

TECHNICAL EXHIBIT  
APPLICATION FOR MODIFICATION OF  
CONSTRUCTION PERMIT  
TELEVISION STATION WMBC-DT  
NEWTON, NEW JERSEY

July 1, 2004

CHANNEL 18 1000 KW (MAX-DA) 250 M

TECHNICAL EXHIBIT  
APPLICATION FOR MODIFICATION OF CONSTRUCTION PERMIT  
TELEVISION STATION WMBC-DT  
NEWTON, NEW JERSEY  
CHANNEL 18 1000 KW (MAX-DA) 250 M

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Technical Statement

This Technical Exhibit was prepared on behalf of digital television broadcast station WMBC-DT, Newton, New Jersey, in support of an application for modification of construction permit (See FCC File No. BPCDT-19991029AFC). WMBC-DT is authorized for operation on Channel 18 with a non-directional effective radiated power (ERP) of 95 kW and antenna height above average terrain (HAAT) of 333 m. The purpose of this application is to relocate the transmitter site, decrease the antenna HAAT and to specify a directional antenna operation with maximum ERP of 1000 kW.

As described in detail herein, the proposed operation meets the *de minimis* interference protection requirements as outlined FCC's DTV Processing Guidelines,<sup>\*</sup> the FCC's *Second Memorandum Opinion and Order*,<sup>†</sup> and the *DTV Report and Order and Further Notice of Proposed Rule Making*.<sup>‡</sup>

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<sup>\*</sup> See FCC *Public Notice*, "Additional Application Processing Guidelines for Digital Television (DTV)", Released: August 10, 1998.

<sup>†</sup> See *Second Memorandum Opinion and Order on Reconsideration of the Fifth and Sixth Report and Orders*, FCC-98-315, Released: December 18, 1998.

<sup>‡</sup> See *Report and Order and Further Notice of Proposed Rule Making* in MM Docket No. 00-39, FCC 01-24, released January 19, 2001.

### Proposed Facilities

The proposed facility provides minimum 48 dBu, f(50,90), coverage of Newton in compliance with Section 73.625(a)(1) of the FCC Rules, as adopted by the FCC in MM Docket No. 00-39. Figure 2 herein is a map depicting the predicted coverage contours of the proposed facility. It is noted that there are terrain obstructions in the path from the proposed transmitter site toward Newton. However, a Longley-Rice analysis of coverage over Newton indicates that there would be minimum 48 dBu, f(50,90) coverage over all of Newton considering a land use land clutter factor of 6 dB, which is the maximum for lower band UHF stations, such as Channel 18, according to the FCC Individual Location Longley-Rice (ILLR) model. This clutter factor is consistent with the maximum value outlined in the *First Report and Order* in FCC ET Docket No. 00-11 for UHF Channels 14-36 in a “Mixed Urban/Buildings” land use category.

The proposed facility meets the maximum permissible ERP requirements for UHF DTV stations as outlined in Section 73.622(f)(8)(i) of the FCC Rules. According to this section of the Rules, considering a proposed antenna HAAT for the proposed WMBC-DT facility of 250 m, the maximum permissible ERP is 1000 kW.

No adverse electromagnetic impact is expected as a result of the proposed operation. However, the applicant recognizes its responsibility to correct objectionable electromagnetic interference problems that result from its proposed operation.

### Tower Registration

The proposed antenna structure has been registered with the FCC. The FCC antenna structure registration number is 1045123. There will be no change in the overall height of the antenna structure as a result of the instant proposal.

Domestic Allocation Considerations

The proposed WMBC-DT Channel 18 facility meets the requirements of Section 73.623 of the FCC Rules concerning predicted interference to other existing U.S. NTSC facilities and U.S. DTV allotments and assignments. Longley-Rice interference analyses were conducted pursuant to the requirements of the FCC Rules; OET Bulletin No. 69; and published FCC guidelines for preparation of such interference analyses. The Longley-Rice interference analyses were conducted using the software maintained by du Treil, Lundin & Rackley, Inc. based on the FCC published software routines.<sup>§</sup> Stations selected for analysis were determined pursuant to the distance requirements outlined in the FCC DTV Processing Guidelines Public Notice. Accordingly, co-channel DTV and NTSC stations within 429 km and 407 km, respectively, were examined for potential interference; and first-adjacent DTV and NTSC stations within 229 km and 207 km, respectively, were examined for potential interference. Analog taboo-related NTSC stations within 142 km were examined for potential interference. The results of the interference analyses for the proposed WMBC-DT facility are summarized herein at Figure 3. As indicated therein, the proposed facility will meet the 2%/10% criterion outlined in the FCC Rules and published guidelines with respect to all considered stations.

With respect to Class A TV station protection, the proposal has been evaluated according to the requirements of Section 73.623(c)(5) of the FCC Rules. The analysis reveals one potentially affected Class A TV station facility, as follows:

WEBR-CA, Manhattan, NY, Channel 17 (FCC File No. BLTTL-19960116JC)

A contour analysis indicates that there would be prohibited contour overlap between the proposed WMBC-DT facility and the WEBR-CA facilities. However, the applicant

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<sup>§</sup> The duTreil, Lundin & Rackley, Inc. DTV interference analysis program is a precise implementation of the procedures outlined by the FCC in the Sixth Report and Order; subsequent Memorandum Opinion and Order; and FCC OET Bulletin No. 69. A nominal grid size resolution of 2 km was employed.

requests a waiver pursuant to Section 73.623(c)(5)(iii) of the FCC Rules to permit the use of the Longley-Rice terrain dependent propagation model as described in FCC OET Bulletin No. 69. An analysis of predicted interference with respect to the WEBR-CA facility prepared according to OET Bulletin No. 69 reveals zero predicted interference to the WEBR-CA facilities (See Figure 3).

With respect to the Land Mobile allotment for Channel 19 at Philadelphia, the proposed facility will be located 130.0 km from the Channel 19 reference coordinates. The present WMBC-DT construction permit facility is located 127.3 km from the Philadelphia Channel 19 reference coordinates. Therefore, the proposal will result in a separation of 2.7 km greater than the existing WMBC-DT construction permit location. Given the increase in the separation, the proposal is believed to be in compliance with Section 73.623(e) of the FCC Rules concerning Land Mobile operations in Channels 14-20.

