

FISTS DOWN UNDER



NEWSLETTER - APRIL 2014

Email: fists-down-under@ihug.co.nz | Website: www.fistsdownunder.org

Editor / QSL Manager for VK

Chris Thompson VK2CTN
PO Box 65
Dickson ACT 2602, Australia

Membership / Awards Liaison

Ralph Sutton ZL2AOH
12c / 186 The Terrace
Wellington 6011, New Zealand
Tel: 0-4-473-0847

QSL Manager for ZL

Nigel Hardy ZL2TX
PO Box 15078
Otaki 5542, New Zealand
Tel: 0-6-364-6339

Web Administration

Garry Cottle VK2GAZ
96 Luttrell Street
Richmond NSW 2753, Australia
Tel: 0-2-4588-5429

This month:

- A homebrew 80-10m ground mounted vertical
- Trawling the web
- FISTS Day
- For sale: RAF type D key



Nigel ZL2TX

Editorial

Welcome to the April edition of FISTS Down Under!

As you may be aware, the position of newsletter editor has been vacant since the end of last year. I have agreed to take up the challenge and volunteer for the role.

My involvement with FISTS administration began over a decade ago, when I started sending postal copies of the newsletter to VK members. I later became the VK QSL manager and VK2FDU co-ordinator. I'm looking forward to continuing in these roles.

On behalf of all members, I wish to thank **Nigel ZL2TX #9040** for his outstanding contribution as editor for over 12 years, since September 2001. Nigel has kindly agreed to continue as ZL QSL manager. He will also be supporting the administration team and contributing occasional articles.

Thanks also to **Ralph ZL2AOH #1073** for stepping into the breach as temporary editor. Ralph continues to provide first class service in his capacity as membership secretary, awards liaison, ZL newsletter distributor, and FISTS Down Under co-ordinator.

Also on the team, we have **Garry VK2GAZ #14151** as website administrator, **Ian ZL2AIM #9683** as columnist for 'Trawling the web', and **Derek VK3KX #14125** as manager of the monthly membership reports. Thanks for your support and important contribution in these areas!

To consistently produce an interesting newsletter, we need your stories, photos, and suggestions.

Please put pen-to-paper, or fingers-to-keyboard, and let us know about your latest project, whether you've acquired another key, or anything to do with CW and this great mode that we all enjoy!

73, Chris VK2CTN

Chris VK2CTN #9057



Silent keys

We are sorry to report the death of **Keith Pearce ZL1BSG #9000**. Keith was the first to register as a FISTS Down Under member and was initially very active on the bands, gaining his Century Club award quite soon after joining. On behalf of us all, we have conveyed our condolences to his family.

Nancy Kott WZ8C #379 died recently in Michigan, USA. She was an early collaborator with the founder Geo Longden G3ZQC #2 establishing the American Chapter and developing its present widespread membership in the United States, Canada and other American countries.

Nancy edited their newsletter 'The Key Note' and managed a team of helpers. She regularly attended the annual Dayton Ham Fair where, with helpers, she manned a successful stand that attracted many new members. She was a close colleague to those of us administering the other FISTS chapters in UK/ Europe, Far East Asia and Down Under. We have written to her husband Tim expressing our sympathy and shock at her untimely death.

Karl KB1DSB is the new president of the North American chapter of FISTS. He will carry on the legacy of Nancy's work, with the assistance of a dedicated team of volunteers.



Nancy WZ8C SK

*I've enjoyed learning
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*Started in commercial
radio 7HT Hobart
in 1959 ...*

New members

We warmly welcome two new members:

Ben Trevorrow VK3WRL #14173 from Safety Beach, Victoria. Ben's QTH is on the Mornington Peninsula, south of Melbourne.

Ben writes: My involvement in amateur radio has been pretty modest, but I've enjoyed learning about the hobby while meeting some very fine individuals, many of whom seem to prefer operating either CW, QRP, or most often, both! (an unusual correlation that demands further study).

