

Peel Amateur Radio Group



CW Operating Hints

Introduction

The PARG CW Operating Hints is a set of thoughts to help introduce CW Operating practices. The hints are not necessarily correct or even kosher – but the idea is to give us somewhere to start when having a go at transmitting CW – the next Slow CW event is an ideal time to give CW a try, and these hints may help.

PARG Slow CW Events

The PARG Slow CW events are really friendly activities – you’ll make mistakes and you’ll hear others making mistakes while they’re learning/re-learning too – relax, have fun and don’t sweat the small stuff!

CW Practice

There are lots of opportunities to practice CW. For example:

- Tony VK6DQ runs CW training from Mandurah WA at 7pm WA time most evenings on 146.550MHz. If you’re in range or on a Remote, call in and say g’day. You can also listen in via VK6MJ-1 on Echolink.
- Every Tuesday, PARG runs the CQQRs slow CW QSO practice exchanges between 3540 and 3570kHz from 1700 WA time until late. These weekly practice sessions are for everyone – not just PARG – come and join us for a bit of fun from 1700 WA time – just keep calling CQ QRS (at less than 10wpm) between 3540 and 3570kHz and see who pops up.
- VK6CSW runs a CW practice beacon at night toward the top end of 80m; more details when they come to hand.
- The VK2WI beacon in Sydney runs 24 hours a day (except on Sunday mornings when the WIA Broadcast runs from the same site) on 3699kHz (in CW receive mode) or 3700kHz in LSB receive mode - with 30W to a dipole. The beacon transmits plain text at various CW speeds and can be heard in all States on many nights after the ALF drops well after dark.
- There are a number of CW practice Apps for your phone and applications/websites for your computer (eg www.vk2johnnetmorse4all.com).

Headphones

Wearing headphones helps with CW... and your family will appreciate it.

Exchanges

Exchange example (eg for a contest, SOTA or WWFF station):

- **CQ QRS de VK6ARG AR K**
- **VK6ARG de VK6COM K**
- **VK6COM de VK6ARG UR 479004 479004 QSL? BK**
- **BK R QSL UR 389001 38NTT1 QSL? BK**
- **BK R QSL 73 dit-dit**
- **Dit-dit**

Notes on exchanges:

- Exchanges may be abbreviated; for example, a contest report of 599001 may be abbreviated to 5NNTT1 (replacing nines with Ns, and zeros with Ts is common in CW).
- When I learned the Code for my license back in the early 70s, ending transmissions with AR K was the norm (so the AR is run together di-dah-di-dah-dit - like a fullstop without the last dah). Nowadays, most operators just send K... (or NK if they’re in QSO already) but some of us can’t help ourselves!
- The Slow CW Corroboree is a fun event to encourage people to give CW a go. However for this event and contests or SOTA/Parks exchanges, to save wrist time the exchanges can be abbreviated even more:
 - **CQ QRS DE VK6ARG** (note: the normal ending K isn’t needed)
 - **VK6COM** (or DE VK6COM) (notes: no need to send VK6ARG – if within 250 Hz 6ARG knows they’re being called)
 - **VK6COM 5NNTT1**
 - **5NNT27** (notes: if ARG got COM’s call wrong, they will come back: DE VK6COM 5NNT27)
 - **TU** (or GL or 73 or di-dit) (notes: no need for QSL or QRZ).

With Slow CW, because of the spacing between CW characters, it may help to add K to the end of the CQ call. There’s no need to send the full call sign of the CQ station – they already know what their call is – however, if you’re unsure that you’ve copied their call correctly, doing so gives an opportunity for them to correct you.

- In serious contests, the calling station on a run may only leave a few seconds between calls – get in quick, but send slow... send at the speed you'd like them to reply at, not the best you can do!
- If you respond to someone's CQ, and someone else calls you on that frequency, send a quick "UP 5", "U 5", "DN 5" or "D 5" then QSY up or down 5kHz – accidents happen but its bad manners to steal someone else's frequency.
 - Note for this event, you're welcome to steal my (VK2KI or VK6QI) frequency – this is a fun learning activity. If it happens, don't worry, I'll probably move up or down 5kHz and keep going – there's plenty of room on 80m in Australia (SMPS hash aside).

More hints follow...

RST

CW signal reports follow the RST (Readability, Strength, Tone) format.

Readability:

1. Unreadable
2. Barely readable, occasional words distinguishable
3. Readable with considerable difficulty
4. Readable with practically no difficulty
5. Perfectly readable

Strength:

1. Faint—signals barely perceptible
2. Very weak signals
3. Weak signals
4. Fair signals
5. Fairly good signals
6. Good signals
7. Moderately strong signals
8. Strong signals
9. Extremely strong signals

Tone:

1. Mains Hum only – very rough and broad
2. Very rough AC, very harsh and broad
3. Rough AC, rectified but not filtered
4. Rough note, little filtering
5. Filtered rectified note, strong ripple, other modulation or key-up carrier
6. Filtered tone, some ripple, other modulation or key-up carrier
7. Near-pure tone, trace of ripple, other modulation or key-up carrier
8. Near-perfect tone, slight trace of ripple, other modulation or key-up carrier
9. Perfect tone, no trace of ripple or other modulation

If you are hearing the signal perfectly at strength nine, but really struggling with conversion of the dits and dahs to recognisable English (or we could blame the QRN), a report of 299 is appropriate. The other station could then adjust keying speed and number of repetitions to compensate.