#### Environmental Considerations

An evaluation was conducted for the proposed facility concerning compliance with Section 1.1307(b) of the FCC Rules regarding human exposure to radio frequency (RF) energy.<sup>\*\*</sup> Calculations prepared in accordance with FCC Bulletin OET-65 (Edition 97-01) indicate that the proposal will not result in human exposure to RF radiation at ground level in excess of FCC standards. Power density calculations were conducted at 2-m above ground<sup>††</sup> based on the following conservative assumptions, with the following results:

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<sup>\*\*</sup> See FCC Office of Engineering and Technology Bulletin No. 56 for background information on non-ionizing RF energy of the type discussed here. Internet web reference:

[http://www.fcc.gov/Bureaus/Engineering\\_Technology/Documents/bulletins/oet56/oet56e4.pdf](http://www.fcc.gov/Bureaus/Engineering_Technology/Documents/bulletins/oet56/oet56e4.pdf)

<sup>††</sup> The antenna radiation center height above ground is 193 m.

| <b>Call Sign</b> | <b>Channel</b> | <b>Total<br/>Average ERP<br/>(kW)</b> | <b>Relative Field<br/>Factor<sup>††</sup></b> | <b>FCC Limit<sup>§§</sup><br/>(mW/cm<sup>2</sup>)</b> | <b>Percentage of<br/>Limit</b> |
|------------------|----------------|---------------------------------------|---|---|--------------------------------|
| WMBC-DT          | 18             | 1000                                  | 0.13  | 0.331   | 4.7%                           |

As indicated above, the total exposure to RF radiation at 2-m above ground level will not exceed 4.7% of the FCC limit for general population / uncontrolled exposure. Therefore, the proposal complies with the FCC limits for human exposure to RF energy and it is categorically excluded from environmental processing. The applicant, in coordination with other users of the transmission facility, shall reduce power or cease operation as necessary to protect persons having access to the WMBC-DT tower or antenna from radio frequency radiation in excess of the FCC guidelines.

Louis Robert du Treil, Jr.

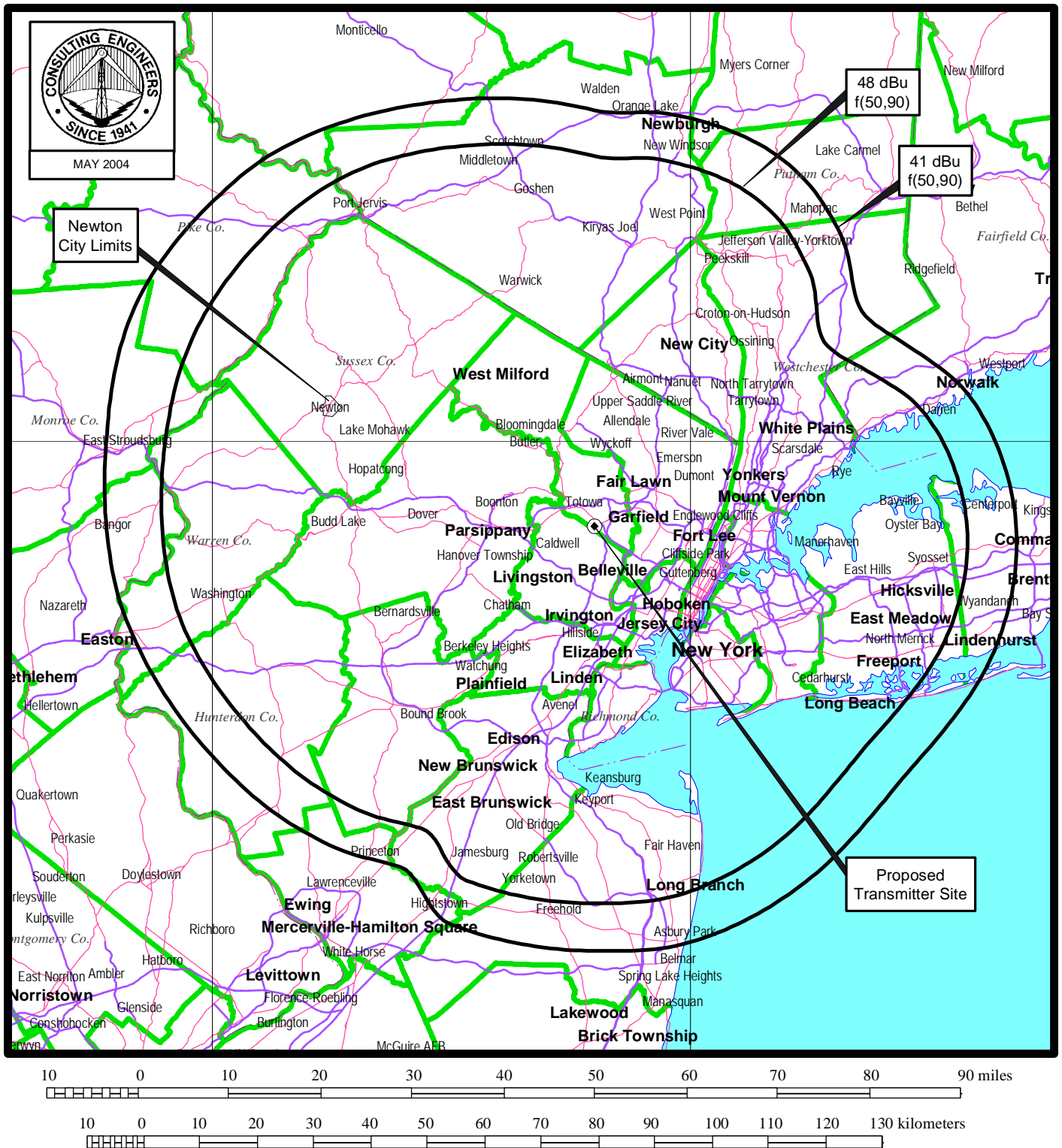
du Treil, Lundin & Rackley, Inc.  
201 Fletcher Ave.  
Sarasota, FL 34237-6019

