



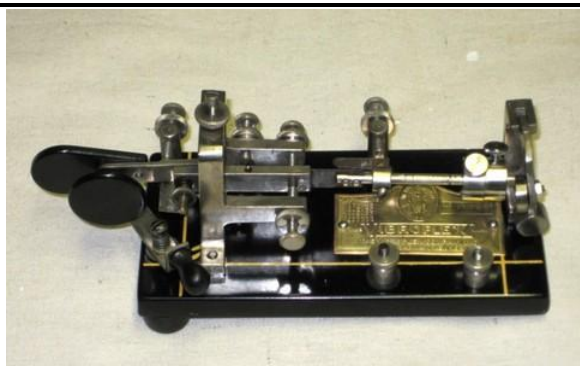
Solid Copy

The International CWops Newsletter

April

2013

Issue No. 39



1921 Vibroplex Junior restored by K4MSG

CWops "CWT"

10, 24 April 2013

Start time:

- 1300Z
- 1900Z
- 0300Z (14/28 March)

1-hour each session

Exchange: name/number (members)
name/SPC (non-members)

CWA Days

3, 17 April 2013: 1300Z, 1900Z, 0300Z(+1)

CWops "neighborhood"

Look for CWops on 1.818, 3.528, 7.028, 10.118,
14.028, 18.078, 21.028, 24.908, 28.028, 50.098

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President's Message

The State of the Club

In the United States, the president must every year report to Congress on the state of the nation. So, I am doing the same thing for CWops. We have nearly 1000 members, now, but many are not native speakers of English. So, I apologize for writing this in English...but unlike all of you where English is not your first language, I cannot converse in your languages as well as you can in English. I hope maybe I will be able to do so, some day☺.

I have been president, now, for three months. I am very happy to report:

- interest in CWops is increasing;
- participation in CWTs is increasing;



- posting of QTX scores is increasing; and
- signups for CW Academy are increasing.

With new managers for Solid Copy, CWT and QTX having jumped in and taken control, I am very pleased with their commitment and enthusiasm.

I want to also thank all those who have volunteered to advise and/or instruct our CW Academy students. The program has been running full steam since April 2012, and we have had many satisfied students.

CWT

Those of you who have been members since 2010 will remember that the CWT has gone through some changes. Originally, it was held at 1100Z, 1900Z and 0300Z and only on 40, 80 and 160. The idea was to have it be evening sessions in ITU regions 1, 2 and 3. But, as they say about the best laid plans, this is not how CWT has evolved. It is an international event in every session. We changed the 1100Z time to accommodate our members in Asia because 1100Z was too early for many of them to get home from work and on the air. And, we changed the bands to include 20, 15 and 10 so that everyone had the option of using whatever bands were productive, in their regions, at the time of each session. This has worked out well, and increasing participation is proof of that. Joe, KC0VKN, helped us keep up to date on submitted scores; and our new manager, Hank, W6SX, has added his great enthusiasm, personal participation, and a participation award structure to the mix. So, CWT is doing well and will continue to do well.

QTX

The QTX program began in the wake of trying to find some way to recognize those members who enjoy rag chewing. We considered resurrecting the old ARRL Rag Chewers Club (RCC) certificate program, but instead came up with a point system for QSOs that go 20 minutes or longer. We all know that a QSO that goes 20 minutes or longer is not a DXpedition QSO or a contest QSO...it's a rag chew QSO. John, K1ESE, who won the first annual QTX award has taken the helm of this program recently and is just beginning to make his presence felt. I'm sure that QTX participation will increase under John. So, QTX is doing well.

CW Open

Like CWT, CW Open has many unique qualities. Instead of a single contest that stretches over 24, 36 or 48 continuous hours; CWO is three distinct 4-hour contests, separately scored and awarded, that occur at specific times during a 24-hour period. And, like CWT, the multipliers are call signs the first time each has been worked. The result of this is a contest where we have the three power categories (HP, LP and QRP), but because the multipliers are not based on different states, provinces or countries, zones, or even different prefixes, it is possible for someone operating on one band, with a modest station, to amass a big score and win a trophy.

We have only run CW Open two times, so far, so I can't really tell you if it's becoming more popular. But, I think it is. The big change coming up for CW Open 2013 is a change in times. Before, the contests started at 1200Z, 2000Z and 0400Z, respectively. We found that the last

session, 0400Z would thin out after two hours and very few would be able to find enough activity to keep it going for a full 4 hours.

Why was that? For one, a 0400Z start time on the US east coast is 11 PM local time. That means those participants would be going from 11 PM to 3 AM. Since US and Canadian participants were a big proportion of the players, the last contest was not as well attended as the first two. So, we are making a change.

In 2013, the CW Open will be on Saturday, 31 August, and the three contests start at: 0000Z, 1200Z and 2000Z. In other words, the entire 24 hour period is on Saturday (starting Friday evening in the US). Our NA players won't have to deal with a contest that runs to 3 AM for some on Sunday morning; and our Asian players won't have a contest still going on Monday morning.

