Marconi V.H.F Aerials

A comprehensive range of aerials has been designed to meet the varied requirements of modern v.h.f equipment.

The aerials 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 aerials 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 lightweight self-supporting galvanized 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 v.h.f communication a lightweight four-element Yagi array, suitable for operation in the 60-185 MHz 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 polarization. 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 polarization have been designed for use at aerodrome ground stations.

For use with the HM 100 and HM 150 series of v.h.f multi-channel f.m radio links the following aerials are available.

Type	Nominal Gain* dB	Wind Area sq. ft	Beam Angle† vertical	Beam Angle† horizontal	Weight lb
For use below 80 MHz					
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 MHz					
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.*
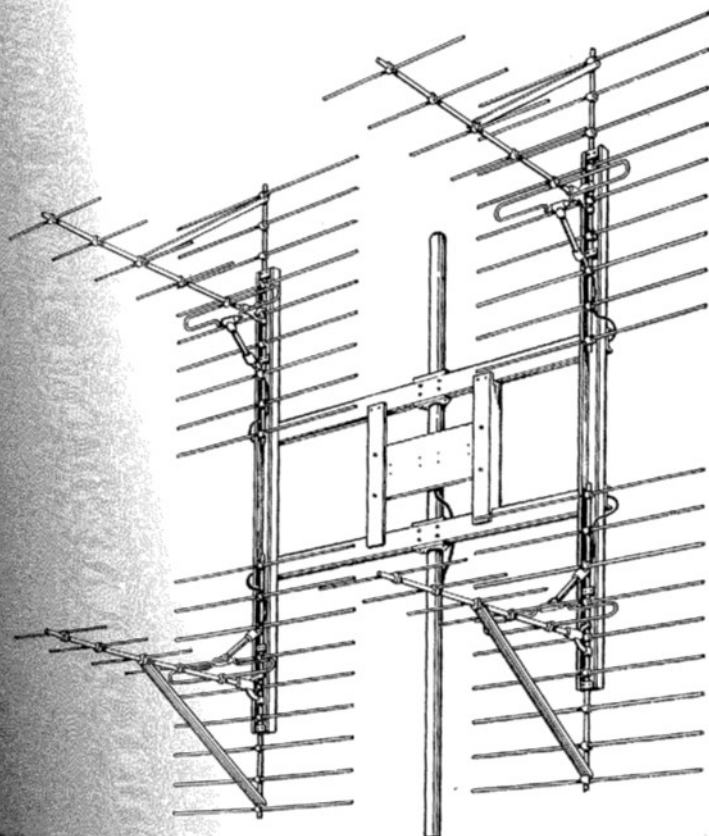
A typical four-stack six-element Yagi aerial array
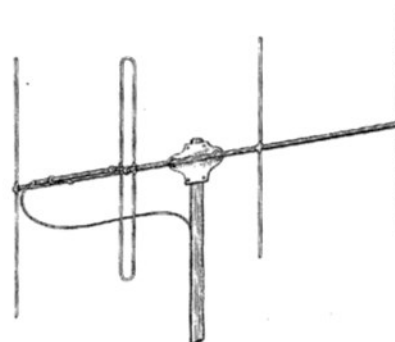
Lightweight 4-element Yagi array