Until recently I held the call VK3FTRV and had the pleasure of using it to work several FISTS members. Thanks to those members who took the time to slow down and answer a weak CQ call - it is because of hams like you that new CW operators make it through the training wheels phase.

Recently I've managed to gain my advanced licence which was the culmination of a personal goal, and my Morse is slowly improving, though any progress seems hard won!

Len Eaton VK4FIAA #14174 from the coastal suburb of Thornlands, east of Brisbane CBD.

Len writes: 73 years old, started in commercial radio 7HT Hobart in 1959, then joined Signals Corps same year, qualified as Operator Wireless and Line, Basic Radio Mech the Operator Signals....posted to 101 Wireless Regt, 2 years Malaya / Singapore, demobbed 1964. Subsequently worked OTC, AAP-Reuters and Civil Aviation, all in comms. Rest of the time I was an Automotive Parts Interpreter until retirement. Usually work 40mtrs, sometimes 80m to mate VK2SON but mostly am thru nite shift on C/W and mostly listening for real DX transmissions. I also play and tutor bagpipes and research family history.

The Blackstick Mark II 5 band ground mounted vertical



Doc VK5BUG #14136

Although I commenced this DIY project with tri-band 40-20-15m coverage in mind, and design frequencies of 7033, 14055 and 21055KHz (International Morse Code Preservation Society Sideswiper Net SSN), 10m and 80m just happened to tune up as well, so a five-bander was born! Its predecessor was the *VK5BUG Blackstick* all-band vertical as described in a 2006 edition of Amateur Radio magazine. That had performed so well that it warranted revisiting and an upgrade.

In essence, it is simply a balanced line fed, ground-mounted alloy tubing vertical based on ¼ wave for 40m and with an outboard 20m ¼ wave wire in parallel and supported on the same timber mast. Ground-mounted verticals need an effective earth against which to operate, and this one has inherited my 60-radial ground mat that hosts other aerials here as well. It would appear that the main radiator is affected by balanced feedline length and/or linear loading from the 20m wire radiator, so that the whole thing is amenable to loading up for both 10 and 80m at that length.

With a range of 12 - 50mm diameter sections of used aluminium tubing in my overhead junkbox at RF Central, it was just a matter of selecting the 'best fit' sections, checking for LOA (length overall), sanding and graphite greasing inner and outer joint sections of 300mm each, then stainless steel hose clamping plus pop riveting each join. The entire 10.26m (33ft 4ins) tubing radiator was scraped/sanded all over, wiped clean and given a couple of camouflage paint scheme coats using exterior grade Bronze Olive, Mission Brown and Forest Green. Two coats of satin marine varnish finished the cosmetics off. This colour scheme appears to lower the visibility impacts of aerials quite well; perhaps a wise move for inner suburban installations. My wind turbine mast has a similar paint job too.

The 2006 original was fed with obsolete Belden 8222 75-ohm balanced transmitting twin-lead for the initial trials, then 450-ohm 'dog bone' open wire line thereafter. This Mark II feedline is homebrewed from 2 x RG58 coax taped together with their outer braids soldered together and grounded at the coupler end. It is a very useful, easy-to-make, balanced feedline. Something like the open wire line concept yet different mechanically and electrically, but is certainly more suited to bending around corners and being cable tied to various fixed items...and the RF actually LIKES IT!

For sale

Classic RAF Type D Morse Key

A fine example of this much sought after man sized key used in WW2 (and before) by nearly all the land based stations at home and overseas.

In superb condition with impressive anti bounce massive silver contacts. Unfortunately no Bakelite cover, but it's almost a shame to hide the brass poulder inside from view.

Hoping for a good home, I am offering this to Fists members at \$100 plus postage at cost, before advertising it elsewhere.

Contact: David VK3DBD #3756
email vk3dbd@gmail.com
mobile 0470 169 626



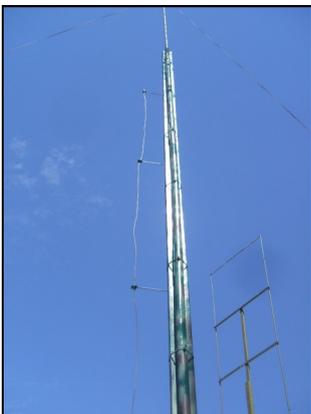
The RAF key for sale.



