From zero to QSO,
A roadmap to learning CW

March 2023
West-Island Amateur Radio Club
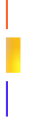## Jonathan VA2XZA

Background

- Just about every ham I asked would like to operate CW some day or is dissatisfied with some aspect of their CW operating.

- I have seen a lot of material covering the **methods** of learning CW, I would like to talk about the **process** of learning CW.

- Life is too short for perfect copy, get on the air !

So, I kinda got into CW

QSOs by Year

Year	Number of DXCCs	Number of QSOs	QSOs as Percent
2023	51	250	CW: 21.60% Phone: 27.20% Data: 51.20%
2022	100	1915	CW: 76.87% Phone: 7.78% Data: 15.35%
2021	65	970	CW: 35.98% Phone: 11.55% Data: 52.47%
2020	7	52	CW: 0.00% Phone: 80.77% Data: 19.23%
2019	60	617	CW: 0.00% Phone: 23.34% Data: 76.66%
2018	4	49	CW: 0.00% Phone: 100.00% Data: 0.00%
Total	120	3853	CW: 48.66% Phone: 14.64% Data: 36.70%

The plan circa 2019

- Learn CW
- Make QSOs
- Win WRTC

Timeline

- 2020: Irregular LCWO.net practice

- Feburary 1st 2021: received Bencher paddles

- Feburary 3rd 2021: first CW QSO

- August 2021: POTA and SOTA activations using a QRP radio (40m QCX-mini).

- October 2nd 2021: Joined SKCC, first straight key QSOs.

- October 31st 2021: SKCC Centurion Award

Timeline

- June 6th 2022: First QSO using 1945 Vibroplex bug.

- June 2022: Contest simulation practice using Morse Runner.

- June 24th 2022: Field day, first on-air CW contesting experience. 185 QSOs.

- November 27th 2022: CQWW CW, first major contest, single op, low power, unassisted.

CW skills progression

1. Copying code with perfect timing

2. Copying perfect code on the air (W1AW practice)

3. Copying bad code sent manually, weird rhythm, bad spacing (QLF)

4. Learning prosigns and proper procedure

5. Learning to send

6. Making QSOs

Keys to success

- Regularity

- Setting goals

- Keep track of your progress

- Commit yourself

- Get on the air !

Regularity

- Needed for improvement

- Aim for about 15 minutes of practice, at least 4 times a week.

- Don't tire yourself out

- Keep it fun

Goals

- Proficiency: accuracy, speed, conversation, head copying

- Operating awards: DXCC, WAS, SKCC, etc...

- Official certification: ISED 5wpm, W1AW qualifying runs

- Make one up !

- Keep track of your goals.

Keep track of your progress

- Keep a log

- Keep notes in your log.

- Computerized logging is highly recommended.

- Interface your log to LoTW, QRZ.com and other places to keep track of your award goals.

Commit yourself

Make it slightly painful to quit

- – Buy a nice key
- – Build a portable CW only radio
- – Sign up for a course
- – Find a mentor

Get on the air !

- As soon as you can !

- Having someone send code to you is a very different experience from passive copying.

- Put your callsign in a radio memory if you have trouble sending your callsign reliably.

- Learn how to ask for repeats and do not hesitate to ask for them.

- You will get confused, distracted or lose track completely, it is not a big deal.

Get on the air !

- CW beginner watering hole: 7.114 Mhz
- Answering a CQ is easier, gives you a chance to copy the callsign and get an idea of the speed and sending quality of the other operator.

The effects of on the air practice

- Head room: initially, copying will take all of your attention, you will have trouble doing anything else, including, perhaps, breathing properly. This improves quickly as you build experience with common words and phrases.

- Pushing your limits: your accuracy will improve at your usual speed, enabling you to achieve higher speeds.

Exercise: Listen for CQs

- Try to grab the callsign the first time it is sent

- Confirm with the RBN to validate your answer

- Give yourself "points" depending on how you did.

- Harder variants:

  - Listen for weak DX signals.

  - Head copy the callsign and write it down only after it is sent fully.

The experienced CW operator

- Is able to be proficient away from his usual comfortable and usual equipment and operating conditions.

- Adapts to other operators and their level of competence.

- Leads by example.

- Has awesome facial hair (optional).

CQ WW 2022 CW result

CW / VA2XZA / Single-Op Low All Bands

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World: #275 of 1480          Continent (North America): #81 of 399      Country/Area (VE2): #1 of 7

270 UW1WU.............213,444    76 W3DQS.....(C).....236,848              1 VA2XZA...........208,640
271 JI4WHS...........212,541     77 WB2FUV....(C).....229,658
272 N4DJ......(C).....212,100    78 N2EY......(C).....223,680              2 VE2OXP...........150,114
273 DL3DRN...........211,792     79 KE9SA.....(C).....217,602             3 VE2QV.....(C)......67,080
274 DL0RD.....(C).....208,824 (DL3CQ)  80 N4DJ......(C).....212,100        4 VE2ZT.............57,928
                                                                          5 VA2KD............21,472
275 VA2XZA...........208,640     81 VA2XZA...........208,640             6 VE2BVV.............9,920
                                                                          7 VA2LGQ....(C).........24
276 WB2FUE...........208,046     82 WB2FUE...........208,046             [all scores]
277 OK1DVA...........207,792     83 K2TWI............203,086
278 UB0AZR....(R).....207,270    84 WZ4M......(C).....201,120
279 OK1FRO...........206,064     85 W4IFI.....(C)....199,794
280 TA3SA............203,940     86 XE2S.............199,020
[all scores]                     [all scores]
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Practice resources

- LCWO.net - Learn CW Online, code group and word practice.

- Seiuchy - QSO simulator, trains you to only write key information down. Simulates many kinds of bad sending.

- WebSDR KiwiSDR - listen to HF when away from a radio.

Training resources

- CW Academy
- Tony VE2KM ve2km@ynotsailing.com
- Long Island CW Club
- Straight Key Century Club

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