

**Newsletter of the Australian / New Zealand chapter of the International Morse Preservation Society
June 2019**

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FISTS Down Under Sked Page <http://n8fq.org/sked/index.php?board=fdu>

Facebook <https://www.facebook.com/groups/1765058520392148/>

CW Practice Sessions: Michael's VK2CCW #14198 CW Practice Sessions are available on the [Club website](#)

Recommended FISTS calling frequencies (MHz):

1.808	3.528	7.028	10.118	14.058	18.085
21.058	24.908	28.058			

From the Editor: Bill VK1MCW #15215



Welcome to the June / Winter 2019 edition of your FISTS Down Under newsletter. The following comments, though I am the obvious author, are based on input from your FISTS Down Under Inc. (VK) Committee. We have been working with your comments and other outcomes of the survey we conducted earlier this year.

Without trying to blow our own trumpet, the survey indicates that overwhelmingly, our membership is very happy with the club. Obviously where there are aspects of our operation that are enjoyed and supported by you the members, then we are not about to change what isn't broken! There were some very constructive comments, however there were some that well, left me somewhat perplexed.

Newsletter going to a quarterly publication. For those who are concerned at the change from monthly to quarterly newsletters, I offer this... Whether it is me, or someone else preparing and presenting this newsletter, it relies on one key ingredient. YOUR INPUT!! I don't see it as my responsibility to go researching relevant articles from overseas/internet. This is YOUR newsletter,

not a generic CW newsletter. Note that over 78% of our membership (78.3% of VK members and 78.1% of ZL members) participated in the survey. Over 75% of those who participated mentioned that they are prepared to contribute to the FDU newsletter.... Well, at present, **only 3%** of FISTS Down Under Inc members are backing that up. You may note that many of the contributors are regulars, and without those 3 or 4 members who bother, there would be no point to this newsletter. So, I simply do not have enough material to put a meaningful, hopefully interesting and informative newsletter together on a monthly basis. That said, THANKYOU to those who have contributed for this edition.

I have had to apologise to two VK members who indeed DID contribute articles for the March edition but which I very much regret, were not published. Indeed, one of the articles should have gone into the December 2018 edition. My excuse is that when that email came in there had been a death in my family (interstate) and I simply failed to properly manage my emails in that two-week period when I was off the reservation. In the last couple of years, I have **deliberately** omitted two other contributions – and I make no apology for leaving them out. There is no guarantee that every submitted article will be published. If it is original, related to AR in any way then you can be confident that it will be published provided I don't have to re-write it!! One of those I left out was simply irrelevant to amateur radio and was rather tacky. Another was a six-page obituary to a Silent Key. Some months had gone by since his passing, and that obituary had already been published some weeks or months previously in another amateur radio magazine distributed in New Zealand. I published a heavily edited tribute. (And had the blessing of my ZL contact who provided the information). I was doing my job as editor, and no disrespect was intended, nor I suggest was any conveyed by reducing it to a couple of paragraphs.

Some of you will by now be aware that the ZL membership are now producing their own MONTHLY flyer serving about 30 FISTS ZL members. It is not a “newsletter” as such, but it does operate in direct competition with and isolation to the this, the official FISTS Down Under Inc. newsletter. All I can say is that when this newsletter was produced monthly, under my stewardship, NOT ONCE was ANY ZL specific news (other than a hand-full of articles of general interest to all) sent to me for inclusion....., and now the ZL Chapter are producing their own? I would urge our ZL friends to make use of this, the OFFICIAL FISTS Down Under Inc. newsletter. I am stating here how very disappointed I am with the ZL FISTS community for taking this step without any consultation.

CW Nets and Contests. Some members commented that they don't bother joining in because, so few people join in..... Hmmm have a think about that!!

FDU Website Awareness. A few members commented that they were not aware of the information that is and has always, or at least for a very long time, been available on the FISTS Down Under web site. In response to that feedback, Garry VK2GAZ is now sending out fortnightly email to all members and highlighting one or two services the Club has to offer, like the Sked Page, the Tuesday night net, the buddy system and CodeMate.

