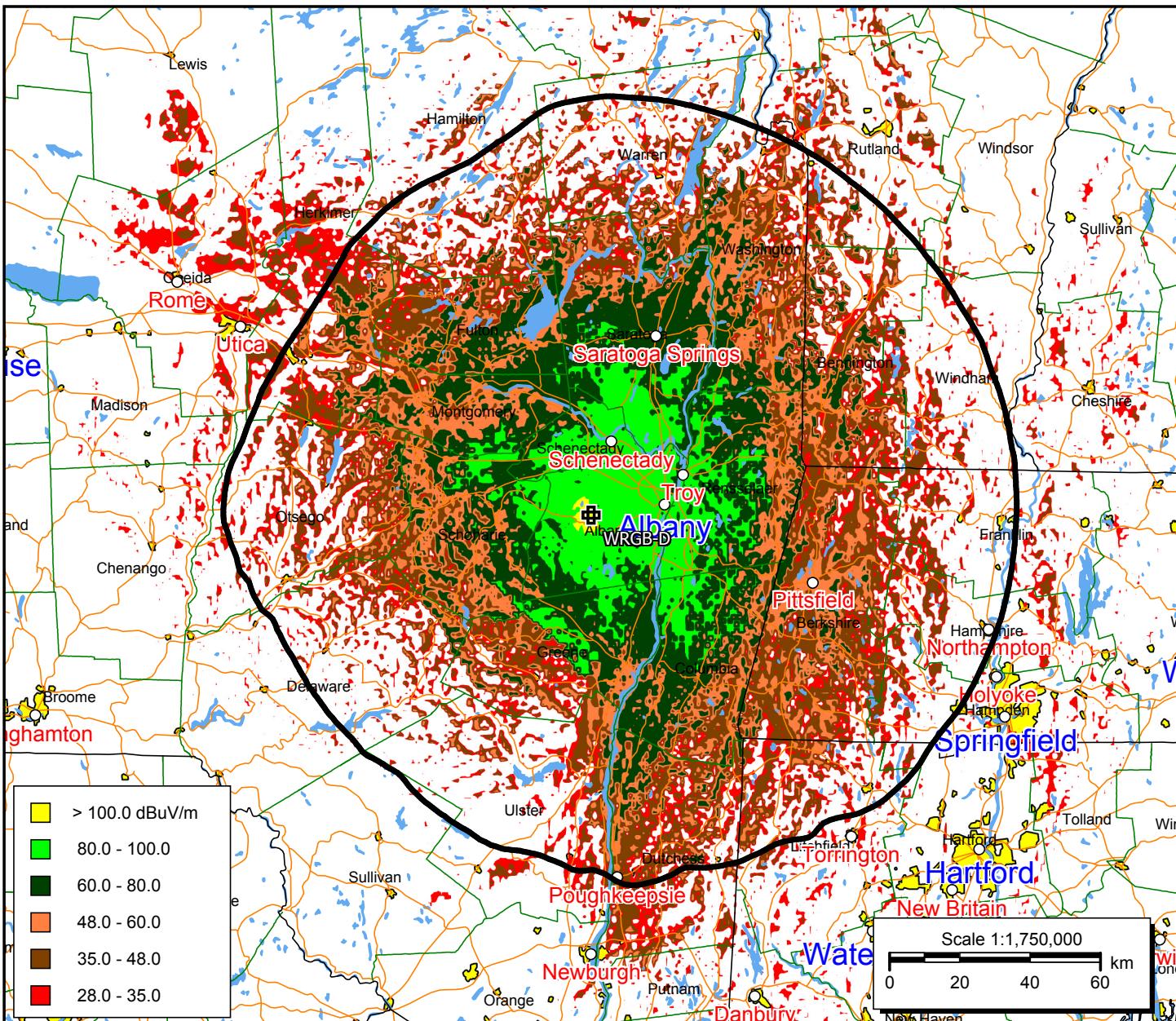


| Angle | Field |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| -10.0 | 0.086 | 10.0  | 0.056 | 30.0  | 0.040 | 50.0  | 0.049 | 70.0  | 0.064 |
| -9.0  | 0.073 | 11.0  | 0.048 | 31.0  | 0.034 | 51.0  | 0.036 | 71.0  | 0.066 |
| -8.0  | 0.069 | 12.0  | 0.019 | 32.0  | 0.026 | 52.0  | 0.029 | 72.0  | 0.063 |
| -7.0  | 0.086 | 13.0  | 0.055 | 33.0  | 0.052 | 53.0  | 0.026 | 73.0  | 0.055 |
| -6.0  | 0.074 | 14.0  | 0.068 | 34.0  | 0.045 | 54.0  | 0.026 | 74.0  | 0.043 |
| -5.0  | 0.151 | 15.0  | 0.047 | 35.0  | 0.009 | 55.0  | 0.033 | 75.0  | 0.028 |
| -4.0  | 0.241 | 16.0  | 0.047 | 36.0  | 0.021 | 56.0  | 0.038 | 76.0  | 0.013 |
| -3.0  | 0.363 | 17.0  | 0.039 | 37.0  | 0.014 | 57.0  | 0.034 | 77.0  | 0.004 |
| -2.0  | 0.229 | 18.0  | 0.052 | 38.0  | 0.025 | 58.0  | 0.025 | 78.0  | 0.013 |
| -1.0  | 0.289 | 19.0  | 0.048 | 39.0  | 0.049 | 59.0  | 0.023 | 79.0  | 0.021 |
| 0.0   | 0.846 | 20.0  | 0.051 | 40.0  | 0.042 | 60.0  | 0.029 | 80.0  | 0.027 |
| 1.0   | 0.979 | 21.0  | 0.050 | 41.0  | 0.019 | 61.0  | 0.030 | 81.0  | 0.029 |
| 2.0   | 0.615 | 22.0  | 0.026 | 42.0  | 0.031 | 62.0  | 0.025 | 82.0  | 0.029 |
| 3.0   | 0.277 | 23.0  | 0.019 | 43.0  | 0.037 | 63.0  | 0.020 | 83.0  | 0.027 |
| 4.0   | 0.311 | 24.0  | 0.040 | 44.0  | 0.036 | 64.0  | 0.026 | 84.0  | 0.024 |
| 5.0   | 0.247 | 25.0  | 0.066 | 45.0  | 0.045 | 65.0  | 0.034 | 85.0  | 0.019 |
| 6.0   | 0.258 | 26.0  | 0.061 | 46.0  | 0.049 | 66.0  | 0.040 | 86.0  | 0.014 |
| 7.0   | 0.192 | 27.0  | 0.041 | 47.0  | 0.047 | 67.0  | 0.045 | 87.0  | 0.010 |
| 8.0   | 0.118 | 28.0  | 0.033 | 48.0  | 0.052 | 68.0  | 0.050 | 88.0  | 0.005 |
| 9.0   | 0.128 | 29.0  | 0.026 | 49.0  | 0.056 | 69.0  | 0.058 | 89.0  | 0.002 |

