

TECHNICAL EXHIBIT  
CONCERNING HUMAN EXPOSURE TO RF ELECTROMAGNETIC ENERGY  
PREPARED FOR  
STATION WVLR-DT  
TAZEWELL, TENNESSEE  
CH 48 193 KW (MAX-DA) 430 M

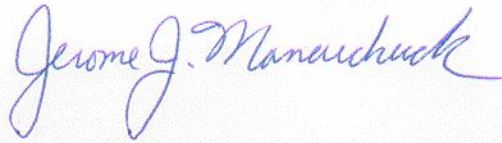
Technical Statement

The proposed facilities were evaluated in terms of potential radio frequency (RF) energy exposure at ground level to workers and the general public. The radiation center for the proposed DTV antenna is located 85.3 meters above ground level. The maximum DTV ERP is 193 kW (horizontal polarization). A “conservative” vertical plane relative field value of 0.1 (for angles below 60 degrees downward) was presumed for the antenna's downward radiation (see Sheet 2 of Figure 2). The calculated power density at a point 2 meters above ground level is  $0.0093 \text{ mW/cm}^2$ . This is 2.1% of the FCC's recommended limit of  $0.45 \text{ mW/cm}^2$  for channel 48 for an “uncontrolled” environment. Therefore, based on the responsibility threshold of 5%, the proposal will comply with the RF emission rules.

Access to the transmitting site will be restricted and appropriately marked with RFR warning signs. Furthermore, in the event that workers or other authorized personnel enter the restricted area or climb the tower, appropriate measures will be taken to assure worker safety with respect to radio frequency radiation exposure. Such measures include reducing the average exposure by spreading out the work over a longer period of time, wearing “accepted” RFR protective clothing and/or RFR exposure.

Finally, it is noted that this technical exhibit only addresses the potential for radio frequency electromagnetic field exposure. All other aspects of the

environmental processing analysis will be or already has been provided to the FCC by the tower owner as part of the tower registration process.



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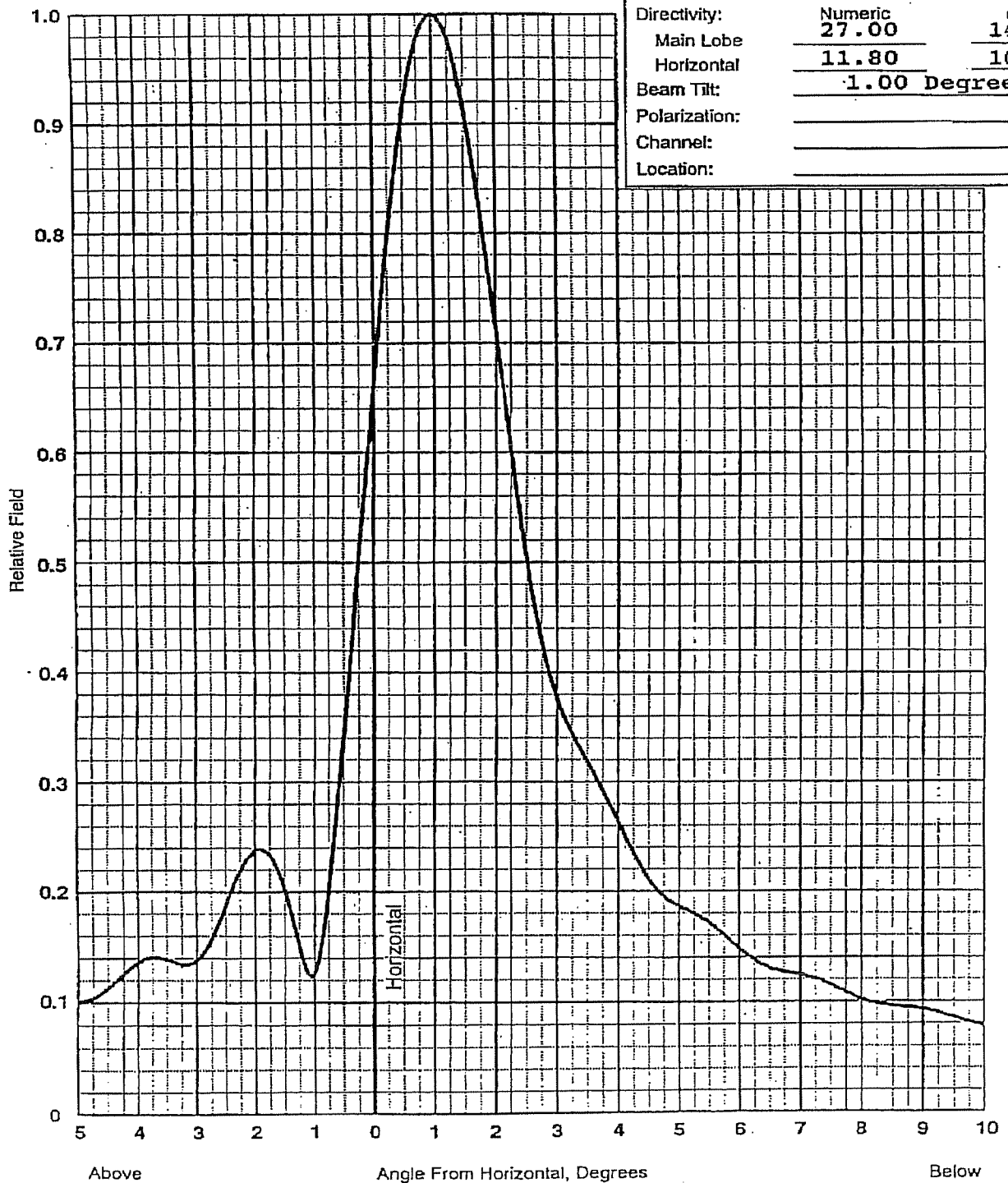
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March 21, 2008