We believe this will increase the participation in CW Open in 2013 compared to 2012 and 2011. In addition, I will personally be traveling to Japan a week before the CW Open to attend our booth at the Tokyo Ham Fair. One of my objectives will be to meet as many JA contesters as I can and invite them to participate personally in the following week's CW Open. We hope to do something similar at Friedrichshafen in June, too. So, I think CW Open will do better, and once more hams try it out, its popularity will continue to grow.

CW Academy

I saved CW Academy for last. The idea for CW Academy began when Pete, W1RM participated in an ARRL Rookie Roundup and thought our club should be doing more to help CW aspirants improve their skills and speeds.

Like CWT and CW Open, CW Academy has evolved from a program where we tried to link up volunteer CWops members with CW students who wanted to improve their skills. It was a logistical nightmare trying to match days/times of availability, bands, and needs.

Jay, W5JQ, and Jack, W0UCE, made a valiant effort at launching CW Academy. And, to Jack's credit, he created a program for beginners who had not yet learned Morse. Before that, we were only soliciting hams who already knew Morse, had experience, and just wanted to improve their head copying and speed. That could all be done through on-the-air practice with CW Academy advisors. But, for beginners, who did not yet know Morse, or for those who learned it the wrong way and were stuck at slow speeds, an on-the-air environment would not work.

So Jack came up with an online solution. Using a freeware program (OOVOO), we created a virtual training room where 5 students and 1 instructor could all see and hear one another, and the instructor could lead the group in a sequence of training steps over the course of 8 weeks. This method has worked splendidly. In the January/February session, Bill (KC4D), Dick (K2ZR), Chuck (W1HIS), Ron (WT5RZ), Dallas (K1DW) and I have each trained a group of students using Jack's approach.

In addition, an article ran in QST about sharing the joy of CW, written by me and Jay (W5JQ), and we received a lot of emails and CW Academy signups. And, Jim (N3JT) and I wrote a CW primer that will be published and distributed by ARRL, starting at Dayton.

In marketing terms, CW Academy is in a great position. We have a product that appears to fit a need. We have a market that has that need. And the ham community is finding out about it with very little cost to us.

But we have a different kind of problem. Again, in marketing terms, we have a product with demand and our ability to supply it cannot keep up with demand. This is like Apple announcing a new iPhone model, having millions of customers queue up to buy it, and running out of product while half the buyers are still on line. Customers are patient, but if it takes too long to get something, eventually they choose to do something else.

We are at an important milestone with CW Academy. Everything about it is good, but, we can't deliver enough product.

To be sure, there are alternative solutions. For example, people can go online and use Learning CW Online, a wonderful tool. Or, they can download audio files from ARRL's code practice sessions. And so on. But what's missing in all of these alternatives is ***the human element***. I have received many emails from CW Academy students who say "we've tried G4FON (or LCWO, or CDs, or whatever) but the only program that has really worked for me is CW Academy." And, it's because we provide the missing human element. Each student has an instructor who can personalize the solutions to their problems. LCWO can't do that. G4FON can't do that. ARRL Code Practice can't do that. It takes the human element!

Our CW Academy courses for beginners all go 8 weeks (Jan/Feb; Apr/May; and Sep/Oct). That means each instructor has to commit to meeting with his group, online, two times a week, for 45 minutes each time, over the term of the course. That's 16 online sessions.

Jack, W0UCE and I are the only two instructors who have done 3 such course programs in a row. And we know it is a commitment. We also know it is amazingly enjoyable. But it is a commitment. As a result, we are finding it difficult to get more instructors to deliver our product.

My proposed solution to this problem is to build a team of instructors of 12 or more. Each two-month program will be served by 8 of those 12, with 4 taking a break. Then, the next course is done by another 8 where 4 are replaced by the previous 4, and they are now taking a break. In other words, no instructor teaches more than 2 of the 3 yearly programs. If we have more than 12 instructors, that's even better. With 24 instructors, each would only have to instruct once a year.

That's a lot of instructors, and a commitment of 16 hours over 8 weeks of time, each time one instructs. If we do this right, though, we could have even more than 24 instructors on board so that if someone falls ill or has a life-changing event, there is someone in reserve to take the next course on.

Right now, the problem is most pressing in North America because over 95 percent of our demand is there. I hope we have a similar problem, some day, in Europe and Asia. But for now, the problem is North America. We need 12 instructors between now and September. I'd like to have even more. With 600 members in North America, that means we need 2 percent (!) of our members to make this commitment.

Here's what I propose. Any member who is willing to give this a try, please contact me directly (k6rb@baymoon.com) and I'll get you briefed and trained, personally, between now and September. Here's the good news. Everything you need is done: The Student Handbook is done. The course guideline is done. The syllabus is done. All you need to do is have an Internet connection, a computer, a webcam, and a commitment to meet your group, twice weekly, for 8 weeks. You get to choose the days/times. You get to choose the pace. You get to offer them sage advice about getting started in CW. You become the Elmer to 5 new hams every time that you do this.