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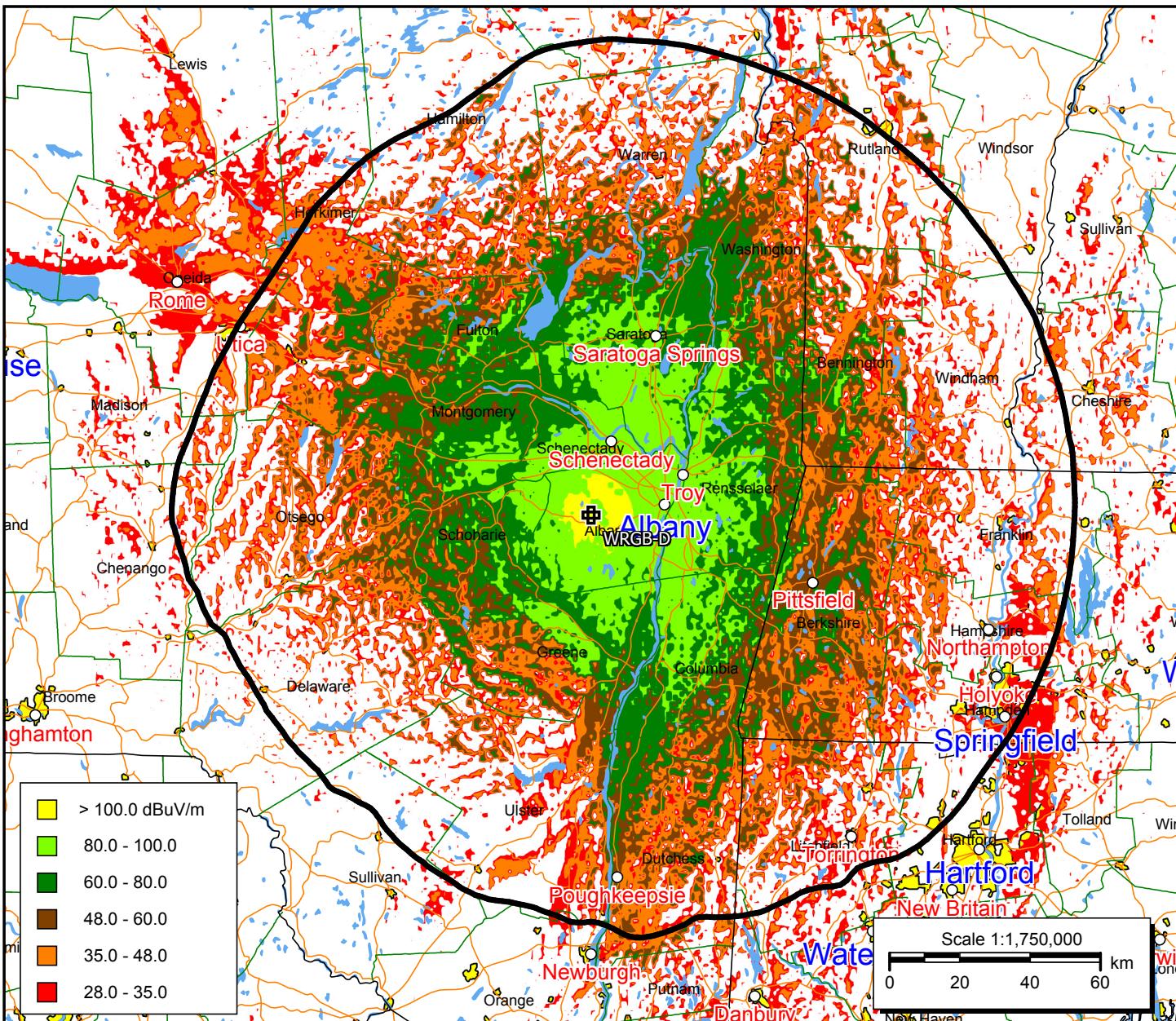
**WRGB-D**  
 BMLCDT-20110816AAF  
 Latitude: 42-37-31.30 N  
 Longitude: 074-00-36.70 W  
 ERP: 7.10 kW  
 Channel: 6  
 Frequency: 85.0 MHz  
 AMSL Height: 649.0 m  
 Elevation: 543.0 m  
 Horiz. Pattern: Omni  
 Vert. Pattern: Yes  
 Elec Tilt: 0.75  
 Prop Model: Longley-Rice  
 Climate: Cont temperate  
 Conductivity: 0.0050  
 Dielec Const: 15.0  
 Refractivity: 311.0  
 Receiver Ht AG: 10.0 m  
 Receiver Gain: 0 dB  
 Time Variability: 90.0%  
 Sit. Variability: 50.0%  
 ITM Mode: Broadcast

**WRGB - Ch. 6**  
**7.1 kW - 392 m HAAT**  
**POPULATION by Signal**  
>100 dBu = 1,100  
>80 dBu = 630,185  
>60 dBu - 1,035,506  
>48 dBu = 1,264,810  
>Principal Community  
35 dBu = 1,599,759  
>Noise Limited  
28 dBu = 1,903,012



