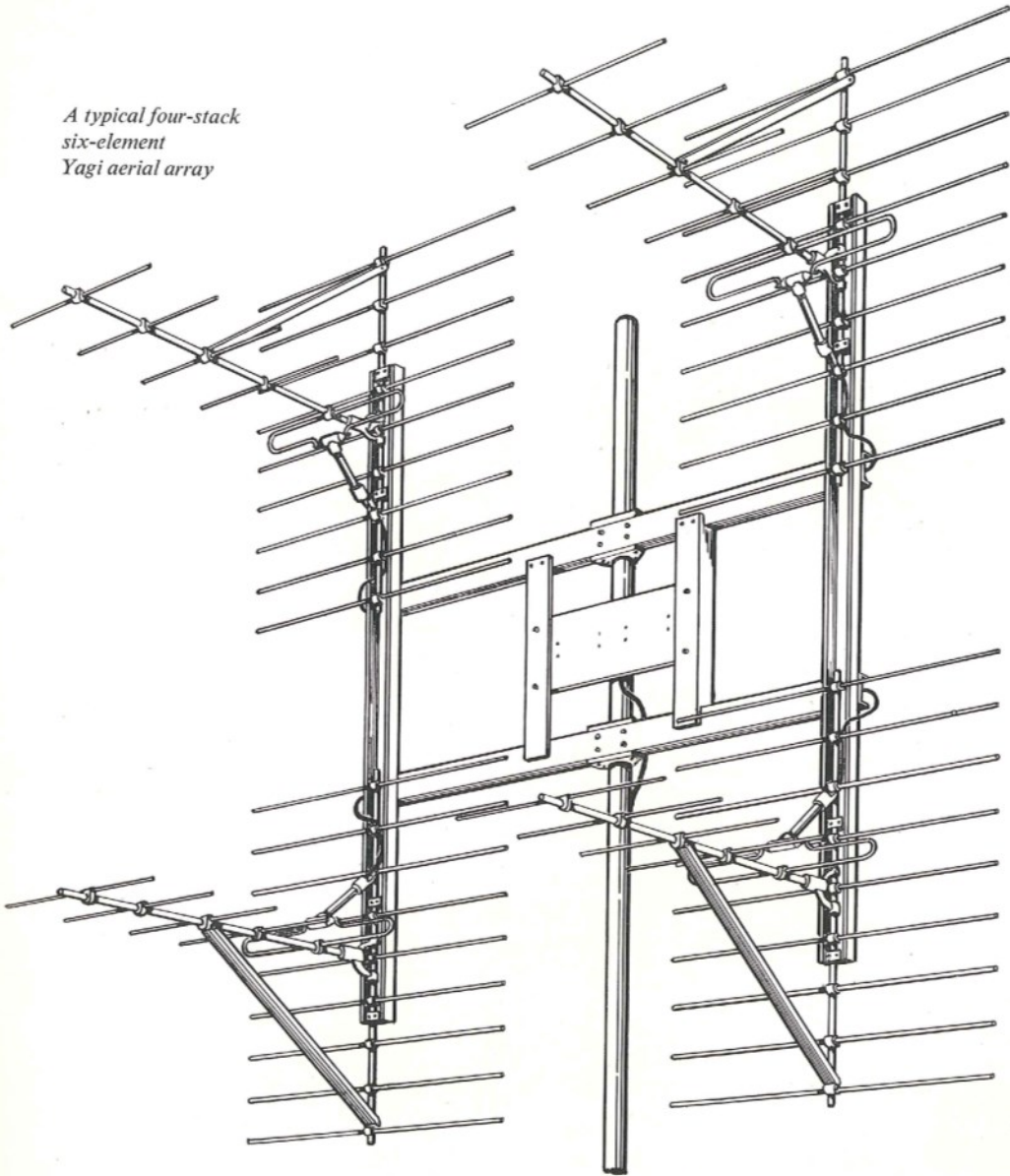




# VHF Aerials

*A typical four-stack  
six-element  
Yagi aerial array*



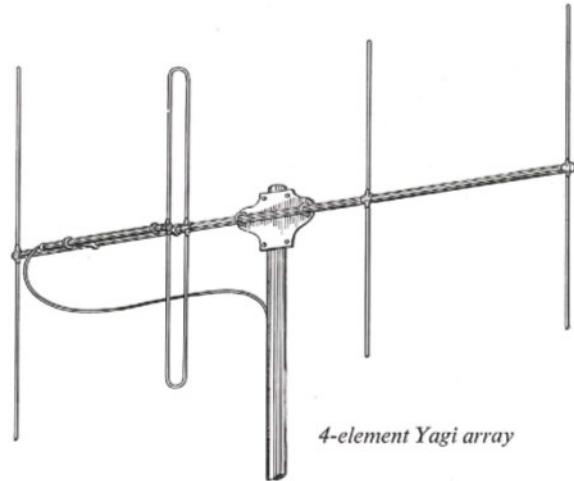
*Half-wave  
Dipole*

A COMPREHENSIVE RANGE of aeriels has been designed to meet the varied requirements of modern VHF equipment.

The aeriels are equipped with a cable harness incorporating coaxial aerial transformers moulded in polythene. A feeder-matching transformer of similar type is also available where a particularly good standing-wave ratio is required.

Several of the compact Yagi aeriels may be mounted on the same tower. Each aerial consists of a folded half-wave dipole radiator, one reflector and two or four directors. A range of light-weight self-supporting galvanised lattice steel towers, of heights from 50 to 400 ft, has been specially designed to support these arrays. Heavy duty towers are available for sites subject to strong winds.

For point-to-point single-channel VHF communication a lightweight four element Yagi array, suitable for operation in the 60–185 Mc/s band is available, having a nominal gain of 8 dB over a half-wave dipole. This aerial may be arranged to give either horizontal or vertical polarisation. A half-wave concentric vertical



dipole may be used for fixed stations or ships. A fully-flexible end-fed quarter-wave rod, suitable for mounting on a vehicle roof, is also available. Special arrays of half-wave elements giving combined polarisation have been designed for use at aerodrome ground stations.

For use with the HM 181, HM 100 and 150 series of VHF Multi-channel FM radio links the following aeriels are available:

#### For use below 80 Mc/s

TYPE	NOMINAL* GAIN dB	WIND AREA sq. ft	BEAM ANGLE†		WEIGHT lb
			vertical	horizontal	
4-element Yagi	7–8	2.6	70°	57°	90
2-stack 4-element Yagi	10–11	9	36°	57°	250

#### For the band 132–220 Mc/s

6-element Yagi	10–11	2.6	49°	42°	100
2-stack 6-element Yagi	13–14	9	25°	42°	260
4-stack 6-element Yagi	15–16	25	25°	21°	700

\* Referred to half-wave dipole. † Taken at mid-band frequency.

**Marconi**

**MARCONI'S WIRELESS TELEGRAPH COMPANY LIMITED**

Marconi House, Chelmsford

Telephone: Chelmsford 3221. Telex: 1953. Telegrams: Expanse Chelmsford Telex