



# CW Today

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What is it that makes CW still relevant today? Why do most HF radios still have a CW switch? Is CW really Morse code? How can I get started in CW? Is CW difficult to learn? Is CW making a comeback or is it going to fade away in future? How can I try CW on the air? These questions and more will be answered, along with information and news of interest not only to

CW operators but also hopefully for those who don't know any CW, in this new column in the *Amateur Radio* magazine.

## Efficient communications mode

Most current commercial, military and government communications have moved to higher and more efficient data transfer modes known

generally as digital modes. Especially with the advent of computer systems that make use of precise timing, wider bandwidth, handshaking and forward error correction among other things, CW is now the most inefficient data mode but in contrast still remains the most efficient non-computer communication mode.

There are many other reasons that CW is now making a comeback

Photo 1: The Pixie transceiver and accessories almost ready to go into action. Photo by John Eyles VK2YW.



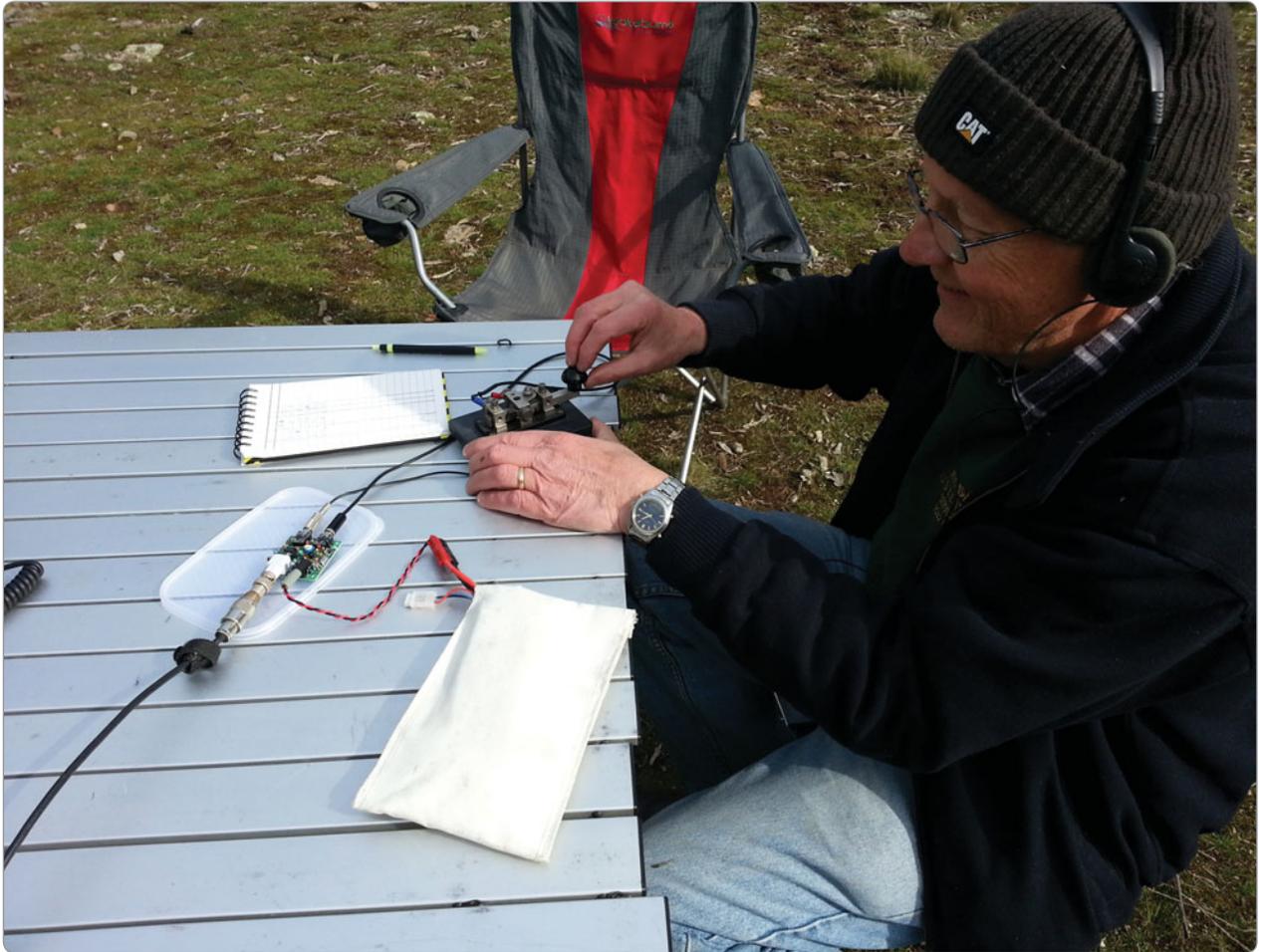


Photo 2: John VK2YW beaming with the success of the Pixie transceiver in use on a SOTA summit. Photo by John Eyles VK2YW.

among radio amateurs, and also why it remains in use even today in the most modern of aeronautical navigation and safety systems. All airline pilots are required to know CW. Tune down to MF or LF frequencies and listen to the automated announcements by airports and aeronautical navigation beacons, and note the CW identifications still being used in the latest technology.