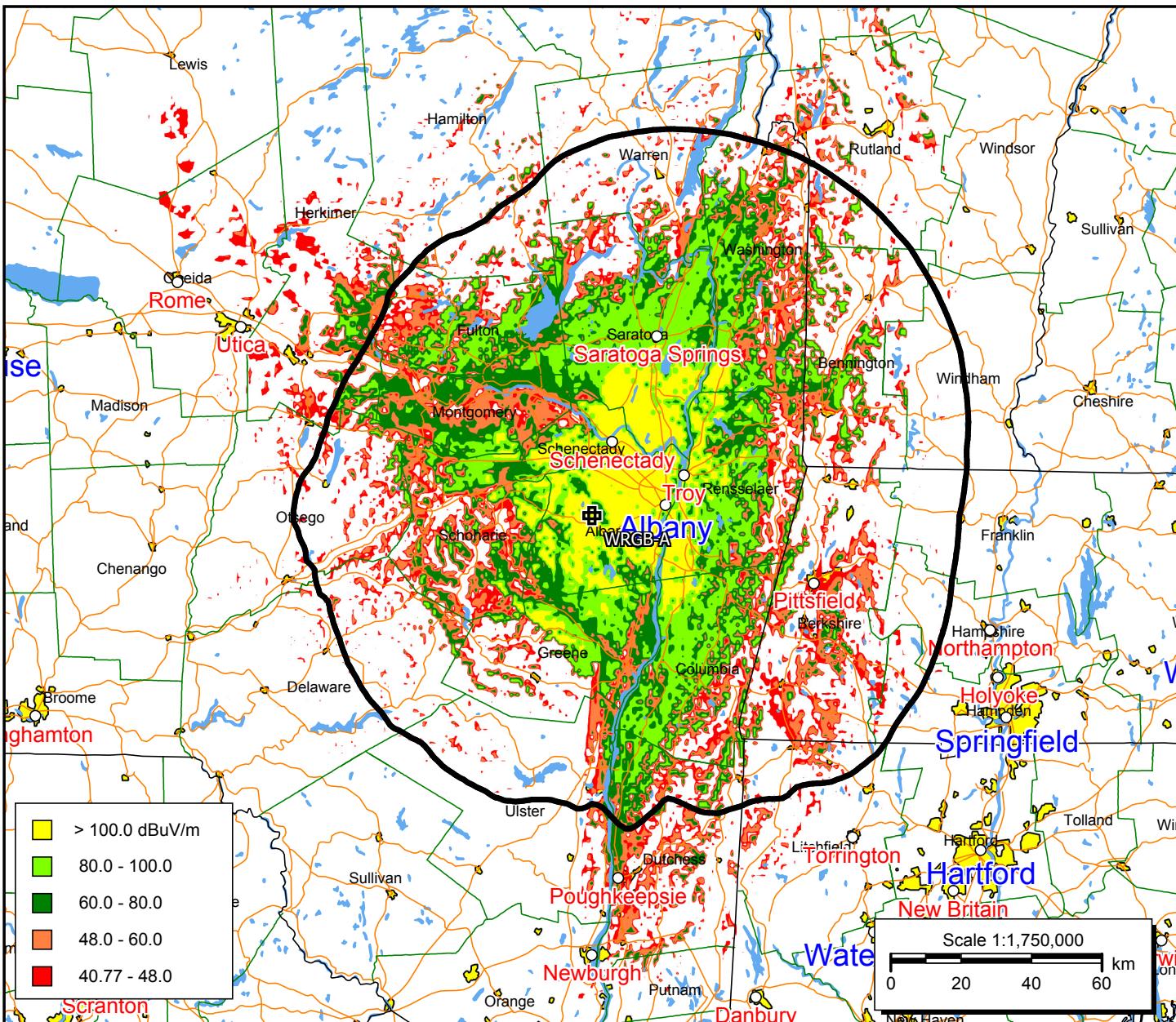
**WRGB-D**  
 BMLCDT-20110816AAF  
 Latitude: 42-37-31.30 N  
 Longitude: 074-00-36.70 W  
 ERP: 30.20 kW  
 Channel: 6  
 Frequency: 85.0 MHz  
 AMSL Height: 649.0 m  
 Elevation: 543.0 m  
 Horiz. Pattern: Omni  
 Vert. Pattern: Yes  
 Elec Tilt: 0.75  
 Prop Model: Longley-Rice  
 Climate: Cont temperate  
 Conductivity: 0.0050  
 Dielec Const: 15.0  
 Refractivity: 311.0  
 Receiver Ht AG: 10.0 m  
 Receiver Gain: 0 dB  
 Time Variability: 90.0%  
 Sit. Variability: 50.0%  
 ITM Mode: Broadcast

**WRGB - Ch. 6**  
**30.2 kW - 392 m HAAT**  
**POPULATION by Signal**  
 >100 dBu = 17,394  
 >80 dBu = 783,426  
 >60 dBu = 1,136,373  
 >48 dBu = 1,412,014  
 >Principal Community  
 35 dBu = 1,850,354  
 >Noise Limited  
 28 dBu = 2,747,324



**WRGB-A**  
 DTV - Pet 35  
 Latitude: 42-37-31.28 N  
 Longitude: 074-00-36.46 W  
 ERP: 1000.00 kW  
 Channel: 35  
 Frequency: 599.0 MHz  
 AMSL Height: 649.0 m  
 Elevation: 536.13 m  
 Horiz. Pattern: Directional  
 Vert. Pattern: Yes  
 Elec Tilt: 0.75  
 Prop Model: Longley-Rice  
 Climate: Cont temperate  
 Conductivity: 0.0050  
 Dielec Const: 15.0  
 Refractivity: 311.0  
 Receiver Ht AG: 10.0 m  
 Receiver Gain: 0 dB  
 Time Variability: 90.0%  
 Sit. Variability: 50.0%  
 ITM Mode: Broadcast

**WRGB - Ch. 35**  
**1000 kW - 392 m HAAT**  
**POPULATION by Signal**  
>100 dBu = 557,461  
>80 dBu = 886,909  
>60 dBu = 1,102,876  
>Principal Community  
48 dBu = 1,290,916  
>Noise Limited  
40.77 dBu = 1,455,570