Handy Dandy Q Codes:

QRA – What is your callsign?

QRM or QRN – Interference on your signal (ie repeat details if not confirmed)

QRS – Send slower

QRZ – Who's calling me? (you can also just send a question mark)

QSB – Your signal is fading (ie repeat details if not confirmed)

QSD – Your keying is defective (see also - QLF)

QSL or CFM – Confirm
QSM - Repeat
QSY – Change frequency (eg QSY dn3 = move down 3kHz)
QSZ – Send each word twice
QLF – Are you sending with your left foot?

Abbreviations for CW Contests (don't worry, you don't have to learn them all, but this list may help if you hear them):

ABT – About
AGN – Again
AGN? Or just **?** – please send your call/RST etc again.
AR K – Traditional end of transmission signal – not used much these days (A and R are run together – no space) di-dah-di-dah-dit dah-di-dah
BK – Break (informal alternative to AR K – if sending to a station who has just sent BK, it's good form to start your transmission with BK too)
BK? – Sometimes used if you know someone's on a frequency (eg from a SOTA Spot) but you're not sure if there's already someone transmitting that you can't hear.
BTU – Back to you
C – Correct (= Flag Charlie if you're bent nautically)
CS – Callsign
CUAGN – See you again
CUL – See you later
D 5 (or DN 5) – This is someone's frequency, I'll move down 5kHz.
DE or FM – From
ES – And
FB – Fine business
GA, GE, GM – Good afternoon, good evening, good morning
HI – Laugh
HW? – How copy?
II – I say again
K – invitation to transmit
MSG – Message
NK (run together) – invitation to the station in QSO to transmit
NM – Name
NR – Number
NR? or **NR AGN?** – Please repeat the number
OM – Old man (... old chap for Navy folks)
OP – Operator (name)
PLS or **PSE** – Please
R – Roger
RRR – a more excited form of R
RPT – Repeat.
RST? Or **RST AGN** – I didn't get my signal report – please repeat.
RU – Are you (eg RU /P – Are you operating portable?)
SER? – I didn't get your serial number – please repeat.
SK – End of QSO (S and K are run together – no space – di-di-di-dah-di-dah) and usually followed by a friendly dit-dit (to which the response is di-dit and the QSO is over – and it's time for the next station to call... and for you to breathe a sigh of relief).
SVP – Please
TKS or TU – Thanks
U 5 (or UP 5) – This is someone's frequency, I'll move up 5kHz.
UR – You Are (before sending the RST signal report) or Your (eg UR QSD, which can also be sent as QLF di-di-dah-dah-di-dit)
WX – Weather
? – Please send again.
?? – I've got no idea what you just sent – please try again!
Di-di-di-di-di-di-dit – Error (you'll hear lots of these on the night)... note you may abbreviate this to a few slow dits.. and it helps to hit the key hard to vent your frustration!
Di-di-dah-dah-di-dit – Question mark
Di-dah-di-dah-di-dah – Full Stop
Dah-di-di-dah-dit di-dah-dah-dit – /p suffix for portable stations
Dit Dit – Friendly way to say thanks after signing

Tony VK6DQ emailed the following list general CW practices to the Group on 18Jan21.

The Structure of Morse Code.

A dah is equal to 3 dits.

The space between the signals which form the same letter is equal to 1 dit.

The space between two letters is equal to 3 dits.

The space between two words is equal to 7 dits.

Procedure signals.

Full stop	(.)	·-·-·-
Comma	(,)	--·-·-
Colon	(;)	---...

Note of interrogation or request for repetition
of a transmission not understood. (?) .._..

Apostrophe (') '-----'

Hyphen or dash (-) -....-

Fraction bar (/) _.._.

Brackets LH (() _-_-.

RH () -_-_-.

Underline (before and after the words
or Part of the sentence) .._.._

Double hyphen (=) or break sign _..._

Quotation marks '...'

Error

Cross or signal for the end of a
telegram or of transmission '...'

Invitation to transmit -.-

Wait '...'

End of work ...'_.

Commencing signal (to
precede every transmission) -.-

Comments Welcome

- This list of suggestions is to encourage everyone to give CW a go – experienced CW operators are likely to find some of the ideas to be not strictly correct. Suggestions for making these hints and the guidelines are very welcome.
- Thanks to all the people who took time to comment on the guidelines for this event or to provide encouragement – very much appreciated folks. So of the comments, I'd like to thank in particular David VK6FAAZ (the organiser), Gary VK6GAL (W4GAL in disguise), Andrew VK1DA, Bill VK1MCW, Ian VK5CZ and Geoff VK6HD.

Mark Bosma

VK2KI / VK6QI

Email: mark.bosma@icloud.com