I hope my comments here might generate some feedback – I will welcome it!!

73 de Bill VK1MCW #15215 Editor

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Membership Subscriptions:

List of **VK members** whose subscriptions become due in June, July, and August 2019. No information regarding ZL memberships has been provided. I assume you are all relying on other sources of information, however I understand an audit of the ZL membership is, or has recently been conducted.

June: VK2CCW, VK2CKW, VK2DLF/VK2CWY, VK2JSE, VK2KMI, VK3MI/ZL1AZE, VK4BOW, VK4KF, VK4QC, VK4RJ, VK7CW, VK7TW

July: VK1FMGG, VK2EBN, VK2IOW, VK3FNG, VK4HBP, VK4MIK, VK4WM

August: #15229 (no C/S yet), VK1CT, VK2GDI, VK2YN, VK3HJ, VK3JOB, VK3TP, VK3ZT, VK4AP, VK4EBP, VK5GG, VK8CAW, VK8FEET

We ask that you keep an eye out for your callsign in this section and treat that as your reminder for you to renew your FISTS membership.

Our website, http://www.fdu.org.au/join_renew.php has all the details for making payments. Don't forget that when you are paying your subscription to **include your callsign**. Please do not send cash in the post as this causes problems for us in banking.

A small note for VK Members Only. Many thanks to those who in addition to their renewal, often so generously include a donation to FISTS Down Under Inc. However, your annual membership of just \$10.00 is all that is required to keep the club functioning, so please, no more donations. We are looking at ways of getting you greater return on your investment. More on that in the coming months – if not by newsletter, then by additional email, the Facebook Group and of course the FISTS Down Under web page. Thankyou Thankyou! But please, for now, no more donations!!”.

Thank you!

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Position Vacant IMI Position Vacant!

FDU Contest Manager

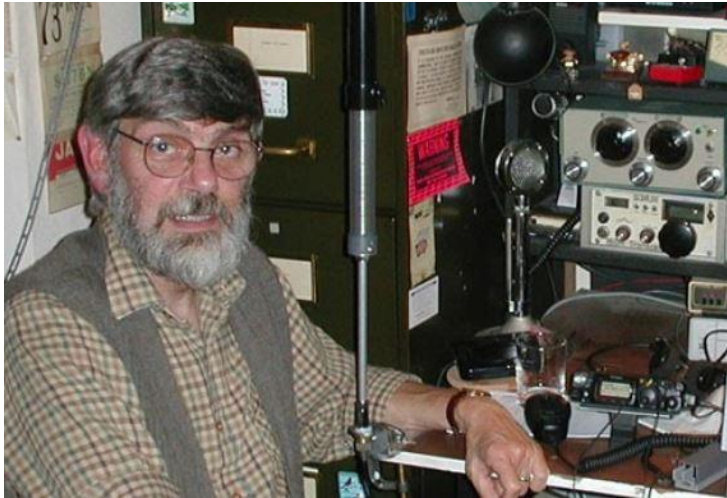
A very pleasing outcome of the survey was the number of members who indicated their willingness to participate in Club activities.

We are STILL looking for a Club member to take on the role of Club Contest Manager. This is a very simple task running just one (1) contest per month throughout the year.

If you would like further details, please contact Garry VK2GAZ #14151 on 0466 090 152 or email vk2fdu.auz@gmail.com

Silent Key

Rev. George Dobbs G3RJV – SK



We learned that Rev. Dobbs passed away on the 11th March 2019 in the wee hours, at home and with his family near. George was a long-time member of the QRP ARCI, and a frequent speaker during the many Four Days in May symposiums. George was also the founder of the G-QRP club in Great Britain and was active with the RSGB as a contributor to many books and articles throughout the years.

George designed the world famous "Sudden Receiver" in 1989 and it was featured at FDI 2009 as the Buildathon project, and it is still sold in kit form today. His tales of minimalist radio operations showed us all QRP was incredible fun and rewarding.