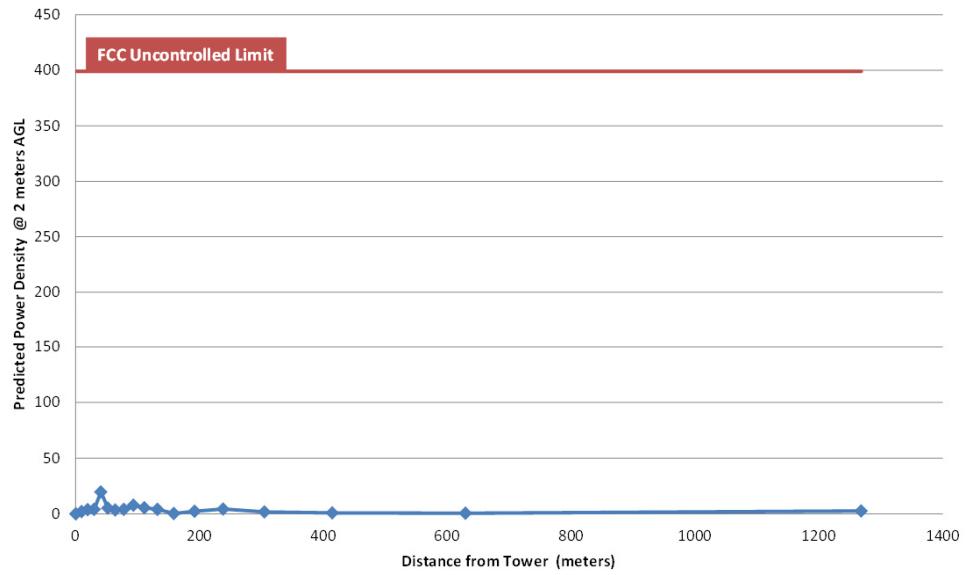


**WRGB****Channel 35 - Schenectady, New York****ERP = 1000000.00 WATTS****APPENDIX A****Maximum ERP 1000 kW**

|                                |        |                           |            |
|--------------------------------|--------|---------------------------|------------|
| Polarization -----             | 2      | Circular                  |            |
| Antenna Height Above Ground -- | 113    | meters                    | 370.7 feet |
| FCC Uncontrolled RFR Limit --- | 399.33 | $\mu\text{W}/\text{cm}^2$ |            |

|                                |                                  |
|--------------------------------|----------------------------------|
| Maximum Computed Power Density | 19.609 $\mu\text{W}/\text{cm}^2$ |
|                                | 4.91% of limit                   |

| Angle Below Horizontal (degrees) | <Point X> |        | Vertical Pattern (REL. FIELD) | WRGB ERP (kW) | WRGB Calculated Power Density $\mu\text{W}/\text{cm}^2$ | Percent Limit | Limit Exceeded? |
|----------------------------------|-----------|--------|-------------------------------|---------------|---|---------------|-----------------|
| 0                                |           |        | 1.000                         | 1000.0000     |   |               |                 |
| 5                                | 1268.7    | 1273.6 | 0.247                         | 61.0090       | 2.513   | 0.63%         | No              |
| 10                               | 629.5     | 639.2  | 0.056                         | 3.1360        | 0.513   | 0.13%         | No              |
| 15                               | 414.3     | 428.9  | 0.047                         | 2.2090        | 0.802   | 0.20%         | No              |
| 20                               | 305.0     | 324.5  | 0.051                         | 2.6010        | 1.650   | 0.41%         | No              |
| 25                               | 238.0     | 262.6  | 0.066                         | 4.3560        | 4.218   | 1.06%         | No              |
| 30                               | 192.3     | 222.0  | 0.040                         | 1.6000        | 2.169   | 0.54%         | No              |
| 35                               | 158.5     | 193.5  | 0.009                         | 0.0810        | 0.144   | 0.04%         | No              |
| 40                               | 132.3     | 172.7  | 0.042                         | 1.7640        | 3.952   | 0.99%         | No              |
| 45                               | 111.0     | 157.0  | 0.045                         | 2.0250        | 5.489   | 1.37%         | No              |
| 50                               | 93.1      | 144.9  | 0.049                         | 2.4010        | 7.639   | 1.91%         | No              |
| 55                               | 77.7      | 135.5  | 0.033                         | 1.0890        | 3.962   | 0.99%         | No              |
| 60                               | 64.1      | 128.2  | 0.029                         | 0.8410        | 3.420   | 0.86%         | No              |
| 65                               | 51.8      | 122.5  | 0.034                         | 1.1560        | 5.148   | 1.29%         | No              |
| 70                               | 40.4      | 118.1  | 0.064                         | 4.0960        | 19.609  | 4.91%         | No              |
| 75                               | 29.7      | 114.9  | 0.028                         | 0.7840        | 3.966   | 0.99%         | No              |
| 80                               | 19.6      | 112.7  | 0.027                         | 0.7290        | 3.833   | 0.96%         | No              |
| 85                               | 9.7       | 111.4  | 0.019                         | 0.3610        | 1.942   | 0.49%         | No              |
| 90                               | 0.0       | 111.0  | 0.000                         | 0.0000        | 0.000   | 0.00%         | No              |

**Predicted Power Density vs. Distance**



**WRGB - SCHENECTADY, NEW YORK**  
**NOVEMBER 2020**  
**APPENDIX B**  
**Longley-Rice Interference Analysis**

```
tvstudy v2.2.5 (4uoc83)
Database: localhost, Study: WRGB 35 P220_EZP 1000kW 40dgs p75BT #5245, Model: Longley-Rice
Start: 2020.11.16 15:57:54
```

Study created: 2020.11.16 15:57:54

Study build station data: LMS TV 2020-11-16

```
Proposal: WRGB D35 DT APP SCHENECTADY, NY
File number: WRGB 35 P220_EZP 1000kW 40dgs p75BT
Facility ID: 73942
Station data: User record
Record ID: 1322
Country: U.S.
Zone: I
```

Search options:

Non-U.S. records included

Baseline record excluded if station has CP

Stations potentially affected by proposal:

| IX  | Call          | Chan | Svc | Status | City, State      | File Number      | Distance |
|-----|---------------|------|-----|--------|------------------|------------------|----------|
| Yes | WTIC-TV       | D34  | DT  | LIC    | HARTFORD, CT     | BLANK0000080032  | 141.1 km |
| No  | WFXT          | D34  | DT  | LIC    | BOSTON, MA       | BLANK0000080060  | 231.7    |
| No  | WPXN-TV       | D34  | DT  | LIC    | NEW YORK, NY     | BLANK0000086780  | 212.6    |
| No  | WYCI          | D34  | DT  | LIC    | SARANAC LAKE, NY | BLANK0000078627  | 190.9    |
| Yes | WFJV          | D34  | DT  | LIC    | UTICA, NY        | BLANK000012314   | 111.1    |
| No  | WSWB          | D34  | DT  | LIC    | SCRANTON, PA     | BLANK0000079375  | 193.9    |
| Yes | WHDH          | D35  | DT  | LIC    | BOSTON, MA       | BLANK0000088833  | 231.7    |
| Yes | WNJU          | D35  | DT  | LIC    | LINDEN, NJ       | BLANK0000079780  | 212.6    |
| Yes | WENY-TV       | D35  | DT  | LIC    | ELMIRA, NY       | BLANK0000104138  | 257.5    |
| Yes | WNYF-CD       | D35  | DC  | LIC    | WATERTOWN, NY    | BLDTL20090924ABW | 202.8    |
| No  | WFPA-CD       | D35  | DC  | LIC    | PHILADELPHIA, PA | BLANK0000079887  | 304.8    |
| Yes | WFSB          | D36  | DT  | LIC    | HARTFORD, CT     | BLANK0000080043  | 137.0    |
| No  | WMEA-TV       | D36  | DT  | LIC    | BIDDEFORD, ME    | BLANK0000108722  | 275.0    |
| No  | WCBS-TV       | D36  | DT  | LIC    | NEW YORK, NY     | BLANK0000086487  | 212.6    |
| No  | WCFE-TV       | D36  | DT  | CP     | PLATTSBURGH, NY  | BLANK0000034025  | 230.3    |
| No  | WSPX-TV       | D36  | DT  | LIC    | SYRACUSE, NY     | BLANK0000081964  | 168.1    |
| No  | CHRO-DT-43D35 |      | DT  | LIC    | OTTAWA, ON       | BLANKCANADA207   | 313.8    |
| No  | CFTO-DT-54D35 |      | DT  | LIC    | PETERBOROUGH, ON | BLANKCANADA214   | 416.7    |
| No  | CFJP-DT       | D35  | DT  | LIC    | MONTRAL, QC      | BLANKCANADA279   | 321.9    |

