

FISTS DOWN UNDER



Newsletter of the Australian / New Zealand chapter of the International Morse Preservation Society

October 2014

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Recommended FISTS calling frequencies (MHz): 1.808 3.528 7.028 10.118 14.058 18.085 21.058 24.908 28.058

This month:

- Morse endorsed
- FISTS Down Under CW net
- 90th anniversary of the first UK - NZ radio contact
- Shack visit - Andrew VK7AD
- Anderson connectors
- Pedestrian portable trolley
- Next generation logging using an iPad

Morse endorsed

Colin ZL2COL #9663 has become the first to be awarded the Wellington Amateur Radio Club certificate of proficiency in Morse code operation.



Colin ZL2COL and Ralph ZL2AOH (Photographer: Mike ZL2MM)

The test was administered by Ralph ZL2AOH #1073 in the presence of Mike Dwyer ZL2MM.

Although no longer a requirement for obtaining an amateur radio operator's licence in New Zealand, the branch introduced its own certificate for those who wanted to demonstrate their ability in Morse communication.

Colin will be presented with his certificate at the next branch meeting.

FISTS Down Under CW net

Chris VK2CTN #9057

The inaugural FISTS Down Under CW net took place on Tuesday 2 September 2014, with four members checking-in. Since then, we have had three to four members participating each week, though our highest record has been seven members!



Guide to the FISTS CW Net

The aim of the net is to encourage CW activity and provide a weekly meeting point for members. The net begins at 8pm AEDT* (0900 UTC) on 7.028MHz +/- QRM with the net controller calling: 'CQ FISTS NET DE VK2FDU K'. To join the net, simply send your callsign and the net controller will acknowledge you.

At approximately 8.05pm AEDT (0905 UTC) the net controller will transmit a list of the callsigns of stations that have checked into the net. If you miss the start of the net, you may join at anytime by sending your callsign during a pause between overs.

The net has been using a round table QSO style, where each station hands over to the next station on the list. This method helps to maintain flow and save time, but if in doubt, simply return to the net controller. It is advisable to take note of the station list, so that after your turn you can hand over to the next station on the list. If you're the last station on the list, you should hand over to net control. The cycle is then repeated until the net closes at 9pm AEDT (1000 UTC).

The CW speed of the net has been around 18 wpm, with slower speeds as required. Stations may use any power level, however it is recommended that you use enough power to ensure reasonable copy by all other stations on the net.

* Australian Eastern Daylight Time (AEDT) begins on Sunday 5 October 2014.

CQ FISTS NET
DE VK2FDU K



Opportunity knocks

FISTS Down Under has received a letter from the co-ordinator of the heritage festival to be held in Ballarat, Victoria over the weekend of 9 - 10 May 2015.

The following is an extract of the letter:

This is a two day community event called Heritage Weekend run between 10am and 5pm both days across multiple sites in the CBD. The theme for 2015, which changes each year, is A Century of Service 1914 - 2014 exploring Australian's service at home and abroad during war and peacekeeping engagements.

Our project team are currently developing the activities program for the event, and are intrigued by the key role morse code and telegraphy played in both World War One and World War Two for those at home, in active military service and just how integral it was to communications. It is a piece of communications history we would love to be able to demonstrate in one of our CBD venues and have visitors engaged with over the Heritage Weekend.

Having found our club's website, we were contacted to see whether any members would be interested in participating in the Heritage Weekend.

If you are able to assist, or require further information, please contact Ralph ZL2AOH at: fists-down-under@ihug.co.nz

90th Anniversary of first UK to NZ radio contact

On 18 October 1924, Frank Bell 4AA in Shag Valley, South Island, New Zealand contacted Cecil Goyder who was operating the Mill Hill school station 2SZ.

Planning and equipment preparation is well advanced for Branch 30's recognition of the 90th anniversary of the historic first ever radio communication between New Zealand and the UK, an event that changed radio communication forever as it established new and initially, little understood 'rules' for short wave communication.

Current plans see the main antenna farm installation starting on Saturday 4 October and possibly extending to the Sunday. Then the teams will be returning to the site on Saturday 11 October to complete the antenna installation and start installing the radio equipment. Operating on the various bands will start as each bands equipment is activated, with operation from the site continuing from later on the Saturday (as soon as the workers are free to become operators) through the week until Sunday the 19th when the big dismantle will start.