For many radio amateurs, CW is a useful mode to be able to use because it is the least expensive mode to produce from home brew equipment, and requires very little power compared to wide band modes, concentrated in a single channel, to achieve successful DX contacts or in SOTA and portable low-power battery-powered operations. The human ear, if

accompanied by a CW-trained brain, is a better decoder of CW than the best of software, especially if aided by receiver or audio filters.

Fading, static, interference and variations in sending are less of a problem to the trained CW operator who can copy in all these conditions, any combination of which will usually defeat the best of software CW decoders. One of the reasons for this is that CW has variable lengths, even when perfectly sent, so there is no way to know how many letters went missing in a burst of static, noise or in fading. Nor even which letters are being run together or sent incorrectly in defective sending.

So what are all these Q-codes? Certainly, due to the speed of CW compared to speech, unless you are a very high speed operator

able to copy 60 WPM, most CW communications take place around 15-25 WPM, and the use of agreed Q-codes and other abbreviations make the use of CW much faster and more comfortable once these are memorised or kept handy, especially at slower speeds. Thus the effective speed of transmission is actually much higher.

### **DX and portable use**

CW for DX provides a better signal-to-noise ratio with less power and thus better communication effective throughput than SSB for any given power or antenna system. The ability to use very low power when operating portable or on a battery with CW are also another benefit and the reason it is often the mode of choice for such operations. Simple home brew transmitters and

receivers can be constructed and work well with CW on as little as one Watt.

With the healthy outdoor activities of Summits on the Air, Parks activations and generally a good excuse to get out into the fresh air and nature, CW is a good mode to use with little power, simple lightweight wire antennas, and lightweight gear, all easily fitting into a back pack. See Photo 1.

## Emergency communications

An experienced CW operator can send and receive emergency communications messages faster and more reliably than voice, where words often have to be spelt out phonetically letter by letter. Not so in CW, as each letter is sent as it is and is thus clear to the receiver. The IARU Emergency Communications Manual acknowledges this fact, as well as that when data communications may be down due to modems, computers, power or other problems, CW is usually still available in reserve.

In the US and some other places, CW traffic handling and emergency communications preparedness is therefore widespread.

## CW transcends language barriers

CW is an international language. Foreign operators who speak little or no English or have problems with their English pronunciation, are able to memorise or keep handy these various abbreviations, translated into their own languages, so contacts can take place with ease across language barriers.

Anyone who has listened in Europe, or used the online SDR web radio at Twente University in Holland which is easy to use and requires no registration, will hear the CW exclusive portions of the amateur bands awash with activity. Very many “rubber stamp” contacts (standard format on first over: RST, QTH, name, how copy and on second over: power,

antenna, weather, thanks and best wishes) take place, making it much easier for a new and inexperienced operator to venture onto the air and have successful and enjoyable contacts.

CW has proven to be a very therapeutic activity similar to the way music is often used in therapy. Those of us who have been through traumatic events, are recovering from illness, find CW a wonderful aid in recovery. Having something to concentrate your mind on, provided it is relaxing and stress free, is always a good thing. For those of us who have mastered the art of CW, our daily CW usage is almost an essential part of daily life, even if just for a few minutes a day.

## CW activity in Australia

If you listen in CW on 7050 kHz, you will hear activity at random times of the day and night, with stations moving off for chat unless just calling or making a short announcement. A code of conduct was established between some 30 active CW operators thus far, to keep calls to no longer than three times call sign of called station and three times your own call sign, no more than three calls being made per five minute period so as not to hog the frequency, and moving off to another frequency (QSY) immediately upon establishing contact.

This arrangement has led to more activity and more contacts because especially during periods of low activity on the CW band such as during the week, if one calls CQ for a long time on an unused frequency further down the band and receives no reply, a short call on 7050 has often resulted in contacts because of the stations listening there, sometimes with their squelch up, while doing other things such as home brewing or tending to emails.