So, to sum it up, CW Academy is doing well now. CW Academy could be doing great...or CW Academy could become a resource-limited program that turns away 30 percent or more of its signups because we can't provide the human element needed to do the job right.

I know those of you familiar with CW Academy are very proud of this program put on by CWops. But pride is not enough. Pride will not lead a group. It takes a person to lead each group. Are you such a person? If so, contact me and let me help you get up to speed very quickly.

If you want to know how satisfying this is, just contact KC4D, K1DW, W1T5RZ, K2ZR or W1HIS and ask one of them. Ron, W1T5RZ, was a student in my April/May 2012 course. He is now teaching it! And another of our recent members, who graduated from CW Academy has also signed up to share the joy of CW. Won't you?

Let's make 2013 a great year for CWops. Let's increase the participation in CWT, CW Open, QTX and CW Academy. Let's build that CW Academy instructor corps that we need in order to keep delivering what we do well.

73,

Rob, K6RB



From the Editor – Chocolate and Vanilla

One of the great things about ham radio is its diversity – different bands, modes, operating styles, activities, interests. Heck, since we spend a lot of time on the air “just talking” (or finger-talking, as we prefer), the variety is at least as wide as our own conversations. And one of the difficult things about ham radio is also its diversity – “one man’s trash is another man’s treasure” or, as my Mom used to teach when I complained about something, “That’s why we have chocolate and vanilla.” Contesters complain about traffic nets, diddlers complain about SSbers, rag chewsers complain about testers, and on it goes.

Although we all know we need to coexist, even applaud each other's different interests, each complaint usually contains a kernel of truth. For example, traffic hound Glenn Killam VE3GNA writes about "real traffic" vs. "spamgrams" and the modes via which we relay it. He reports that *"the very acronym BPL means 'Brass Pounders League' which refers to CW, hence the 'Brass' from which most keys are made. In the few months that I have been generating BPL congratulatory messages I have seen a handful of BPL numbers that are, to say the least, staggering. Not taking anything away from the person, there is one op who reports monthly numbers in excess of 3000 despite not using CW at all.... I applaud the tenacity showed by this fine operator....But knowing that it was handled via a digital station gives me cause for wonder.... Perhaps it is time to add a second or even third award similar to BPL to allow the SSB or Digital operator to garner a collectible piece of wall decoration, just not called 'brass.' "*

OK, Glenn has a point. When CW was all there was, BPL was an aptly named award. Now it can seem less appropriate for some operators. I'll leave it to the traffic handling community to hash out the details, but I continue to applaud their efforts, regardless of mode, to preserve amateur radio's ability to get the message through, even when commercial channels fail. It is one of the good deeds with which we justify our spectrum and refine our souls. I was an avid traffic hound in the 1960's, all on CW, and I hope, as does Glenn, that our mode never dies. But I can't begrudge the digital and voice operators the loan of the "brass pounding" metaphor. Chocolate and vanilla!

There has been an interesting thread on the CWops reflector lately on the subject of relearning the skill of using semi-automatic keys ("bugs") for sending Morse. Like other correspondents, I, too, started with a hand key, moved to a bug, later modified the bug into a single-lever keyer paddle and finally migrated to purpose-built paddles. Then my bug sat on the shelf for about 30 years until one day when I decided to dust it off. That was easier said than done since the bearing was shot and the pivot post would not both stay in position and also pivot at any single adjustment of the bearing mount. After a magnificent restoration by CWops member Paul Bock K4MSG, my trusty chrome-plated Vibroplex is now as good as new and I, too, am flailing away at it, trying to relearn the swing keying of my youth. Fun! For a look at Paul's work, see the cover photo on Page 1, a much older and rarer key than my own. If you haven't read the thread and are not yet a subscriber, please consider signing up at groups.yahoo.com/group/cwops.

(continued on next page)

G4IRN sends the photo below of an impromptu gathering at an Aspen ski restaurant in Colorado. Shown are Stan KR7C (#1021), John G4IRN/N4IRN (#268), Phil N0KE, Janet XYL G4IRN.



John and his wife Janet have travelled to Aspen regularly over the last few years but had never met any other hams there. This year, through a chance meeting with Colorado DXer and contester Phil, N0KE at Visalia last year, John arranged to meet up with him and fellow CW Ops member Stan, KR7C for a day's skiing at Snowmass. Says John, "Stan and his XYL Mary live in Aspen and showed great ham radio friendship, inviting us 'round for dinner and giving me the opportunity to air my US call-sign. It was a great evening and I'm sure we'll see them again on our next ski trip to Aspen."

[John – Try the Tahoe Sierra some time and check in with the **T**ruckee **R**adio **A**mateur **S**ociety **H**ams, several of whom are avid skiers and fellow CWops members. We don't have the legendary Rocky Mountain powder but the skiing can be pretty darn good and the Lake Tahoe scenery can't be beat! – Ed.]

