

Elizabeth Amateur Radio Club

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Note: *This article includes 2 attachments. To view these attachments please read this article on the Elizabeth Amateur Radio Club website at <http://www.earc.org.au/articles/2007/04/vk5roc-gets-new-antenna/>.*

VK5ROC Gets A New Antenna

Posted by **kgooley** on Sunday 1st April 2007. Last Updated Tuesday 7th September 2010.

The Elizabeth Amateur Radio Club operates a repeater on 70 cm located at Lower Light, on the flat plains about 40 km north of Adelaide. On Friday February 23rd 4 Club members and 2 riggers installed a new antenna at the top of the 53 m tower. Prior to this, the repeater had been operating with an experimental antenna, a single folded dipole at about 8m above ground. The results with this antenna were quite encouraging so a 4 dipole array was constructed by Dennis VK5FDEN and Keith VK5OQ.

This array was installed at the top of the tower by the riggers and a feedline of Andrews LDF5-50, 22 mm Heliax was hauled to the top. A second similar feedline was also installed to be used at some future date for a purpose yet to be decided. The 70 cm array has a gain of about 8 dB and a front to back ratio of about 10 dB. The wide beam is aimed in the south-east direction to cover the Adelaide metropolitan area and the hills but due to the modest F/B ratio, coverage is 360 degrees and should cover the mid north and upper York Peninsula as well.

The photographs are self explanatory but to give some scale to the shot looking up the tower, the angle iron making up the 4 corners of the tower is 200 X 200 X 13 mm, a very substantial structure.