1. Aerial base, feedpoint and radial connections



2. Radiators



3. The 5m mark



4. Ready to erect

Pic 1 shows the aerial base/ feedpoint and some of the radial farm connections. A short length of copper tubing is used for the common feedpoint busbar of the 20m wire radiator and 40/15m tubing radiator (please note that 10m and 80m have no separate radiator elements and just come along for the RF-ride with the other two bands!).

Silicone paste and PVC offcuts are used as insulating material between the 6m x 90mm x 45mm painted pine mast, and heavy duty 170mm black cable ties plus a silicone 'bed' hold the radiator in place. The 20m radiator is made from 5.1m (16ft 7ins) of 2mm heavy duty copper wire and is supported by half a dozen ex-TV standoff insulators from a bygone era (that of TV ribbon/ ladderline feeders!). Waste not, want not.

Pic 2 shows the relationship of both radiators approximately 3m above the feedpoint, and Pic 3 at the 5m mark coinciding with the top end of the 20m wire element. A pair of double 5mm black poly rope guys is also visible, as is the author's 10m EDZ-Loop aerial (AHARS Newsletter June 2012) in the background. Spacing minimises aerial interactions.

Each part of the 20m wire radiator is secured with a soldered bare copper wire tie and silicone paste where it passes through a standoff insulator to prevent movement from Mother Nature's bullying. Stainless steel hardware is used everywhere and no dissimilar metal contact exists: stainless steel washers, graphite grease and silicone sealant take care of copper-aluminium proximity/ junctions.

As part of my solar-wind hybrid powered low-power station, the Kenwood TS-120V can deliver 10W on 40m at 1.3:1 SWR; 10W on 20m at 1:1 SWR; 9W on 15m at 1:1 SWR; and 8W on 10m at 1.2:1 SWR, though all these numbers are just numbers of course. Most of my operation is with 3 or 5W however. Aerial coupling is via a Johnson Matchbox 80-10m balanced unit using air-spaced components (no balun or toroid!), and although neither classic nor iconic, I am getting very encouraging reports from the code and phone segments of each band, and do not announce that I am running low power until after the RS/ RST exchanges.

I have recently installed three indoor counterpoises for 20m and two for 40m, alligator clipped to the aerial coupler ground terminal wing nut. The coupler requires minor retuning when I shift from CW to SSB band sections. Reception noise peaks are sharp, as are the transmission resonance tuning calibration points. I have made a simple card showing Band CW and Band SSB, VSWR, Output Power and both variable capacitor settings for the Matchbox. I don't have an auto-tuner or antenna analyser, so cannot comment on how they would perform.

Pic 4 is a view of the mast and radiator assembly on sawhorses immediately prior to installation.

Pic 5 shows a feedpoint busbar weathershield cut out from 90mm PVC stromwater pipe and secured in place with silicone sealant (How did we ever manage at sea without that stuff???!). On its right is the overflow pipe from its dedicated 2-module, 800 litre rainwater tank that keeps the aerial base area damp. From time to time I feed the area with a handful of pool salt, just because I like *ions in the fire!* - Hi!!



5. Base weather shield

Pic 6 represents what we actually see in the garden with the EMR access-limiting trellis installed.

The project took four part days to build, allowing for silicone and paint drying times during January, and I stood it vertical, walked it to the concreted metal post previously used for *Blackstick* and bolted the unit onboard unaided. On-air it is performing very well with the Kenwood TS120V at QRP level CW, capturing all continents on 20, 15 and 10m in one weekend, plus five continents on 40m, but 80m is yet-to-be-logged simply because I go to bed too early! I am also enjoying 40m SSB ragchewing as an entirely new aspect of wireless activity after 50 years, with consistent 5x9 reports from interstate contacts on 40m.