SOTA and low power (QRP) activities are to be heard usually between 7027-7033 kHz, and some low power crystal controlled stations operate rock-bound on 7023 kHz. On Sunday mornings, the 43 year

old CW net is still going strong with sometimes over 30 check-ins and contacts resulting, between 10 am and midday Eastern Time on 7025 kHz. Stations are paired up and given a frequency for a chat. These and other CW activities will be covered in more detail in upcoming editions of this column.

## VK CW information

A web-site at VKCW.net was created generally for licensed VK amateurs so that those with internet can see the various and growing list of CW activities geared around everything from learning CW, to slow speed practice, from CW nets to Emergency Communications training and traffic handling, CW broadcasts, forums and more. Not affiliated with any club and open to all with an interest in CW, this is a good place to find current information.

For those without access to the internet, with some of the older CW operators even today proud not to be on the Internet at all, as well as for anyone looking for further practice, in the light of the CW survey published in the September edition of *Amateur Radio* magazine, the popular demand for a CW broadcast –QST –has been taken up and proven successful. Main broadcast time is at 9 am Eastern around 7022.5 kHz and everyone is welcome to relay these broadcasts themselves.

Please check the terms of your licence, as for example, Foundation licensees cannot send computer-generated digital CW (DCW), although many of us would like to see DCW allowed within the shared data-CW bands, as this has been proven to be one of the things that aids some people in developing their CW skills. Staying out of the CW exclusive band with DCW would avoid problems for others.

## Getting Started

Upcoming editions of CW Today will discuss the many ways of learning CW effectively and with

the maximum pleasure. Learning techniques have come a long way with helpful tools and “Elmers”, mentors willing to assist newcomers to get started on CW.

The tools available to learn CW now, especially software such as G4FON and LCWO.net make it easier than ever to learn CW.

Every high speed or professional CW operator began from scratch, so don't ever frown on the beginner! Every journey starts with a single step!

### Signing off

If you have any CW news to report, or any opinions to express, please

do write in to me by email and I'll be happy to incorporate whatever I can within this column. Upcoming issues will explore some of the above mentioned topics in further details.

Emergency communications, band plans, QRP activity, CW clubs, new CW activities, licence conditions, tips and tricks and more will be covered. There will be something of interest to everyone, even those who aren't CW operators.

On a personal note, a big thank you to the very many wonderful CW operators at all levels who

welcomed me back into CW activity after a long pause due to events in life. The friendships that have resulted from this wonderful hobby of ours and the ham spirit in VK have been magnificent. I have only one regret: that I did not remember this hobby and get back into it sooner – life could have been very different.

Welcome to the world of CW and we hope you too will be a part of the “CW revolution” now taking place across Australia, and discover the Joy of CW :-)

73 ES 77 de Lou VK5EEE



## Silent Key Ross Boyd VK2RR

Ross passed away peacefully in the early hours of Friday morning, 31st July 2015, in the Palliative Care Unit of Wauchope Hospital after a long illness. He was aged 69 years.

Ross and his wife Sue retired to Lake Cathie on the North Coast of NSW in 2011 after he had a long and interesting career in electronics in Sydney.

In his earlier years, Ross worked for AWA where he met and married Sue over 50 years ago. One of the products that Ross was an expert on was the AWA 25M VHF FM mobile radios. Ross went on to take up a marketing role in the company.

In later years Ross was a TAFE teacher of electronics. He carried this expertise



through to his retirement and was a WIA Assessor for amateur radio licensing. He did this as part of his active involvement in the Oxley Region Amateur Radio Club.

Ross was first licensed in Sydney as

VK2ZQU and was very active on 6 and 2 metres FM. In retirement he took out the two letter call VK2RR, which hinted at his lifelong interest in exotic and performance cars. He had also been a very active model aeroplane enthusiast specialising in control line models.

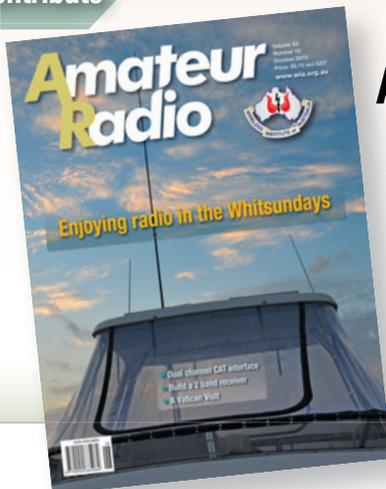
The amateur radio fraternity extends its deepest sympathy to Ross's wife Sue and their children Evan and Penelope and their families.

Val: Ross Boyd VK2RR.

*Submitted by Henry Lundell VK2ZHE on behalf of the Oxley Region Amateur Radio Club Inc.*



### Contribute



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