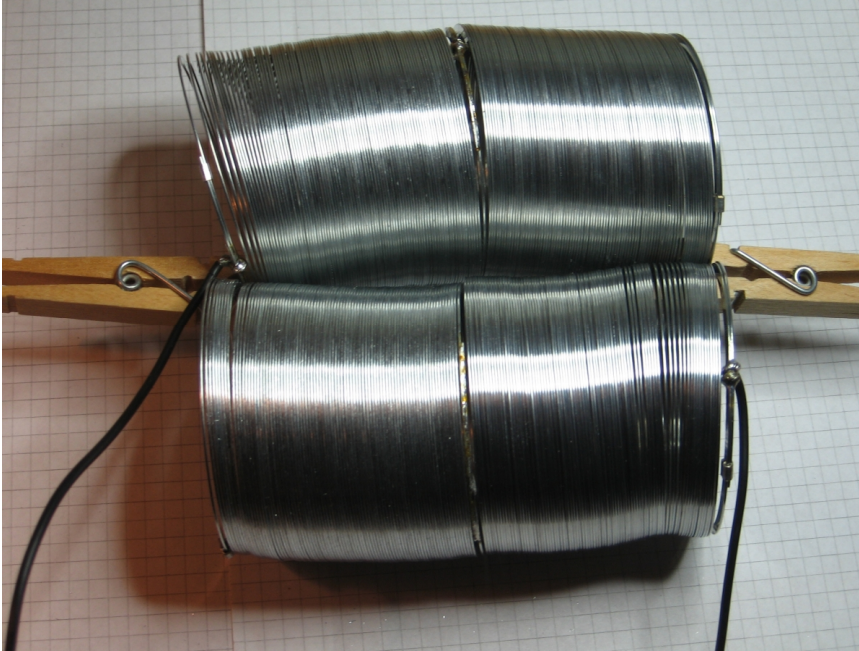


MOWYM

## QRP 80 Metre Slinky Dipole



The purpose of the 80 metre slinky dipole is to allow operation on that band with a loft antenna and the design is adapted from the various offerings to be found [on-line](#). In this case the slinky dipole forms part of the [fan dipole](#) already described.

Slinkies can be obtained in the UK from [Maplin](#), they are 2.75 inches in diameter, consist of some 80 turns and appear to be nickel plated. In any event, the slinkies are easily soldered using a 25 watt iron.

Each arm of the dipole consists of two slinkies soldered together, before soldering the retaining clips on the ends to be joined were removed and the ends held together using wooden clothes pegs. As can be seen about an inch of the slinkies were soldered (click on images for a larger view). Lengths of 20/02mm wire were attached to the other ends of the slinkies for connection to the fan dipole.

The slinkies are supported using nylon cord (around 10 pence per metre at your local hardware shop) and cable ties were used at the ends to make it easier to remove dipole. Screw-in hooks spaced at approximately one metre intervals are used to support the slinkies and the last turn at each end is looped over a hook. Please remember that I am only running a maximum power of 10 watts and would not suggest that these mounting methods be used at higher powers.

The nylon cord was passed through the slinkies before putting them into place, the cord and slinky attached at one end then stretched tightly and attached at the other end. The slinkies were carefully extended and attached at the other end. Finally, the cord was hung on the remaining hooks and the wires attached with crimps to the fan dipole terminal boards.

After constructing the original fan dipole I had a go at making my own balun using a toroid and eight turns of UR58 coaxial cable. It performs as well as the bought one although I'm probably pushing at 6 metres but it will have to do until I can justify purchasing a coaxial switch!

**Results:** The ICOM IC703 seems pretty happy with the addition of the 80m slinky dipole to the fan

dipole set, signal levels on 80 have risen in the order of 20 db, including the noise! The SWR on 80 varies but is under 1.3:1 for most of the band, SWR on the other bands is substantially unaffected by the presence of the slinky. See the [table](#) for details of SWR on all bands.

Receiving: As mentioned the signal and noise have risen considerably on 80 metres compared to levels using the fan dipole without the slinky. Unfortunately conditions have been extremely noisy this weekend (June 30th / July 1st, 2007) with daytime background levels of S 5/6, evening reception has been OK with signals from the UK and Europe getting through the noise.

#### **DXCC Entities Worked as of September 10, 2007**

<b>Station</b>	<b>Country</b>	<b>DXCC</b>	<b>Band</b>	<b>Mode</b>	<b>Sent</b>	<b>Recv</b>
ON6CK/P	Belgium	209	80m	LSB	59	59
GB0ETM	England	223	80m	LSB	57	34
PA0IJM	Netherlands	263	80m	LSB	59	59
GC3SBL/P	Wales	294	80m	LSB	58	53

I haven't spent much time on 80  
but at least the above shows that I am getting some sort of signal out!