July 1, 2004

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<sup>††</sup> This is a conservative estimate of the relative field factor in the downward direction.  
<sup>§§</sup> for general population/uncontrolled environments

Figure 2



## PREDICTED COVERAGE CONTOURS

TELEVISION STATION WMBC-DT  
NEWTON, NEW JERSEY  
CHANNEL 18 1000 KW (MAX-DA) 250 M

du Treil, Lundin & Rackley, Inc. Sarasota, Florida



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Summary of Allocation Analysis

| Stations Potentially Affected by Proposed Station |         |         |                 |               |        |                    |                              |
|---|---------|---------|-----------------|---------------|--------|--------------------|------------------------------|
| Facility Number                                   | Channel | Call    | City State      | Distance (km) | Status | Application Prefix | Application Reference Number |
| 1   | 17      | WEBR-CA | MANHATTAN NY    | 22.2          | LIC    | BLTTL              | 19960116JC                   |
| 2   | 17      | WMHT    | SCHENECTADY NY  | 197.7         | LIC    | BLET               | 331                          |
| 3   | 17      | WPHL-TV | PHILADELPHIA PA | 126.9         | LIC    | BLCT               | 2611                         |
| 4   | 17      | WOST-DT | BLOCK ISLAND RI | 213.9         | PLN    | DTVPLN             | DTVP0279                     |
| 5   | 17      | WPXQ    | BLOCK ISLAND RI | 213.9         | APP    | BPCDT              | 19991022AAT                  |
| 6   | 18      | WUVN    | HARTFORD CT     | 154.6         | LIC    | BLCT               | 19870304KI                   |
| 7   | 18      | WMFP    | LAWRENCE MA     | 294.8         | APP    | BPCDT              | 19991101AFC                  |
| 8   | 18      | WMFP-DT | LAWRENCE MA     | 309.2         | PLN    | DTVPLN             | DTVP0307                     |
| 9   | 18      | WETM-TV | ELMIRA NY       | 261.7         | LIC    | BLCT               | 19980615KE                   |
| 10  | 18      | WNPI-TV | NORWOOD NY      | 406.7         | LIC    | BMLET              | 19910906KG                   |

| Stations Potentially Affected by Proposed Station |         |         |                |               |        |                    |                              |
|---|---------|---------|----------------|---------------|--------|--------------------|------------------------------|
| Facility Number                                   | Channel | Call    | City State     | Distance (km) | Status | Application Prefix | Application Reference Number |
| 11  | 18      | WNPI-TV | NORWOOD NY     | 406.7         | CP     | BPET               | 20030109AAJ                  |
| 12  | 20      | WTXX    | WATERBURY CT   | 122.7         | LIC    | BLCT               | 19820428KE                   |
| 13  | 21      | WLIW    | GARDEN CITY NY | 63.5          | LIC    | BLET               | 20030416AAN                  |
| 14  | 25      | WNYE-TV | NEW YORK NY    | 22.2          | LIC    | BLET               | 19920220KG                   |

| Summary of Interference Analysis for Worst-Case Scenarios |   |  |                     |                            |                     |                                 |        |
|---|---|--|---------------------|----------------------------|---------------------|---------------------------------|--------|
| Facility Number   | Interference Population Before Analysis | Interference Population After Analysis | Baseline Population | Net Change in Interference | Percent of Baseline | Permissible Percent of Baseline | Result |
| 1   | --                                      | --                                     | --                  | *                          | 0.000               | --                              | pass   |
| 2   | --                                      | --                                     | --                  | *                          | 0.000               | --                              | pass   |
| 3   | --                                      | --                                     | --                  | *                          | 0.000               | --                              | pass   |
| 4   | --                                      | --                                     | --                  | *                          | 0.000               | --                              | pass   |
| 5   | --                                      | --                                     | --                  | *                          | 0.000               | --                              | pass   |
| 6   | 558131                                  | 600946                                 | 3790703             | 42815                      | 1.129               | 2.0                             | pass   |
| 7   | --                                      | --                                     | --                  | *                          | 0.000               | --                              | pass   |
| 8   | --                                      | --                                     | --                  | *                          | 0.000               | --                              | pass   |

\* There is no interference predicted.

| Summary of Interference Analysis for Worst-Case Scenarios |   |  |                     |                            |                     |                                 |        |
|---|---|--|---------------------|----------------------------|---------------------|---------------------------------|--------|
| Facility Number   | Interference Population Before Analysis | Interference Population After Analysis | Baseline Population | Net Change in Interference | Percent of Baseline | Permissible Percent of Baseline | Result |
| 9   | 2735                                    | 5052                                   | 562932              | 2317                       | 0.412               | 2.0                             | pass   |
| 10  | --                                      | --                                     | --                  | *                          | 0.000               | --                              | pass   |
| 11  | --                                      | --                                     | --                  | *                          | 0.000               | --                              | pass   |
| 12  | --                                      | --                                     | --                  | *                          | 0.000               | --                              | pass   |
| 13  | 1442133                                 | 1442133                                | 12635361            | 0                          | 0.000               | 2.0                             | pass   |
| 14  | 370535                                  | 371938                                 | 17047209            | 1403                       | 0.008               | 2.0                             | pass   |

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Transmitting Antenna  
Manufacturer's Pattern Data