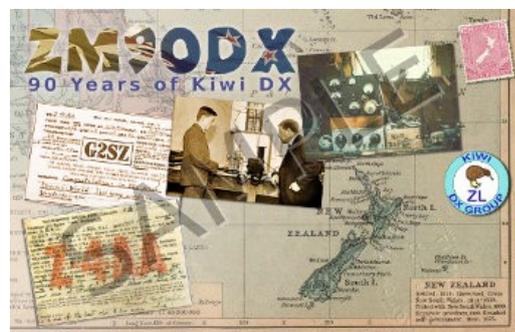
Bands we anticipate operating are 80m, CW and phone as available. This is the prime band as it is close to the original frequency. We will have a quad hung from nearby trees for 40m, a tri-bander on a 13m lattice pole for 20, 15 and 10 and also 17m facilities.

Anybody is welcome to come and visit the station or assist with operating at any time during the week – just drop an email to president@ZL4AA.org.nz

To celebrate 90 years of DX in New Zealand, the special callsign ZM90DX is in use between 1 October 2013 to 31 October 2014.

For more information: <http://www.zm90dx.com>

(Thanks to Southgate News. The full article is available at: <http://www.southgatearc.org>)



Sample ZM90DX QSL card.

Shack visit



Begali Magnetic Pro



L to R: Begali paddles, Elecraft K3, Czech Army key, Kent hand key.

Andrew VK7AD #14149

Here are some details of my shack: I am running an Elecraft K3 with a Begali Magnetic Pro paddle and Czech Army key. Also a Kent Straight key. I use the paddle with my left hand and the key with my right hand. They are in parallel to switch between if I choose.

My antenna is a doublet 24m long with a second element for 20m underneath. Using the doublet without the second element gave me excellent reports from Alaska but I could

not hear Europe on 20 metres. It was basically an extended double zepp on 20m.

So now, especially with CW, I can work almost every station I can hear. In the shack, my open-wire feeder comes straight through the wall into an MFJ-976 tuner, then to my rig.

I can tune this antenna from 80 - 10m, and it has gain on the higher bands, compared to a half-wave dipole.

Anderson connectors

David VK3DBD #3756



Most modern radios soak up amps instead of milliamps and our voltages are often harmless to humans (12 volts) so we have become accustomed to substantial cables supplying 20 amps and often more to our rigs. You can weld with 20 amps! Like a pipe carrying water under pressure, the flow is as good as the smallest restriction within it - wherever that may be - and any restriction is the weakest link.

...these 30 amp connectors will not get warm, do not easily pull out and seem to be the perfect answer to high amperage low voltage supplies.

- David VK3DBD

Since the large and clumsy and once very common Jones plugs, as used in military equipment, have all but disappeared (indeed some are desperately sought after by restorers), modern radios by nature of their smaller sizes have resorted to a variety of connectors; collectively called Molex connectors, some good, some not so good, but any form of standardisation seems sadly lacking. That is, until relatively recently when the Anderson Power Pole range was adopted by Elecraft, bringing these into more common use.

These versatile devices are a genderless connector, the plug and the socket are the same. Now work that one out, it is certainly a clever design! There are a number of amperage ratings available, some very large indeed, but for most amateur purposes the 30 amp one is adequate.

Various colours are offered, as well as red and black, every one of the 30 amp range has provision to clip another by the side or on top or underneath using the built in dovetail, so it is easy, if desired, to make a block of say four (or more) to act as a multi-wire connector/ socket assembly.

The UK Raynet (Radio Amateurs Emergency Network) have adopted these 30 amp connectors as a standard and naturally such action makes for speed, simplicity and reliability at any gathering (like field day) where individuals need to connect their equipment to other units. I believe there may be a move along those lines in VK and ZL too.

When in operation, these 30 amp connectors will not get warm, do not easily pull out and seem to be the perfect answer to high amperage low voltage supplies. But there is a proviso: that is, they must be correctly fitted.....

There is nothing difficult about that, but it must be done exactly right or you may find the fit leaves much to be desired, if it too easily pulls out and/ or is hard to assemble, then something is wrong. A case of 'If all else fails, follow the instructions'. I hope my notes and photos may help.

