



# CW Today

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Photo 1: The “Ultra Pico keyer” and mini paddle “Bulldog”.

In the first issue of **CW Today** printed in the October edition of *Amateur Radio* we introduced CW as the most inefficient data mode whilst being at the same time the most efficient non-computer communication mode when decoded by ear. We looked at some of the reasons people are using CW.

In the second issue printed in November we gave encouraging tips to enable newcomers to get on air and for old timers returning to the mode. In the third issue, in December, we revealed some of the little known history of CW and how what we call Morse Code is actually Gerke Code, as well as

some further information for those getting (back) on the air on CW and we highly recommended an online reading of **Zen and the Art of Radiotelegraphy** by Carlo IK6YGJ, which is free QSL-ware.

In last month’s January-February issue, we looked at a few mechanical Morse straight keys or “pumps”. In this issue we will introduce an additional Morse key and keying method, the electronic *keyer* and *paddle*, and in future hope to also cover the mechanical semi-automatic *bug* key and the computer *keyboard* as means of sending CW.

## Electronic keyers

While the “pump” generates Morse code upon downward pushing generally on a knob attached to a lever that makes contact on the down and breaks via a spring pushing the lever back up on release, a paddle which can be single or twin paddle, works horizontally. Attached to an electronic keyer (sometimes built in as a single unit) it generates automatic dits and dahs, in perfect ratio. Push it to one side and you get a string of dits perfectly spaced, push it to the other and you get a string of perfectly spaced dahs. On a twin lever paddle if you squeeze

it and the keyer is in “iambic” mode, you get a string of di-dahs or dah-dits depending on which lever you press first.

Reflexes are all important in the use of electronic keyers, and you can adjust the speed with a knob. Proficient operators can send even 60WPM or more on a keyer – single level non-iambic mode – or up to around 40WPM or so on an iambic twin paddle.

Photo 1 shows the “Ultra Pico keyer” and mini paddle “Bulldog” by K9LU in the foreground, both in use along with a 40 m QRP CW transceiver.

Photo 2 shows the “Ultra Pico keyer” in close up. The keyer in simple kit form and the paddle cost around \$30 each from the USA and are an inexpensive way to get on air with a paddle.

Most modern rigs have a keyer already built in, so the keyer wouldn't be required, however external keyers such as this one often have many useful additional features such as beacon mode, contesting features and other memory banks that can be recalled at the push of a button.

### Readers' feedback

I have received much positive feedback from readers, who have thanked *Amateur Radio* for publishing this column and told me that they thoroughly enjoy reading it. If you haven't written in yet and have read the first few editions of *CW Today*, I'd very much welcome your feedback.

Many readers have also voiced concerns highlighting current global CW issues which could benefit from a closer look so that the various users of CW can continue to get the benefits of its use into the future. This includes concerns about requirements for balancing the various needs and aspirations of different aspects of the amateur radio hobby, and how the various types of uses and methods of sending and receiving CW can be



Photo 2: The “Ultra Pico keyer”.

protected, and all positively flourish together on the CW bands.

### Basic fundamentals

Firstly, before we delve into those areas of global CW concerns highlighted by readers for discussion in upcoming issues that sometimes evoke passion among hobbyists in various camps, activities or usage scenarios and in order to avoid misunderstandings, let us all with the best of intentions toward both amateur radio and fellow radio amateurs, acknowledge the fact that this hobby is diverse and let us believe that we can be united within that diversity, at least around some core principles. If we embrace these before moving on to discuss various problems that arise among different usages of CW within our amateur bands, we are more likely to avoid misunderstandings.

It may help here to draw attention again to the Amateur's Code, which can be found from a search of the web, but in particular these two relating to the relationships between the participants of our diverse hobby: the amateur is *considerate*... (s)he never knowingly operates in such a way as to lessen the pleasure of others; the amateur is *friendly* (s)he operates slowly and patiently when requested; offers friendly advice

and counsel to beginners; kind assistance, cooperation and consideration for the interests of others. These are the marks of the amateur spirit.

Further, we should agree to respect the rights of other radio amateurs to have different interests and priorities than we do. Some like *all* the various CW activities, but some like only one or more. Examples include leisurely QSO, DX QSO, random contacts, contesting, award chasing, calling CQ or listening. Without all these activities we wouldn't have so many CW users, so let us agree that all share the right to the

use of our CW bands. Then there are those who enjoy perfectly sent CW, and those who are less fussy, those who like to use bug keys, straight keys, electronic paddles, or all three, those who use decoders, keyboards, as well as those who use computers and those who don't.

