



The CW Advantage



Presented to The SFDXA,
3 Jan 2018 by:
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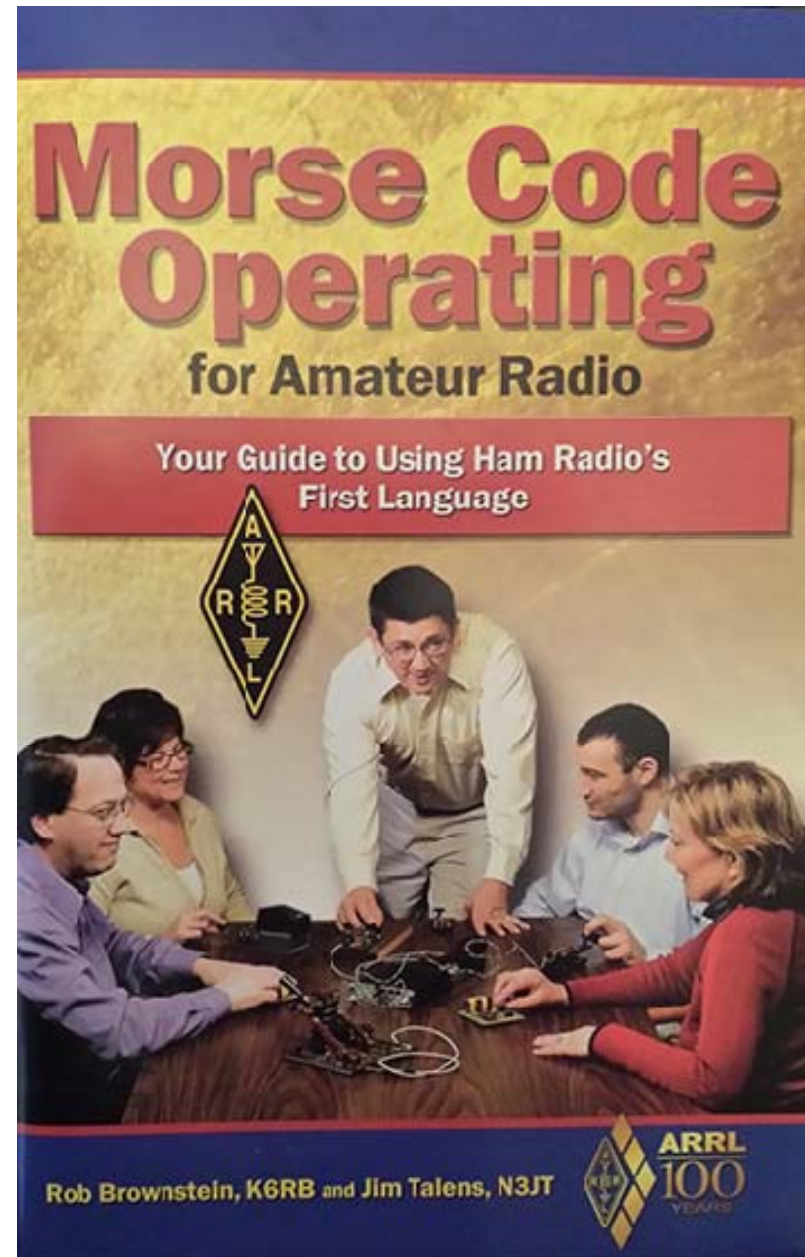
A ● ■
 B ■ ● ● ●
 C ■ ● ■ ●
 D ■ ● ●
 E ●
 F ● ● ■ ●
 G ■ ■ ●
 H ● ● ● ●
 I ● ●
 J ● ■ ■ ■
 K ■ ● ■
 L ● ■ ● ●
 M ■ ■
 N ■ ●
 O ■ ■ ■
 P ● ■ ■ ●
 Q ■ ■ ● ■
 R ● ■ ●
 S ● ● ●
 T ■