To add another little known secret, the holes formed when the pair of connectors are clipped together, will take a 2.5mm diameter roll pin, thus locking them together securely. (A short section of insulated wire of similar diameter makes a good substitute for the roll pin.) Or the hole can be used to bolt the assembly to a chassis or bracket in a power supply.

In practice the commonly available red/ black twin wire normally found is either the 25 amp version or the 30 amp version. To avoid as much voltage drop as possible, it is advisable to use the 30 amp cable, especially for any run more than about a metre with a normal 100 watt (circa 20 amp) radio.

The secret of fitting the plugs to the wire is undoubtedly 'With Great Care'.

Anderson states that the 30 amp plug is suitable for a multi-strand cable of 12 or 16 AWG which translated to metric is 1.3 to 3.3 square mm. (Note: with wire gauge figures there can be some ambiguity as the original SWG as used in UK and other parts of the world differs in USA, just like their gallons do!)

They are made to very precise standards. If a crimping tool is available, then that is acceptable but it needs to be a good one and the right one. A bad crimp will not do and a good tool does not come cheap. Soldering is easy and reliable but needs an iron with adequate heat to solder the hefty wire and ensure a flow of solder over all surfaces.



Anderson plug components.

Silent key

We are sorry to report the recent death of former member **Peter Leigh ZL2APO #9060**.

Peter had a period as a ship's radio officer before coming to New Zealand, where he served as a technician for the Civil Aviation Authority. He took up amateur radio at the same time.

He was an early member of FISTS Down Under and only resigned recently on account of ill health. We have sent condolences to his family.

(Thanks to Gary ZL1AN #9008 and Mike ZL2BCW #9079 for this information.)

Tripole antenna

- by Doc VK5BUG #14136

Ever thought about having a 40 or 80m tripole (3-wire dipole radiator)? It's an aerial with a very broad response and a feedpoint impedance of about 300 ohms at a height of 0.125 wavelength, thus providing a convenient match for 300 ohm balanced feedlines. It ought to follow that there will be low loss from the feeder due to the high impedance and low current present in the system.

Interestingly, if we raise the Inverted-V apex to 0.18 wavelength height, a tripole will be an excellent aerial when fed with 450 ohm 'dogbone' ladder line (as used in TV installations back in the 1960-80s). It is still available commercially and happens to be my preferred feedline for all non-parasitic aerials here: vertical, loop and horizontal alike (via a Johnson Matchbox or homebrew link coupler).

When using this feedline in well-matched arrangements, low feedline current will again exist, meaning that long feedline lengths may be used if necessary. My practice has been to interlace the ladder line with a 10mm (remember - ropes are measured by their circumference, not diameter!), UV-stabilised poly rope catenary. Once threaded through alternate frames of the ladder line, the rope is firmly tensioned between its ends to minimise wind effect on the long feedline span, which is then easily able to be spread out along the rope catenary.

The judicious use of some small cable ties or even electrical tape, will reduce the chance of the feedline bunching up along the rope due to wind action, perching birds, or vermin/ possums using it as a nocturnal highway.

I always use some heatshrink tubing on each cable, which keeps any small bare section of wire covered and improves the stiffness and the looks. The 30 amp wire is a tight fit and if not perfectly formed into a compact circular shape, an odd strand may slip over the edge. If you get it wrong first time, two or three of these may be trimmed off if needed.

The wire should not be tinned first; it will not go in, but by applying heat to the outer of the socket with wire inside, solder can be introduced from the contact end and will rapidly flow and fill up around the strands. Once they have been done, examine carefully for solder on the outside and file or scrape it off completely. Avoid any solder on or near the curved tip of the contacts, they are silver plated and have a wiping action each time the plugs are mated, thus keeping a virtually resistance-free flow.

To coin a pun, I have no connection with the company and offer these hints as I feel this is a much underrated device worthy of addition to every amateur station.

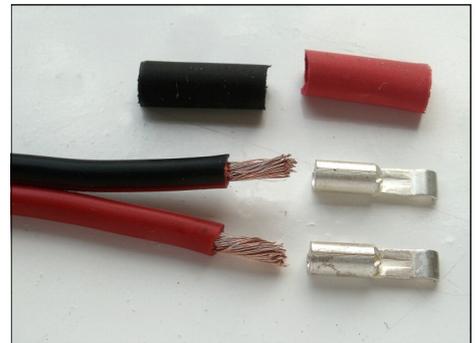
First decide which side will be your Positive and Negative. It is normal to have the metal contact in the plug at the bottom and the Positive on the right, as seen by the cable requiring feeding the equipment. Remove just enough of the insulation so that the bare wire fits into the hole. Square off the ends and gently twist a little, so the strands will enter. If you are using 30 amp wire, it is a 'good' fit and if needed it is acceptable to trim off the odd stubborn strand that escapes. Choose some heatshrink that will easily pass over the soldered connector, it should be fitted after soldering as heat will deform it if close to the join. If desired, a ring of heatshrink over both wires can be slid further up the cable in advance.

