NEWSLETTER PROMOTING
MORSE CODE WINTER 2025

GAME OF TONES

By JIM STINSON, N0IPA

Any athlete knows that to get better, you have to set goals and challenge yourself. The same applies to your CW skillset.

"The Night is Dark and Full of Terrors" Melisandre

As a beginner, and even an intermediate CW operator, it can be intimidating to get on the air and send code for the whole world to hear. It takes commitment and discipline to apply yourself to learning the code and training for improvement. I spent a lot of time in the basement shack, next to the furnace and water heater, teaching myself CW and keying. Big mistake. Eventually, I ran across the Long Island CW club web page and began to unlearn a few things. I found a home in the Tortoise Club and regularly attended, but my copy and fist were atrocious.

To get better, I found little games to play to improve my fist. Running the dits and dahs, sending quotes etc. But when I didn't feel like practicing, I didn't. And I sure as hell wasn't going to get on the air. How embarrassing. While fiddling around one day, a note came across my screen that the USS Hornet was on the air down in Alameda. I'd studied the Hornet, and I served some time

at the Alameda Weapons Depot. Had to do it. I copied the RST, Jeff and that's it. What a rush. And I got the USS Hornet! There had to be other mothballed ships doing the same thing. I made it a point to find and work more old Navy ships. I was hooked. And I got on the air more often.

Then I discovered SOTA and POTA and SKCC. These programs all had "Status" you could work towards. IF you got on the air. In order to achieve my SKCC Centurion, then Tribune status, I set a goal of 5 QSOs per night. It wasn't long before I was rising through the ranks. AND my fist was rapidly improving as well as my copy skills. Particularly those pesky numbers that always shut my brain down in the middle of copying a call sign. Then I found out about the DX game. I could get a certificate if I worked 100 different countries! So, I got on every evening and scouted for DX. QRP, long bands, UP 2 LID! There were a number of new challenges to be met working DX. Trying to get one every night meant I had to learn the ins and outs of those challenges. Still not to 100, but I have some pretty cool QSL cards.

Each of these "games" hams play provided a learning experience, and more importantly, a plethora of ON THE AIR practice. So much more fulfilling than listening to computer generated code in the basement.

Here are some Games of Tones to help you improve your copy and your fist:

"FOR THE THRONE"

LICW Challenge licwchallenge.org
• Exchange QSO info including your name and LICW member number. Helps build copy skills by sending/copying names and numbers.
• Points are accrued based on different criteria.
• A Quarterly status board is kept so you can see where you are compared to other LICW members.
• A Discord chat is available to help coordinate contacting others.
• Set a goal of 5-10 contacts weekly.

SKCC www.skccgroup.com
• Exchange QSO info including your name and SKCC number. Helps build copy skills by sending/copying names and numbers. To be a member and participate, you need to use a mechanical key (straight key, sideswiper/cootie, or bug)
• Status is earned based on the number of QSOs with other members. There are also monthly bragging rights, a monthly Sprintathon with rotating themes, and other Sprint-type activities to encourage on air activity.
• A web-based chat page is available to coordinate contacting others.
• Set a weekly goal to progress in the status rankings, and participate in the monthly Sprints for immersion practice.

SOTA/POTA Programs
(sota.org.uk and parksontheair.com):
• Both these programs involve "chasing" someone calling CQ for status points, or calling CQ from designated summits/parks for status points. You don't need to be a member to answer a SOTA/POTA CQ.
• The exchange is short (just RST and SPC), but the pace is quick and one can complete many QSOs in just a short period of time. Playing these two games helps you copy and send callsigns. One of the more difficult skills given the random character nature of callsigns.
• These two games are great for beginners as the exchange is minimal, and occurs repeatedly, giving you a chance to listen and practice copying.
• Set a weekly goal to chase/hunt 5-10 summits/parks per week.

