

**Antenna Measuring Results**  
**27<sup>th</sup> Eastern VHF/UHF Conference held in Enfield, CT,**  
**at the Radisson Hotel, September 2<sup>nd</sup>, 2001**

Antenna measurements were conducted by Chris Fagas, WB2VVV, using Hewlett Packard (Agilent) Test Equipment, and known reference standard antennas.

---

144 MHz      (Reference: Half Wave Dipole, 0 dBd)

| Owner  | Antenna Description         | Boom Length | Reference Gain | Dipole Gain (dBd) |
|--------|-----------------------------|-------------|----------------|-------------------|
| K3IWK  | 10 Element Yagi-Uda         | 17.5'       | +13.2          | +13.2             |
| WB2VVV | Trimmed Radio Shack FM Beam | 6'          | +5.9           | +5.9              |
| WB2VVV | Half Wave Dipole            |             | 0              | 0                 |

---

222 MHz      (Reference: Half Wave Dipole, 0 dBd)

| Owner  | Antenna Description              | Boom Length | Reference Gain | Dipole Gain (dBd) |
|--------|----------------------------------|-------------|----------------|-------------------|
| K3IWK  | 14 Element Yagi-Uda              | 17.5'       | +14.6          | +14.6             |
| WB2VVV | Half Wave Dipole                 |             | 0              | 0                 |
| WB2VVV | Patch Antenna E <sub>r</sub> =10 | 9" X 9"     | - 16.0         | -16.0             |

---

432 MHz      (Reference: Half Wave Dipole, 0 dBd)

| Owner  | Antenna Description              | Boom Length | Reference Gain | Dipole Gain (dBd) |
|--------|----------------------------------|-------------|----------------|-------------------|
| K3IWK  | 22 Element Yagi-Uda              | 15' 6"      | +15.6          | +15.6             |
| W1JR   | 15 Element Yagi-Uda              | 7' 4"       | +13.1          | +13.1             |
| K1NCO  | 5 Element Yagi-Uda               | 2' 3"       | +7.3           | +7.3              |
| WB2VVV | Big Wheel                        |             | +0.3           | +0.3              |
| WB2VVV | Half Wave Dipole                 |             | 0              | 0                 |
| WB2VVV | Patch Antenna E <sub>r</sub> =10 | 4" X 4"     | -10.1          | -10.1             |

---

903 MHz (Reference: 4" X 4" Patch,  $E_r = 2.3$ , +5.2 dBd)

| Owner  | Antenna Description      | Boom Length | Reference Gain | Dipole Gain (dBd) |
|--------|--------------------------|-------------|----------------|-------------------|
| KA1ZE  | 18 Element W1RIL Y/U     | 5'          | +9.6           | +14.8             |
| WB2VVV | 15 Element Wood Boom Y/U | 4' 6"       | +8.5           | +13.7             |
| WB2VVV | Patch Antenna $E_r=1$    | 5" X 5"     | +2.5           | +7.7              |
| WB2VVV | Patch Antenna $E_r=2.3$  | 4" X 4"     | 0              | +5.2              |

---

1296 MHz (Reference: 3" X 3" Patch,  $E_r = 2.3$ , +6.9 dBd)

| Owner  | Antenna Description        | Boom Length | Reference Gain | Dipole Gain (dBd) |
|--------|----------------------------|-------------|----------------|-------------------|
| WA1HHN | 67 Element WIMO/SHF        | 16' 9"      | +13.9          | +20.8             |
| WB2VVV | 25 Turn Helix              | 6'          | +7.2           | +14.1             |
| WB2VVV | Quad Patch Array $E_r=2.3$ | 11" X 11"   | +3.9           | +10.8             |
| WB2VVV | Patch Antenna $E_r=2.3$    | 3" X 3"     | 0              | +6.9              |
| WB2VVV | Tin Can Horn               | 15"         | -0.6           | +6.3              |
| N2LIV  | Copper Can Horn            | 10"         | -1.1           | +5.8              |

---

2304 MHz (Reference: 1.75" X 1.75" Patch,  $E_r = 2.3$ , +6.0 dBd)

| Owner  | Antenna Description     | Boom Length   | Reference Gain | Dipole Gain (dBd) |
|--------|-------------------------|---------------|----------------|-------------------|
| N3EMF  | 67 Element WIMO/SHF     | 9' 8"         | +14.5          | +20.5             |
| KF6AJ  | 45 Element Loop Yagi 2  | 6' 8"         | +9.9           | +15.9             |
| KF6AJ  | 45 Element Loop Yagi 1  | 6' 8"         | +8.9           | +14.9             |
| WB2VVV | Patch Antenna $E_r=1$   | 2.5" X 2.5"   | +1.0           | +7.0              |
| WB2VVV | Patch Antenna $E_r=2.3$ | 1.75" X 1.75" | 0              | +6.0              |
| N2LIV  | Coffee Can Horn         | 6"            | -0.4           | +5.6              |
| N2LIV  | W1RIL Choke Splash      | 9"            | -0.6           | +5.4              |
| WB2VVV | Coffee Can Horn         | 12"           | -1.0           | +5.0              |
| N2LIV  | Coffee Can Horn         | 5"            | -1.4           | +4.6              |
| N2MSS  | Cavity Backed Spiral    | 2"            | -8.0           | -2.0              |

---

3456 MHz (Reference: 1.3" X 1.3" Patch,  $E_r = 2.3$ , +5.9 dBd)

| Owner  | Antenna Description | Boom Length | Reference Gain | Dipole Gain (dBd) |
|--------|---------------------|-------------|----------------|-------------------|
| N2LIV  | W1RIL Choke Splash  |             | +2.6           | +8.5              |
| WB2VVV | Patch Antenna       | 1.3" X 1.3" | 0              | +5.9              |

---

5760 MHz (Reference: 1" X 1" Patch,  $E_r = 1$ , +6.4 dBd)

| Owner  | Antenna Description | Boom Length | Reference Gain | Dipole Gain (dBd) |
|--------|---------------------|-------------|----------------|-------------------|
| WB2VVV | Patch Antenna       | 1" X 1"     | 0              | +6.4              |

---

10368 MHz (Reference: Horn, +10 dBd)

| Owner  | Antenna Description     | Boom Length | Reference Gain | Dipole Gain (dBd) |
|--------|-------------------------|-------------|----------------|-------------------|
| N2MSS  | Dish/Shepard's Crook    | 24"         | +23.9          | +33.9             |
| WB1FKF | Sony Offset Black Feed  | 18"         | +23.1          | +33.1             |
| K1NCO  | MA/COM Button Hook      | 24"         | +22.4          | +32.4             |
| WB1FKF | Horn                    | 8"          | +11.1          | +21.1             |
| K1NCO  | Horn                    | 8"          | +10.2          | +20.2             |
| WB2VVV | Horn                    | 3"          | 0              | +10.0             |
| WB2VVV | Patch Antenna $E_r=1$   | 0.6" X 0.6" | -4.3           | +5.7              |
| WB2VVV | Patch Antenna $E_r=2.3$ | 0.4" X 0.4" | -6.6           | +3.4              |

---