A large hot soldering iron is needed, 40 watt or more. Support the wire in a vice or by other means with the entry at the bottom. This is to help keep any surplus solder off the curved end. Apply heat and apply multi-core solder to the small opening near the wire end; solder will flow inside and keeping heat on a few seconds will fill the spaces and secure the strands inside.

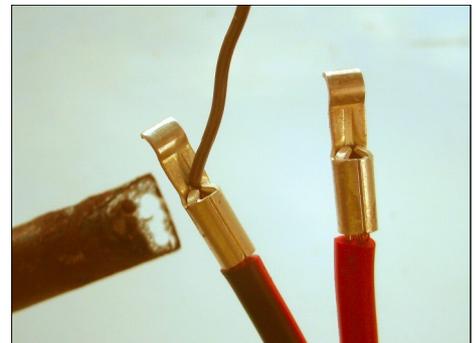
When cool, remove any solder in the wrong places with a small file or a knife and slide the heatshrink over the connectors. If you intend the housings to be fastened in a pair, engage the dovetails appropriately. Then comes the moment of truth. Enter the metal terminals into the appropriate plastic housing so that the curved end points to the metal within.

A firm push should result in an audible click and it will then be impossible to pull the wire out again. If this fails, you have done something wrong. Check for solder on the outside and that it is the right way round. Try again. Then the heatshrink on each wire can be positioned and heated with a hot air blower and, if fitted, the outer heat shrink encompassing both can be positioned and secured.

When properly completed, a pair of these connectors will take a considerable force to remove and Anderson quote figures of around 6 to 10lb pull, say 3 - 5kg if you prefer metric. In theory you can lift up an Elecraft K3 radio by the power wire, but I have not put this to the test with mine!



Heatshrink to suit fittings.



Solder here.



Completed powerpole pair.

YJO Vanuatu DXpedition

Phil ZL3PAH #14103, Paul ZL4PW, Geoff ZL3GA and Gordon G3USR will be in Vanuatu for a DXpedition from 3 - 15 October 2014.

Callsign: YJ0X

Equipment: 2 HF stations (K3s + amplifiers) plus a reserve (FT-450D) on CW, RTTY and SSB.

Antennas: foldingantennas.com hexbeams, 6 el 6m yagi and verticals for 30, 40, and 80m on the edge of the sea.

QSL: ClubLog online log and OQRS will be available. Logs will be uploaded to LoTW within 3 months of the DXpedition.

QSL manager: Phil ZL3PAH

Chief pilot: Lee ZL2AL #9662

XYLs will also be going, but this is not a 'holiday style' expedition. So whilst there will be some down-time for the ops, they're looking to make a high total number of QSOs.

The team will be operating in both SSB and CW weekends of the Oceania DX Contest.

More details:

<http://yj2014.wordpress.com>



Pedestrian portable trolley

Doc VK5BUG #14136

Further to my report in the September newsletter on the International Lighthouse / Lightship Weekend and the success of my 'one-stop shop radio station on wheels', here are some photos:

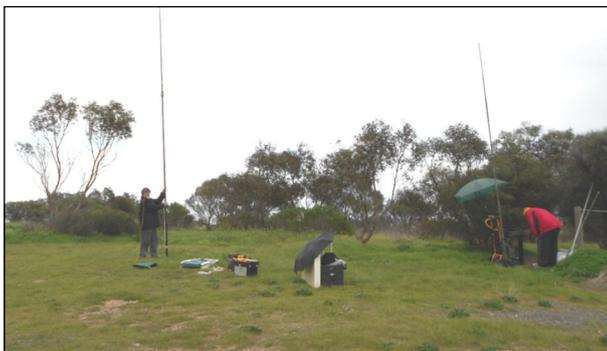


Home trials of the trolley on the back lawn. Testing 28MHz



16 - 17 August 2014: International Lighthouse / Lightship Weekend, Remembrance Day Contest, and Adelaide Hills Amateur Radio Society Parks Award.