U ● ● ■
 V ● ● ● ■
 W ● ■ ■
 X ■ ● ● ■
 Y ■ ● ■ ■
 Z ■ ■ ● ●

1 ● ■ ■ ■ ■
 2 ● ● ■ ■ ■
 3 ● ● ● ■ ■
 4 ● ● ● ● ■
 5 ● ● ● ● ●
 6 ■ ● ● ● ●
 7 ■ ■ ● ● ●
 8 ■ ■ ■ ● ●
 9 ■ ■ ■ ■ ●
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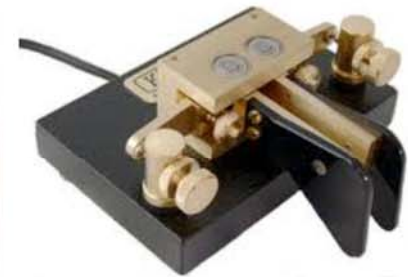
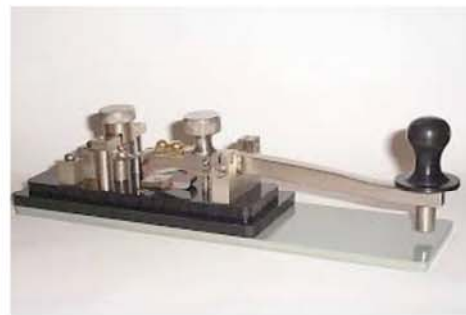
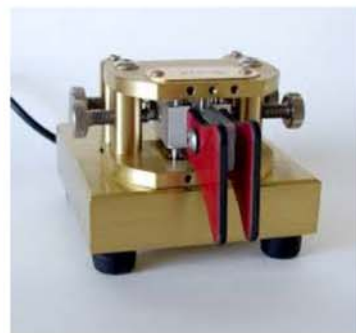
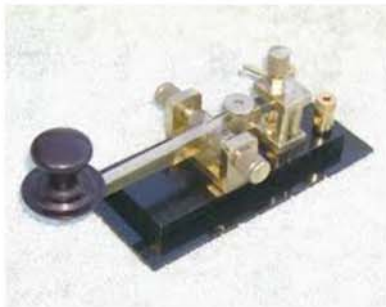


- Why CW?
- Learning Basic Morse
- How to Operate CW
- How to Set Up a CW Station
- More Fun with CW
- Morse and Radio: A Long History
- CW Today