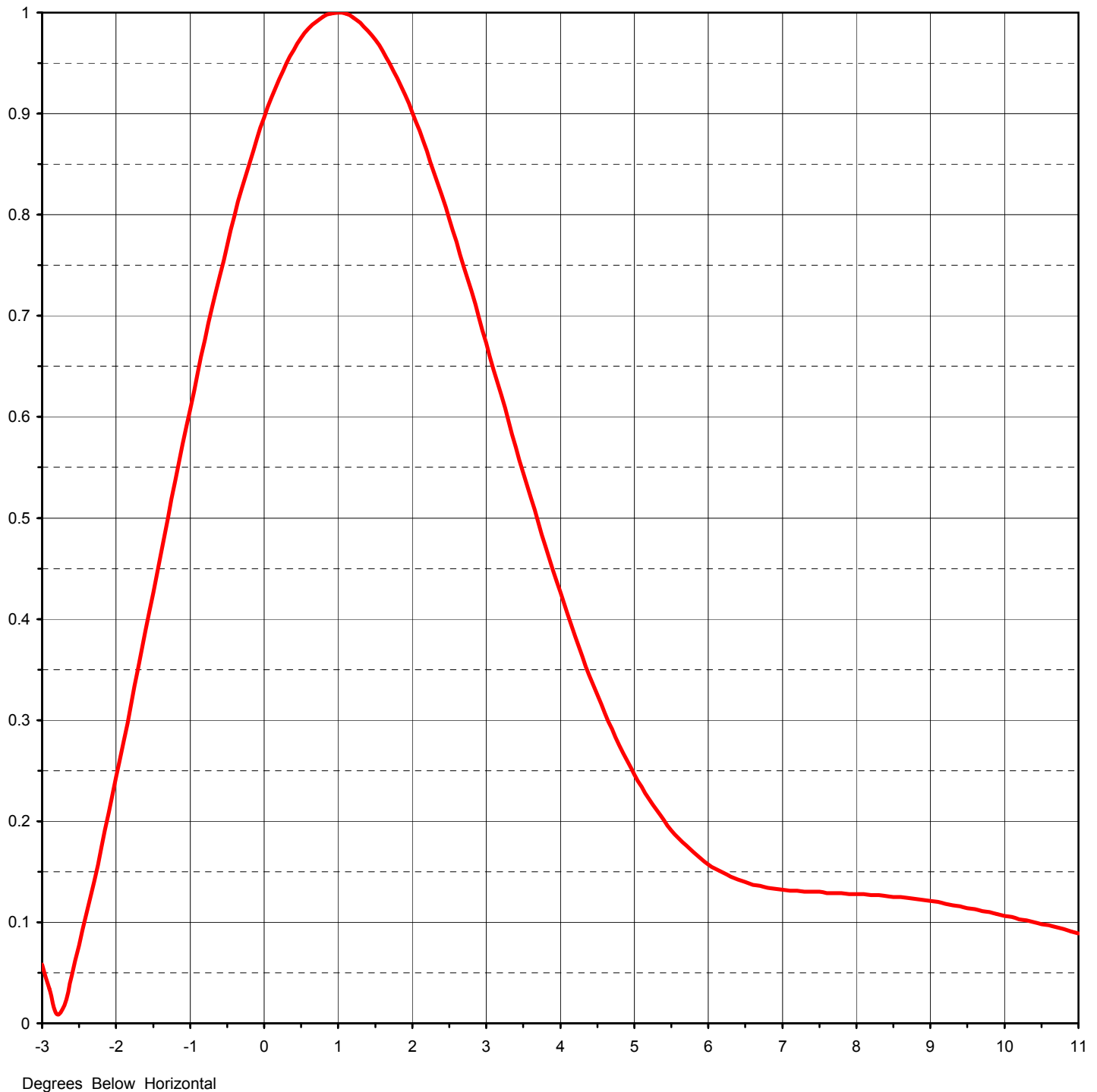
(five pages follow)



|                 |                          |                   |
|-----------------|--------------------------|-------------------|
| Proposal Number | <b>DCA-10501</b>         |                   |
| Date            | <b>9-Mar-04</b>          |                   |
| Call Letters    | <b>WMBC-DT</b>           | Channel <b>18</b> |
| Location        | <b>Newton, NJ</b>        |                   |
| Customer        |                          |                   |
| Antenna Type    | <b>TFU-16GTH-R 2S350</b> |                   |

## ELEVATION PATTERN

|                        |                           |           |                   |
|------------------------|---------------------------|-----------|-------------------|
| RMS Gain at Main Lobe  | <b>14.00 ( 11.46 dB )</b> | Beam Tilt | <b>1.00 deg</b>   |
| RMS Gain at Horizontal | <b>11.20 ( 10.49 dB )</b> | Frequency | <b>497.00 MHz</b> |
| Calculated / Measured  | <b>Calculated</b>         | Drawing # | <b>18G140100</b>  |



