

# Summerland Amateur Radio Club Slim Jim building day

29 March 2008

SARC thought that a simple 2 m antenna would make it easier for new amateurs to get on air cheaply.

It was decided to hold an antenna day and Duncan Raymont VK2DLR volunteered to host it. Duncan had experimented with variations in our usual ubiquitous Slim Jim design. His version is easier to make and to adjust, and works just as well.

Nine people enjoyed the antenna construction day.

Many aerials of Duncan's design were built and tested.

Contrary to theory it was found the solid ribbon worked better than the slotted type. Good 300 ohm TV ribbon is now very difficult to obtain: it is all too light and cheap.

A good and practical learning and building day was enjoyed. Particularly pleasing was the success of the antennas made by our two youngest members, Aaron Smith VK2FUNN and Kendall Smith VK2FISH.

Construction and soldering techniques were learned by the younger members.

Thanks Duncan for your effort and

instruction. Duncan's design for the antenna is included on page 34.

WIA Director, Robert Broomhead, VK3KRB, visited us. Thanks Rob for

calling and sharing your info with us. All enjoyed a BBQ lunch as part of the day.

It is planned to hold a HF Antenna day on July 27 at the clubrooms.

John Alcorn VK2JWA



Duncan VK3DLR showing young Aaron VK2FUNN and Kendall VK2FISH how to attach a tuning stub with dad Bruce VK2KAP watching on.



Duncan VK3DLR passes on useful advice to a Summerland member

## **Oxley Region Amateur Radio Club**

### **33rd Field Day**

**7th and 8th June, 2008**

Hall open Saturday from 8.00 am for set-up

Sunday, 8.00 am until 4.00 pm

- *Trader tables* • *Fox hunts*
- *Trash & Treasure*
- *General interest displays*

Entry \$8 per person

*Coffee, tea and biscuits supplied*

*Steak and sausage sandwiches available*

**Sea Scout Hall, Buller St., Port Macquarie**

**Inquiries: Jim Neil, Field Day Coordinator  
(02) 6581 2481 - jim.neil@gmail.com**

## A pocket sized 2 m Slim Jim antenna – VK2DLR style

Duncan Raymont VK2DLR

Ever been somewhere with your 2 m hand held and wished that you could pull a better antenna out of your pocket? Nothing flash, just something that had more gain than the rubber ducky antenna?

Ground plane independent? Includes a short length of coax so that the antenna is where the signal is best and the hand held where it's easy to operate? Works on 70 cm also? You need a Slim Jim!

This version is designed for the long end of the 2 m band and can be tuned by trimming.

You will need about 1.5 m of 300 ohm solid TV ribbon (The slotted type has a different velocity factor and will not work with these dimensions) and a length of RG58 coax terminated with

a connector to suit your transceiver. I recommend 1.5 m of coax for indoor use and up to 5 m of outdoor use.

Solder, insulation tape, and about 250 mm of fishing line to make a hanging loop finish things off.

Make up the lengths of twin lead as shown below. The 30 mm and 390 mm dimensions are critical as is connecting the coax outer to the notched side of the long length. The top of the 1390 mm section is left open for trimming and the 30 mm stub is taped against the coax contrary to theory.