Keys to Success





From the simple to the sublime



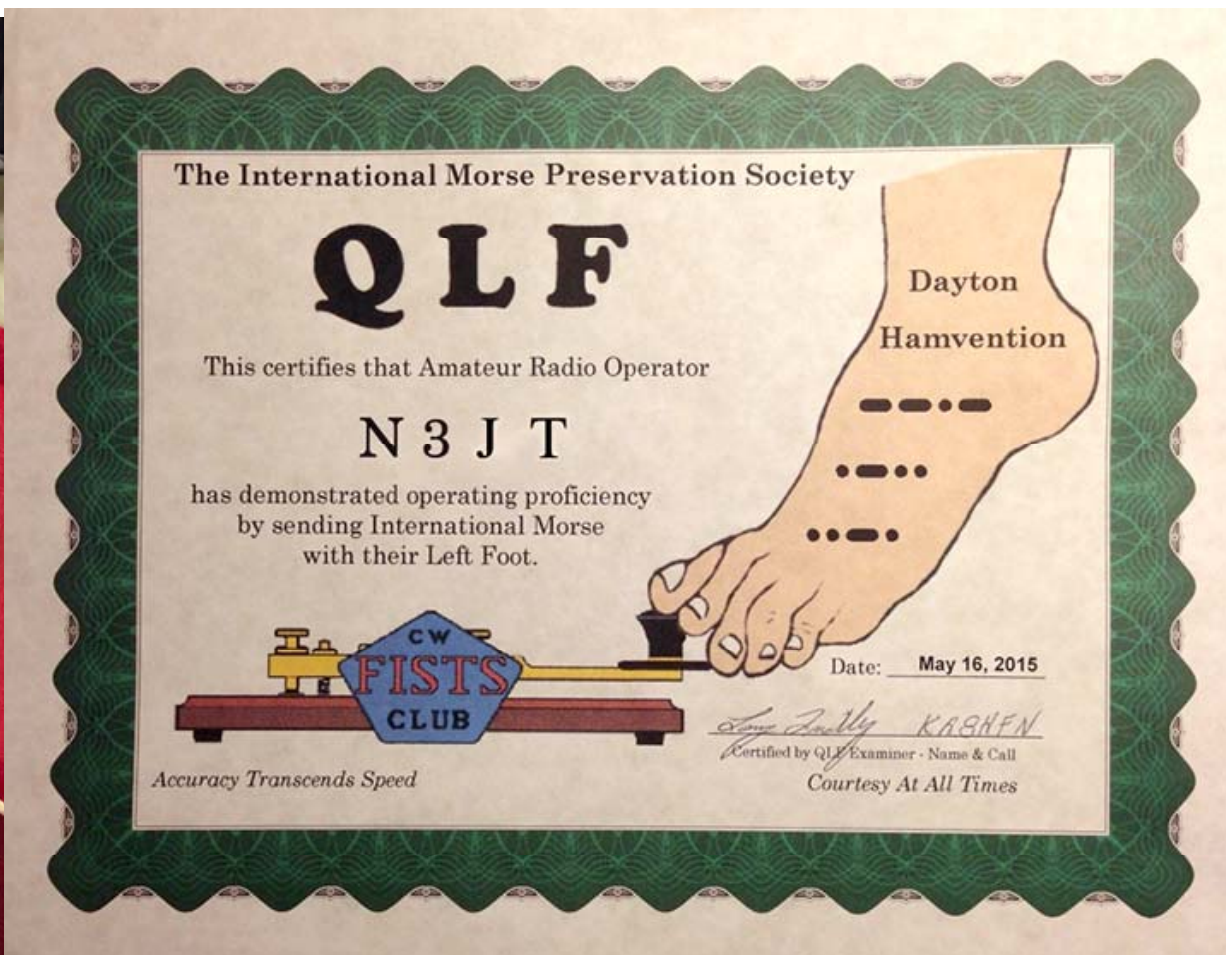


Let your fingers do the talking





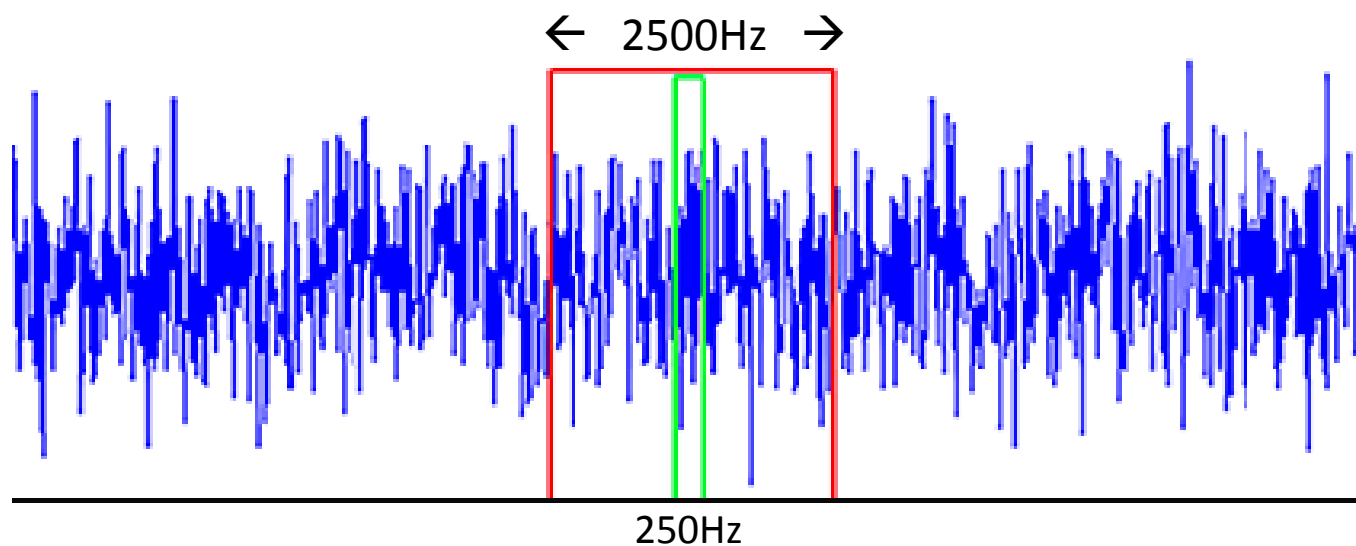
Or your left foot





Reduced bandwidth = increased S/N ratio

- 12db typical vs. SSB [10db filter + 2db “Brain DSP”]
- 100W SSB ~ 6.25W CW





Summits on the Air (SOTA)

