

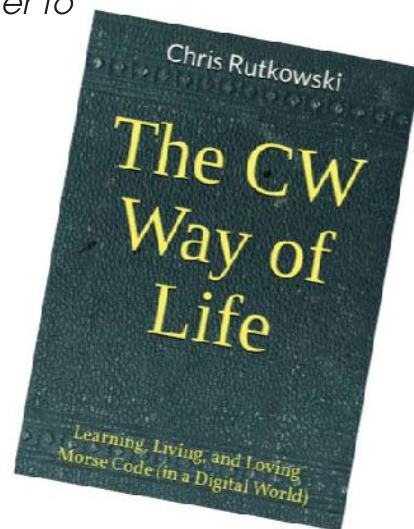
Morse code, says NW6V in his new book, is more than a mode of communicating – it's a way of life! And who better to review it than a professional telegrapher?

CQ Book Review:

"The CW Way of Life – Learning, Living and Loving Morse Code (in a Digital World)"

BY CHRIS RUTKOWSKI, NW6V

REVIEWED BY D. J. J. RING, JR.,* N1EA



Walking, skipping, and running with Morse. Why “dot dot dot” when you can “diddle-it”? That’s all part of this new and fascinating book, “The CW Way of Life,” by Chris Rutkowski, NW6V.¹

Morse is a pattern of rhythms – and the rhythm is the DIT TRAIN! It’s the basis of the fused harmonics that help you say, tap, and copy Morse; knowing this unlocks many of the secrets that have long frustrated Morse learners and users alike.

It’s the DIT TRAIN! Dah-Dah! See it, say it, tap it! If you fall off, just climb back on!

Use all of the ways we communicate; they reinforce each other: learn to tap out Morse, even by tapping on a table, because outflow and inflow are intertwined, reinforcing each other. Sending code is thus as fundamental to learning code as speaking is to learning any language. Do it even if you don’t know what it means, mimic the Morse.

From the back cover:

More than just another Morse “how-to,” CWOL takes you on a deep dive into the history, theory, and practice of Morse.

It reveals:

- How your brain turns sensations into thoughts
- Morse’s true rhythmic nature – harmonics – not ratios!
- How to ride the “dit train” to fluid keying
- The lost technologies of code talking and speed keying
- The true cause and prevention of “glass arm”
- How to attain Morse fluency before you know the code!

Read CWOL like a tourist guide to Morseland – there are plenty of sights to see. When you’re ready, roll up your sleeves, do the drills, and set yourself on the path to Morse mastery!

CWOL’s curriculum combines known practices with modern training principles, creating a learning system like no other. The most important component is you! No computer needed.

A tone is a perceptible thing which happens when dot and dash pulses fuse into a perceptible whole. These “tones” – whether beeps, buzzes, eye blinks – are why Morse works. The on/off switching carries the data, not the thing being switched. At high speed, Morse works by fusing. It’s the way we perceive Morse, with dots – or *dits* – above a certain speed at which we can no longer count individual dots; they bond into a pattern, and amazingly enough, we learn how to discern that pattern and not the individual dots (and later dashes). There is a transition from pulses, or low buzzes, into tones as speeds progress from very slow speeds to 13, 20, 25, 35 WPM and beyond where dots, dashes, and spaces all fuse.

Music You Can Feel

The change in our perception of Morse is what creates the plateaus Morse students experience when, after continuous progress in sending and receiving, suddenly there is no progress and they’re stuck. This book has a cure for this.

Plateaus are caused by moving from the world of individual, countable clicks and pops – under 13 WPM – to the realm of low frequency, *feelable tones* (20 WPM), to a point at which those tones fuse into music (25+ WPM). Morse is music you can feel.

The man who took Samuel F. B. Morse’s original American Morse was Germany’s Friedrich Clemens Gerke, writer, lover of language, and a working musician. He changed the dot-to-dash ratio from Morse’s 2:1, making it longer – 3:1 – and giving his new International Morse code a musical sound that interfaces so well with our abilities to send and receive Morse.

Most interesting to me is the comparison to sending Morse with a straight key to types of ambulation: Walking, jogging, skipping, running, and flying and the physical implications for sending Morse at each of those speeds, the top speed – “flying” – world champion class straight key sending speed at over 35 WPM at which dots, dashes, and spacings all automatically fuse into a separate reality (both in sending and receiving) with which your body and mind interact (see Figure 1).