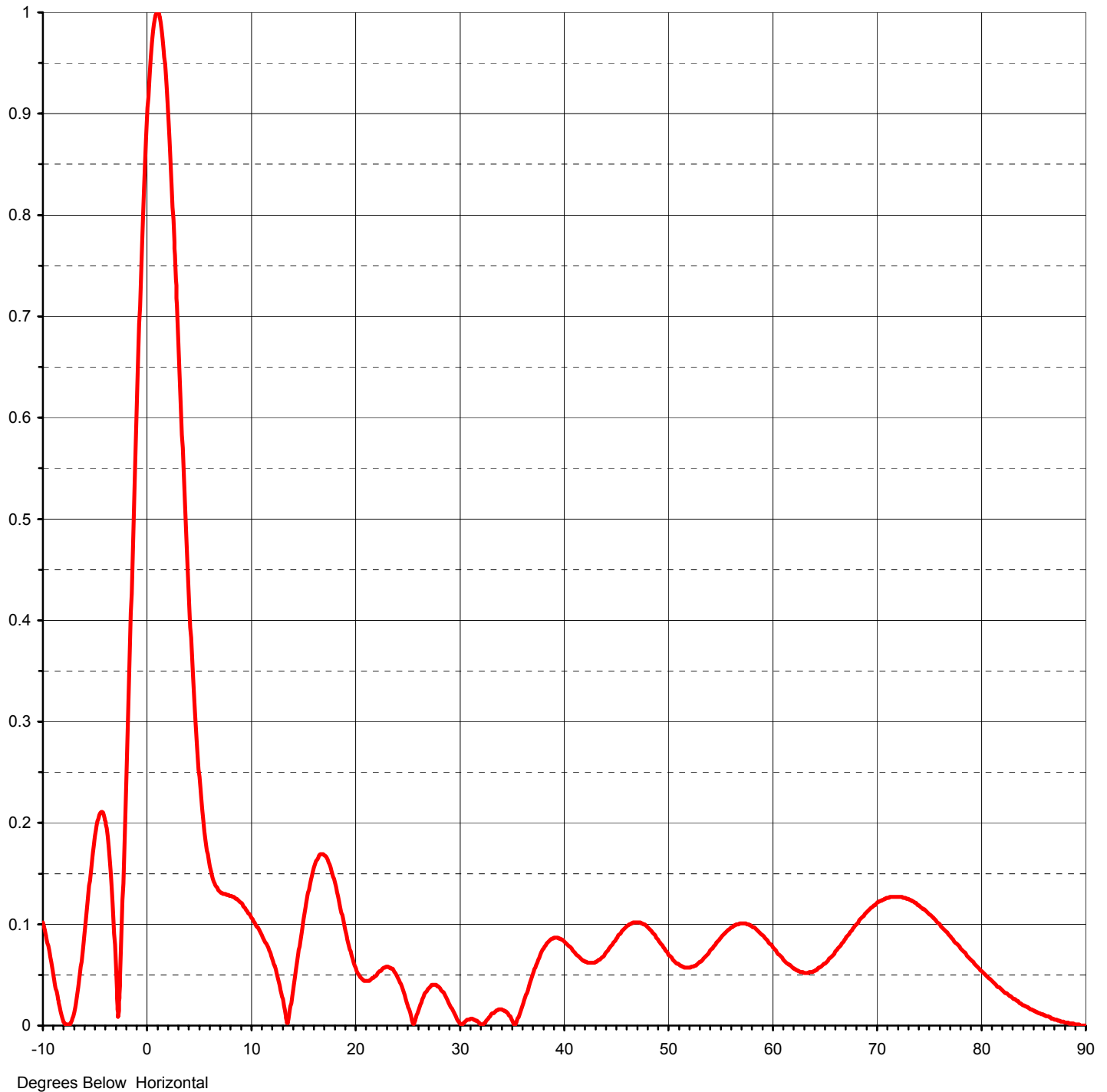


|                 |                          |                   |
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## ELEVATION PATTERN

|                        |                           |
|------------------------|---------------------------|
| RMS Gain at Main Lobe  | <b>14.00 ( 11.46 dB )</b> |
| RMS Gain at Horizontal | <b>11.20 ( 10.49 dB )</b> |
| Calculated / Measured  | <b>Calculated</b>         |

|           |                     |
|-----------|---------------------|
| Beam Tilt | <b>1.00 deg</b>     |
| Frequency | <b>497.00 MHz</b>   |
| Drawing # | <b>18G140100-90</b> |