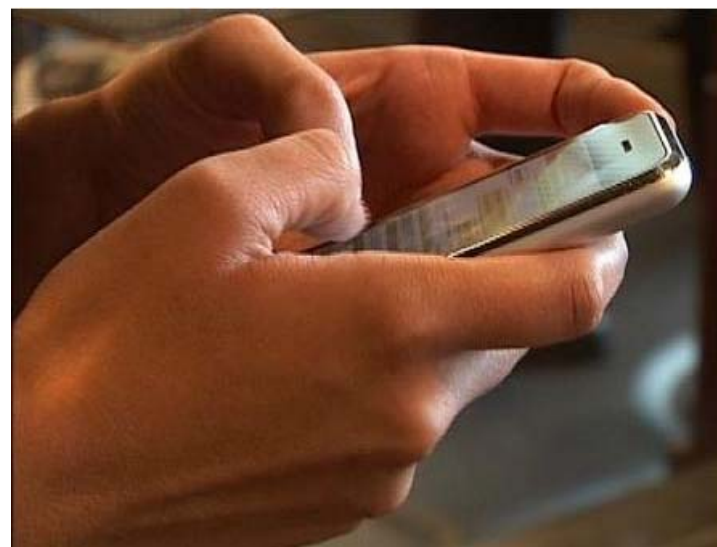


KD1JV's Mountain Topper ¼ lb CW radio



Faster than texting

- http://www.dailymotion.com/video/x1wltc_morse-vs-sms_fun





Mobile CW





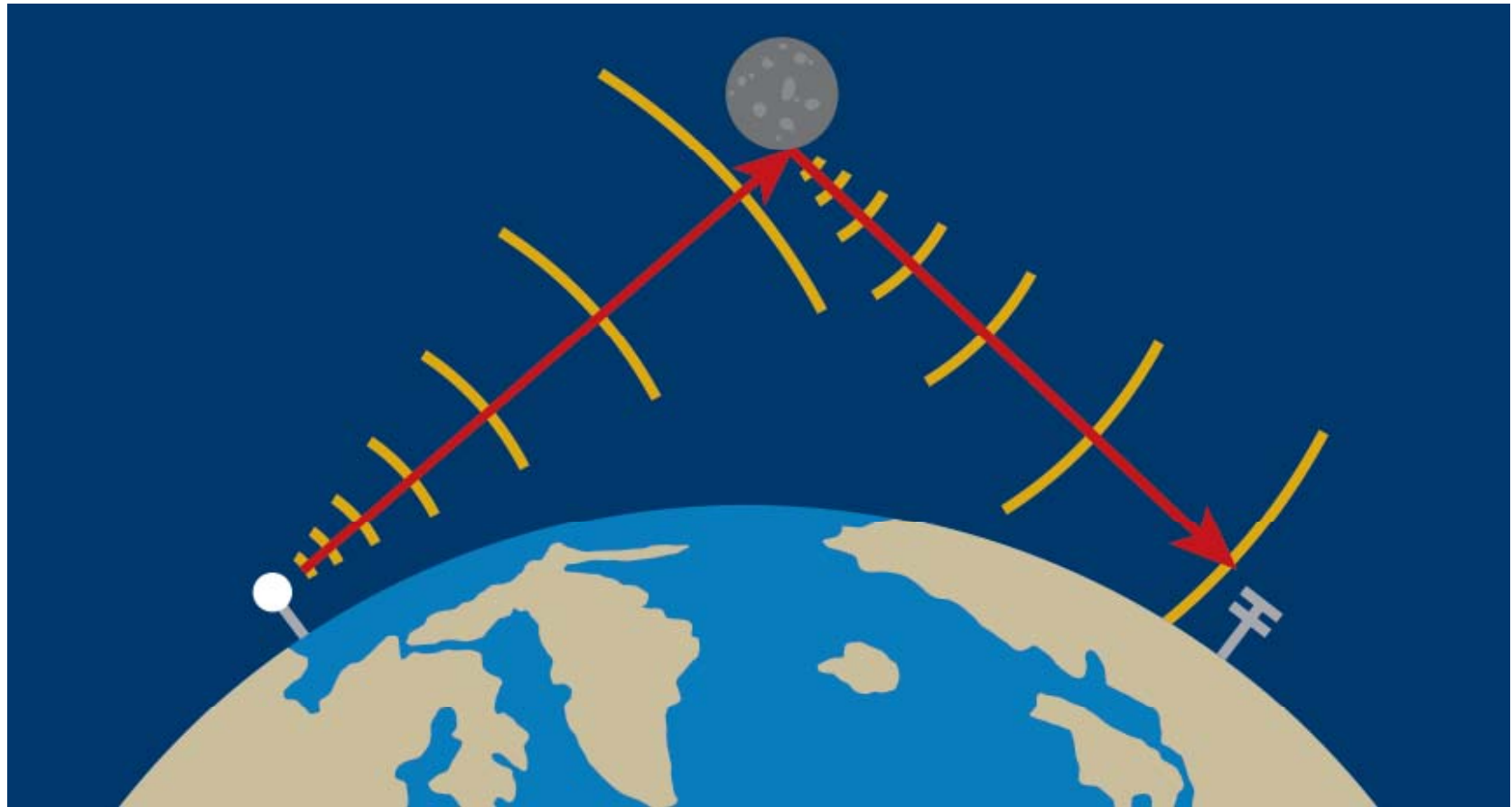
Moonbounce





250db path loss = very weak signal

1/100,000,000,000,000,000,000,000,000





Aurora





Reverse Beacon Network

de	dx	freq	cq/dx	snr	speed	time
W3OA	NR4M	14036.2	CW CQ [LoTW]	6 dB	37 wpm	1958z 25 Jan
K9IMM	NR4M	14036.2	CW CQ [LoTW]	19 dB	38 wpm	1958z 25 Jan
K9IMM	N6GA	14041.1	CW CQ [LoTW]	10 dB	28 wpm	1958z 25 Jan
N4ZR/3	N3JT	7030.9	CW CQ [LoTW]	5 dB	34 wpm	1958z 25 Jan
DF4UE	S57UN	1821.4	CW CQ	36 dB	23 wpm	1958z 25 Jan
DK3UA	DK6FZ	1812.9	CW CQ	16 dB	21 wpm	1958z 25 Jan
DF4XX	ES5QA	1820.5	CW CQ	9 dB	24 wpm	1958z 25 Jan
S53V	OK1NI	1814.0	CW CQ [LoTW]	31 dB	21 wpm	1958z 25 Jan
W4AX	WU6X	14028.5	CW CQ [LoTW]	9 dB	22 wpm	1958z 25 Jan
KC0VKN	KG5HVO	14035.8	CW CQ	27 dB	31 wpm	1958z 25 Jan
OE6TZE	DK6FZ	1813.0	CW CQ	9 dB	21 wpm	1958z 25 Jan
DK0TE	LZ1FFF	7023.2	CW CQ	2 dB	20 wpm	1958z 25 Jan
S50ARX	EI0CZ	7002.9	CW CQ [LoTW]	12 dB	19 wpm	1958z 25 Jan
S50ARX	RN3QN	1810.0	CW CQ [LoTW]	27 dB	22 wpm	1958z 25 Jan
BD2FW	BG7BDB	7015.0	CW CQ [LoTW]	6 dB	21 wpm	1958z 25 Jan



Morse code man has a secret talent



<http://www.wusa9.com/travel/open-road/morse-code-man/319351895>



“There remains a place in society for a non-profit, decentralized radio service that is neither dependent on extensive infrastructure nor controlled by any particular government or business organization. Amateur Radio offers independence, survivability, and remains an unprecedented disaster communications resource.

CW in general, and CW nets in particular offer great reliability and tremendous efficiency for both casual use and emergency communications. The wise radio amateur will want to invest the time and effort necessary to become fluent in the language of radiotelegraphy. It is not only fun, but incredibly useful as well.”

James Wades, WA8SIW, for the Michigan Net, QMN and National Radio Emergency Net



Summary of CW Advantages

- Universal language. No need to know a language to convey basic information
- Simpler equipment required
- Easier to work DX stations, some of which use only CW
- Signal-to-noise ratio benefit of 12 dB
- Less recognizable RFI into consumer electronics, because CW sounds like faint clicks versus garbled voice
- Narrower bandwidth required so more room on the band
- Smaller antennas needed given the 12 dB benefit
- Security – most listeners can't easily decode it
- Great fun to have an expertise in a magical communications medium
- Enormous satisfaction in being able to communicate in Morse Code

And, perhaps most important.....

Domestic tranquility !!

