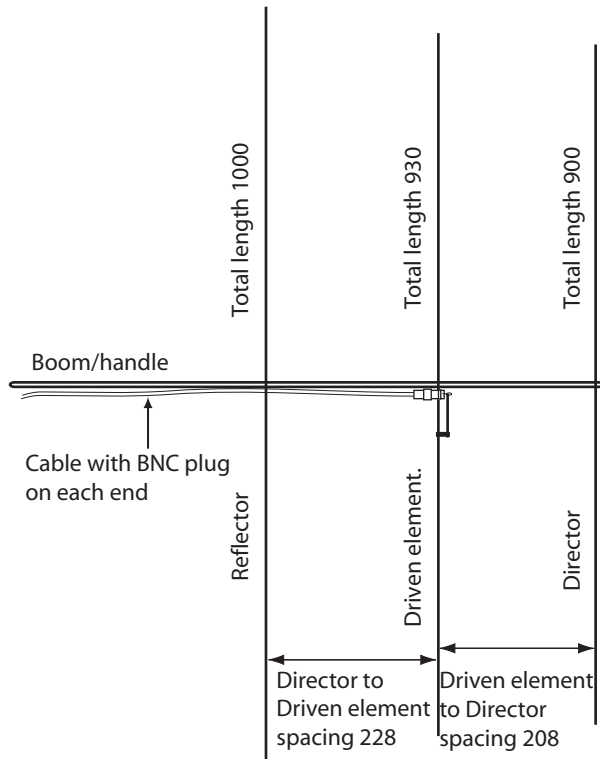


152 MHz 3 Element Yagi Antenna

Vin Morgan July 2004

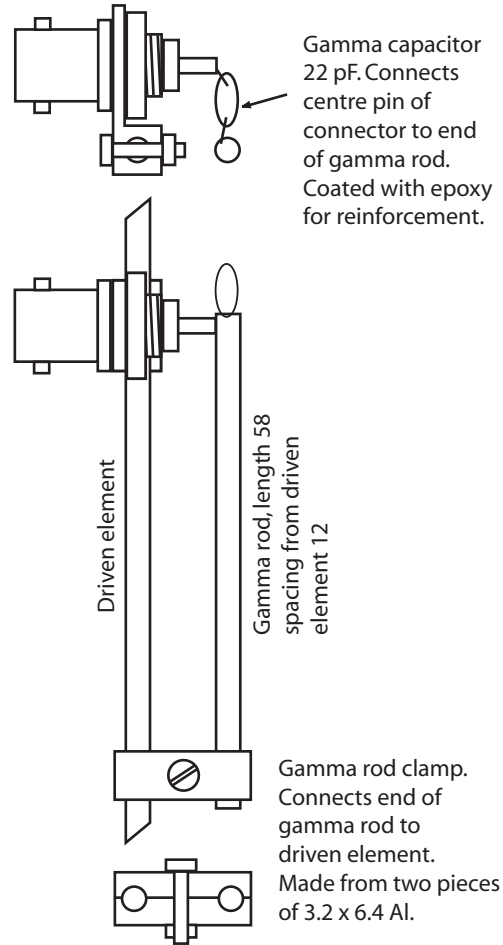
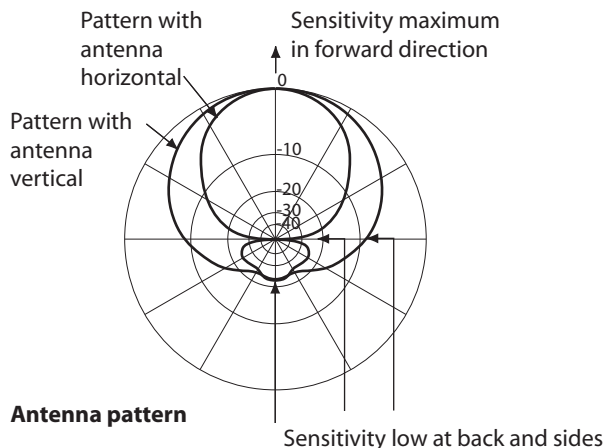
1. With gamma match to cable



For locating model aeroplanes and small animals etc the main requirement of an antenna is convenience and gain. Because the searching is done by closing in on the transmitter it is not necessary to have very sharp directionality. It is however, necessary to be able to hear the signal!

At ~150 Mhz a 3 element yagi is a good compromise between gain and portability. Yagis also have the advantage of simple disassembly because a connection only has to be made to one element. The yagi has a broad maximum in sensitivity at the front which is good for initially finding the signal. The deep nulls on either side are good for getting direction.

All elements are 3.2 mm (1/8") diameter aluminium tube or rod. Aluminium welding rod is suitable. Element lengths are for an insulating boom (wood, glassfibre, etc). The elements can pass through the boom or be attached with insulated mountings. The antenna with the gamma match has the advantage that the driven element does not have to be split in the centre. The antenna gain is about 7.3 dbi.



2. With split centre element for direct connection to cable.

