# Table II

## Computation of Signal Level on the Ground from Proposed CH 235D Translator Troy, New York

## August, 2003

| Depression Angle, Degrees | Relative Field | ERP Watts | dBk | Distance to the Ground in Kilometers | Free Space Signal | dB Loss for Reflection | Signal Strength dBu |
|---|---|---|---|---|---|---|---|
| 90 | 0.033 | 0.0109 | -49.6 | 0.0100 | 97.3 | 2.47 | 94.8 |
| 85 | 0.041 | 0.0168 | -47.7 | 0.0100 | 99.1 | 2.47 | 96.7 |
| 80 | 0.054 | 0.0292 | -45.4 | 0.0102 | 101.4 | 2.47 | 99.0 |
| 75 | 0.073 | 0.0533 | -42.7 | 0.0104 | 103.9 | 2.47 | 101.4 |
| 70 | 0.092 | 0.0846 | -40.7 | 0.0106 | 105.7 | 2.47 | 103.2 |
| 65 | 0.110 | 0.1210 | -39.2 | 0.0110 | 106.9 | 2.47 | 104.4 |
| 60 | 0.121 | 0.1464 | -38.3 | 0.0115 | 107.3 | 2.47 | 104.9 |
| 55 | 0.118 | 0.1392 | -38.6 | 0.0122 | 106.6 | 2.47 | 104.2 |
| 50 | 0.094 | 0.0884 | -40.5 | 0.0131 | 104.1 | 2.47 | 101.6 |
| 45 | 0.046 | 0.0212 | -46.7 | 0.0141 | 97.2 | 2.47 | 94.7 |
| 40 | 0.032 | 0.0102 | -49.9 | 0.0156 | 93.2 | 2.47 | 90.7 |
| 35 | 0.142 | 0.2016 | -37.0 | 0.0174 | 105.1 | 2.47 | 102.7 |
| 30 | 0.279 | 0.7784 | -31.1 | 0.0200 | 109.8 | 2.47 | 107.3 |
| 25 | 0.436 | 1.9010 | -27.2 | 0.0237 | 112.2 | 2.47 | 109.8 |
| 20 | 0.600 | 3.6000 | -24.4 | 0.0292 | 113.2 | 2.47 | 110.7 |
| 15 | 0.759 | 5.7608 | -22.4 | 0.0386 | 112.8 | 2.47 | 110.3 |
| 10 | 0.889 | 7.9032 | -21.0 | 0.0576 | 110.7 | 2.47 | 108.2 |
| 5 | 0.972 | 9.4478 | -20.2 | 0.1147 | 105.5 | 2.47 | 103.0 |

**Notes:**

Antenna radiation center above ground (meters): 10

Maximum ERP (watts) at 0° Depression angle: 10

Free Space Signal = 106.92 -20*log(distance in km) + dBk

Relative field based on 3 bay half wavelength interbay spacing antenna.