

Horizontal distance from the face of the supporting mast to the dead-centre of each dipole was 345 mm.

Vertical spacing between each antenna was 505 mm U-bolt to U-bolt, with the mast extending vertically 650 mm above the top U-bolt. Liberal application of butyl rubber, electrical tape and cable ties ensured a quality watertight connection of all feedlines.

It is important to mount the four antennas in the same orientation, otherwise some phasing cancellation effects can greatly distort the radiation pattern. With the cylinder mounted to the top, a small two mm hole was drilled into the bottom of each dipole to prevent a build-up of water condensing inside the antennas over time.

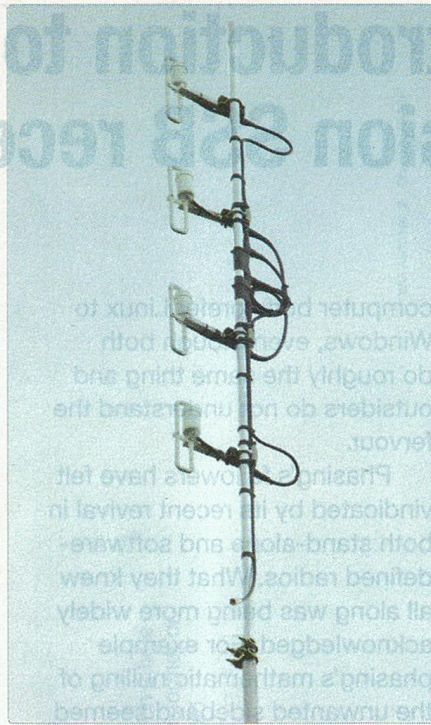


Photo 6: The completed vertical array.

Summary

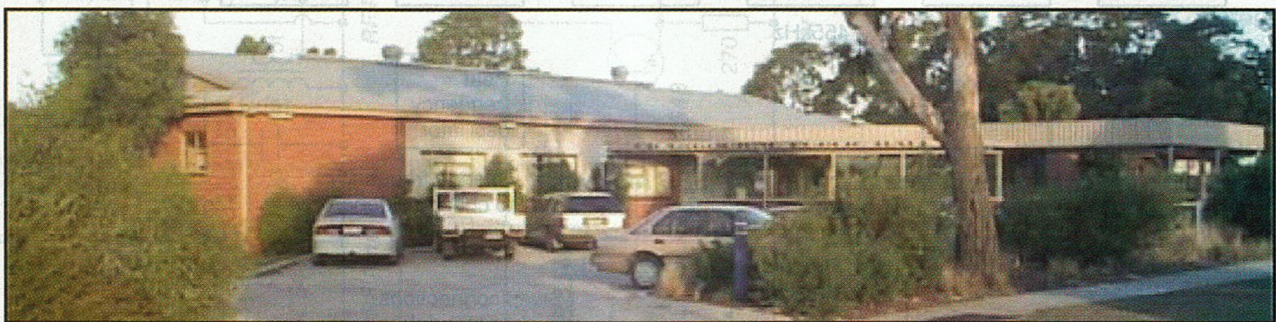
In their entirety, UHF antenna arrays are complex devices, with a vast number of factors that can affect performance. Other clubs working with repeaters may have the same issues as we to contend with, where commercial-grade reliability is needed at a budget price. Sufficient detail has been provided here to allow others to replicate this work. Should construction be attempted, make a point of getting as many people involved as possible in the process, as it is a great vehicle for learning about the nature of UHF. Finally, please send an image of your finished creation to secretary@ggrec.org.au so that we can get feedback from the experience of others who have put one of these arrays together.



GGREC HAMFEST

Saturday 19th July 2014

Gippsland Gate Radio & Electronics Club Hamfest at our **LARGE** venue, the **CRANBOURNE PUBLIC HALL**, located at the corner of Clarendon St. and High St. Melway 133 K4. See our web page at <http://ggrec.org.au/hamfest>



41 tables of new and used Electrical, Electronic and Amateur Radio equipment.

- Everything is under cover.
- Tea and Coffee available during the event.
- A selection of hot & cold food will be available.
- Great Door Prizes will be drawn at approx 1:00 pm.
- Doors open to sellers at 8.30 am & buyers at 10 am.
- Buyers can gain entry for \$6.00.
- Sellers will pay \$22.00 per table, which includes entry.
- Proceeds from the sale will go to Gippsland Gate Radio & Electronics Club's ongoing promotion of Amateur Radio.

Persons wishing to reserve a table position must contact Steve Harding now on 0408 878934 or email hamfest@ggrec.org.au Book early, positions are limited!