George was the long-time editor of Sprat magazine, the newsletter of the G-QRP and it was always full of minimalist projects suitable for the beginner or the advanced builder. A member of the QRP ARCI QRP Hall of Fame and member 4180, he will be missed by the global QRP community.

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Contest Results

Election Fever Contest was run 23 March, the winner was David VK2JDR #14185 running a QRP station.

12 April Contest FISTS member with the highest score: Laurie VK2GZ #15218; QRP operator with highest score: David VK2JDR #14185

All details at:

<http://fdu.org.au/contests.php>

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Gold 25 Award

Congratulations to the following FISTS members on qualifying for the FISTS Down Under Inc. Gold 25 Award



David G0XAH #2222

William G10WWB #18434

Peter G4LHI #2219

Richard G0ILN #398

[Details of the Gold Awards](#)

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From our Members

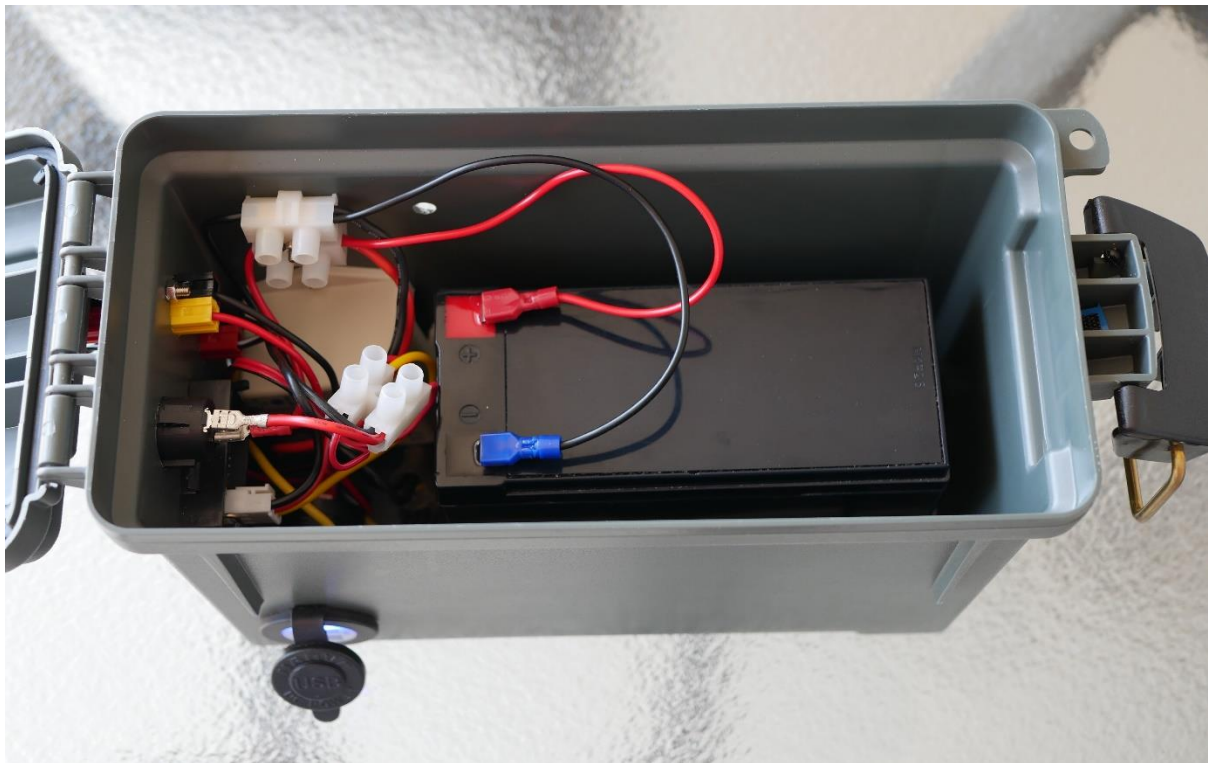
Chris VK1CT #9057

Portable Power 'Go-Box'

If you're taking your radio into the great outdoors, one thing to consider is 'How will you power your radio'? In the November 2018 FDU newsletter, I explained how I built a small portable battery pack using 18650 cells. Now I will describe a heavier battery system which is more suited for use with vehicle transport, or as a backup power source at home.



