

Figure 1 — Diagram of the original layout of the Force 12 model C-3S Yagi.


Figure 2 - Diagram of the layout of the Force 12 model C-3S Yagi after the 17 meter modification.


Figure 3 - A mechanical schematic of the linear resonator concept.


Figure 4 - A completed linear resonator attached to the 20 meter reflector. In this view the boom is pointing up.


Figure 5 - Diagram of the layout of the Force 12 model C-3S Yagi after both the 17 and 12 meter modifications.

Figure 5

## 17 Meter Reflector



Aluminum strip shaped and drilled to clamp linear resonator to the 17 meter element.


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Figure 6 - Detail view of the clamp (part C) and attaching method for the resonator rods (part A).


Figure 7 - A close-up view of the nut and lock screw (part M) in the end of the tube (part B) where they are used to secure the rod (part A).


Figure 8 — Details of the construction and mounting of the spacers (part L ).


Figure 9 - Details of the construction of the hangers (part D).


Capacitor set for high resonant frequency


Figure 10 - The hangers (part D) are mounted on either side of the boom and support the capacitor tube (part B). The resonant frequency of the linear resonator is adjusted by sliding the tube.


Figure 11 - Bringing the linear resonator to resonance at 22.5 MHz using a dip meter.


Figure 12 — Photo of the mounting method for the 12 meter dipole.

## 15 m Driven Element



Dipole: 1 mm (0.039 in.) copper wire $2.950 \mathrm{~m}(9.7 \mathrm{ft})$ per side
Bungee cord
15 mm ( 0.59 in .) diameter Polycop tube flattend at the tips.

20 m Driven Element


Figure 13 - Mechanical schematic of the components and mounting arrangement of the dipole.

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Figure 14 - Photo of the dipole installed on the C-3S. The inset is a close-up of the Polycop spacer tube (part A) mounting.


Figure 15 - A beautiful view of the C-3S plus 2 with a South African sunset in the background all ready to swing into action.