**Step 1:** Cut twin lead to the lengths shown. Slotted twin lead does not work with these dimensions.

**Step 2:** Strip insulation back 10 mm



Soldering the stub to the half wave radiator

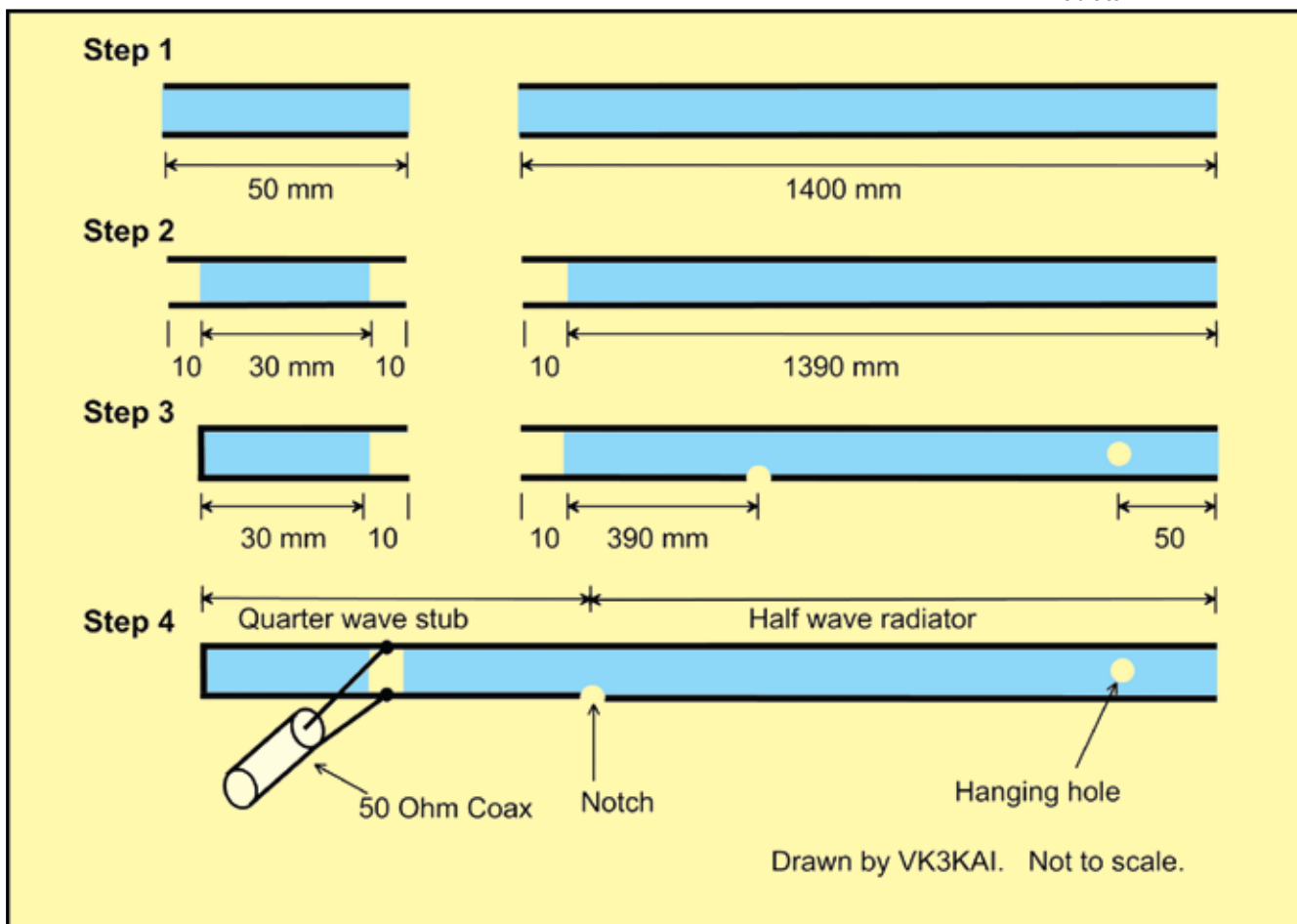


Figure 1: Construction steps for the Slim Jim. See text for details

## News from...

as shown. The 30 mm length is critical.

**Step 3:** Twist and solder the conductors at one end of the short length to form a short. Cut a notch 390 mm from the exposed conductors on one side of the long length. The 390 mm length to the bottom of the notch is critical. Do not short the top of the 1390 mm length.

**Step 4:** Twist and solder the 30 mm, 1390 mm lengths and the coax together as shown. Note that connecting the outer to the notched side of the 1390 mm length is critical.

**Step 5:** Tape the joint securely with the 30 mm length against the coax (contrary to theory). Add the fishing line hanging loop. Test and trim the top (a couple of mm at a time) to move the resonant frequency if necessary and the bottom of the

notch (very carefully - one mm at a time) to change the impedance match. The antenna should also work reasonably well on the third harmonic in the 70 cm band.

Leave it as is for portable use or slip it inside a length of plastic conduit with a cap on the end for a self supporting permanent installation.



Duncan VK3DLR showing how to terminate the feedline



The Summerland Radio Club Shack



The Summerland Radio Clubrooms (exterior building shot)

## Australian made ANTENNAS

Setting a new standard

### COM-AN-TENA

(formerly a j and j coman)  
115 John Street  
GLENROY 3046

NEW 10-15-20 vertical antenna	\$225
2 ele delta loop 10/11 metre	\$275
40—80 metre vertical <b>NEW</b>	\$330
10/11 beams comp opt 5 ele	\$399
10/11 5/8 vert 4 rad 1/4 wave	\$224
Tri band HB 35 C 10/15/20 m	\$844
NEW 3ele 20 m Confined space Antenna Max. Width 7 m wt 11 kg gain 7dBd	\$425
log periodic 9 ele 13 30 8.4 m boom	\$1152
<b>NEW 160 m Vertical SUBURBAN</b>	\$355
M B Vert auto switch 10/80 m	\$345
NEW 2 ele 40 m wdh 13.4 gain 5.2 dBd wt 27 kg boom 6.1 mtrs	\$574
6 m 5 ele comptr opt beam	\$309
Top loaded 160 m vert	\$474
10 ele high gain 2 m 3.9 m boom	\$180
17 ele high gain 70 cm 3 m boom	\$152
NEW 80 m lin loaded height 15 metres Drives as 1/4 wave antenna	\$246

## Guyed Masts

**21 metres**      **13 metres**  
Winch-up & tilt-over. Aluminium and stainless steel  
three-sided construction. Auto-brake winches.