My system is based on a 7Ah sealed lead acid battery. It can be charged by a solar panel and has an LED display to show voltage and current draw. It also has two USB output ports, which can be used to power anything that normally charges via USB. It has Anderson connectors for both the solar panel input and the 12v output. A small solar regulator controls battery charging. All components are housed in a plastic ammo box.



Top View

Parts list:

- battery
- solar regulator (Morningstar Sun Guard)
- LED display
- box (Plano ammo container)
- USB socket
- spade lugs x 2
- wire
- switch
- M3 set screws and nuts
- Anderson connectors x 4
- mounting brackets for Anderson connectors

Most of the parts can be obtained online from eBay. From my experience with using various USB sockets, I can recommend the 'Narva' brand. They are solid and work! You can find them at auto parts suppliers. Mounting the Anderson connectors isn't easy. You can get small metal brackets that fit around the connectors and secure them in place with a small set screw and nut. An alternative is to use a commercially made socket from Powerwerx. They are similar to a 12v cigarette lighter socket but have dual Anderson connectors inside. If you're into 3D printing, you could make your own.



Side View

To charge the battery, just connect a solar panel. Ensure that the output current from the panel isn't greater than what the solar charge controller can handle. I put some non-slip matting under the battery to stop it from sliding around. The battery box with all parts (excluding solar panel) weighs in at 2.9 kg. This setup has worked well and there are some improvements to it that I will be making soon. This will include adding fuses/ circuit breakers for safety, and a cigarette lighter socket for use with 12v appliances.

If you're looking for more ideas on 'power go-boxes', Youtube has lots of videos on the subject. You can of course buy readily available 'go-boxes' with higher capacity batteries, but some of them have eye-watering price tags. Or you can spend a few hours assembling one to suit your own requirements.

Chris VK1CT #9057

Wireless Telegraphy Sidetone – an historical view

By David Smith, ZL2WT, with the assistance of Rob Firman, ZL1CV, and many other amateur and professional operators.

The term 'sidetone' is used to describe several different applications of audio feedback. The type of sidetone that I want to discuss in this article is the audio note that an operator hears when the telegraphy key is operated. Those who have entered the hobby in the 21st century will be familiar with every transceiver providing an audio tone in the 'key-down' condition. But, this was not always the way. Think of the Victorian land-line telegraphists, their audio feedback was either the noise of the keying arm hitting the front and back contacts of the key, or possibly the click-clack of an adjacent sounder or relay.

When I sat my amateur and professional PMG certificates in the 1960's, the examinations required the use of a straight key without any sidetone. The 1961 regulations state 'the wearing of headphones is not permitted during the sending test'. By 1971, the regulations had been relaxed and some examiners allowed you to hear what you were sending. One of the world's busiest Coast Radio Stations in the 1960's was Portishead Radio, GKA. To pass the induction test to be an operator at GKA, the new entrant had to send 30 standard telegrams 'blind', (i.e. no headphones), without a single error.

It was not just the landline and maritime telegraphists who sent 'blind' – I am told that most British and American WW2 military radios did not have a dedicated sidetone generator, but during normal operation certain sets did provide some sort of audio feedback.

I've recently corresponded with several 'old-timers' about sending without sidetone. One tells me that, even today, his sidetone is turned off, as the large copper cover on his Marconi 365A key amplifies the sound coming from the front closing contact. Several retired Radio Officers have told me that they often used a second receiver to provide an audio sidetone when operating CW on HF. Sometimes you could hear your transmission on your main receiver, even though you were working split-frequency - this was usually referred to, rightly or wrongly, as leaky-heterodyning, or leaky-het! On MF (405 – 525 kHz), the mode of transmission was modulated CW and your transmission could usually be heard on every other radio that was on your ship.