# **ANDREW** **ELEVATION PATTERN**

|               |              |       |
|---------------|--------------|-------|
| Type:         | ATW27HS4H    |       |
| Directivity:  | Numeric      | dBd   |
| Main Lobe     | 27.00        | 14.31 |
| Horizontal    | 11.80        | 10.72 |
| Beam Tilt:    | 1.00 Degrees |       |
| Polarization: |              |       |
| Channel:      |              |       |
| Location:     |              |       |



ANDREW CORPORATION  
 10500 W. 153rd Street  
 Orland Park, Illinois U.S.A. 60462



# TABULATED DATA FOR ELEVATION PATTERN

## TYPE ATW27HS4H

| ANGLE                             | RELATIVE FIELD | dB     | ANGLE                            | RELATIVE FIELD | dB     | ANGLE | RELATIVE FIELD | dB     | ANGLE | RELATIVE FIELD | dB     |
|-----------------------------------|----------------|--------|----------------------------------|----------------|--------|-------|----------------|--------|-------|----------------|--------|
| -5° TO 10°<br>IN 0.25° INCREMENTS |                |        | 10° TO 90°<br>IN 0.5° INCREMENTS |                |        |       |                |        |       |                |        |
| -5.00                             | 0.101          | -19.90 | 10.00                            | 0.079          | -22.08 | 40.00 | 0.026          | -31.59 | 70.00 | 0.026          | -31.59 |
| -4.75                             | 0.104          | -19.67 | 10.50                            | 0.077          | -22.30 | 40.50 | 0.027          | -31.41 | 70.50 | 0.027          | -31.44 |
| -4.50                             | 0.113          | -18.96 | 11.00                            | 0.074          | -22.66 | 41.00 | 0.026          | -31.56 | 71.00 | 0.028          | -31.07 |
| -4.25                             | 0.125          | -18.05 | 11.50                            | 0.068          | -23.33 | 41.50 | 0.026          | -31.83 | 71.50 | 0.029          | -30.63 |
| -4.00                             | 0.136          | -17.34 | 12.00                            | 0.066          | -23.66 | 42.00 | 0.026          | -31.85 | 72.00 | 0.031          | -30.28 |
| -3.75                             | 0.141          | -17.04 | 12.50                            | 0.065          | -23.73 | 42.50 | 0.026          | -31.66 | 72.50 | 0.031          | -30.09 |
| -3.50                             | 0.139          | -17.16 | 13.00                            | 0.062          | -24.20 | 43.00 | 0.026          | -31.63 | 73.00 | 0.031          | -30.12 |
| -3.25                             | 0.134          | -17.43 | 13.50                            | 0.058          | -24.80 | 43.50 | 0.026          | -31.84 | 73.50 | 0.030          | -30.36 |
| -3.00                             | 0.138          | -17.21 | 14.00                            | 0.056          | -24.97 | 44.00 | 0.025          | -32.03 | 74.00 | 0.029          | -30.80 |
| -2.75                             | 0.157          | -16.08 | 14.50                            | 0.056          | -25.11 | 44.50 | 0.025          | -31.93 | 74.50 | 0.027          | -31.39 |
| -2.50                             | 0.188          | -14.51 | 15.00                            | 0.052          | -25.61 | 45.00 | 0.026          | -31.72 | 75.00 | 0.025          | -32.04 |
| -2.25                             | 0.219          | -13.18 | 15.50                            | 0.050          | -26.00 | 45.50 | 0.026          | -31.70 | 75.50 | 0.023          | -32.61 |
| -2.00                             | 0.238          | -12.49 | 16.00                            | 0.050          | -26.08 | 46.00 | 0.025          | -31.89 | 76.00 | 0.022          | -32.96 |
| -1.75                             | 0.234          | -12.63 | 16.50                            | 0.048          | -26.37 | 46.50 | 0.025          | -32.02 | 76.50 | 0.022          | -32.97 |
| -1.50                             | 0.202          | -13.87 | 17.00                            | 0.046          | -26.83 | 47.00 | 0.025          | -31.88 | 77.00 | 0.023          | -32.68 |
| -1.25                             | 0.151          | -16.42 | 17.50                            | 0.045          | -26.93 | 47.50 | 0.026          | -31.63 | 77.50 | 0.025          | -32.21 |