Proposal Number **DCA-10501**

Date **9-Mar-04**

Call Letters **WMBC-DT** Channel **18**

Location **Newton, NJ**

Customer

Antenna Type **TFU-16GTH-R 2S350**

## TABULATION OF ELEVATION PATTERN

Elevation Pattern Drawing #: **18G140100-90**

| Angle | Field | Angle | Field | Angle | Field | Angle | Field | Angle | Field | Angle | Field |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| -10.0 | 0.102 | 2.4   | 0.819 | 10.6  | 0.098 | 30.5  | 0.003 | 51.0  | 0.061 | 71.5  | 0.127 |
| -9.5  | 0.079 | 2.6   | 0.773 | 10.8  | 0.095 | 31.0  | 0.006 | 51.5  | 0.058 | 72.0  | 0.127 |
| -9.0  | 0.051 | 2.8   | 0.724 | 11.0  | 0.091 | 31.5  | 0.006 | 52.0  | 0.057 | 72.5  | 0.126 |
| -8.5  | 0.023 | 3.0   | 0.673 | 11.5  | 0.081 | 32.0  | 0.002 | 52.5  | 0.058 | 73.0  | 0.125 |
| -8.0  | 0.004 | 3.2   | 0.622 | 12.0  | 0.069 | 32.5  | 0.003 | 53.0  | 0.062 | 73.5  | 0.122 |
| -7.5  | 0.001 | 3.4   | 0.570 | 12.5  | 0.052 | 33.0  | 0.009 | 53.5  | 0.067 | 74.0  | 0.119 |
| -7.0  | 0.013 | 3.6   | 0.520 | 13.0  | 0.031 | 33.5  | 0.014 | 54.0  | 0.072 | 74.5  | 0.115 |
| -6.5  | 0.046 | 3.8   | 0.472 | 13.5  | 0.003 | 34.0  | 0.016 | 54.5  | 0.079 | 75.0  | 0.110 |
| -6.0  | 0.092 | 4.0   | 0.426 | 14.0  | 0.029 | 34.5  | 0.014 | 55.0  | 0.085 | 75.5  | 0.105 |
| -5.5  | 0.143 | 4.2   | 0.383 | 14.5  | 0.064 | 35.0  | 0.007 | 55.5  | 0.091 | 76.0  | 0.100 |
| -5.0  | 0.187 | 4.4   | 0.343 | 15.0  | 0.098 | 35.5  | 0.003 | 56.0  | 0.096 | 76.5  | 0.094 |
| -4.5  | 0.210 | 4.6   | 0.307 | 15.5  | 0.129 | 36.0  | 0.017 | 56.5  | 0.099 | 77.0  | 0.088 |
| -4.0  | 0.202 | 4.8   | 0.275 | 16.0  | 0.152 | 36.5  | 0.032 | 57.0  | 0.101 | 77.5  | 0.082 |
| -3.5  | 0.152 | 5.0   | 0.246 | 16.5  | 0.166 | 37.0  | 0.048 | 57.5  | 0.101 | 78.0  | 0.076 |
| -3.0  | 0.058 | 5.2   | 0.222 | 17.0  | 0.169 | 37.5  | 0.062 | 58.0  | 0.099 | 78.5  | 0.071 |
| -2.8  | 0.009 | 5.4   | 0.201 | 17.5  | 0.161 | 38.0  | 0.074 | 58.5  | 0.095 | 79.0  | 0.065 |
| -2.6  | 0.047 | 5.6   | 0.183 | 18.0  | 0.145 | 38.5  | 0.082 | 59.0  | 0.090 | 79.5  | 0.059 |
| -2.4  | 0.108 | 5.8   | 0.169 | 18.5  | 0.123 | 39.0  | 0.086 | 59.5  | 0.085 | 80.0  | 0.054 |
| -2.2  | 0.174 | 6.0   | 0.157 | 19.0  | 0.099 | 39.5  | 0.087 | 60.0  | 0.079 | 80.5  | 0.049 |
| -2.0  | 0.243 | 6.2   | 0.149 | 19.5  | 0.077 | 40.0  | 0.084 | 60.5  | 0.072 | 81.0  | 0.044 |
| -1.8  | 0.315 | 6.4   | 0.142 | 20.0  | 0.059 | 40.5  | 0.079 | 61.0  | 0.067 | 81.5  | 0.039 |
| -1.6  | 0.389 | 6.6   | 0.137 | 20.5  | 0.048 | 41.0  | 0.073 | 61.5  | 0.061 | 82.0  | 0.035 |
| -1.4  | 0.463 | 6.8   | 0.134 | 21.0  | 0.044 | 41.5  | 0.068 | 62.0  | 0.057 | 82.5  | 0.031 |
| -1.2  | 0.537 | 7.0   | 0.132 | 21.5  | 0.045 | 42.0  | 0.064 | 62.5  | 0.054 | 83.0  | 0.027 |
| -1.0  | 0.608 | 7.2   | 0.131 | 22.0  | 0.049 | 42.5  | 0.062 | 63.0  | 0.053 | 83.5  | 0.024 |
| -0.8  | 0.676 | 7.4   | 0.130 | 22.5  | 0.054 | 43.0  | 0.062 | 63.5  | 0.052 | 84.0  | 0.020 |
| -0.6  | 0.740 | 7.6   | 0.129 | 23.0  | 0.058 | 43.5  | 0.065 | 64.0  | 0.054 | 84.5  | 0.018 |
| -0.4  | 0.799 | 7.8   | 0.129 | 23.5  | 0.056 | 44.0  | 0.071 | 64.5  | 0.057 | 85.0  | 0.015 |
| -0.2  | 0.851 | 8.0   | 0.128 | 24.0  | 0.050 | 44.5  | 0.077 | 65.0  | 0.061 | 85.5  | 0.012 |
| 0.0   | 0.896 | 8.2   | 0.127 | 24.5  | 0.039 | 45.0  | 0.084 | 65.5  | 0.067 | 86.0  | 0.010 |
| 0.2   | 0.934 | 8.4   | 0.126 | 25.0  | 0.023 | 45.5  | 0.091 | 66.0  | 0.073 | 86.5  | 0.008 |
| 0.4   | 0.963 | 8.6   | 0.125 | 25.5  | 0.005 | 46.0  | 0.097 | 66.5  | 0.079 | 87.0  | 0.006 |
| 0.6   | 0.984 | 8.8   | 0.123 | 26.0  | 0.012 | 46.5  | 0.101 | 67.0  | 0.086 | 87.5  | 0.005 |
| 0.8   | 0.996 | 9.0   | 0.121 | 26.5  | 0.026 | 47.0  | 0.102 | 67.5  | 0.093 | 88.0  | 0.003 |
| 1.0   | 1.000 | 9.2   | 0.118 | 27.0  | 0.036 | 47.5  | 0.101 | 68.0  | 0.100 | 88.5  | 0.002 |
| 1.2   | 0.995 | 9.4   | 0.116 | 27.5  | 0.040 | 48.0  | 0.098 | 68.5  | 0.106 | 89.0  | 0.001 |
| 1.4   | 0.982 | 9.6   | 0.113 | 28.0  | 0.039 | 48.5  | 0.093 | 69.0  | 0.112 | 89.5  | 0.000 |
| 1.6   | 0.962 | 9.8   | 0.111 | 28.5  | 0.033 | 49.0  | 0.086 | 69.5  | 0.117 | 90.0  | 0.000 |
| 1.8   | 0.935 | 10.0  | 0.108 | 29.0  | 0.023 | 49.5  | 0.079 | 70.0  | 0.121 |       |       |
| 2.0   | 0.901 | 10.2  | 0.105 | 29.5  | 0.013 | 50.0  | 0.072 | 70.5  | 0.124 |       |       |
| 2.2   | 0.863 | 10.4  | 0.102 | 30.0  | 0.004 | 50.5  | 0.065 | 71.0  | 0.126 |       |       |