"CHAOS IS A LADDER" LITTLEFINGER

RandomGram
groups.io/g/RandomGram/topic/randomgram_overview/97601889

RandomGram is unlike the typical amateur radio contest. Scores are determined entirely by the accurate exchange of random character groups. So, the pace is typically slow speed sending, rather than high-speed-get-as-many-as-you-can sending.
• Participants are issued a roster of 5-character random letters to exchange with other operators. Correctly copying a group gets you 1 point per group. Correctly sending your groups gets you 2 points per group. So, it's imperative that you send smooth, copyable code in order to get points. Asking for repeats ensures that you get an accurate group.
• Playing this game gives you practice in copying what you hear, not what you expect. Great for building a buffer for callsigns. Your score gives you feedback on how accurately you are sending and copying.
• The SKCC sked page sked.skccgroup.com/# is commonly used to see who is on the air with RandomGram.
• This game is played twice per month. Set a goal of working it for at least one hour each month.

NAQCC Challenge naqcc.info/challenges.html
• Ok. Now do it with only 5 watts!
• With this game, you don't need to contact other members. You can have a QSO with anyone, with any key. But it must be QRP on your end. What makes it fun is how you pick your contacts.
• Each month a bit of trivia is presented in story fashion. Always good to learn something new when having fun. Then 4-5 phrases from the story are selected. Your job is to spell the phrases out using the letters and numbers of the callsigns you contact. This game sets its own goal to achieve, you just have to commit to finishing the phrases by the end of the month.
• It's easy at first. Just plug in all the QRP contacts you've made. But soon, you run out of common letters and have to go hunting for that elusive Q, Y, or Z that no one wants in their callsign. I use the SOTA/POTA spotting pages to look for the letters I need, then chase them.
• Working QRP will have you competing with bigger stations, so you have to use techniques to get noticed at low power levels. Also, it helps if you hone your antenna skills. Set a goal of all 12 certificates in a year.

"WINTER IS COMING"

Nobody became fluent in Valyrian after the first semester in high school. Set some goals for your CW journey and stick to them. Making it fun by playing some of the above Games of Tones will help sharpen your skills and smooth out your fist. By the time the snow melts, you'll be more confident, practiced, and ready to go beyond the wall. For the throne…

Mallory Miller KD5ZZU on a recent POTA activation with fellow LICW member Junie Cassone, N1DUC (and her duck Mochi!). They had a blast activating CW and SSB at US-4422 in Texas, 12/30/24.

WINTER 2025 ANTENNAS
By K WILLIAMS, N8FNC

Safety is one of the primary concerns we all need be aware of, especially during inclement weather. Winter brings its own concerns, and anyone interested in antennas needs to consider alternatives to the placement of antennas in outside locations. Ah Ha! The perfect time to experiment with 'Indoor Antennas'. Of course, when using an antenna that can be co-located with the operating position and the transmitter, we also need to be aware of potential exposure to RF fields. That suggests that if a QRP rig is something you have not experienced before, this may also be the perfect opportunity. The internet abounds with designs for low cost, internal antennas and a multitude of low-cost kits for QRP radios where even a neophyte to soldering can complete assembly in just a few hours.

Indoor antennas can take several forms from simple dipoles to loops (loaded and unloaded) and can be constructed from just wire for a dipole, to wire and small variable capacitors for loops. For dipoles, start with the higher HF bands to limit the physical size of the elements and make it easier for indoor placement. One obvious location might be around the ceiling and wall juncture of a room. Laying antenna wires on the floor is a potential trip hazard and something to be avoided. Make the center connector and end insulators out of plastic cut from old plastic bottles and a small Balun enclosure from a recycled old 35mm film

cartridge and a bit of scrounging in your junk box is likely to turn up most of the needed parts for almost next to nothing. Indoor antenna geometry will likely involve 'bends' in the elements, and the first step in a design for an interior antenna would logically be to 'model' the design. If you have not yet tried any of the current free modeling programs available on the internet, this is the time to rectify that omission.

My current favorite antenna modeling program is EZNEC Pro 4 (Easy Numerical Electromagnetic Code) and our friend Greg WA1JXR has introduced its use in both the Saturday 'Antenna Forum' and on his Monday evening 'The Doctor is In' forum. Both examples should be available through the LICW Drop-Box.

