

A 'Fast' FD Yagi Mounting

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Do you need a quick way to mount your field day VHF & UHF yagis onto the masting pipe ??

For the last few years, I have used a hinge mount for my 6m, 2m and 70cm yagis but I realised that since I had added a permanent vertical-polarisation yagi to my field day antenna array, I really didn't need the ability of that hinge for the 70cm one. Originally, it was hinged so I could flip it between vertical and horizontal polarisation - but this was no longer needed.

Most yagis mount to a vertical mast by a conventional u-bolt and associated V-block, the "u" goes around the mast, through the "V" block, then the straight threaded sections through parallel hole sets in the boom material and are then held in place by hexagonal nuts on the other side... The problem is that on a field day there isn't a lot of time to line up the booms to make sure that all are pointing in a common direction before hoisting the mast vertical - and usually there is no possibility of doing any individual yagi direction adjustment afterwards.

The simple solution to this is to place all of your u-bolts and v-blocks on the masting pipe/tube, add some flat washers and hex nuts, partially tighten them all up and line up any "flats" on the v-blocks so that they form a straight visual plane and then fully tighten the nuts... Yes, you can do it at home at your leisure, leave the u-bolts and v-blocks in place for transit (well, preferably though not imperative). When you start assembling the yagis onto the mast pipe at the FD site, simply slip the yagi onto the protruding straight threaded sections of the u-bolts, pop on some extra flat washers and a couple of wingnuts (sized to suit the thread of course) and, voila, the yagi booms all line up and only take 30 seconds (or so) each to add - or remove...

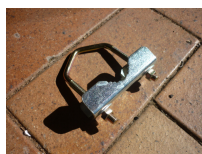
Remember to use flat washers between the hex nuts and the boom on the "inside" to prevent the nuts forming impressions on the mast tube.. (Make sure that these are the same thickness so the boom direction doesn't creep off the axis/plane a bit !)

I also prefer to have a flat steel piece between the the flat washers and the boom on the outside too, again to prevent crushing of the boom tube. It isn't absolutely necessary but the flat washers are.

A useful tip is to add a suitably stretched rubber band across the open end of a u-bolt to keep the wingnuts(or hex-nuts) from spinning off during transit !!

The photos below demonstrate how to do 'it' the fast way :

(Mouse-over for more detail)



Typical u-bolt with v-block and hex nuts



Normal mounting - u-bolt around mast tube, v-block added then through the boom holes, flat washers and hex nuts to finish off.

Good for permanent installations, too slow for FD work.



Alternate technique for FDs : u-bolt, v-block, flat washers and hex nuts tightened onto masting pipe. Any/all v-blocks lined up visually by looking down the mast pipe so that the flats correspond.



Yagi boom slipped over the protruding threaded segments of the u-bolt..
Flat steel piece added to prevent boom crushing.



Wingnuts and flat washers added..



Wingnuts tightened up - but not too tight !!
All done..

So simple that you'll slap your forehead for not thinking of it before now !