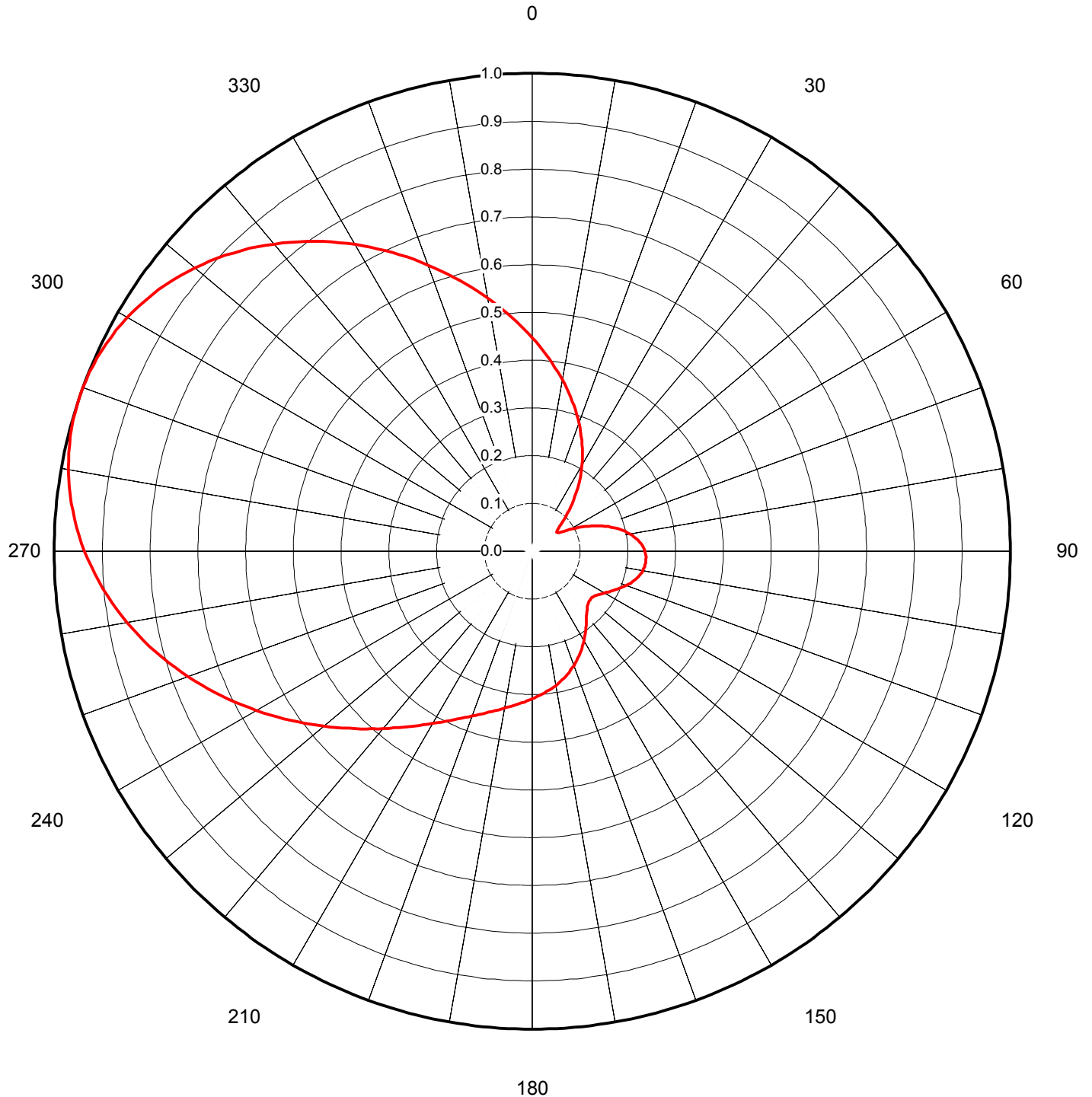


|                 |                          |         |           |
|-----------------|--------------------------|---------|-----------|
| Proposal Number | <b>DCA-10501</b>         |         |           |
| Date            | <b>9-Mar-04</b>          |         |           |
| Call Letters    | <b>WMBC-DT</b>           | Channel | <b>18</b> |
| Location        | <b>Newton, NJ</b>        |         |           |
| Customer        |                          |         |           |
| Antenna Type    | <b>TFU-16GTH-R 2S350</b> |         |           |

## AZIMUTH PATTERN

|                       |                   |                   |
|-----------------------|-------------------|-------------------|
| Gain                  | <b>3.50</b>       | <b>( 5.44 dB)</b> |
| Calculated / Measured | <b>Calculated</b> |                   |

|           |                     |
|-----------|---------------------|
| Frequency | <b>497.00 MHz</b>   |
| Drawing # | <b>TFU-2S350-18</b> |







Proposal Number **DCA-10501**  
Date **9-Mar-04**  
Call Letters **WMBC-DT** Channel **18**  
Location **Newton, NJ**  
Customer  
Antenna Type **TFU-16GTH-R 2S350**