No non-directional AM stations found within 0.8 km

No directional AM stations found within 3.2 km

Record parameters as studied:

```
Channel: D35
Latitude: 42 37 31.30 N (NAD83)
Longitude: 74 0 36.70 W
Height AMSL: 649.0 m
HAAT: 392.0 m
Peak ERP: 1000 kW
Antenna: DIE EZP P220 at 40 dgs 30.0 deg
```

**Appendix B - Interference Analysis  
WRGB - Schenectady, New York  
Channel 35 -1000 kW - Page 2**

Elev Patrn: Generic

40.8 dBu contour:

| Azimuth | ERP    | HAAT    | Distance |
|---------|--------|---------|----------|
| 0.0 deg | 292 kW | 527.6 m | 105.4 km |
| 45.0    | 961    | 553.5   | 118.1    |
| 90.0    | 194    | 559.2   | 104.0    |
| 135.0   | 324    | 489.4   | 103.3    |
| 180.0   | 292    | 264.0   | 81.5     |
| 225.0   | 961    | 181.5   | 81.9     |
| 270.0   | 194    | 312.1   | 84.5     |
| 315.0   | 324    | 267.6   | 82.5     |

Database HAAT does not agree with computed HAAT

Database HAAT: 392 m Computed HAAT: 394 m

ERP exceeds maximum

ERP: 1000 kW ERP maximum: 902 kW

\*\*Proposal is within coordination distance of Canadian border  
Distance to Canadian border: 247.1 km

Distance to Mexican border: 2785.3 km

Conditions at FCC monitoring station: Canandaigua NY

Bearing: 278.0 degrees Distance: 267.6 km

Proposal is not within the West Virginia quiet zone area

Conditions at Table Mountain receiving zone:

Bearing: 274.6 degrees Distance: 2602.6 km

**Study cell size: 2.00 km - Please Use these parameters**

**Profile point spacing: 0.20 km**

Maximum new IX to full-service and Class A: 0.50%

Maximum new IX to LPTV: 2.00%

Interference to BLANK0000080032 LIC scenario 1

| Desired:           | Call         | Chan     | Svc             | Status            | City, State      | File Number            | Distance       |
|--------------------|--------------|----------|-----------------|-------------------|------------------|------------------------|----------------|
|                    | WTIC-TV      | D34      | DT              | LIC               | HARTFORD, CT     | BLANK0000080032        |                |
| Undesireds:        | WRGB         | D35      | DT              | APP               | SCHENECTADY, NY  | WRGB 35 P220_EZP 1000k | 141.1 km       |
|                    | WCCT-TV      | D33      | DT              | LIC               | WATERBURY, CT    | BLANK0000080031        | 0.0            |
|                    | WCVB-TV      | D33      | DT              | LIC               | BOSTON, MA       | BLANK0000117945        | 148.0          |
|                    | WPX-TV       | D34      | DT              | CP                | WILMINGTON, DE   | BLANK0000034931        | 273.8          |
|                    | WFXT         | D34      | DT              | LIC               | BOSTON, MA       | BLANK0000080060        | 149.0          |
|                    | WPXN-TV      | D34      | DT              | LIC               | NEW YORK, NY     | BLANK0000086780        | 147.9          |
|                    | WF XV        | D34      | DT              | LIC               | UTICA, NY        | BLANK0000112314        | 250.3          |
|                    | WSWB         | D34      | DT              | LIC               | SCRANTON, PA     | BLANK0000079375        | 242.7          |
|                    | WHDH         | D35      | DT              | LIC               | BOSTON, MA       | BLANK0000088833        | 149.6          |
|                    | WNJU         | D35      | DT              | LIC               | LINDEN, NJ       | BLANK0000079780        | 147.9          |
|                    | Service area |          | Terrain-limited |                   | IX-free, before  | IX-free, after         | Percent New IX |
| 32572.7            | 5,318,753    | 29239.0  | 4,810,572       | 26022.0           | 4,212,677        | 26006.0                | 4,212,527      |
| Undesired          |              | Total IX |                 | Unique IX, before | Unique IX, after |                        |                |
| WRGB D35 DT APP    | 48.1         | 684      |                 | 3,180             | 16.0             | 150                    |                |
| WCCT-TV D33 DT LIC | 16.2         | 5,236    | 8.1             | 8.1               | 3,180            |                        |                |
| WCVB-TV D33 DT LIC | 208.6        | 26,954   | 12.0            | 869               | 12.0             | 869                    |                |
| WPX-TV D34 DT CP   | 20.1         | 4,164    | 0.0             | 0                 | 0.0              | 0                      |                |
| WFXT D34 DT LIC    | 2079.2       | 357,308  | 1218.7          | 130,596           | 1214.7           | 130,411                |                |
| WPXN-TV D34 DT LIC | 1781.7       | 442,341  | 957.0           | 219,689           | 957.0            | 219,689                |                |
| WF XV D34 DT LIC   | 100.2        | 5,826    | 52.0            | 3,720             | 32.0             | 3,584                  |                |
| WSWB D34 DT LIC    | 28.2         | 3,830    | 4.0             | 1,003             | 4.0              | 1,003                  |                |