When the first iambic paddle keys were introduced, they usually had internal audio oscillators to provide feedback. It is reported that the first amateur rigs to provide dedicated audio sidetone were probably the Collins KWM2, the S Line and possibly the Heath SB Line. I discussed this with fellow FISTS member Rob Firman. Rob says that he always prefers to monitor his sending and with a modern rig it is usually just part of the inbuilt CW system, except that you are not actually listening to the RF signal but to an audio oscillator, which does not tell you what your signal really sounds like. With a modern rig this is usually ok, but with home brew gear it is an entirely different matter especially if the transmitter is crystal controlled which some of Rob's are. When using his home brew gear, Rob normally monitors his sending with another receiver in the corner of the shack, RF gain wound well back and volume set so he can just hear the signal. This lets him hear whether he has any clicks or chirps and with a crystal oscillator this can be important because often the signal sounds much better if the oscillator is just detuned a wee bit. A typical radio where this is important is the Paraset and Rob would love to have heard what one of these sets sounded like in real life during WWII. He says that with his there are crystals that work very well and others that don't work at all and detuning the oscillator for the best signal out makes all the difference. One British Radio Officer reports that the readability of his blind keying improved once he had placed a capacitor across the key terminals to smooth the leading and trailing edges of his dits and dahs.

Toward the end of CW being used at sea, both the British and American manufacturers started providing audio feedback in the keying circuits, but this was not mandatory in the SOLAS (Safety Of Life At Sea) regulations. A retired US Coast Guard radio operator has told me that 50 years ago the Coast Guard radios, for both ship and shore stations, did not provide sidetone and his first encounter of being able to hear what he was sending was when he took up amateur radio. An operator who worked at KPH remembers that a 1 kHz tone was provided at each operating position. Some staff found the frequency of this note too high, so they used a second receiver instead. It is assumed that most of those operators were using semi-automatic 'bug' keys.

More than one operator has told me that they remember the lights dimming as the key was pressed and another recalls a change in the blue colour of the 866A mercury vapour rectifiers when the key was down.

As a boy, I would visit the local railway station, which was on the Birmingham to Derby line. Mr Collins was the telegraphist. The system used was a needle telegraph, with a red and white needle moving left and right. I'm not sure if Mr Collins ever watched the needle as he pressed the two wooden paddle levers, he seemed to be listening to the clack-clack as the needle moved left and right.

Today, virtually all radio amateur CW equipment provides sidetone, and operating an iambic paddle key without sidetone would be extremely difficult, if not impossible. I would like to present you with a few discussion questions. You may like to write a letter to the Editor with your thoughts or perhaps write an article on 'sidetone in the 21st century'.

- What is the best frequency for a CW sidetone?
- Are there circumstances when you need to change the frequency of your sidetone?
- At what audio level should the sidetone be in relation to the signal being received?
- Are there times when it is preferable to turn the sidetone off?
- Do you use any other method to monitor your sending? A second receiver? An oscilloscope? A recording device? A light emitting diode? A tone oscillator?