The book gives details on the “Modified American Technique” (MAT) of using a straight key which minimizes

Figure 1: NW6V's chart comparing different levels of Morse code proficiency with different walking/running speeds. (From the book)

Brass-Pounding Level	SK Speed	Brain Integration	Gait
World Record	35+ WPM	Dit and Dah sets both fully fused = Full "QRQ" (very high speed)	Flying
1 st Class (Pro)	25 WPM	Dit "sets" fuse with Dahs	Running
Amateur Extra	20 WPM	Dit "sets" harmonically timed	Skipping
General	13 WPM	Top of dit counting range. Start "harmonically timed" actions	Jogging
Novice	5 WPM	Countable - voluntary muscle actions	Walking

and even prevents flexion, the cause of the dreaded *glass arm* or *telegrapher's paralysis*. Long-time CQ author Robert W. Shrader, W6BNB (SK), and a fellow Radio Officer used this interesting method of sending on a straight key:

"A desirable way of using a straight key is to place the tip of the first finger on the key knob at a position of about 12 o'clock, with the thumb lightly touching the underside of the knob at about seven o'clock. Flip the three other fingers downward about halfway to the desktop. This should close the key and open it again as the fingers swing back upward. Note that the wrist will push upward as the fingers go down. This is a correct way to make a dot. If the wrist goes down when the key goes down it is the arm that is doing the keying. Fingers are so much less tiring to use! (I once sent messages with a straight key for five hours with no stopping, from the Yangtze River to San Francisco, after my ship was bombed – but that's another story.) Flip the fingers downward twice rapidly for two dots. Three times for three dots, etc. Practice making some eight dot groups. All dots should come out with equal timing. Note the wrist – Make sure it goes up when the fingers go down. To make dashes, flip the fingers downward farther and hold the knob down for at least three times as long as with dots. Practice making dashes in groups of eight or more. Note the wrist action with dashes – it should move farther upward than when making dots."²

I've tried both methods: I've been using a variation of the MAT for many years and I find it to be very relaxing and excellent for sending Morse. However, I have NOT learned to progress to what the author calls "running." I found that increasing my speed on the straight key above 23 WPM to be impossible; I'd hit a plateau. I've heard the "old salt's tale" that "every WPM above 20 (the required speed for the 2nd class radiotelegraph licenses needed for seagoing radio officers) takes twice the effort as the previous increase of 1 WPM." By the time I raised my speed from 23 to 25 WPM, it probably would take me a year. For me, it was easier just to just switch to a Vibroplex at 23 WPM, the minimum speed those keys were designed to send.

After the professional radiotelegraphy schools closed, straight key (25+ WPM) fast Morse was kept alive by professional Morse coastal radio stations, like UK's Portishead Radio, GKA, that required their radio officers to prove annually they could send and receive at 27 WPM by hand for 5 minutes error-free. Very few USA operators could do this on a straight key; we were mostly Vibroplex users. There is a historic recording online from 1967 of the USA liner *SS United*

How do we learn Morse? JUST DO IT.

Stop complaining, just do it. You will master it. If you keep trying, your brain will integrate your practice automatically. It just takes time and commitment. This book reveals all the secrets of success.

States/KCEJ on Vibroplex and UK *RMS Queen Mary/GBTT* on long lever Marconi straight key as an example.³ Note the modulated CW tone of GBTT.

I'm interested in trying the book's promising recommendations which no one is teaching anymore. They worked for the author; he was 2016 first prize straight key sending medalist (mixed alphanumeric groups at 26 WPM) at Friendship Radio Sport Games in Portland, Oregon.

A Great Resource

The writing is top-notch. This is a fabulous book which has information that I never knew that the author brings out clearly. If you have any interest in learning and/or using CW, this is one book you will definitely want to buy!

The author advocates common sense: Practice, practice, practice; watch your timings, especially your spacings. Keep letters and words far enough apart to be distinct, but close enough to bond into words. This is a crucial skill for Morse – the person who is copying must make sense of what you send.

How do we learn Morse? JUST DO IT.

Stop complaining, just do it. You will master it. If you keep trying, your brain will integrate your practice automatically. It just takes time and commitment. This book reveals all the secrets of success.

I recommended it unconditionally to all who love Morse or want to learn it.

Notes:

1. MorseBusters Publishing, <<http://morsebusters.com>>, ISBN 9498377407164, available at Amazon. <https://amzn.to/3C9p6Fk>
2. Shrader, Bob (Robert L.) "73 Amateur Radio Today", March 1999, pp 31-36. retrieved from <<https://tinyurl.com/mr3pkdk5>>.
3. Hear a radio officer from the fastest ship of all time, SS UNITED STATES/KJEH, sending a message from her Master, John S. Tucker, to Treasure Jones, Master, RMS Queen Mary/GBTT and hear the excellent fists of USA (Vibroplex) and UK (straight key) radio officers. <<https://tinyurl.com/asrek55n>>.

ing against the back scape of Lake Michigan (Photo A). At that point, I knew this would be a difficult contest, especially for the low power operator.

When we arrived home at about 11:00 p.m., I checked <www.spaceweather.com> and there was news about a "surprise geomagnetic storm" that had just occurred. When I checked the website the next morning, the geomagnetic storm had been upgraded to a severe storm and was identified as the strongest storm seen in nearly six years. It was also reported that "forecasters did not see this one coming." The cause of the storm was not known, but it was believed to be the ripple effect of a coronal mass ejection (CME) that had occurred earlier and missed Earth (not forecasted to be a concern).