(continued on next page)

Our first Cuban member, Frank Zequeira CO2IR, sends along this nice photo. Frank is an engineering student in Havana. He doesn't say, but let's imagine he is toasting CWops!



Now settle in with a cold one of your own and enjoy the rest of this month's issue. You will find a deep and timely article by Fred K6DGW on the [thermodynamics of radio](#), a cornucopia of hints for learning Morse in W0UCE Jack's regular [CW Academy column](#), N3JT Jim's reiteration of his invitation to the 2013 [North America CW Weekend](#), the usual tables of [award scores](#) and [membership pursuits](#), and a celebration of the first [CWT "Hat Trick Hat Trick"](#) achieved by Howie N4AF and reported by CWT Chairman Hank W6SX. In the [QTX writeup](#) you will note the amazing QTX total turned in by John K1ESE, now our new QTX Chairman. It's a big issue and that gives me pause. Are you enjoying *Solid Copy*? Is it too long? Should we throttle our keyboards and shorten some articles and columns? Or are you enjoying reading it as much as we are enjoying writing and editing it? Please send feedback to me, rick at tavan dot com.

73,

Rick, N6XI

Max Was Right!

Fred Jensen K6DGW

My current station is pretty much a poster child for Elecraft. I began with a K2, bought the 100W amp and tuner from a third party, used it quite a bit, and then sold the amp and tuner and made the K2 my primary SOTA QRP radio. I already had a KX1 that I got so I could be K6DGW/MM on a cruise through the Panama Canal. The K3 came, followed by the KPA500, a P3, and a KAT500. The TS-850 went to a friend, and the TS-830S is currently circulating in Northern California to new hams that need a rig. I kept the FT-847 for V/UHF and general coverage reception.

One of the things that I like about this equipment is that the K3 and KPA500 let me monitor the temperature of the PA as I operate. Now, I know this is heresy for this group but ... I do occasionally operate in RTTY contests as well as CW, so I do see higher duty cycles while calling CQ. And I usually monitor the PA temperature (which appears in Celsius, a nice little push toward metrification for the US, something that's happening here inch by inch). One thing I noticed right away is that the maximum PA temperatures seemed to depend on the band I was on ... higher frequency, higher maximum PA temperatures.

This was puzzling. At first I thought maybe my antennas became poorer and poorer matches to the coax at higher frequencies on the theory that the reflected power was heating up the PA's. As many theories do, this one bit the dust when I realized that my KAT500 was providing a 50+j0 ohm load (or close) to the KPA500 on **all** bands. I continued to watch this and found that it held for extended CQ's in CW contests, which I probably enjoy more than RTTY. Obviously, this effect was not mode dependent.

I continued to observe this phenomenon for a number of months with no real explanation appearing. Then came one of those "Oh crap, why didn't I think of this before?" moments. The PA temperature involved heat! I had struggled through a course in thermodynamics back when dirt was young (and got a B!), and the textbook, along with a number of others I never look at, was holding down a bookshelf against gravity outages.

Now, Professor Hallman (I wrote his name on the flyleaf of the text, that's why I know it now) had said, "After a lot of experience, and a great deal of thought, I advise all of you to avoid any equation that contains Planck's Constant. It is absurdly small¹, it can't contribute anything to anything, and it just makes your homework harder and longer. You'll never need it." Wow!! How wrong he was! Leafing through the text, and reliving the agony of those thermo-problems at the end of each chapter, I found:

$$I(\nu, T) = \frac{2h\nu^3}{c^2} \frac{1}{e^{\frac{h\nu}{kT}} - 1}.$$

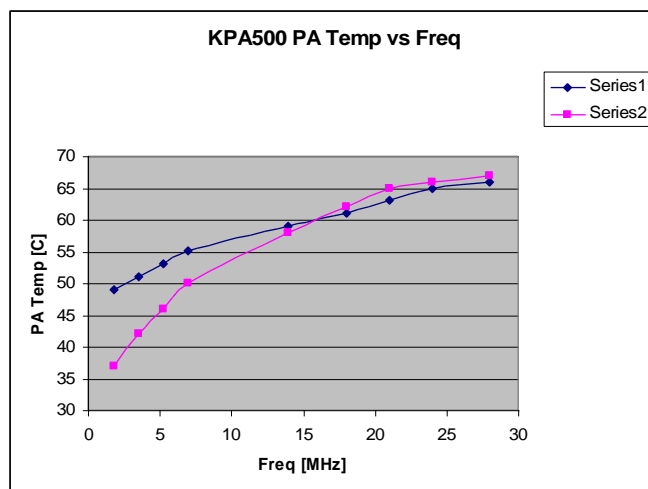
¹ Planck's constant = $6.626068 \times 10^{-34} \text{ m}^2 \text{ kg} / \text{s}$

And it all came back to me. Well ... not “all.” That was 50 years ago, I barely understood thermodynamics then, and ultimately graduated in math. But I recognized it. While it did involve Planck's Constant, which did not enthrall me, I wondered if this might be a breakthrough. 50 years ago, my K&E Log-Log Duplex Vector slide rule either hung from my belt or I had a short one in my shirt pocket. Girls generally avoided me. Today, I had Excel!² Women still avoid me, but that's good since the one who didn't married me and she's not big into competition on that front. So I decided to draw a plot of what I observed against what the theory said. This actually turned out to be a lot harder than I thought it would be, but one thing I learned in war is “never give up,” and the results are depicted below.