## TABULATION OF AZIMUTH PATTERN

Azimuth Pattern Drawing #: **TFU-2S350-18**

| Angle | Field | Angle | Field | Angle | Field | Angle | Field | Angle | Field | Angle | Field | Angle | Field | Angle | Field |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0     | 0.447 | 45    | 0.095 | 90    | 0.236 | 135   | 0.163 | 180   | 0.309 | 225   | 0.525 | 270   | 0.936 | 315   | 0.883 |
| 1     | 0.438 | 46    | 0.088 | 91    | 0.237 | 136   | 0.165 | 181   | 0.311 | 226   | 0.533 | 271   | 0.942 | 316   | 0.875 |
| 2     | 0.429 | 47    | 0.083 | 92    | 0.238 | 137   | 0.168 | 182   | 0.313 | 227   | 0.542 | 272   | 0.949 | 317   | 0.866 |
| 3     | 0.421 | 48    | 0.077 | 93    | 0.238 | 138   | 0.170 | 183   | 0.316 | 228   | 0.551 | 273   | 0.954 | 318   | 0.857 |
| 4     | 0.413 | 49    | 0.073 | 94    | 0.239 | 139   | 0.173 | 184   | 0.318 | 229   | 0.560 | 274   | 0.960 | 319   | 0.848 |
| 5     | 0.404 | 50    | 0.069 | 95    | 0.239 | 140   | 0.177 | 185   | 0.320 | 230   | 0.569 | 275   | 0.965 | 320   | 0.839 |
| 6     | 0.396 | 51    | 0.067 | 96    | 0.239 | 141   | 0.180 | 186   | 0.323 | 231   | 0.579 | 276   | 0.969 | 321   | 0.830 |
| 7     | 0.388 | 52    | 0.065 | 97    | 0.238 | 142   | 0.184 | 187   | 0.325 | 232   | 0.588 | 277   | 0.974 | 322   | 0.821 |
| 8     | 0.380 | 53    | 0.066 | 98    | 0.237 | 143   | 0.187 | 188   | 0.328 | 233   | 0.597 | 278   | 0.978 | 323   | 0.811 |
| 9     | 0.372 | 54    | 0.066 | 99    | 0.236 | 144   | 0.191 | 189   | 0.331 | 234   | 0.607 | 279   | 0.982 | 324   | 0.801 |
| 10    | 0.364 | 55    | 0.069 | 100   | 0.235 | 145   | 0.195 | 190   | 0.333 | 235   | 0.617 | 280   | 0.985 | 325   | 0.791 |
| 11    | 0.356 | 56    | 0.071 | 101   | 0.233 | 146   | 0.199 | 191   | 0.336 | 236   | 0.626 | 281   | 0.988 | 326   | 0.781 |
| 12    | 0.348 | 57    | 0.076 | 102   | 0.231 | 147   | 0.203 | 192   | 0.339 | 237   | 0.636 | 282   | 0.991 | 327   | 0.771 |
| 13    | 0.340 | 58    | 0.080 | 103   | 0.229 | 148   | 0.208 | 193   | 0.342 | 238   | 0.646 | 283   | 0.993 | 328   | 0.761 |
| 14    | 0.332 | 59    | 0.085 | 104   | 0.227 | 149   | 0.212 | 194   | 0.345 | 239   | 0.656 | 284   | 0.996 | 329   | 0.751 |
| 15    | 0.324 | 60    | 0.091 | 105   | 0.224 | 150   | 0.216 | 195   | 0.349 | 240   | 0.666 | 285   | 0.997 | 330   | 0.741 |
| 16    | 0.317 | 61    | 0.097 | 106   | 0.222 | 151   | 0.220 | 196   | 0.352 | 241   | 0.676 | 286   | 0.998 | 331   | 0.731 |
| 17    | 0.309 | 62    | 0.103 | 107   | 0.219 | 152   | 0.224 | 197   | 0.356 | 242   | 0.686 | 287   | 0.999 | 332   | 0.720 |
| 18    | 0.301 | 63    | 0.109 | 108   | 0.216 | 153   | 0.228 | 198   | 0.359 | 243   | 0.696 | 288   | 1.000 | 333   | 0.710 |
| 19    | 0.293 | 64    | 0.116 | 109   | 0.212 | 154   | 0.232 | 199   | 0.363 | 244   | 0.706 | 289   | 1.000 | 334   | 0.700 |
| 20    | 0.286 | 65    | 0.122 | 110   | 0.209 | 155   | 0.236 | 200   | 0.367 | 245   | 0.717 | 290   | 1.000 | 335   | 0.689 |
| 21    | 0.278 | 66    | 0.129 | 111   | 0.206 | 156   | 0.240 | 201   | 0.371 | 246   | 0.727 | 291   | 0.999 | 336   | 0.679 |
| 22    | 0.270 | 67    | 0.135 | 112   | 0.202 | 157   | 0.244 | 202   | 0.375 | 247   | 0.737 | 292   | 0.999 | 337   | 0.668 |
| 23    | 0.262 | 68    | 0.142 | 113   | 0.199 | 158   | 0.248 | 203   | 0.380 | 248   | 0.747 | 293   | 0.997 | 338   | 0.658 |
| 24    | 0.255 | 69    | 0.148 | 114   | 0.195 | 159   | 0.251 | 204   | 0.385 | 249   | 0.757 | 294   | 0.996 | 339   | 0.648 |
| 25    | 0.247 | 70    | 0.155 | 115   | 0.191 | 160   | 0.255 | 205   | 0.389 | 250   | 0.767 | 295   | 0.993 | 340   | 0.637 |
| 26    | 0.239 | 71    | 0.161 | 116   | 0.188 | 161   | 0.258 | 206   | 0.394 | 251   | 0.776 | 296   | 0.991 | 341   | 0.627 |
| 27    | 0.231 | 72    | 0.167 | 117   | 0.184 | 162   | 0.261 | 207   | 0.400 | 252   | 0.786 | 297   | 0.988 | 342   | 0.617 |
| 28    | 0.224 | 73    | 0.172 | 118   | 0.181 | 163   | 0.265 | 208   | 0.405 | 253   | 0.796 | 298   | 0.985 | 343   | 0.607 |
| 29    | 0.216 | 74    | 0.178 | 119   | 0.178 | 164   | 0.268 | 209   | 0.411 | 254   | 0.805 | 299   | 0.982 | 344   | 0.597 |
| 30    | 0.208 | 75    | 0.184 | 120   | 0.174 | 165   | 0.271 | 210   | 0.416 | 255   | 0.815 | 300   | 0.978 | 345   | 0.587 |
| 31    | 0.200 | 76    | 0.189 | 121   | 0.172 | 166   | 0.274 | 211   | 0.422 | 256   | 0.824 | 301   | 0.974 | 346   | 0.577 |
| 32    | 0.192 | 77    | 0.194 | 122   | 0.169 | 167   | 0.277 | 212   | 0.428 | 257   | 0.833 | 302   | 0.969 | 347   | 0.567 |
| 33    | 0.184 | 78    | 0.199 | 123   | 0.166 | 168   | 0.280 | 213   | 0.435 | 258   | 0.842 | 303   | 0.964 | 348   | 0.557 |
| 34    | 0.176 | 79    | 0.203 | 124   | 0.164 | 169   | 0.282 | 214   | 0.441 | 259   | 0.851 | 304   | 0.959 | 349   | 0.548 |
| 35    | 0.169 | 80    | 0.208 | 125   | 0.162 | 170   | 0.285 | 215   | 0.448 | 260   | 0.860 | 305   | 0.954 | 350   | 0.538 |
| 36    | 0.161 | 81    | 0.212 | 126   | 0.160 | 171   | 0.288 | 216   | 0.455 | 261   | 0.869 | 306   | 0.948 | 351   | 0.528 |
| 37    | 0.153 | 82    | 0.215 | 127   | 0.159 | 172   | 0.290 | 217   | 0.462 | 262   | 0.877 | 307   | 0.942 | 352   | 0.519 |
| 38    | 0.145 | 83    | 0.219 | 128   | 0.158 | 173   | 0.293 | 218   | 0.469 | 263   | 0.885 | 308   | 0.936 | 353   | 0.510 |
| 39    | 0.138 | 84    | 0.222 | 129   | 0.158 | 174   | 0.295 | 219   | 0.477 | 264   | 0.893 | 309   | 0.929 | 354   | 0.500 |
| 40    | 0.130 | 85    | 0.225 | 130   | 0.158 | 175   | 0.297 | 220   | 0.484 | 265   | 0.901 | 310   | 0.922 | 355   | 0.491 |
| 41    | 0.122 | 86    | 0.228 | 131   | 0.158 | 176   | 0.300 | 221   | 0.492 | 266   | 0.909 | 311   | 0.915 | 356   | 0.482 |
| 42    | 0.115 | 87    | 0.230 | 132   | 0.159 | 177   | 0.302 | 222   | 0.500 | 267   | 0.916 | 312   | 0.907 | 357   | 0.473 |
| 43    | 0.108 | 88    | 0.232 | 133   | 0.160 | 178   | 0.304 | 223   | 0.508 | 268   | 0.923 | 313   | 0.899 | 358   | 0.464 |
| 44    | 0.101 | 89    | 0.234 | 134   | 0.161 | 179   | 0.307 | 224   | 0.516 | 269   | 0.930 | 314   | 0.892 | 359   | 0.455 |