It is important to note there are also times when the solar indices may indicate poor band conditions, but the bands are open. Bottom line, do not fully rely on solar predictions. I look at solar forecasters the same way I do weather forecasters, it is the only job where you can be wrong 50% of the time and still stay employed!

As I reread my column from 2016, I noted one "Don't" at which I have completely failed ... "Don't get discouraged if you have a slow QSO rate." For me, this applies to my QSO rate in CW contests. As mentioned at the front end of the column, I sway from CW contests because I have difficulty copying high-speed CW (my comfort speed is around 15 wpm) and, after an hour or two of not making as many contacts as I would like, I give up. To help me overcome this issue and increase my CW speed, I downloaded MorseRunner, a free Morse code simulator available online at <<https://tinyurl.com/4s3krxdn>> that provides all the fun and challenges (QRM, QRN, loud pileups, etc.) of a contest. This appears to be a great tool, but I need to spend more practice time with the simulator for it to make a significant difference in my CW skills.

As it turns out, I am reviewing the PreppComm MMX Multi-Band Morse Code Transceiver (Photo B) that will be featured in an upcoming edition of *CQ*. This unit can be used as either a QRP transceiver or can be attached to another transceiver and used as a CW decoder/encoder. PreppComm claims the MMX will decode fast CW operators and help you learn to do it, too, by cognitive association. This could be another answer to my high-speed CW debacle. Stay tuned as I get warm and fuzzy with this unit.

Until August, 73

behind the bylines...

... a little bit about some of the authors whose articles appear in this issue.

Alfred Yerger II, K2ATY ("DMR on Land and Sea," p. 8) has been a professional in the land mobile communications industry for nearly 50 years, currently working on interference mitigation and antenna site issues for Bird Technologies Group. He operates an Echolink node and is very active in local clubs near his home in Newburgh, New York. His most recent focus, as is evident from his article in this issue, is the marriage of the Internet and amateur radio. "If done properly," he says, "the Internet will enhance amateur radio, not diminish it."

Michael Toia, K3MT ("The Bramham 60° Balun Impedance Transformer," p. 45 and Guest Antennas Editor, p. 78), is a frequent contributor to *CQ*. He was first licensed at age 14 as WN3TQM in 1952, worked his way up to Extra Class and received K3MT when vanity calls first became available in 1976.

As a physicist, he tells us, "I've worked EM theory – antennas and *electromagical* effects – at Ft. Monmouth Signal Labs, Army, Air Force, FCC, VOA, GSA, industry, academia, and assorted indescribable programs ... Retired in 2016, I now write and publish technical references, DVDs and books (see <www.jokalympress.com>). Google K3MT to get a glimpse of my work. KG4ABD is my XYL, and YL KF4LGR is our first harmonic."

David J.J. Ring, Jr., N1EA (*CQ* Book Review: "The CW Way of Life," p. 52) is a rarity in today's world, a professional telegrapher who worked as a Merchant Marine Radio Officer from 1980-93. In 1980, he and a colleague received and relayed CW distress calls from the S.S. Prinsendam, which had caught fire in the Gulf of Alaska. The ship's satellite communications failed during the emergency and Morse code on 500 kHz was the only means the crew had to communicate. Everyone aboard was rescued. In 1986, Ring and his colleague were honored by the Veteran Wireless Operators Association with the Marconi Gold Medal for their work in coordinating the rescue.

Junichi "Jun" Okamura, JF1RWZ ("Introducing 'IBP Beacon Now'," p. 58) has been a ham since 1966 and loves collecting awards. He lives in the suburbs of Tokyo and has built the webpage he writes about in this issue to help DXers gauge propagation on the upper HF bands via the international beacon system, regardless of their Morse code proficiency. A version of this article appeared previously in *cq hamradio* (Japanese *CQ*) and is republished here with permission.

zero bias (from page 6)

made it time to consider a change in DXCC criteria? Perhaps operating from an entity's territorial waters should count, especially if operating from land is difficult or impossible. We'll be happy to share opinions in our pages, but of course any decision to make a change ultimately lies with the ARRL board of directors.

Little Jabs from Murphy

The other day, I realized that my shack computer was actually discouraging me from getting on the air. It was built by dinosaurs, is very cranky and slow to boot up ... if it boots up ... and then even slower to shut down when I'm done. Thinking about all that waiting time often makes me think it might be better to do something else. So I dug out an old paper logbook, made a few copies of a blank page and turned on the radio. I was greeted by ... nothing! The bands appeared to be totally dead, except for one guy on 20-meter CW working a state QSO party – and I couldn't even hear him, just the people working him! I tried a few CQs on a couple of bands but had no takers, and was actually relieved when it was time to shut down. Thank goodness for contest weekends, when band activity is guaranteed and your chances of making some contacts – even non-contest contacts – greatly improve.

Summer is almost here. Take your gear out in the field if you can and make some noise on the bands. The people listening for your CQs will thank you!

73, Rich W2VU