For an indoor dipole antenna taped to a room wall and ceiling juncture, the definition of its proximity to ground is an 'interesting' problem. (Just how close to 'ground' behavior is drywall paneling?) To the best of my knowledge, no one knows. So if your experimentation in modeling uncovers some pointers, please share them with the rest of us and help move antenna modeling practice forward. (That is how we all can learn.)

One of the great gentlemen of Amateur Radio, Ray Burlingame-Goff, who sadly became a silent key in 2021, left us with this easy to build simple QRP loop antenna design that is still available to on his website at: https://www.g4fon.net/.

This minimalist antenna can be constructed almost completely from parts found in most 'junk boxes' in any Ham's shack, or at the next swap & shop near your QTH. Details of its design and complete construction are as complete as any of us might want.

VHF Antenna:

One of my favorite antennas for 2 meter HT is to use a J-Pole made from old 300 Ohm twin lead TV antenna wire. (See the insert drawing below:)

Figure 1. J-pole
(Not to scale)
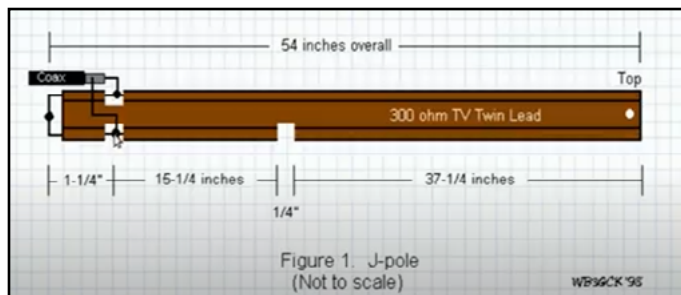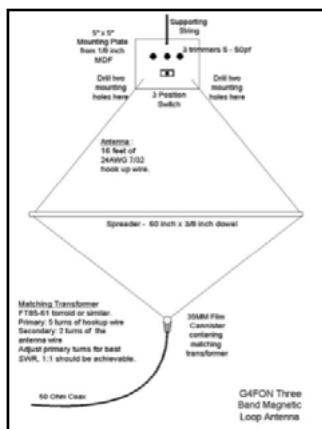
This one is described in detail in a YouTube video by Kevin Loughin KB9RLW at:
https://www.youtube.com/watch?v=b84ZRGuw1oU

I have carried one of these in my small HT bag rolled up as Kevin demonstrates in his video. Unrolled and hung in a hotel window with a coat hanger "s-hook" through the small hole on the end has allowed me to check into repeaters that I can't even hear with the short 'Rubber Ducky' antenna.

Indoor HF Antenna:

Still have doubts about an indoor antenna on HF? Let me direct you to the YouTube video made by Josh KB6PTU in 2019 near the bottom of the solar cycle. The link to the video description is found at:
https://www.youtube.com/watch?v=5vq_4Kjb8Vo and it describes a random wire antenna about 60 feet in length strung around the ceiling of an indoor room using a 9:1 Balun and driven by his ICOM 7300 running 20 watts. Josh uses FT8 for the demonstration but, who within LICW would suggest that FT8 could outperform CW? In this installation Josh did not use a counterpoise, and it is likely that that simple addition of another 20 feet or so of wire tied to the ground on the Balun could have materially improved his already impressive results. Watch the video yourself (It is only 6 Minutes & 39 Seconds long) and draw your own conclusions.

Remember I mentioned safety near the beginning of this short article? It is worth repeating it again here. Conditions inside your home are likely to be less treacherous than icy roofs or tree branches outside at this time of year. However, please take care even if you are only climbing a short ladder inside to put up your indoor HF antenna. A fall from any height is something to be avoided if you live in a 1G environment (i.e. on planet Earth.). So, always, make safety the first item on your check list.

Join us (Greg and me) on Sunday's at 11AM EST on LICW ZOOM A for the Antenna Forum and tell us about your winter antenna experience. We would love to hear from you!

STATE OF MORSERINO
By WILLI, OE1WKL, N8FNC

As you might know, the last Morserino-32 kits have been shipped in October 2024; as the Heltec module (V 2.1) is at end-of-life, these kits cannot be re-ordered.