The primary problem was getting all the units right for a real KPA500 as opposed to the theoretical “black body” (similar to the “point mass,” “one-dimensional string,” and “closed systems” that litter physics textbooks). In the equation, I is the intensity of the radiation from a theoretical black body, which is a function of frequency (ν) and temperature (T). “ c ” is the velocity of light ... funny how that crops up so often, and “ k ” is Boltzman's Constant, roughly $1.3806488 \times 10^{-23}$ joules per kelvin. “ e ” is of course “ e ” which probably occurs in more than half of all the equations in the known universe.

I could solve this equation for T , and thus determine the temperature of my KPA500 PA as a function of frequency – or, so it seemed. It turns out the units in that equation are more than moderately strange, and it took a lot of conversions and mistakes before I finally decided I had it right. This occurred shortly after I really got tired of unit conversions and after all, Planck's constant is absurdly small, so how much could it matter? Boltzman isn't all that big either, and I gave some consideration to ignoring them both before deciding to see this through.

What I finally found was that indeed, the higher the frequency, the higher the terminal PA temperature, just as it should be.



Series 1 is what I measured using the KPA500 front panel thermometer. Series 2 is the final, unit-converted predictions, which I'm happy to say, do include Planck and his buddy Boltzmann.³ I'd have named them something other than Series 1 and 2 but I couldn't figure out how. While the measured results start out higher than the theory for a given frequency, I attribute that to the fact that there are other sources of heat in the KPA500 that are pretty much constant.

² Some may not know this but Excel will even do an FFT for you. My K&E would too but it was a lot harder

³ Boltzman and Planck did live around the same time but the concept of “buddies” hadn't been invented then and I doubt they really were.

One problem remained ... all of this mathematics in the world of thermodynamics assumes that we're dealing with a "black body." This, for those who managed to avoid the agonies of undergraduate physics, is a "something" that absorbs all the energy that arrives on it, and that radiates energy in accordance with the dreaded equation above. The best example is a black hole, none of which fortunately live anywhere close to us.

Then, one evening in the shower, it occurred to me ... "My KPA500 is black!"⁴ Well, it isn't completely black, there are some LED's, an LCD display, and a little white paint, but for all practical purposes, it is black. How much better could this get? I just love it when ham radio can confirm a scientific theory ... it's a good day for both ham radio and science. I also seem to do my best thinking near the end of March, so don't be expecting any more breakthroughs. It's probably all downhill from here for 2013 for me.



CW Academy - Morse Code Tricks of the Trade

Jack WØUCE

As we continue with more *Tricks of the Trade* it is beneficial to revisit one of the basics. When teaching beginners and mentoring those who have experience but are trying to overcome problems or bad habits; one important thing to remember is every letter, word, number or punctuation mark has its own distinct rhythm.

Morse Song files available for download on the CW Academy page are helpful tools that emphasize character rhythm and sound. Another example of the Morse rhythm is exhibited in a YouTube video of a drummer playing distinct rhythm patterns along with the Morse code sound of all twenty-six letters in the English language alphabet. Notice the drummer's body language and rhythmic movements as he plays. When copying or sending try to "feel the rhythm of the code." Watch and listen: <http://www.youtube.com/user/vadrum> .

Teaching and learning tricks submitted by club members

David – G3UNA: I encourage students to send fairly soon after starting, as long as I am there to show them how to hold the key and show them how to form characters properly, particularly long ones like C and Y. In this way they get the sound reinforced in their heads alongside the printed character they see on the page. Incidentally, I also encourage the use of dit and dah, replacing dot and dash. In this way I can emphasize the dah for longer enunciation. When they start to send, I encourage them to exaggerate the dash because short dashes are the most common ailment of the beginner. I agree with fast characters and long spaces to give time to decipher in the brain. As their

4 I generally do my best thinking in the shower.

speed improves then rhythm becomes more important but not as absolute beginners.

Fred – K6DGW: When my Elmer (Art, W6RMK) taught me the code at age 12 (me not him), we started with numbers. There's a lot of symmetry there. He had a little table of letter groups. The groups were structured such that after I learned the first group, they could be used to make quite a few words, and in the process I began to learn the sound of short words as well as letters. It worked well for me. I have never seen that table of letter groups again however. He sent to me with a bug at a character speed of around 20 WPM and I'm also convinced Mort is right, send characters fast enough that the code elements can't be counted.