**Appendix B - Interference Analysis  
WRGB - Schenectady, New York  
Channel 35 -1000 kW - Page 3**

|                 |       |        |     |   |     |   |
|-----------------|-------|--------|-----|---|-----|---|
| WHDH D35 DT LIC | 168.4 | 25,747 | 0.0 | 0 | 0.0 | 0 |
| WNJU D35 DT LIC | 229.7 | 78,436 | 0.0 | 0 | 0.0 | 0 |

---

**Interference to BLANK0000112314 LIC scenario 1**

| Desired: | Call | Chan | Svc | Status | City, State | File Number     | Distance |
|----------|------|------|-----|--------|-------------|-----------------|----------|
|          | WFJV | D34  | DT  | LIC    | UTICA, NY   | BLANK0000112314 |          |

|             |         |     |    |     |                 |                        |          |
|-------------|---------|-----|----|-----|-----------------|------------------------|----------|
| Undesireds: | WRGB    | D35 | DT | APP | SCHENECTADY, NY | WRGB 35 P220_EZP 1000k | 111.1 km |
|             | WTIC-TV | D34 | DT | LIC | HARTFORD, CT    | BLANK0000080032        | 250.3    |
|             | WFXT    | D34 | DT | LIC | BOSTON, MA      | BLANK0000080060        | 336.4    |
|             | WKBW-TV | D34 | DT | LIC | BUFFALO, NY     | BLANK0000120941        | 286.1    |
|             | WPXN-TV | D34 | DT | LIC | NEW YORK, NY    | BLANK0000086780        | 286.9    |
|             | WSWB    | D34 | DT | LIC | SCRANTON, PA    | BLANK0000079375        | 195.3    |
|             | WNYF-CD | D35 | DC | LIC | WATERTOWN, NY   | BLDTL20090924ABW       | 100.4    |
|             | CFGs-DT | D34 | DT | LIC | GATINEAU, QC    | BLANKCANADA266         | 267.6    |

| Service area |         | Terrain-limited |         | IX-free, before |         | IX-free, after |         | Percent New IX |
|--------------|---------|-----------------|---------|-----------------|---------|----------------|---------|----------------|
| 21388.0      | 702,682 | 19515.1         | 613,582 | 18993.7         | 604,074 | 18929.7        | 602,647 | 0.34 0.24      |

| Undesired          |       | Total IX |       | Unique IX, before |       | Unique IX, after |       |
|--------------------|-------|----------|-------|-------------------|-------|------------------|-------|
| WRGB D35 DT APP    | 95.8  | 2,885    |       |                   |       | 64.0             | 1,427 |
| WTIC-TV D34 DT LIC | 59.8  | 1,424    | 47.8  | 1,364             | 19.9  | 407              |       |
| WFXT D34 DT LIC    | 24.0  | 378      | 8.0   | 164               | 8.0   | 164              |       |
| WKBW-TV D34 DT LIC | 112.1 | 4,481    | 71.8  | 4,435             | 71.8  | 4,435            |       |
| WPXN-TV D34 DT LIC | 8.0   | 12       | 0.0   | 0                 | 0.0   | 0                |       |
| WSWB D34 DT LIC    | 196.6 | 2,116    | 116.3 | 1,615             | 112.3 | 1,114            |       |
| WNYF-CD D35 DC LIC | 237.5 | 1,629    | 157.0 | 1,352             | 157.0 | 1,352            |       |
| CFGs-DT D34 DT LIC | 40.3  | 151      | 0.0   | 0                 | 0.0   | 0                |       |

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**Interference to BLANK0000088833 LIC scenario 1**

| Desired: | Call | Chan | Svc | Status | City, State | File Number     | Distance |
|----------|------|------|-----|--------|-------------|-----------------|----------|
|          | WHDH | D35  | DT  | LIC    | BOSTON, MA  | BLANK0000088833 |          |

|             |         |     |    |     |                 |                        |          |
|-------------|---------|-----|----|-----|-----------------|------------------------|----------|
| Undesireds: | WRGB    | D35 | DT | APP | SCHENECTADY, NY | WRGB 35 P220_EZP 1000k | 231.7 km |
|             | WTIC-TV | D34 | DT | LIC | HARTFORD, CT    | BLANK0000080032        | 149.6    |
|             | WFXT    | D34 | DT | LIC | BOSTON, MA      | BLANK0000080060        | 0.9      |
|             | WNJU    | D35 | DT | LIC | LINDEN, NJ      | BLANK0000079780        | 292.8    |
|             | WFSB    | D36 | DT | LIC | HARTFORD, CT    | BLANK0000080043        | 144.1    |
|             | WMEA-TV | D36 | DT | LIC | BIDDEFORD, ME   | BLANK0000108722        | 127.4    |

| Service area |           | Terrain-limited |           | IX-free, before |           | IX-free, after |           | Percent New IX |
|--------------|-----------|-----------------|-----------|-----------------|-----------|----------------|-----------|----------------|
| 29961.7      | 7,441,208 | 28888.6         | 7,354,411 | 28604.1         | 7,335,386 | 28568.1        | 7,333,196 | 0.13 0.03      |

| Undesired          |       | Total IX |       | Unique IX, before |      | Unique IX, after |       |
|--------------------|-------|----------|-------|-------------------|------|------------------|-------|
| WRGB D35 DT APP    | 84.2  | 5,062    |       |                   |      | 36.0             | 2,190 |
| WTIC-TV D34 DT LIC | 40.1  | 1,405    | 8.0   | 130               | 4.0  | 90               |       |
| WFXT D34 DT LIC    | 76.1  | 2,905    | 76.1  | 2,905             | 76.1 | 2,905            |       |
| WNJU D35 DT LIC    | 140.7 | 9,020    | 104.6 | 7,664             | 80.5 | 5,803            |       |
| WFSB D36 DT LIC    | 28.0  | 1,437    | 4.0   | 628               | 4.0  | 628              |       |
| WMEA-TV D36 DT LIC | 51.8  | 6,156    | 51.8  | 6,156             | 51.8 | 6,156            |       |

