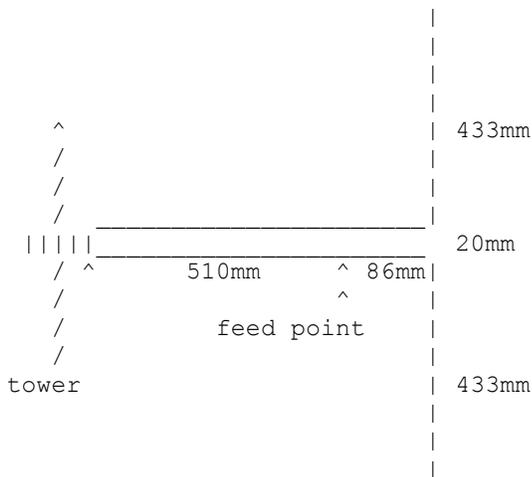


Subject: 70cms & 2m Dual Band Aerial

From: G8MNY@GB7CIP.#32.GBR.EU
 To : TECH@WW



My prototype antenna was built using a single approx. 2.3 meter length of 4mm stainless steel wire. This resulted in a totally self supporting ant. I much prefer to see the least possible number of joins in a antenna so as the thing ages you do not get crackles and other noise problems from your aerial. In a similar manner the coax cable was soldered direct to the antenna at the feed point which is some 86mm in from the antenna itself as shown above. (the centre conductor goes to the top) I added some support by way of a 75mm length of pvc tube 20mm diameter fitted between the wires on the tower side of the feedpoint. The coax runs through this tube. (the 20mm spacing is not critical but should not be greater than 25mm for 70cm operation) The mounting to the tower can be done in lots of ways.... my antenna is attached to a piping mast and I used a old TV type boom to mast clamp and drilled 4mm holes straight through it at one end in a manner so as when the 2.3 meter wire was run through the holes to it's half way point and bent at right angles the horizontal part of the antenna is in the position as shown above.

A couple of bolts at the other end (close to the sides of the wire..... A total of 4 small bolts) resulted in a nice solid structure. Bend the wire as shown above and trim to length as shown. The actual feed point is found by mounting the antenna on some metal support and using a SWR meter as close to the feed point as you can get. The length of the quarter wave stub (510mm measurement) is not real critical so the 85mm dimension can be changed a little for minimum SWR. (about 1.2 to 1 is easily found) Do your tuning on 70cm as it is more critical on this band.

When the correct spot is found attach your feed line and seal it up. I soldered the coax direct to the antenna. (you can't do this if you build the thing out of aluminium!!) I tinned the 4mm wire at the feed point with aid of some comweld 965 flux before soldering the cable on. I used coax-seal to seal the cable. (if you must use silicon make sure that it is a neutral cure type.) Oh and make sure you have a reasonable piece of coax cable for the length you are going to use. (like if you are going to use, say, 20 meters of cable then you need to find a low loss cable..... RG 213 is not the best to use and RG 58 is a good dummy load at 70cm) The most expensive part of this project will be the coax cable.

73 de Mike VK4XT

The antenna is not yet made by myself!

'73 de Roeland, PA0RBC@PI8SAT.#NH1.NLD.EU

Why Don't U send an interesting bul?

73 De John, G8MNY @ GB7CIP

/EX