QTH: Marino Rocks Lighthouse AU0118/ Marino Conservation Park, in company with John VK5EMI and Patrick VK5MPJ.



Below: Upper operating position on the trolley allows alternating between sitting and standing. Note the LED light for nocturnal activity.



Left: Series broadcast capacitor to extend the Z matching of the MFJ coupler.



Key dates

FISTS Down Under CW Net

Tuesdays on 7.028 MHz +/-

0900 - 1000 UTC

(8 - 9pm AEDT)

Net controller: VK2FDU

YJ0 Vanuatu DXpedition

3 - 15 October

Callsign: YJ0X

More details:

<http://yj2014.wordpress.com>

Oceania DX Contest

11 - 12 October (CW only)

0800 - 0800 UTC

The Oceania DX contest has been around since the mid 1930s and was previously known as the VK / ZL Contest.

This will be a great opportunity to work a lot of DX stations in the Oceania region.

More details:

www.oceaniadxcontest.com

JOTA (Jamboree On The Air)

18 - 19 October

JOTA is an annual event in which almost one million Scouts and Guides from all over the world make contact with each other by means of amateur radio.

More details:

<http://jotajoti.info>



Donations

Thank you to Len ZL1BLR #9061 for including a donation when renewing his membership.

Next generation logging using an iPad

Thomas VK3EO #14161

I would like to share with you a logging system I have been using with great success over the last few months and a few of the problems that I have encountered with other more traditional logging systems.



At the start of the year I found myself with an Apple iPad Mini that I gratefully received after a family member upgraded to a larger iPad. Pretty soon I was loading on apps and it occurred to me that there may be a computer log I can run on the iPad.

I have always liked the idea of a computer log but I have never got them to work well with computers crashing, long boot-up times, inconsistent use and the loss of data when changing computers. In the past, computer logs had always been a messy affair and I thought the iPad might solve these problems. I have of course tried using paper logs but encountered a different problem - how do you flick through the pages to find the QSO you had a year ago after communicating with 50 different countries and having several hundred logged contacts!

I have always

liked the idea of

a computer log...

So how is the iPad different? I find it very good because of its size and functionality. It's small enough that it is easy to interact with whilst on the radio and also easy to take away with me when I go portable. No need to transfer the logbook from the computer to the laptop every time you go away and it boots up instantly!

Also, due to the electronic nature of the device I will never need to buy another paper log book. The device is about the size of a half sheet of A4 paper and this fits easily into your backpack or bag, very similar to a regular logbook but no ruffled pages as you put it in and out of your bag and no pages for your dog to chew, sorry Fido.

The software I use on the device is RUMlog made by Tom, DL2RUM. There is also another piece of software for the iPad called MacLogger DX HD but that is mainly for DX-Cluster use as far as I'm aware and there is HamLog which I have not tried. RUMlog supports log import, export and sending to an online logbook and you can select whether you have sent or received a QSL card and enter details of the other station's working conditions and comments. Another great feature is that it enables you to make more than one logbook for another call sign you might have, a club station or special event.

The only thing I must say is it takes a little bit of practice to get used to logging with the iPad and using the radio at the same time, but I have been improving in this regard. It is actually quite a good challenge to keep up with the conversation and note the details on the iPad but it's certainly not impossible. I have found that logging the contact as you are having it is the best way to make sure your logbook is consistent and it also saves on selecting the correct date and time that you had the contact because the RUMlog software puts it in automatically. I have found a 'log it later logbook' is less than effective.

I hope that helps you with your future logging systems. 73 and good DX!

Membership renewals

Ralph ZL2AOH #1073

The following memberships are due for renewal (up until 31 October 2014) - some are well overdue:



9053 - 9087 - 9613 - 9638 - 9655 - 9674 - 9675 - 9677 - 14100 - 14111 - 14113 - 14132 - 14133 - 14142 - 14145 - 14145 - 14150 - 14151 - 14152 - 14153 - 14154 - 14169 - 14170 - 14171

If you are listed in error, wish to receive a replacement reminder notice or would like to discuss your membership, please email us at: fists-down-under@ihug.co.nz

Until next month, 73