6. EMR access limiting trellis

FISTS Day

Our North American colleagues have suggested that we as FISTS nominate a special day of the week and declare it FISTS Day.

Every day should be FISTS day, but in reality that does not always happen.

So, from 1 April 2014, every **Tuesday** will be **FISTS Day**.

From 0001 to 2359 UTC

No awards, no need to submit a log. Just fire up the rig, dust off the key, and make some contacts!

Key dates

QRP Contest 2014

Saturday 5 April
1000 - 1159 UTC
80m CW

Sponsored by the CW Operators' QRP Club.

More details: www.vkqrpclub.org

PR4 Amateur Radio Expo (VK)

13 - 15 April
Promoting our great hobby to the general public.

More details: www.wia.org.au

ANZAC Day

Listen for special event stations on Friday 25 April.

Donations

Many thanks to the following members who included a donation when renewing their membership:

Steve VK3JY #9630
Bill VK6QW #14106
Rob ZL1CV #9633

Trawling the web

Ian ZL2AIM #9683

I may have mentioned this in passing before – the **reverse beacon network**. But it's such an amazing bit of magic that I thought it warranted further investigation.

First of all, go to <http://www.reversebeacon.net/main.php> which is the main page for RBN. Using the tabs at the top of the page, click on dx spots then click on HF CW. On the left hand side near the top of the page, click on "Band" and then click on say the 20m band and click on "Proceed". What I would then do is add that page to your favourites, so it will be much easier to get to in future.

*... it's such an
amazing bit
of magic ...*

Now to the easy bit! Switch on your rig and get in a comfortable position in front of your paddle or key. Call CQ CQ de your callsign. Within a few minutes you should see which of the 'skimmers' are hearing you. It will also give you your keying speed, your S/N ratio and lots of other bits of info. The first column shows you the callsign of the skimmer that is hearing your call. (If you hover your mouse over that call, it will tell you the country the skimmer is from.) Normally you will see quite a few callsigns from different countries. So now you can see where your signal is heading.

So what use is it to us Fists members? Well, what I do is make sure that I open RBN first and then set it at the band that I intend operating on. Then I open my Ham Radio Deluxe software and start calling CQ. I then click on my browser button and see if I am being spotted. If after 10 mins of calling and not being spotted, I can then try another band. If you are being spotted, then it is worthwhile just to keep calling until you get a station coming back to your call. Oh yes, another thing is that when you move RBN to another band, it remembers any band you have used in the past week and from then on it is faster to click on 'show/ hide my last filters'.

The RBN is a fantastic tool for CW operators.

Go on, try it – I hope you get as much fun out of using it as I do!

Membership renewals

Ralph ZL2AOH #1073

We think it's time to remind members again of our procedure for notifying that subscriptions are due. It consists of three phases:

1. On approximately the 15th of each month, we send membership renewal forms by post to all whose subscriptions are due in the coming month, e.g. 15th March for 30th April.
2. For the following two months, if still not renewed, we rely on members checking whether their number is being listed as overdue.
3. On the third month, our impatience with late payments triggers a reminder notice that records the fact that we are getting grumpy and warning of cancellation of membership after one month.

Ideally we should never have to go beyond the first phase. ☺

Here is the list of those due to the end of April 2014. Please check carefully and tell us if you are listed in error, if you have mislaid your renewal form or otherwise have a query. Everyone else, please send in your subscription.

9066 - 9069 - 9070 - 9072 - 9075 - 9083 - 9084 - 9099 - 9566 - 9622 - 9623 - 9626 - 9629 - 9666 - 9684 - 9688 - 14100 - 14107 - 14116 - 14118 - 14119 - 14121 - 14134 - 14135 - 14138 - 14139 - 14140 - 14157 - 14158 - 14160 - 14161 - 14162 - 14163

Note: If you paid your renewal to Chris Thompson via bank transfer on 7th February 2014, please let us know as there was no ID in the transaction.



Until next month, 73