Mort – G2JL: If you're ever lucky enough to teach a real virgin telegraphist, start with *numerals*. They are logical, and can be memorized in minutes. Get them up to complete confidence and speed before introducing letters, six at a time. E & T can be last. I've had many very rapid test successes this way.

Never send below 15 wpm. Slower than that is *not* Morse code, but long and short sounds one can count. Put all the space needed between symbols, of course. Words of speech have to be spoken at a normal rate to be understood; Morse is no different.

Discourage any attempt at sending until they know thoroughly and well what sounds they are trying to make. Speaking of sounds, use an electronic-bug or keyboard when sending so students hear perfect timing. Tell them to think of a baby learning to talk (as some still do in England). They can understand simple words at six months, but can't pronounce anything a total stranger can understand until three or four years old. This is because they seldom *learn* to talk their mother tongue – they 'pick it up'. Since there are no tests, teach them to ignore letters they miss and forget it. Also, they are not going to have to read the idiosyncrasies of an examiner using a straight key, so stick to perfect sending, always.

Gary – W2CS: On Eastern Area Net (EAN) of all places I continue to be appalled by some of the code I hear. So I thought I would take a moment to review what good code is supposed to "sound like" to the extent I can in an email. In the past I have strongly objected to so-called Farnsworth spacing as a means of teaching the code and I still do. It teaches the newcomer to send Morse with entirely the wrong rhythm. Here is what proper Morse construction looks like:

- (1) It is constructed of units. A unit can be fast or slow depending on the speed being sent.
- (2) A **dot** is exactly one unit long. So from here on out, I'll describe proper Morse spacing in terms of dot spaces.
- (3) A **dash** is exactly three units/dots long. So in terms of occupying time while transmitting, a dash is three times longer "key down" than a dot.

Most of the time with the usage of electronic keyers, the dot/dash formation is accurate. Those with bugs can of course alter this and thus create their own distinctive "fist." A particular feature of the bug is a "swing." Accentuated dashes closely spaced with the dots. It's rather musical actually and just about impossible to imitate with a keyer. Where I see most of the issues on EAN is what comes next: spacing. Please take some time with the next few paragraphs.

There are spaces between parts of a letter – the **intra**-letter space. There are spaces between letters – the **inter**-letter space. There are spaces between words – the **word** space. Here’s how they are supposed to relate in properly sent Morse code.

Within a letter, the intra-letter space, a dot-length is used. Thus the letter A, didah, is really di (virtual dit) dah. If there were no space there, there would be no distinguishing one part of a letter from another part. Keyers do a pretty good job with letter formation. Letter formation using bugs can vary of course.

Between letters in a word, the inter-letter space, the letters are separated in time by 3 dots (also equal to one dash length). So the word “to” is sent as: dah (virtual dah) dah (virtual dit) dah (virtual dit) dah.

Between words the spacing is a bit more difficult and quite variable in traffic circles, too. Strictly speaking, a word space is 7 dots long. So the words: “to the” are: **dah** (virtual dah) **dah** (virtual dit) **dah** (virtual dit) **dah** (seven virtual dits) **dah** (virtual dah) **di** (virtual dit) **di** (virtual dit) **di** (virtual dit) **dit** (virtual dah) **dit** (seven virtual dits).

That is what correcting timing is. That is what all of us should be attempting to create. Yes, we make sending errors and sometimes we pause when no pause is called for, but within human capabilities we all should strive for this precise timing. With such timing Morse sounds like a language. Words have word sounds; a word is no longer a set of disjoint letters being sent. At higher speeds common phrases have phrase sounds, rather than a collection of words.

Some keyers have “automatic character spacing” or ACS. Try it out if you have it by trying to run characters together. At some point the keyer will slow you down and insert the proper inter-character spacing.

Once you let the keyer insert the character space (while loading the keyer memory with the next code unit), your inter-character spacing will be perfect. Of course don’t rush it too much or the keyer will ignore a code unit you’d like it to send. If a particularly complex set of letters and/or numbers are to be sent, send them correctly but send “?” and send them again. This is preferable to sending one letter at a time with exaggerated inter-letter spacing.

Receiving Morse code is **ALL** about rhythm. If the sender does not send with proper spacing, there’s no rhythm and the receiver has a much harder time copying accurately, since the sender in effect is telling the receiver to copy one letter at a time – a totally unnatural rhythm.

Those of you who like sending letters with wide inter-letter spacing really need to clean up your act. You are making it tougher on the station having to listen to your poorly formed Morse code.

I am going to resume using a Q-signal that hasn’t seen much usage of late: QSD. QSD means “Your keying is defective.” This covers a world of sins, but poor spacing is certainly one of them. This is my flag to you that your sending needs improvement. Please take it as a gentle nudge to consider a better way to send your code with particular attention to inter-letter spacing. A single Q-signal makes it all impersonal and certainly is quick way to describe the situation. Please don’t take offense. This is not the dreaded QLF (now try sending with your LEFT foot!), after all...