Since then I have evaluated various options for creating a successor. So far this has been slower than I originally thought: too many decisions have to be made, to ensure, that a new version will be available and sustainable for a certain amount of time - the lifecycles in electronic parts has become shorter and shorter.

While modifying the Morserino software in order to support the new ESP32-S3 processors has been accomplished, another desideratum turned out to be more difficult to tackle: I wanted to do some work on the audio output side, to achieve a cleaner tone. The circuit in note M32 is an extremely simplistic one, as a result the output audio is far from a clean sinus tone.

The best option appeared to be using a digital audio (Codec) chip. While the first tests with prototypes using a WM6980 looked pretty good (thankfully this was helped by Hari, OE6HKE, kudos to him for putting a lot of effort into this), it turned out the the chip we had in mind is in the meantime also end-of-life. So the search for a new chip began…. There is no plug-in replacement for the 6980, and for other chips no library was available. In the meantime, Hari is working on library for a TI chip (TLV320AIC3120). Tests with first hardware prototypes and the new chip and library will commence at the end of January, and if everything is turning out to be ok, we can continue from there!

As it currently stands, I think we can have fully functional prototypes available in April or May, and hopefully a

While vacationing in Arizona last week, I went to the Titan Missile Museum near Tucson. The 80 foot tall Discage HF antenna from the missile site is maintained by the Green Valley Amateur Radio Club, and hams can use it with their own equipment. These antennas were used during the Cold War for communications with the missile sites. I used my Elecraft KX2 to make a few CW contacts using this antenna. It was a chance to use a piece of radio history! 73 de W0ZF

production later in May or June. I am also looking to make kit distribution less dependent on me personally (and less workload for me, as well; I'm not getting any younger, unfortunately …).

As I am still using the original code base, the functionality will be the same, possibly with one exception: I decided to leave out the LoRa functionality for the new version, to get rid of some complexity and contain the cost to a reasonable value. My guess is that this was probably the least used feature of the Morserino, so the impact should be minimal; WiFi functionality will be available as before, of course.

In due course there might be additional functionality that can be added thanks to the newer processors, but at this stage it is too early to talk about it (these might be things that can be included in later firmware versions).

LICW MORSE PRACTICE PAGE
By TOM, AB5TN

Updates and Added Features

Well, we're off and running in a new year. I hope you all had a great Holiday Season and didn't forget to use some of the time to practice your code. Randy KN4YRM and I were able to address some requests for changes to the MPP. The first one was to be able to turn the zero beat tone used for

accessibility off by clicking a second time on it instead of needing to wait for it to time out. It now allows you to start and stop it by clicking on it.

Next, several people wanted to be able to have the code played several times with the voice either off or spoken after the code was played. Previously Repeats and Repeat Spacing only worked with Familiarity where the voice was spoken prior to the code being played. You will notice that these two boxes have been moved to just above the Voice line and are now available at all times. One thing to keep in mind is that the number of times the code is played will be one greater than the number in the Repeats box since it does not count the first playing of the code, just the number of repeats.

Several additional LESSONS have been added. All intermediate and advanced levels now have Letter + Number groups in the Character and Familiarity lessons. BC3 now has US Callsigns and all the Callsign LESSONS have been added to the intermediate and advanced levels.

A new CLASS has been added called ICR+. Tom WA9CW and Bob WO6W run a class called BUG SENDING and Tom requested a particular set up for the way he teaches and we have developed LESSONS and PRESETS to facilitate his requirements.   I urge you to check out this class as it is not only a great class for learning to use the Bug but also for general help with sending and copying code by

two excellent instructors. Here are the rules for using this exercise:

1.Always listen to at least 2 characters at the time.

2. Only write down what you here after you've said it. Put a letter or a dash on the page for every character, copied or not. (Do not write each character as you hear it!)

3. No Farnsworth greater than 2 or 3 wpm slower then character speed.

4.Before progressing to more characters, make sure that you are copying 80 % or so with NO Farnsworth at all. In other words, when you start to gain proficiency, keep everything the same but reduce the Farnsworth until word speed equals character speed. Then you can move up a level. This is a foundation building exercise so make sure each step is solid as you progress.