## Free Standing Masts

9.5 metres

## New Baluns

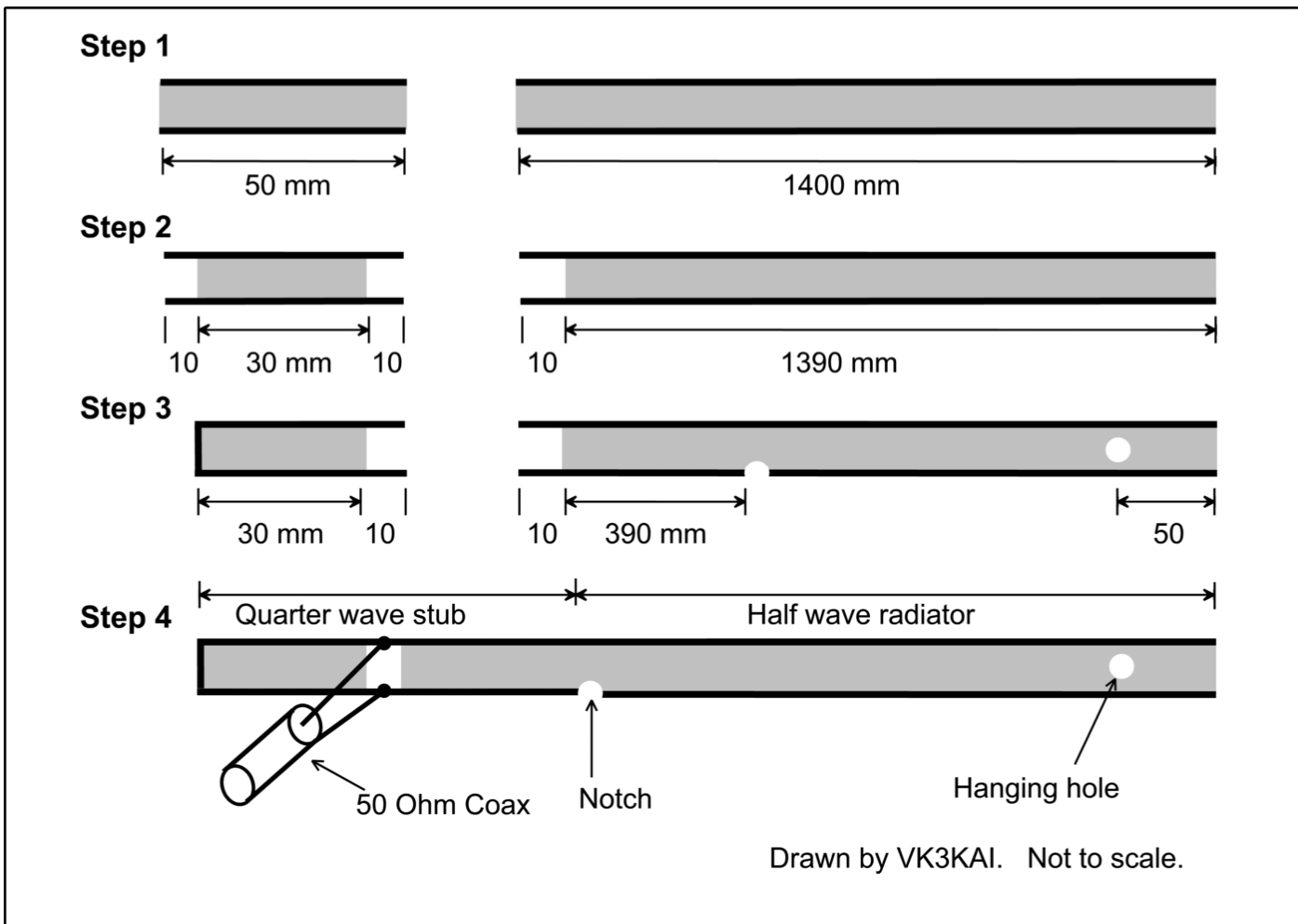
1-1 to 16-1 to 3 kW



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**Corrected Figure 1: Construction details for the Slim Jim. See text for details.**

**Correction:**

Note that the callsign of Duncan Raymont VK2DLR is incorrectly stated in several places as VK3DLR – our apologies Duncan.