

hopefully in the belief that where 50MHz in Britain is concerned nothing can be the same again, only better. Now the construction (or purchase) of equipment for the newly acquired band may be considered. Now more time may be devoted to exploring it with profit. But what equipment?

What to use on 'Six'

To many operators the transverter principle will be the favoured one, with its capacity to give instant SSB or CW on 50MHz from an existing transmitter, either HF or VHF. To others the older style concept of a converter feeding a communications receiver will be preferred, used in conjunction with a separate transmitter. Both units can be of such simple design that an average home constructor could build one of each on a Saturday morning. The accompanying block diagrams show possible configurations.

Where a 6m converter is concerned the non-professional radio-man with no access to sophisticated test equipment may harbour misgivings about aligning the device. He need not worry: if he is unable to receive the Anglesey beacon GB3SIX on 50.02MHz he will almost certainly be within range of television transmissions that comprise an all too permanent signal source! Anyway, if he constructs the transmitter first he can use its output (fed into a dummy load) as the means for aligning the new-built converter.

What of a suitable antenna? It must be admitted that its size may be slightly intimidating, larger than an antenna for the 70MHz band (and that is 6ft across) but much smaller than the big HF beams to be seen in many urban localities.

While it is tempting to go for the most basic antenna of all — a half-wave dipole — it should be remembered that such a device provides no gain. Preferably, a beam should be built (or bought, when commercial designs appear).

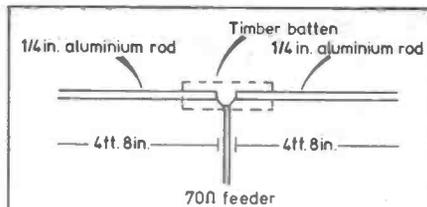


FIG. 3a. Half wave dipole for 50MHz

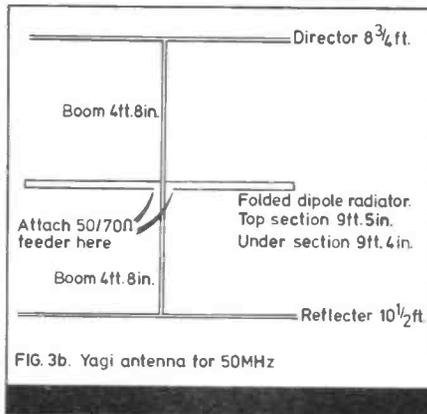


FIG. 3b. Yagi antenna for 50MHz

If a dipole it is to be, two rods each 4ft 8ins long are required, mounted on a batten to make a total length of 9ft 5in, after allowing an inch between the inner ends of the rods where the 70 ohm feeder is to be connected.

If a beam it is to be, then a reflector 5% longer than the radiating element and a director 5% shorter will be required, all three elements mounted along a boom and separated by a quarter-wavelength (4ft 8in) from each other. The radiating element will need to be constructed as a folded dipole to bring the impedance back up to a practical value. By compressing or stretching the folded dipole the experimenter can adjust its impedance to match that of the coaxial feeder.

It must be emphasised that this approach to antenna construction is the 'cheap and cheerful' one, and it gives encouraging results. The perfectionist, the ham with time to spare to extract the last ounce, will wish to devote the maximum effort towards getting his 50MHz antenna exactly right by using the information readily available from the standard textbooks.

What to hear on 'Six'

Outside of UK television hours the British listener on 'Six' will find the world to be his oyster. Even within television hours, if he abates video interference by nulling it out with a directional antenna he should hear some of the overseas beacons which are on continuously at the bottom end of the band (a selection of them is in the panel herewith) together with much overseas DX, if past experience over the last dozen years is any guide. Amateur DX will be found in random parts of the band simply because different countries allocate different areas of 50MHz to their nationals, eg, the Americans enjoy the full 50-54MHz, the Australians 52-54MHz and the British 50-52MHz.

In an attempt to solve this frequency-incompatibility problem the Americans have devised the 6m bandplan shown in Panel 2 herewith. Although neither mandatory nor capable of world wide implementation it is all the same a useful practical device for ordering things tidily on 'Six'.

Something else the newcomer to the 6m band will discover is the rather special camaraderie that infuses its occupants, rather akin to that evident in the microwave spectrum, where the feeling of being engaged upon pioneering work is strong.

This feeling of togetherness finds expression in The UK Six Metre Group which was formed in Britain early in 1982 and enjoys the support of many of the very earliest users of the band; one of them did sterling work on 'Six' back in the historical 1947 era, another has achieved the coveted WAC ('Worked All Continents') cross-band from 50MHz.

'Across the Atlantic a Texan ham, K5ZMS, has been instrumental in setting up the Six Meter International Radio Klub (SMIRK) '...to promote international activity on the 50MHz band'. Its membership exceeds 3,000 transmitting amateurs in nearly 50 countries.

The true enthusiast for 'Six' will tell you that on this band may be detected a rekindling of the true ham spirit as once it was known. He may well be right. Readers of this piece can find out by trying it for themselves. ●

PANEL 2: USA 50MHz BANDPLAN

50 to 50.1MHz	telegraphy only
50 to 50.08MHz	beacons
50.1 to 50.5MHz	telegraphy and ssb
50.2MHz	national calling frequency
50.5 to 54MHz	repeaters and fm operation