5. When the character groups are sent, the time between sets should be close enough that the student does not have time for any mental gymnastics with the letters. Just listen to the repeated sounds until they either time out or the characters float up into your mind. (Change the preset values as needed.)

6. Say the characters out loud (or say what ever you think you heard) and write that down with pen and paper. Try to get it on paper before the voice sounds. Do not start writing until you have said all the characters out loud. Again, for this exercise, do not start writing until characters are head copied and spoken.

Last but not least, a request was made to be able to keep the voice active after the display times out on Android devices. Previously, the code would keep playing but the voice would stop. Code has been added to override the display off timer. The screen will remain on until you exit the MPP so the voice continues to be heard. I hope you find these updates helpful as you travel along your CW journey. Have fun and I hope to hear you on the airwaves sometime.

WILD ABOUT BUGS
By TOM, WA9CW

Hi All, In the last few newsletter articles from Wild About Bugs, we have looked at acquiring, cleaning, setting up, and some fundamental manipulation of the bug. Now, we will turn attention to practicing sending with the bug. Bug sending takes a little time and practice go gain enough proficiency to put your bug fist on the air. So, in this installment, we will

take a look at what Quality Practice looks like with a bug. First a short commercial break and then on to the topic.

Wild About Bugs now has a companion class. It takes place on Tuesdays in Zoom E at 1PM Eastern time, and is called, The Art of Bug Sending and Copy. If you have a bug and wish to learn or improve your sending, we would love to have you join us in the class.

Sending Morse with a Bug is different from any other device. We have to interact with the instrument in a number of ways. We try to most accurately control the number of dits being made automatically by the bug while we manually form the dashes to conform to the dits. In addition, we coordinate the movement of our hands in relation to both, in order to keep all the other timing and spacing organized. Obviously, this takes some time and practice to accomplish. Good practice is not just sitting down and mindlessly hammering through some printed material in front of you. I, for one, have done that plenty of times and that is part of the reason that I am offering these ideas.

First, I will define what I think QUALITY practice is: Quality Practice is practice that elevates and improves skill. This differs from practice that reinforces errors and solidifies poor sending habits.

There are several ways to approach sending practice. Obviously, one of the best is on air practice, making contacts such as SKCC and Rag Chewing. Hopefully, you have made a plan for regular on-air practice. Without question, on the air is where you will become a better operator. However, off the air practice is a good time to develop and hone physical sending skills.

Another type of bug practice is "head" sending. This can be done with what I have called the Dear Diary daily installment. With this method, you spend a few minutes just talking with yourself using your bug. The content does not matter as long as it does not get stale from one day to the next. The intent is to develop the ability to think and compose your thoughts at the same time you are sending them with your bug. You can also simulate qsos in your mind such as the standard protocol or SKCC exchanges so that things flow better on the air. This is an essential skill so we may as well get going on it early.

Because I suspect that sending from text is the primary way that a lot of people practice bug sending, I will focus these thoughts on optimizing sending practice from text.

Sending from text can instill as many bad habits as good ones if we are not mindful while doing it. Racing thru text just for the sake of getting it done is not quality practice.

It encourages timing errors that can become so ingrained that we no longer notice them. If you feel yourself rushing through the material, it's better to stop and come back to it later when your mind is not pulled in other directions.

So, how do you get the most from practicing sending from text? Here are a few suggestions.

Sending from text is a convenient way to put words and thoughts in your mind for sending. The important point is to send the thoughts from your head even though they got in your head by reading them. This separation can make the difference in what is gained during the practice. It allows us to send an idea rather than just rattle through a bunch of letters.

Read and get familiar with the text you are going to send before you begin sending it. You can do this by reading a few words or a few lines. The point is to have a thought developed in your head before you begin sending.