### Friction and conflict

None of us are forced to enjoy all these aspects of CW within amateur radio or to participate in anything other than what we wish to. At the same time, we should ensure that clashes between these various operations are minimised, and highlight those issues which many CW Ops have written about with concern, due to negative impacts experienced when certain conditions are met, such as a band being overcrowded, a major DX activation or several contests being underway.

Before we can address the various problems that arise, we should first take a look at the conditions which generate friction, interference, and/or inability to pursue the hobby as per our various expectations. Readers who agree the above basic fundamentals and who have identified any such global CW issues are invited to write in with comments and suggestions so that we can then take a look at

those issues from our small part of the world CW community and see if we can contribute.

### Activity on the CW bands

We appear to be facing a situation never before faced on our bands: at times *higher* activities than we've *ever* experienced on our CW bands, and the rest of the time, *lower* activities than we've *ever* experienced on our CW bands. Our band usage is thus extremely unstable and fluctuates wildly to a degree never seen before in the history of amateur radio.

While everyone should agree that busy amateur bands is a good thing, in order to hopefully provide some guarantee toward us retaining our HF bands into the future, we should also be able to see that extreme fluctuation in our usage from over-crowded one day to under-used the next few days is not a healthy situation. Just as extreme weather fluctuations between heat waves and freezing weather is a sign that something is increasingly wrong where it was not the case in the past. The best scenario for amateur radio activities would be for the bands to be occupied more evenly.

What could we do to achieve more activity on the bands during quiet times, and better sharing of the limited resources during busy times?

I highlight in brief a few activities that have resulted in some increased activity on the bands here in Australia that have been the initiatives of various CW operators.

CW practice nets are experiencing a revival, including one conducted on Monday and Friday evenings at 8 pm by VK2CCW around 7115 LSB helping with on-air practice and allowing for questions and feedback in SSB.

The 7050 calling frequencies as well as centre of activity frequencies used by CW operators looking for QSOs during the day, around 14022.5 and 21022.5 kHz in particular, continue to result in more CQs being answered when the

bands are otherwise quiet.

7022.5, 14022.5 and 21022.5 kHz are also being used for the Saturday afternoon 0400UTC 20 WPM CW broadcast by VK4QC repeated Sunday mornings at 2200UTC at 17 WPM. A slow repeat on Monday evenings at 1000UTC at 10-14 WPM on 3522.5, 7022.5 and 14022.5 kHz is also proving popular with listeners.

Generally random CQ contacts have increased; many people at *all* levels are coming back onto CW.

In upcoming issues we may take a look at the positive aspects of DX activations and contests on the activating of the CW bands as well as the problems that sometimes arise from these activities clashing with other DX and CW activities. After receiving your further feedback we can then put forward ideas on how these can be minimised, taking into account readers suggestions.

### CW and computers

With the advent of wide spread use of computers and free software, CW is now increasingly used as a digital mode by those who cannot decode it by ear but use a software or hardware "decoder". The reliance primarily upon a decoder to decipher CW is very different in its outcome from a trained CW operator who decodes by brain and ear. Decoders are woefully inferior in anything less than ideal conditions: not only the keying must be accurate but more so there should not be other interfering signals nearby, fading, changes in speed or style. Performance on short CW transmissions on closely related frequencies by multiple stations cannot come even close to the human ear decoder. Use of decoders, *not* the use of keyboards, defines as "Digital CW" (DCW).

We can therefore take a look at the rise of DCW and its impact in activating CW bands, highlight some of the unintended side effects upon traditional CW activities, and then explore ways that both types of use can co-exist and flourish with positive outcomes for all types of CW users.

### In summary

We are all stake holders in amateur radio and we often have differing sub-interests within the hobby.

Naturally we cannot right all the problems of CW and the global amateur radio but we can perhaps make our small contributions to finding out common needs and possible solutions to various challenges faced by CW users, so that all aspects of CW use can benefit in the long run.

If you are a CW operator, DCW user, DXer, contester, or enjoy leisurely QSO in CW, and agree with the basic fundamentals highlighted earlier above which are at the heart of the traditions of amateur radio, do write in with your comments and suggestions on any of the above topics of discussion that we may cover in summary in an upcoming edition of CW Today.

CW is the only means I know that allows humans to communicate with each other using only one single hand, while eating a meal with the other, mouth full, burping and letting out gas, without causing offence.

73 ES 77 de Lou VK5EEE.



## Silent Key

### Gerry Sulzberger, formerly VK7ZA

It is with sadness that I report the loss of Gerry Sulzberger, formerly VK7ZA, who passed away on Christmas Day after a long battle with Huntington's disease.

Gerry would be well known to a number of the longer term VK7 amateurs as he was a very active member of WICEN in past years.

Our deepest sympathy is passed to his son Peter Sulzberger VK7FPWS and family.

Vale Gerry.

(Yvonne VK7FYM)