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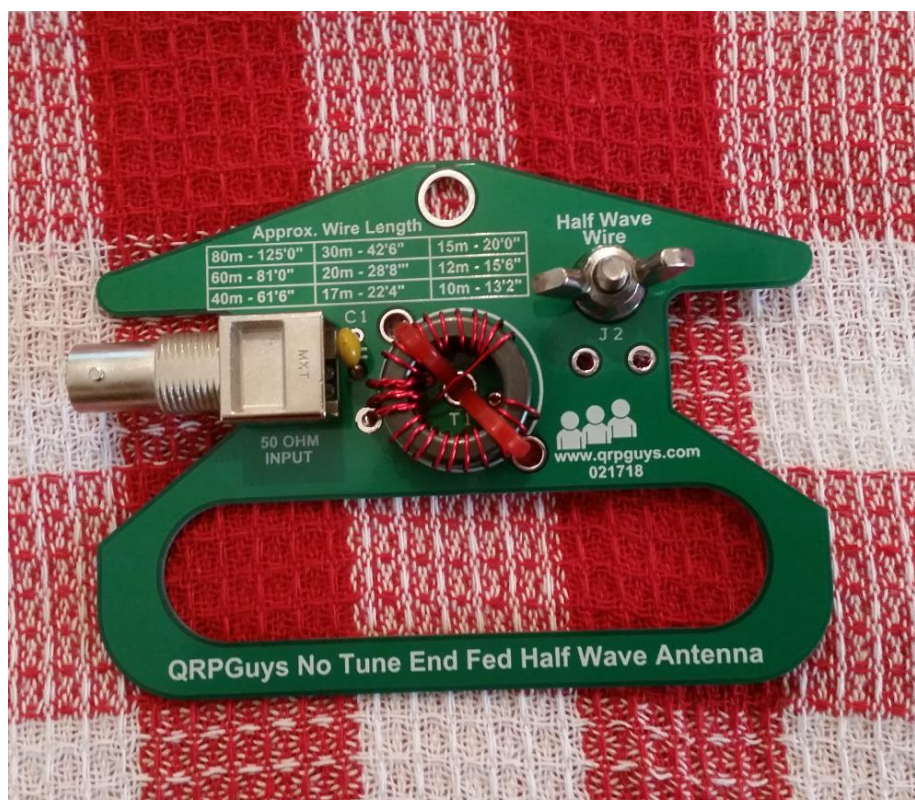
From Garry GK2GAZ #14151

QRPGuys No Tune End Fed Half Wave Antenna

<https://qrpguys.com/qrpguys-end-fed-wire-antenna>

Some time back I purchased this antenna coupler from QRPGuys, a very easy little kit to put together with just one toroid to wind.

Now the kit comes with very clear and easy to follow instructions but when it came to the toroid I knew better from having previously had great success with winding such toroids. So, instead of following the instruction and winding a total of 24 turns including 3 turns on the primary I went ahead and wound 2 turns on the primary and 14 turns on the secondary.



I then constructed an antenna, well just cut a piece of wire to 61' 6" or 18.745 meters as per the instruction.

The antenna was hoisted up on a 7-meter squid pole and run away to a nearby tree at about 5 meters. For some inexplicable reason, when I hooked up the transformer to the antenna I could not get to work, the SWR was way too high. Surely, I knew what I was doing!!



One small very important fact had escaped my attention, when I previously successfully made the 49:1 transformer with 2 turns on the primary and 14 turns on the secondary the toroid used was a FT240-43 type about 12.7mm x 61mm. The toroid used in the QRPGuys kit is a much smaller, a FT82-43 type and this makes the world of difference!!

Of course, I went back and this time I followed the instructions to the letter and correctly wound the toroid. To my surprise when the antenna and transformer were again tested, they worked perfectly.

My little HB-1B showed virtually zero SWR and full power (a staggering 4 watts with 12 volts) and on that Saturday afternoon I had a very nice contact with Steve VK3JY #9630 who was calling CQ on 7.025. Steve was booming in with a 599 signal however, my signal report was 229 and I thank Steve for hanging in there to pull me out of the noise.

If you like End Fed Antennas this proven little kit is a true winner, check out Chris's VK1CT #9057 video of him using the same setup.

<https://www.youtube.com/watch?v=0Jk85O8uiJ0&pbjreload=10>

Lesson Learnt – if the instructions are followed there is a much better chance of having success.

73, Garry VK2GAZ #14151

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And another from Gaz!

Portable in the back yard

My latest acquisition is a ZM-2 ATU by EMTECH.



This is a manual antenna tuner which is very light weight, it tunes wire antennas: Random lengths both long and short as well as BALANCED fed antennas such as Loops, Deltas,

Dipoles, Verticals etc.. The ZM-2 will tune all bands from 80 to 10 meters and can handle a maximum power of 15 Watts.