Make sure that each letter and word are sent correctly. A correctly sent letter in Morse is a letter that "says its own name". What this means is the sound of the letter is created by the proper timing of its elements so that the unique sound of the letter is clear and precise. For example, the letter R has three elements a dit, a dah and another dit. When properly sent, the unique sound "envelope" for R is created giving the letters a distinct audible shape to them. If there is a timing imbalance between the first two elements of the letter R, the sound becomes that of two separate letters, e and n. If there is poor timing between the last two elements, then the sound again becomes that of the letters a and e. If the timing is off for all elements of an R, then it becomes three single element letters e,t and e. (Thankfully, our brains can usually decipher a lot of miss-sent code, but that does not relieve the sender of the responsibility of sending their best code.)

Listen for errors in timing of elements and letters while you are sending. If you think something is off, repeat as many times as necessary to determine why it doesn't sound right. Then figure out what you need to do to correct the error. Are you keeping up with your bug speed or falling behind with your hand movement? Is the contact space too close or too wide on the Dash paddle? Are both feet flat on the floor? Is your bug set up properly for you? These are only a few things that can interfere with properly sent code. Put some thought into why some letters or combinations of letters are being poorly formed and try to understand what is happening. A few of the most commonly miss sent letters are V, F and L for example.

If the problem is mechanical, then it may be a quick fix. If the problem involves the way you are manipulating the bug, then you must identify it and retrain your hand. Study the way you manipulate the bug for different letter combinations. Letter forming and word forming is a continuous series of hand movements that must have a flow to them in order to create the SOUND of the Morse letter we are sending. The process is the same for creating word sounds. Smoothness is key to getting this done. Once you are smooth, then you can speed up as you desire.

If you are running words together, try touching the desk top with a finger between each word to create a space. Or maybe, just more focus on "sending that space" as suggested by David N1EA will do the trick. Either way, do something to force the word space to happen until you can create it without thinking about it.

There is a lot of great printed practice material around. Much of it is beneficial in helping with letter formation and letter to letter transitions. Random five letter code groups are great for this because they can present you with endless combinations of letters.

Some transitions are awkward and some flow more easily. One of the benefits of sending from text is that you must send what is in front of you.

A lot of novels are written in familiar language used in everyday speech. Sending this type material is the next best thing to head sending due to its simplicity and easy conversational flow. The opposite of this would be sending scientific or technical text. This type of text would cause you to focus more on individual words rathere than the conversational word flow.

Another example of material that is a little more challenging would be sending from the telephone directory. It is great practice because it forces you to send lots of numbers. Numbers are often neglected in both sending and copy practice. Sending strings of numbers can get boring, but it is great practice for spacing and successive dashes. If you can get your hands on an old-time phone book, by all means use it for bug practice material.

So, to finalize things, remember, practice doesn't make perfect, only perfect practice makes perfect. That is the reason why we must approach bug sending practice very methodically. Bad habits are easy to form and difficult to overcome. It is worth taking some time to develop a plan, evaluate often and adjust as necessary to develop a great bug fist.

One of the best complements you can get on the air is, "great fist, easy copy" especially with a BUG

Most important thing, HAVE FUN with your BUG.

73 Tom WA9CW

Maggie, KE2AIZ (from the LICW kids classes), working some equally cold rovers on the other side of the Genesee Valley on 5760 MHz during the January VHF contest. Next year we need a bigger key so that the glove can stay on while sending. It was a about 8F and snowing at the time. Andy K0SM/2

THE N2EC PADDLE TAMER
By ED, N2EC

When I am operating CW from my home station I am usually using a K1EL K45 CW Modem as the keyer. It has aptly been described as a "Swiss Army Knife of CW Keyers" as it is an incredibly capable device. I have built and used some other keyers in the past, including the Hamgadgets Ultra Pico Keyer that works very well and I was quite pleased with. The reason I decided to go for the K45 was that as someone who teaches multiple CW classes with the Long Island CW Club, I really need a visual indication of what speed I'm sending at as well as an easy way to be able to modify that speed in single word per minute increments. The Pico Keyer will send its speed in CW after adjusting a potentiometer, but making those updates while teaching can be challenging. I had been using my Yaesu FT-897 as a sidetone source for the classes (and still do), but that meant that I had to have a separate setup for teaching and operating other rigs. The K45 has a LCD readout that allows you to see

