

# SOTA Poles

From SOTA Beams

## *The Basics*

### **Extending the pole**

Hold the pole vertically and remove the top bung (not the screw end). Gently tilt the pole over with your hand over the end to stop the sections coming out. Allow the smallest section to come out and lock into the next section with a pulling/twisting motion. Repeat until the pole is fully extended.

### **Collapsing the pole**

Always start at the bottom with the widest section. Use a twisting/pushing motion and collapse one section at a time. NEVER start with the smallest section as this will disappear into the rest of the pole and damage is almost certain to result.

### **Cleanliness is next to Godliness**

The pole relies on clean joints to work properly. Always try to keep the pole clean. Wipe off mud/sand etc before collapsing the pole.

### ***Use as an aerial support***

### **Dipoles**

Use the pole to support the centre of the dipole. Use thin insulated wire. Thin coax (such as RG-174) is recommended. Attach the centre of the aerial to the pole using a cable tie. Do not attach the aerial to the top as this point is too flexible to be suitable. I recommend attaching the aerial just above the bottom of the top section. Tension the cable tie so that it cannot slip down any further. Because the rods taper, it is very easy to remove the cable tie by sliding it upwards. Use the aerial itself as two of the three guys necessary to support the pole. Tie sufficient plastic parcel string on the each end of the dipole to ensure that the ends of the dipole are at least 1 metres above the ground. Peg the guys using light aluminium tent pegs. A third back guy can be made of plastic parcel string. Tie a loop in the end and slide this down the pole after attaching the dipole. It will come to rest stopped by the dipole. Peg as before with a tent peg. When pegging, do not over tension the guys. Allow a little slack so that the pole can move freely. If the guys are too tight, the pole sections may collapse into each other and damage will result! With practice, the pole can easily be erected by one person.

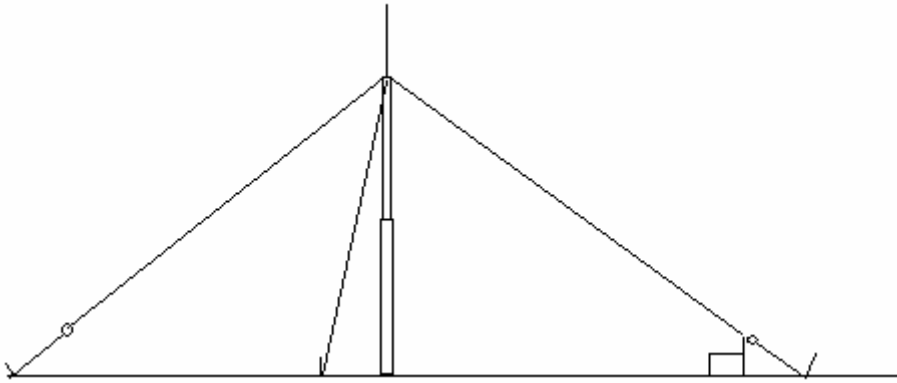
### **Guys and Aerials**

We recommend Wire Winders for winding up guys and aerials. Wire Winders are available from SOTA Beams (of course!). We also sell guying kits for our poles (see our web site).



### **Long wires**

A wire of about  $\frac{3}{8}$  wavelength on the lowest band that you intend to use will usually suffice. 42 feet is a good compromise for 40m and up; use 84ft to add 80m. Working from the far end of the wire, tie a loop about  $\frac{1}{4}$  wavelength from the end. Attach a cable tie and attach the tie to the pole as described above (i.e. not right at the top). This ensures that the part of the aerial carrying the maximum current is the highest part. We can supply a nylon cord to act as a back guy if required—or use some parcel string. This type of aerial needs a counterpoise (a wire laid on the ground) to work against. The counterpoise should be as long as the aerial section and is simply connected to the earth terminal on the radio,



To erect, I suggest that you get your radio in a suitable location first, then peg that end of the aerial. Attach the aerial to the pole by sliding down the cable tie. Hold the pole up so that the aerial is in the air with the far end loose. Position the pole so that the wire to the transceiver is just taut. Take the pole down and peg out the far end of the aerial (remember that this will act as a guy so it must not be directly in line with the wire from the radio. Re-erect the pole and by using an iterative process get the pole and guys adjusted correctly – remember not to make the guys too tight!

### ***Use as the Top Section of a Permanent Vertical***

These poles make a great top-section for a vertical, giving a really professional appearance. The best way to use them is to unscrew the bottom end of the pole and carefully remove and separate all of the sections. Feed the end (coated with an epoxy glue) of a long piece of wire up inside the smallest section. Put a smear of araldite on the base of the small section and slide the next largest section down over the top. Continue with all sections so that the wire runs down the middle. For power higher than about 200 Watts, I would recommend a corona loop at the top. The pole can be inserted inside an aluminium tube to increase the overall height. I recommend giving the whole pole a coat of polyurethane varnish before installation outside. Mine has been outside for three years and still looks like new. For a long term “temporary use” use insulating tape at the joints instead of gluing them.

### ***Other suggestions***

Poles can be carried by attaching them to your rucksack. I use duck-tape to attach loops to the poles allowing easy attachment. We occasionally have carrying cases in stock that are useful for taking poles abroad on holiday.

The poles can also be used as a walking stick. To ensure minimum wear the bottom of the pole should be wound with several layers of duck-tape. This use will inevitably reduce the life of the pole however.

### **Sales Pitch**

We stock a range of poles: 3.6 metre Mini Poles, 6.9 metre Regular Poles and 9.1 metre Maxi Poles. We sell guying kits, dipoles, Wire Winders and 2m Beams all designed for use on the poles. We offer great quantity discounts on poles. Prices include VAT and P&P (UK only) and are correct at August 2005.

Pole Type	One Pole	Two Poles	Four Poles
3.6 metre Mini Pole	£12.95	£22.95	£44.95
6.9 metre Regular Pole	£17.95	£30.95	£55.95
9.1 metre Maxi Pole	£25.95	£46.95	£78.85

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www.sotabeams.co.uk**