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**Interference to BLANK0000079780 LIC scenario 1**

| Desired: | Call | Chan | Svc | Status | City, State | File Number     | Distance |
|----------|------|------|-----|--------|-------------|-----------------|----------|
|          | WNJU | D35  | DT  | LIC    | LINDEN, NJ  | BLANK0000079780 |          |

|             |         |     |    |     |                  |                        |          |
|-------------|---------|-----|----|-----|------------------|------------------------|----------|
| Undesireds: | WRGB    | D35 | DT | APP | SCHENECTADY, NY  | WRGB 35 P220_EZP 1000k | 212.6 km |
|             | WTIC-TV | D34 | DT | LIC | HARTFORD, CT     | BLANK0000080032        | 147.9    |
|             | WPX-TV  | D34 | DT | CP  | WILMINGTON, DE   | BLANK0000034931        | 127.8    |
|             | WHDH    | D35 | DT | LIC | BOSTON, MA       | BLANK0000088833        | 292.8    |
|             | WENY-TV | D35 | DT | LIC | ELMIRA, NY       | BLANK000104138         | 300.7    |
|             | WFPA-CD | D35 | DC | LIC | PHILADELPHIA, PA | BLANK0000079887        | 127.6    |

**Appendix B - Interference Analysis  
WRGB - Schenectady, New York  
Channel 35 -1000 kW - Page 4**

|                    |            |                 |            |                   |                  |                |
|--------------------|------------|-----------------|------------|-------------------|------------------|----------------|
| WPXW-TV            | D35        | DT              | LIC        | MANASSAS, VA      | BLANK0000098055  | 327.7          |
| WCBS-TV            | D36        | DT              | LIC        | NEW YORK, NY      | BLANK0000086487  | 0.0            |
| Service area       |            | Terrain-limited |            | IX-free, before   | IX-free, after   | Percent New IX |
| 37610.3            | 21,952,082 | 35288.9         | 21,386,339 | 34350.1           | 21,036,245       | 34128.0        |
|                    |            |                 |            |                   | 21,008,667       | 0.65 0.13      |
| Undesired          |            | Total IX        |            | Unique IX, before | Unique IX, after |                |
| WRGB D35 DT APP    | 318.7      | 43,485          |            | 0.0               | 222.0            | 27,578         |
| WTIC-TV D34 DT LIC | 4.1        | 4,515           |            | 0                 | 0.0              | 0              |
| WPPX-TV D34 DT CP  | 370.7      | 195,291         |            | 16.1              | 3,202            | 16.1           |
| WHDH D35 DT LIC    | 152.9      | 34,262          |            | 148.9             | 29,747           | 68.2           |
| WENY-TV D35 DT LIC | 8.1        | 239             |            | 8.1               | 239              | 4.1            |
| WFPA-CD D35 DC LIC | 669.6      | 283,046         |            | 306.9             | 88,206           | 88,206         |
| WPXW-TV D35 DT LIC | 132.5      | 47,369          |            | 68.0              | 22,581           | 56.0           |
| WCBS-TV D36 DT LIC | 24.1       | 6,764           |            | 24.1              | 6,764            | 6,764          |

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**Interference to BLANK0000104138 LIC scenario 1**

| Desired:              | Call       | Chan            | Svc     | Status            | City, State      | File Number            | Distance |
|-----------------------|------------|-----------------|---------|-------------------|------------------|------------------------|----------|
|                       | WENY-TV    | D35             | DT      | LIC               | ELMIRA, NY       | BLANK0000104138        |          |
| Undesireds:           | WRGB       | D35             | DT      | APP               | SCHENECTADY, NY  | WRGB 35 P220_EZP 1000k | 257.5 km |
|                       | WKBW-TV    | D34             | DT      | LIC               | BUFFALO, NY      | BLANK0000120941        | 138.1    |
|                       | WSWB       | D34             | DT      | LIC               | SCRANTON, PA     | BLANK0000079375        | 136.6    |
|                       | WNJU       | D35             | DT      | LIC               | LINDEN, NJ       | BLANK0000079780        | 300.7    |
|                       | WNYF-CD    | D35             | DC      | LIC               | WATERTOWN, NY    | BLDTL20090924ABW       | 229.3    |
|                       | WJAC-TV    | D35             | DT      | LIC               | JOHNSTOWN, PA    | BLANK0000080232        | 253.1    |
|                       | WPXW-TV    | D35             | DT      | LIC               | MANASSAS, VA     | BLANK0000098055        | 353.3    |
|                       | WNLO       | D36             | DT      | LIC               | BUFFALO, NY      | BLANK0000115723        | 139.5    |
|                       | WSPX-TV    | D36             | DT      | LIC               | SYRACUSE, NY     | BLANK0000081964        | 124.1    |
|                       | CHCJ-DT    | D35             | DT      | LIC               | HAMILTON, ON     | BLANKCANADA174         | 257.5    |
|                       | CFTO-DT-54 | D35             | DT      | LIC               | PETERBOROUGH, ON | BLANKCANADA214         | 281.8    |
| Service area          |            | Terrain-limited |         | IX-free, before   | IX-free, after   | Percent New IX         |          |
| 21375.8               | 656,240    | 18948.6         | 532,044 | 18663.3           | 529,393          | 18647.2                | 529,265  |
|                       |            |                 |         |                   |                  | 0.09                   | 0.02     |
| Undesired             |            | Total IX        |         | Unique IX, before | Unique IX, after |                        |          |
| WRGB D35 DT APP       | 52.2       | 568             |         | 16.1              | 128              |                        |          |
| WKBW-TV D34 DT LIC    | 32.1       | 262             |         | 8.0               | 133              | 8.0                    | 133      |
| WSWB D34 DT LIC       | 8.0        | 67              |         | 8.0               | 67               | 8.0                    | 67       |
| WNJU D35 DT LIC       | 28.2       | 352             |         | 16.0              | 291              | 12.1                   | 234      |
| WNYF-CD D35 DC LIC    | 36.1       | 552             |         | 32.1              | 421              | 12.0                   | 169      |
| WJAC-TV D35 DT LIC    | 181.0      | 1,167           |         | 148.9             | 917              | 144.9                  | 917      |
| WPXW-TV D35 DT LIC    | 8.1        | 58              |         | 0.0               | 0                | 0.0                    | 0        |
| WNLO D36 DT LIC       | 36.1       | 286             |         | 8.0               | 16               | 8.0                    | 16       |
| WSPX-TV D36 DT LIC    | 4.0        | 49              |         | 4.0               | 49               | 4.0                    | 49       |
| CHCJ-DT D35 DT LIC    | 16.0       | 356             |         | 0.0               | 0                | 0.0                    | 0        |
| CFTO-DT-54 D35 DT LIC | 16.0       | 295             |         | 12.0              | 240              | 12.0                   | 240      |