General Operating and Working DX

John - K4BAI: My tricks of the trade suggestions might be a bit different than what I have been seeing on the reflector. Not every CW op will agree, but I feel strongly that, where available, full QSK should always be used and that should be a factor to consider in rig selection. It avoids "doubling" with the other guy when he starts up while you are sending or when you start up when he has disappeared in QSB. It tells you when there is QRM on the frequency and you can decide how to react to it.

In my opinion, this isn't emphasized enough and there are too many hams with full QSK rigs that don't use them. The exception would be when someone has some of the 1990s era Japanese made rigs that caused the dits to almost disappear when used with full QSK. Hopefully, most of those rigs have been retired. The US made rigs of that era either didn't have full QSK or were made by Ten-Tec and had great QSK.

The other "trick" is simply to use CW at every possible opportunity. Any little or big contest, whether or not you intend to submit a score (although I encourage submission of every score, no matter how small), any DX pile up, any station calling CQ saying he is QRP (answer him QRP if you can), any station calling CQ who sounds like he needs encouragement. Also, any local traffic net, even if you don't send or receive much traffic.

It is nice to belong to a group of CW operators who hear each other frequently, have a common interest, and can meet at local Hamfests. Almost every state continues to have CW nets and even slow speed CW nets on 80 meters at night. Checking in only takes a few minutes and you will make a lot of friends in your general area that you may not meet in contests or in general rag chewing. After the net is free (QNF), call one of the other members and get to know him or her better.

Vidi - ZS1EL: DXpeditions most often listen higher in frequency and work split. I found that most often the individual DX operator has a pattern of working through the pile up. In other words the DX station would work stations calling from say 1kHz up, all the way to 5 kHz or even more, higher.

There it usually stops to save bandwidth and one of two things can happen (1) The DX operator will start all over again from 1 up working the wall of callers all the way to his limit of up 5 or (2). Start working downwards in frequency from 5 up to 1 up. The trick here is to determine the pattern in which the DX operator is working the pile up, thereby predicting his next listening frequency. Once that is determined, the DX station can be ambushed by calling on a slightly higher frequency in the case of style 1 or slightly lower, in the case of pattern 2.

This trick works very well, especially if one has the luxury of a second RX to make sure of the particular operator's style. This is an individual thing and not necessary applicable to all the operators taking part in a particular DXpedition.

Vic - K2VCO: There are lots of variations, like the DX stations that work a few stations on the same frequency before moving, and the ones that jump back and forth between the top and the bottom of the pile. A pan adaptor like the Elecraft P3 that has a waterfall can be somewhat helpful in distinguishing between the guy that is actually working the DX and the ones that are calling

continuously, but I agree that the "call-no-matter-what" gang make it much harder. But there are few things in DXing that are more satisfying than psyching out a pileup and grabbing the DX with a one-call surgical strike!

73,

Jack W0UCE

The North American CW Weekend

Washington, D.C.

May 3-5, 2013

CW Operators, Morse code aficionados, and their spouses are cordially invited to attend the North American CW Weekend to be held May 3-5, 2013, at the Fairview Park Marriott Hotel, 3111 Fairview Park Drive, Falls Church, Virginia. All amateur radio operators with an interest in code operation are invited, and we have had good participation from FOC, CWOPS, FISTS, PVRC, CVCC, NCDXA, and several other Morse code-oriented and contest groups in the past.

The Washington, DC area is a delightful place in the spring, and there are numerous attractions, museums, monuments, parks, and shopping opportunities within easy reach of the hotel. We will have an informal pizza dinner on Friday evening at a local pizza restaurant, and on Saturday morning, Jim N3JT and Nina will host a brunch at their home in McLean. We plan a hospitality suite with beer, wine, and other libations at the hotel on Friday and Saturday. The no-host dinner will be at the highly-acclaimed Da Domenico Restaurant in McLean on Saturday evening (www.dadomenicova.com). On Sunday afternoon, Frank, W3LPL, has offered to open his world-class contest station for tours. While the weekend is predominantly social, there are wonderful opportunities to connect with fellow hams, talk radio, socialize, and enjoy the DC area. Dress is casual, and the weather in Washington in May is usually quite mild. Coat and tie are optional for the Saturday dinner.

There is a modest registration of US\$25.00 per person which is used to defray the costs of the hospitality suite. Registration can be paid by check to Don Lynch W4ZYT, 1517 West Little Neck Road, Virginia Beach, VA 23452-4717. Don's e-mail is w4zyt.don@gmail.com.