LICW - YL4CW OPEN HOUSE
By Anne KC9YL

YLs — in case we missed you! If you haven't been receiving the weekly recap/reminders, you may have changed your email address, or we just missed getting you on the LICW YL list. Contact Anne KC9YL – the keeper of the YL member list! (good on QRZ and listed on groups.io)

Our YL4CW Open House group continues to meet on Mondays in Room C - 8:00 PM Eastern Time. Ours is NOT an instructional class (but don't be surprised if you learn something!) There is no sending/receiving/practice, but rather, it's a discussion group where we talk about—-whatever needs to be talked about! Topics of conversation vary and depend upon who shows up in the room each week. We network.... we share...we encourage.....we sometimes get off-topic, but always circle back to our amateur radio activities, specifically CW operations. We have about 8-10 ladies on an average night, so pop in some when you can and say a quick hi. Several of us were lucky enough to meet and greet at HamVention, and we are already planning a Friday night meal together in Dayton/Xenia for 2025.

Our LICW YL POTA – AND MORE! WhatsApp group is active on a daily basis. The ladies post reminders of contests and activities, share their POTA activations, and keep us informed of their travels to/from HamFests. Sometimes we are more comfortable posing questions to a smaller like-minded group. That's us! It's sort of an Instant Messaging version of our Monday Night open house!

If you want to be added to the WhatsApp chat group, if you have a particular topic you'd like us to cover, or just have a question that needs a quick answer, download the app, and send your phone # to Anne KC9YL (good on QRZ and listed on groups.io)

Contest season is in full swing and QSO party season has begun! Hope to see you on the air!

your speed (along with a whole lot of information) so it seemed like a good choice.

Of course, the K45 allows me to do iambic keying as you would expect. It also can act as a Winkeyer to allow for keying from the logging software of your choice for use in contests which was a plus as I was starting to get more interest in working contests. Additionally, it provides a pleasant sidetone, which is helpful as my Hermes Lite 2, which I have been using a lot lately, does not generate sidetone when keying CW. The K45 does a whole lot more than that though — and I don't really even use the half of it. It can key from a keyboard and has several keying memories for automation. The keyboard also allows you to go deep into the menu system without needing a computer. It can also do RTTY, HSCW, and QRSS. It also has the ability to decode CW by sending your receive audio into the unit (I've never used that function, but it is there). It also has a USB interface for use with the Winkeyer, the remote display application (which shows the LCD information on your computer), and to allow for firmware updates. It is also very well designed and has ESD input protection and RFI suppression on all the connectors … which is a great thing, but is something which created an interesting problem for me.

I have a lot of different keys and paddles, and I love playing with different ones to keep my operations fun and interesting. I have things setup so I can have multiple paddles feeding into the K45 via a splitter, then I have the output going into another splitter so that I can patch-in manual keys and bugs that feeds into a stereo jack switch that allows me to switch between multiple rigs while keeping them electrically isolated. The end result is that I can easily switch between my favorite keys and paddles at a moment's notice and route them to whatever rig I feel like using. This all worked very well until I tried to connect my 9A5N Solid State Paddle to the K45.

RANDOMGRAM CW CONTEST
By CHRIOS FARNHAM, W1YTQ

This past Saturday, December 7, 2024, I participated in RandomGram, an amateur radio Morse Code contest where CW operators exchange random character groups assigned to them before the event begins. Contestants are scored by their ability to accurately send and receive random code groups; this contest emphasizes exchanging accurate information and effective radio operations.

This particular RandomGram event lasted two hours, from 9AM to 11AM Eastern Time, so there was a short time window that we all had to transmit the 10 random codes sent to us and copy (i.e., accurately listen and log) as many other

operator's random groups as we could.

Here's my station with log sheets during the event. My log sheet has my pre-assigned random groups and you can see that I'm monitoring the Reverse Beacon Network to see how my station's signal is propagating.

Here's my completed log sheet at the end of the two hour event.

Contest results
You can view the results for event #27 here. I was able to accurately transmit all of my assigned random groups. And I accurately received all of the groups sent directly to me in a QSO. If I want to improve my score next time, I'll want to spend more time during the two hour contest listening to other's transmissions to copy and log their RandomGram groups.