| -1.00                             | 0.126          | -17.97 | 18.00                            | 0.045          | -26.92 | 48.00 | 0.026          | -31.54 | 78.00 | 0.026          | -31.69 |
| -0.75                             | 0.204          | -13.80 | 18.50                            | 0.043          | -27.28 | 48.50 | 0.026          | -31.67 | 78.50 | 0.027          | -31.23 |
| -0.50                             | 0.344          | -9.26  | 19.00                            | 0.041          | -27.67 | 49.00 | 0.026          | -31.81 | 79.00 | 0.029          | -30.87 |
| -0.25                             | 0.504          | -5.95  | 19.50                            | 0.041          | -27.68 | 49.50 | 0.026          | -31.75 | 79.50 | 0.029          | -30.65 |
| 0.00                              | 0.661          | -3.59  | 20.00                            | 0.041          | -27.76 | 50.00 | 0.026          | -31.56 | 80.00 | 0.030          | -30.56 |
| 0.25                              | 0.801          | -1.93  | 20.50                            | 0.039          | -28.19 | 50.50 | 0.027          | -31.50 | 80.50 | 0.029          | -30.61 |
| 0.50                              | 0.909          | -0.83  | 21.00                            | 0.038          | -28.46 | 51.00 | 0.026          | -31.65 | 81.00 | 0.029          | -30.79 |
| 0.75                              | 0.977          | -0.20  | 21.50                            | 0.038          | -28.41 | 51.50 | 0.025          | -31.89 | 81.50 | 0.028          | -31.09 |
| 1.00                              | 1.000          | 0.00   | 22.00                            | 0.037          | -28.59 | 52.00 | 0.025          | -31.93 | 82.00 | 0.027          | -31.51 |
| 1.25                              | 0.978          | -0.19  | 22.50                            | 0.035          | -29.06 | 52.50 | 0.026          | -31.71 | 82.50 | 0.025          | -32.05 |
| 1.50                              | 0.916          | -0.76  | 23.00                            | 0.035          | -29.18 | 53.00 | 0.027          | -31.45 | 83.00 | 0.023          | -32.70 |
| 1.75                              | 0.824          | -1.69  | 23.50                            | 0.036          | -28.95 | 53.50 | 0.027          | -31.38 | 83.50 | 0.021          | -33.45 |
| 2.00                              | 0.714          | -2.92  | 24.00                            | 0.035          | -29.05 | 54.00 | 0.027          | -31.53 | 84.00 | 0.019          | -34.30 |
| 2.25                              | 0.603          | -4.40  | 24.50                            | 0.034          | -29.49 | 54.50 | 0.026          | -31.72 | 84.50 | 0.017          | -35.26 |
| 2.50                              | 0.504          | -5.96  | 25.00                            | 0.033          | -29.65 | 55.00 | 0.026          | -31.71 | 85.00 | 0.015          | -36.32 |
| 2.75                              | 0.427          | -7.38  | 25.50                            | 0.033          | -29.53 | 55.50 | 0.027          | -31.47 | 85.50 | 0.013          | -37.49 |
| 3.00                              | 0.377          | -8.48  | 26.00                            | 0.033          | -29.65 | 56.00 | 0.028          | -31.20 | 86.00 | 0.012          | -38.78 |
| 3.25                              | 0.344          | -9.26  | 26.50                            | 0.032          | -29.94 | 56.50 | 0.028          | -31.10 | 86.50 | 0.010          | -40.21 |
| 3.50                              | 0.319          | -9.92  | 27.00                            | 0.032          | -29.95 | 57.00 | 0.027          | -31.22 | 87.00 | 0.008          | -41.81 |
| 3.75                              | 0.293          | -10.67 | 27.50                            | 0.032          | -29.83 | 57.50 | 0.027          | -31.43 | 87.50 | 0.007          | -43.63 |
| 4.00                              | 0.264          | -11.57 | 28.00                            | 0.032          | -30.02 | 58.00 | 0.027          | -31.50 | 88.00 | 0.005          | -45.79 |
| 4.25                              | 0.235          | -12.58 | 28.50                            | 0.030          | -30.38 | 58.50 | 0.027          | -31.34 | 88.50 | 0.004          | -48.46 |