Reservations at the Marriott can be made by calling the hotel directly [703-849-9400]. *We have obtained a special group rate of \$ 90.00 per night. Please specify you are with the "North American Weekend Group" when making your arrangements.* Guests can call [1-800-228-9290](tel:1-800-228-9290) and ask for the "North American room block" to make a reservation. For some who would like to make a reservation online, use the hotel's web site -

<http://www.marriott.com/hotels/travel/wasfp-fairview-park-marriott/> . The

Group Code to type in the "Group Code" box is NAMNAMA. *Directions to the Marriott are available on the web site. The hotel is readily accessible from the beltway, and there is easy access to area airports and public transportation. Please join us in Washington for what promises to be a great ham radio weekend.*

From the VP – ACA/CMA Scores



<u>Call</u>	<u>ACA</u>	<u>CMA</u>
SM6CNN	287	2230
VE3KI*	313	1943
N5RR*	309	2568
K6RB*	265	1888
KZ5D*	305	2623
W1RM*	252	2465
DL8PG*	248	1092
AA3B	211	3392
F6HKA*	251	1378
N2UU*	132	1573
EA1WX	114	1206
NN6T	77	820
DJ1OJ	64	1579
K6DGW	55	930
W5ASP	30	817
AD1C	10	795
W4VQ*		1069
EA8OM*	130	1637

* = updated data

73, *Art*, KZ5D

The Annual Competition Award (ACA) is based on the number of members worked each calendar year. You get 1 point per member, worked once per year. It resets to zero at the beginning of each year. The Cumulative Member Award (CMA) is based on how many members you've worked since January 3, 2010 on each band and continues to grow in perpetuity. The CWops Award Manager (CAM) software, available at no cost, will help you keep track of your ACA and CMA totals.

The CWT Hat Trick

In cricket, a hat trick is when one bowler knocks of three wickets with three successive pitches. Formerly, such a bowler was rewarded with a hat. In hockey or soccer, three goals scored by one player in a single game is a hat trick. Hockey fans still throw their hats on the ice to acknowledge this feat. A CWops CWT Hat Trick means winning all three sessions on a single Wednesday/Thursday. So far, the only one to do it is Howie, N4AF who had done it THREE times. Which means Howie has a CWops Test Hat Trick Hat Trick. And this just in – He did it again in the March 27/28 events, making four sweeps! Who will unseat Howie and be the next to score a CWT Hat Trick? To honor N4AF, we sent him a CWops hat. See picture.



Congratulations, Howie. We have four more hats ready for the next four CWops members to score a Hat Trick (membership required). Who's it going to be?

73,
Hank, W6SX
CWT Chairman

From the Secretary



With great pleasure we welcome the following new members:

1144	AD4J	Jim
1145	K0LUW	Russ
1146	VE7ALQ	Yaakov
1147	CO2IR	Frank
1148	AC4BT*	Jerry
1149	G4CPA	Geoff
1150	KV1E	Jack
1151	VE1AL	Al
1152	K5LN	Bill
1153	AA5SR	Dave

* = Life Member

73,

Jim, N3JT

Current Nominees

Need Sponsors: N5TW

Invitations Extended: DL3DXX, V31RG, JT1CS

For more details about nominees and status, check the “members only” on the Website: www.cwops.org

For information about joining CWops, check the Website under “membership.”

The QTX Award

Each year CWops will award a plaque to the member attaining the highest QTX score. A QTX point is earned for every QSO that goes 20 minutes or longer. Just keep track of your ragchew QSOs and submit your score on the ‘members only’ page at the start of the following month.

The first annual QTX award has been presented to John Huffman, K1ESE, for his 545 QTX point score during 2012. John not only won the award for 2012 but also has volunteered to chair the QTX Program going forward. Congratulations and thanks!

We keep track of the scores and post them with a two-month lag. So, for example, the QTX scores of February 2013 are posted in this (April) issue. Next February, the member who has accumulated the most QTX points will receive the award for 2013.

Good luck and keep chewin’ the ol’ rag.

73,

Jim, N3JT

QTX Report

February was a good time for a ragchew. Nothing is better than sitting near the fire on a cold crisp evening with the melody of CW in your ears and a spirited conversation. We have a good number of February reports as seen in the totals below.

Even if you only make a few contacts of 20 minutes or more during the month, please report them. Just like in a contest, the number of reports submitted shows the level of interest in the activity. It’s easy, no logs, no check sheets, just the number of 20 minute plus QSOs you enjoyed.

<u>Call</u>	<u>February</u>	<u>2013</u>
N6TT	51	51
NN6T	39	39
N5IR	24	65
K4AHO	24	55
K5KV	19	29
WA3NZR	13	41
JE1TRV	11	20
W5JQ	7	7
K8QI	7	7
K0DTJ	6	12
K6RB	3	17
W6JMP	2	4
N1DG	2	2
HB9CVQ	2	2
K6HTN	2	8
WA8IWK		8
DL8PG		4

So, please keep track and report your March total by March 5th. Here's where -

<http://www.cwops.org/members/qtxmo.html>

73 John, K1ESE

QTX is a program for members who enjoy casual CW QSOs. Anytime you have a QSO that goes over 20 minutes, jot down the call sign of the other station, and before the 5th of the next month (e.g. before 5 May for your April total), go to the website QTX page in the 'members only' section and put in your total.