

Hi all,

The RSGB held their HF convention in the UK over the weekend (7-9 Oct 2005).

They always have a demonstration station and this year they had installed an 80m Arno Electronics ca 80m EH antenna. I thought that readers might be interested in some back to back results I did, comparing it with their 80/40m trap dipole.

The EH was mounted on a pole on the front lawn with the base at about 12 feet. It was below the roofline of the hotel. The trap dipole was in an inverted V configuration with the centre feed at about 25 feet – higher than the tip of the EH, but just clearing the hotel roof. The ends came down to just lower than the EH.

The SWR on the EH was about 1.6 to one at 3.640, rising to 3:1 at ± 85 kHz. The noise level was significantly lower, by about two S points. At 9am on near Europeans the EH was down about 2-3 S points compared with the trap dipole. At around lunchtime it was slightly worse on inter-G (high angle stuff). Towards the evening it was again about 2-3 S points down on inter-EU. No DX was heard as other activities prevailed. The rig was a Yaesu FT1000 and typically a 59+5db signal became S7, an S9 became S6-7. As always, some were slightly better, some worse.

From this I concluded that it was not an efficient high angle radiator, and if the base had been at the same point as the dipole I would have expected signal levels to improve, perhaps with the EH being down about 1-2 S points. It was, I think similar performance to a 1.7m diameter mag loop, but without the 2kHz bandwidth - I was very impressed by the wide bandwidth.

Professor Mike Underhill gave a talk on the EH and did make one interesting point. He said that if people just cannot abide the EH concept why not try to think of the EH as two monopoles fed against earth. Rather like two short verticals stacked one above the other and acting against ground. His NEC models, when you took the phase difference into account did look remarkably like the radiation pattern of the EH – very low angle.

As always, don't shoot the messenger!

Steve G0KYA