I chose a random length of wire, 10.820 meters which would work well with my 10 meter squid pole. Speaking of which, it can be a problem sometimes just where and how to anchor the squid pole. I saw an interesting video where a guy supported his squid pole using a folding chair.



I employed one of my folding camping chairs and attached a piece of plastic tubing 1 meter x 50 mm into which the squid pole fitted nicely. It proved to be very stable however, in high winds the chair may require pegging down.



My station consisted of an FT-817, Hy-mound key, 12 volt battery, the ZM-2 ATU and a random wire 10.820 meters long supported by the squid pole.

The antenna tuned up very nicely on 40, 30 and 20 meters. Contacts were a little thin on the ground however I did manage a contact with Pat ON7PQ in Belgium on 30 meters.

All in all I am very happy with the little tuner and hope to use it more often.

Best regards,

Garry VK2GAZ #14151

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Key Moments

Kees van der Spek Member #15229

UK Navy 'Admiralty Pattern' (Admy. Patt. or A.P. for short) 7681 model



Condition as purchased

Purchased in July 2016 from the USA for next to nothing. The seller wrote me that he knew nothing about it as it was amongst his father's "stuff" they were cleaning out. When he asked his father, he learned that "he bought it at a flea market a few years back with the intention to use in a short movie he wanted to make. He never made the movie and I convinced him to sell it."

The key is a UK Navy 'Admiralty Pattern' (Admy. Patt. or A.P. for short) 7681 model. This is the third and latest model of the A.P.7681 series, originally designed by the Marconi Wireless Telegraphy Company Ltd. for the British Navy and the 'big brother' of the A.P.691 and A.P.65485 series. They were built by several manufacturers, among them Goodburn Engineering Co. Ltd., Uxbridge; and Ward and Goldstone, Salford. Despite fixture points in the Bakelite base, they did not always come with their pressed steel covers, as this proved an expensive accessory. The earlier versions of the A.P.7681 had metal (that is, brass and nickel-plated) trunnions. They came in two different shapes which I call versions 1 and 2. The third and latest version had the trunnions cast as part of the Bakelite base. This always proved to be a weak spot as I have seen many with one of the trunnions broken off.

I managed to acquire a 'bulk-lot' of several broken and unserviceable Morse keys (which included all three versions) and which originally came off HMS Achilles (see picture), a British frigate.



HMS Achilles

Since my USA purchase had damaged (corroded and broken spring) and missing (spring tensioner thumb screw assembly) parts, I restored the key using parts and a steel cover from the unserviceable HMS Achilles keys.



Although I cleaned the key and de-rusted corroded parts, I sought to preserve as much as possible the patina of the original key. I did however repair the saw-blade 'attack' that disfigured the front

left of the key, as can be seen in the image of its original condition. (People do strange things to Morse keys!) HMS Achilles had a full life with its own interesting history (see [https://en.wikipedia.org/wiki/HMS_Achilles_\(F12\)](https://en.wikipedia.org/wiki/HMS_Achilles_(F12))).

Despite the ship's inglorious end, in this A.P.7681 Morse key (and several other keys of this type I restored using HMS Achilles parts), some of its history remains preserved and a small part of a once-proud vessel continues to live on. The three versions of the A.P. 7681 continued to serve – apparently side-by-side, as evidenced on HMS Achilles – until at least the late 1980s. From the 1970s onwards, UK Navy vessels were fitted with the Pryce Edwards Ltd. / Marconi S.&R. Systems Ltd. 'NATO' key which would eventually have replaced the earlier Admiralty Pattern series of Marconi-designed Morse keys.