| 4.50                              | 0.211          | -13.50 | 29.00                            | 0.030          | -30.42 | 59.00 | 0.028          | -31.08 | 89.00 | 0.002          | -52.11 |
| 4.75                              | 0.196          | -14.17 | 29.50                            | 0.030          | -30.32 | 59.50 | 0.028          | -30.91 | 89.50 | 0.001          | -58.22 |
| 5.00                              | 0.187          | -14.58 | 30.00                            | 0.030          | -30.52 | 60.00 | 0.028          | -30.96 | 90.00 | 0.000          | -99.99 |
| 5.25                              | 0.180          | -14.90 | 30.50                            | 0.029          | -30.89 | 60.50 | 0.028          | -31.20 |       |                |        |
| 5.50                              | 0.172          | -15.10 | 31.00                            | 0.029          | -30.90 | 61.00 | 0.027          | -31.45 |       |                |        |
| 5.75                              | 0.161          | -15.87 | 31.50                            | 0.029          | -30.67 | 61.50 | 0.027          | -31.51 |       |                |        |
| 6.00                              | 0.148          | -16.57 | 32.00                            | 0.029          | -30.74 | 62.00 | 0.027          | -31.30 |       |                |        |
| 6.25                              | 0.138          | -17.22 | 32.50                            | 0.028          | -31.07 | 62.50 | 0.028          | -30.96 |       |                |        |
| 6.50                              | 0.130          | -17.69 | 33.00                            | 0.028          | -31.19 | 63.00 | 0.029          | -30.69 |       |                |        |
| 6.75                              | 0.127          | -17.95 | 33.50                            | 0.028          | -31.02 | 63.50 | 0.029          | -30.62 |       |                |        |
| 7.00                              | 0.124          | -18.13 | 34.00                            | 0.028          | -31.00 | 64.00 | 0.029          | -30.78 |       |                |        |
| 7.25                              | 0.121          | -18.38 | 34.50                            | 0.027          | -31.24 | 64.50 | 0.028          | -31.08 |       |                |        |
| 7.50                              | 0.115          | -18.78 | 35.00                            | 0.027          | -31.36 | 65.00 | 0.027          | -31.34 |       |                |        |
| 7.75                              | 0.108          | -19.30 | 35.50                            | 0.028          | -31.21 | 65.50 | 0.027          | -31.38 |       |                |        |
| 8.00                              | 0.102          | -19.81 | 36.00                            | 0.028          | -31.14 | 66.00 | 0.028          | -31.15 |       |                |        |
| 8.25                              | 0.098          | -20.17 | 36.50                            | 0.027          | -31.35 | 66.50 | 0.029          | -30.78 |       |                |        |
| 8.50                              | 0.096          | -20.16 | 37.00                            | 0.027          | -31.52 | 67.00 | 0.030          | -30.46 |       |                |        |
| 8.75                              | 0.095          | -20.46 | 37.50                            | 0.027          | -31.36 | 67.50 | 0.030          | -30.32 |       |                |        |
| 9.00                              | 0.093          | -20.63 | 38.00                            | 0.028          | -31.17 | 68.00 | 0.030          | -30.40 |       |                |        |
| 9.25                              | 0.090          | -20.93 | 38.50                            | 0.027          | -31.33 | 68.50 | 0.029          | -30.69 |       |                |        |
| 9.50                              | 0.086          | -21.35 | 39.00                            | 0.026          | -31.72 | 69.00 | 0.028          | -31.09 |       |                |        |
| 9.75                              | 0.082          | -21.77 | 39.50                            | 0.026          | -31.85 | 69.50 | 0.027          | -31.45 |       |                |        |