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**Interference to BLDTL20090924ABW LIC scenario 1**

| Desired:              | Call       | Chan            | Svc     | Status            | City, State      | File Number            | Distance |
|-----------------------|------------|-----------------|---------|-------------------|------------------|------------------------|----------|
|                       | WNYF-CD    | D35             | DC      | LIC               | WATERTOWN, NY    | BLDTL20090924ABW       |          |
| Undesireds:           | WRGB       | D35             | DT      | APP               | SCHENECTADY, NY  | WRGB 35 P220_EZP 1000k | 202.8 km |
|                       | WENY-TV    | D35             | DT      | LIC               | ELMIRA, NY       | BLANK0000104138        | 229.3    |
|                       | CHRO-DT-43 | D35             | DT      | LIC               | OTTAWA, ON       | BLANKCANADA207         | 141.0    |
| Service area          |            | Terrain-limited |         | IX-free, before   | IX-free, after   | Percent New IX         |          |
| 6224.2                | 135,089    | 6012.4          | 128,656 | 5992.4            | 128,589          | 5968.3                 | 128,121  |
|                       |            |                 |         |                   |                  | 0.40                   | 0.36     |
| Undesired             |            | Total IX        |         | Unique IX, before | Unique IX, after |                        |          |
| WRGB D35 DT APP       | 36.1       | 508             |         | 24.0              | 468              |                        |          |
| WENY-TV D35 DT LIC    | 8.0        | 51              |         | 0.0               | 0                | 0.0                    | 0        |
| CHRO-DT-43 D35 DT LIC | 20.0       | 67              |         | 12.1              | 16               | 4.0                    | 0        |

**Appendix B - Interference Analysis  
WRGB - Schenectady, New York  
Channel 35 -1000 kW - Page 5**

**Interference to BLANK0000080043 LIC scenario 1**

| Desired:           | Call      | Chan    | Svc       | Status  | City, State     | File Number            | Distance  |
|--------------------|-----------|---------|-----------|---------|-----------------|------------------------|-----------|
|                    | WFSB      | D36     | DT        | LIC     | HARTFORD, CT    | BLANK0000080043        |           |
| Undesireds:        | WRGB      | D35     | DT        | APP     | SCHENECTADY, NY | WRGB 35 P220_EZP 1000k | 137.0 km  |
|                    | WHDH      | D35     | DT        | LIC     | BOSTON, MA      | BLANK0000088833        | 144.1     |
|                    | WNJU      | D35     | DT        | LIC     | LINDEN, NJ      | BLANK0000079780        | 155.3     |
|                    | WMEA-TV   | D36     | DT        | LIC     | BIDDEFORD, ME   | BLANK0000108722        | 245.1     |
|                    | WMGM-TV   | D36     | DT        | LIC     | WILDFOOD, NJ    | BLANK0000035355        | 338.0     |
|                    | WCBS-TV   | D36     | DT        | LIC     | NEW YORK, NY    | BLANK0000086487        | 155.3     |
|                    | WSPX-TV   | D36     | DT        | LIC     | SYRACUSE, NY    | BLANK0000081964        | 294.6     |
|                    | WITF-TV   | D36     | DT        | CP      | HARRISBURG, PA  | BLANK0000035782        | 375.8     |
| Service area       |           |         |           |         |                 |                        |           |
| 26990.6            | 4,752,788 | 24677.3 | 4,443,639 | 20864.6 | 3,892,586       | 20848.6                | 3,892,458 |
| Undesired          |           |         |           |         |                 |                        |           |
| WRGB D35 DT APP    |           | 28.0    |           | 341     |                 | 16.0                   | 128       |
| WHDH D35 DT LIC    |           | 104.1   |           | 8,343   | 12.0            | 12.0                   | 792       |
| WNJU D35 DT LIC    |           | 246.0   |           | 106,114 | 0.0             | 0.0                    | 0         |
| WMEA-TV D36 DT LIC |           | 40.1    |           | 2,299   | 4.0             | 4.0                    | 182       |
| WMGM-TV D36 DT LIC |           | 4.1     |           | 860     | 0.0             | 0.0                    | 0         |
| WCBS-TV D36 DT LIC |           | 3784.6  |           | 549,418 | 3446.6          | 435,971                | 3438.5    |
| WSPX-TV D36 DT LIC |           | 4.0     |           | 0       | 0.0             | 0                      | 0         |

**Interference to proposal scenario 1 APPLICANT ACCEPTS THE INCOMING INTERFERENCE**

1.01% interference received

| Desired:           | Call      | Chan    | Svc       | Status  | City, State     | File Number            | Distance |
|--------------------|-----------|---------|-----------|---------|-----------------|------------------------|----------|
|                    | WRGB      | D35     | DT        | APP     | SCHENECTADY, NY | WRGB 35 P220_EZP 1000k |          |
| Undesireds:        | WTIC-TV   | D34     | DT        | LIC     | HARTFORD, CT    | BLANK0000080032        | 141.1 km |
|                    | WFXV      | D34     | DT        | LIC     | UTICA, NY       | BLANK0000112314        | 111.1    |
|                    | WHDH      | D35     | DT        | LIC     | BOSTON, MA      | BLANK0000088833        | 231.7    |
|                    | WNJU      | D35     | DT        | LIC     | LINDEN, NJ      | BLANK0000079780        | 212.6    |
|                    | WENY-TV   | D35     | DT        | LIC     | ELMIRA, NY      | BLANK0000104138        | 257.5    |
|                    | WFSB      | D36     | DT        | LIC     | HARTFORD, CT    | BLANK0000080043        | 137.0    |
| Service area       |           |         |           |         |                 |                        |          |
| 29313.8            | 1,584,677 | 25096.5 | 1,424,979 | 24688.8 | 1,410,535       | 1.62                   | 1.01     |
| Undesired          |           |         |           |         |                 |                        |          |
| WTIC-TV D34 DT LIC |           | 60.0    |           | 680     | 0.0             | 0                      | 0.00     |
| WFXV D34 DT LIC    |           | 27.9    |           | 193     | 24.0            | 184                    | 0.10     |
| WHDH D35 DT LIC    |           | 148.0   |           | 2,280   | 64.0            | 772                    | 0.26     |
| WNJU D35 DT LIC    |           | 271.6   |           | 13,044  | 175.8           | 11,412                 | 0.70     |
| WENY-TV D35 DT LIC |           | 36.1    |           | 247     | 16.1            | 170                    | 0.06     |
| WFSB D36 DT LIC    |           | 24.0    |           | 279     | 0.0             | 0                      | 0.00     |