All best wishes,

Kees #15229

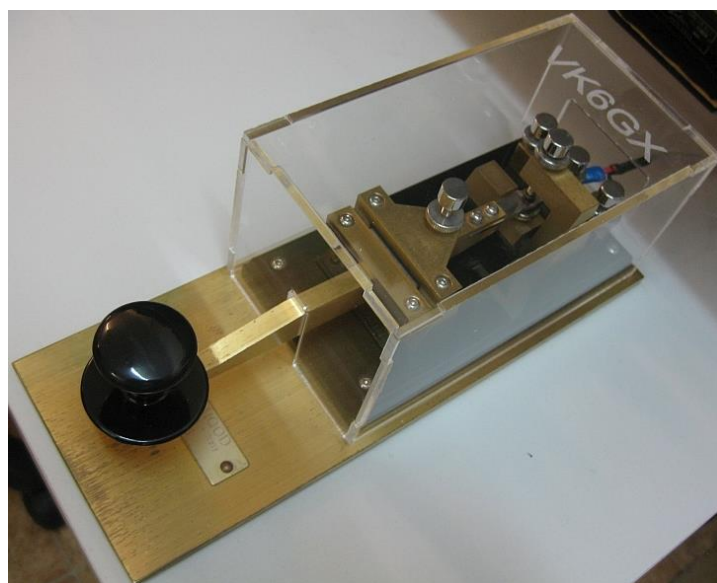
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Phil VK6GX #15201 has supplied pictures of a few of his keys,



GHD Telegraph GT-501A 1

The GHD Telegraph GT-501A has an inbuilt Mitutoyo micrometer, to set the contact gap! Great if you like a very small contact gap.



I1QOD Deluxe Swedish Key 1

The I1QOD Deluxe Swedish key was custom made for me by Alberto Frattini, a master craftsman.



Kent KT-1 Pro 1

The key visible behind the Kent KT-1 Pro is a Danish navy Amplidan 50713/121, a real beauty too.

All the knobs on my keys are the same, supplied by Morse Express.

The key covers were custom made by Pete, G0PNM, from dimensions supplied by me. He has many other templates for popular keys and makes customised multi-colour LED illuminated signs too. See my QRZ.com page for an example, (The larger LED sign).

Phil VK6GX #15201

Brian VK4BOW #14196 has also supplied a picture of a few of his keys,



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My keys from the most used to the least. Left to Right

I must admit I now favour the big brass paddle over my once favourite Vibroplex. Devices of great joy! Both keys can be seen on the Club Website Home Page:

<http://fdu.org.au/home.php>

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Simon VK2FK #15233



Begali HST III and Navy Flameproof
Simon VK2FK #15233

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In Closing

CW is growing in popularity in both Australia and New Zealand. I never have any difficulty qualifying SOTA summits in CW – indeed on each of the three activations I have made since April 28th (this written on May 11th) it took about 5 minutes from my very first CQ to have qualified the summit! Unfortunately, many of my VK and ZL chasers are NOT members of FISTS Down Under. OK, to my point. If you want to see more VK and ZL members in the Gold Awards, or in contests, or to get people to answer your CQs, there is nothing I or any of the FDU committee can do to help you. It is up to you to engage in as much CW as you can. If you hear a CQ, even if at ridiculous QRQ speeds, ANSWER!! Promote CW and especially FISTS Down Under at your local club and have a go at joining in our CW contests that Garry arranges.

ON THAT NOTE – did anyone read the ‘Position Vacant’ reproduced from the last edition? (There’s the IMI !!) Well, we are patiently awaiting someone to please step up!

I might bang on about SOTA – try it! The WWFF Parks program is also a fantastic way to go portable with your CW key!

I’m not done yet! 😊 I see it as my job, as a member of the FDU Committee, to promote the use of CW at every opportunity. Yep, it is your job too! Those of you who follow my comments in the VK and VK1 SOTA community will know that I do try. I have even been rather rudely described as a CW zealot!! Good!! Well – we need more zealots. I know many of you enjoy many different modes as well as CW. FISTS is your CW corner. When you enter a QSO with someone, why not mention FISTS, or perhaps contact them afterwards as most ops have an email link on their QRZ page. Don’t have a QRZ page? I recommend it!

I am sure I have said enough already. On behalf of the FDU Committee, thanks to those who took the time and effort to contribute to our newsletter... Now is the time to start filling the next edition!!

Let’s all get on the air!!

73

de Bill

VK1MCW #15215



More on this Polish beauty next edition!