I enjoyed the format and pace of this contest and intend to continue participating. The format which requires sending random unpracticed messages tested my CW sending and receiving skills and had me operating my radio more intentionally.

RELATIVE DATING OF YOUR JUNKER M.T. AND M.T.1 MORSE KEYS

By K. SPEK, VK1KVS

Some aspects of the history and development of the Joseph Junker M.T. (= Morse Taste) Morse key can be summarised as follows. Recognising their evolving differences may assist in providing a relative date for the Junker (straight) keys in your collection (the Junker 'bug' will be a topic for some other time). The Junker patent 613176 dates back to 11 November 1931. Production between that date and the end of WW2 carried the numbers 0-9 on the gap adjustment click-stop thumb screw. The spring tensioner thumb screw had the marking 'Feder-Spanning' (spring tension). These keys also carried the designation 'DRP Junker' (DRP = Deutsches Reichs Patent) and 'Entstört' (i.e. fitted with rfi suppression components) cast into the Bakelite base, right and left respectively. They could be fitted with or without a diecast aluminium cover. In case of the latter, there are thus no corresponding tapped screw holes (for the cover's hinges) in the rear corners of the steel (during WW2 also sometimes aluminium) base. Where a cover was fitted, two ribbed finger grips on either side facilitated lifting the cover. Very early keys of this era had nickel-plated levers. Otherwise, they occur in shades of green, used by both the German Wehrmacht (army) and Kriegsmarine (navy), as well as light-grey or 'sand'/khaki-coloured (navy and coast radio stations, but also reportedly used during the North Africa Campaign).

After WW2, Germany was not allowed to produce military equipment which apparently included Morse keys as well. Therefore, the assumption must be that there were still enough pre-1945 Junker keys in circulation to satisfy any civilian requirements, including for the merchant navy and ship-to-shore coast radio stations. Only after 1955 when Germany joined NATO did production again commence. Models dated from 1955 onwards came with the diecast aluminium cover only, including triple finger ribs on either side. The large 'U'-shaped opening at rear was retained but the large metal bracket that fitted into that space (designed to secure the pre-1945 cable's thick rubber insulation) was replaced by a much smaller bracket. The markings on both the thumb screws were dropped. Bakelite markings now became 'DBGM' (Deutsches Bundes-Gebrauchsmuster) at left and 'Junker Honnef/Rh' (company name plus geographical marker for Bad Honnef and the Rhein-Sieg district in North Rhine-Westphalia) on the righthand side of the Bakelite base. The NATO drab olive-green version was for army use, the silver 'Hammerschlag' (hammertone or hammerstrike) for navy and merchant marine (civilian) use. Both versions could come with or without rfi electronics fitted inside the Bakelite base, depending on the end-user's requirements.

WW2 version without and with cover

1955-1978 Army and navy/civilian versions left and at centre; 1978-2014 Navy/civilian version at right

1955-1978 version at right; 1978-1990s version at left

An uncovered army version mounted on a slightly narrower Bakelite base and leg clip designed for mobile use was also produced (known as the M.T.1, for which see further below).

One particular variation of the Junker M.T. was produced for Radio Holland, the company that supplied radio equipment for use on board Dutch merchant marine and Royal Dutch Navy vessels. These were painted flat-grey, and were fitted below the knob with Radio Holland's own name plate, marked 'Key Type SL 5' (Sleutel type 5) and serial number. These Radio Holland Morse keys had to suit their particular transmitting equipment and had to comply with the technical specifications prescribed by the regulatory requirements of PTT, the Dutch postal, telegraphy, and telephone communications authority. These required an electrical separation of the rear contact, which involved a wired connection between the 'break' contact and the internal electronics, and a fourth rear terminal in the Junker keys supplied to both the Dutch merchant navy and the Royal Dutch Navy. Other national regulatory authorities across Europe may have had similar or variant technical requirements for Junker keys in order for their use to be approved, and production processes will therefore have been customised depending on the specifications of the end-user.

From 1978 onwards (the earliest date I have been able to find, and as per the date-stamp on the cardboard insulation between the Bakelite sub-base and the steel base) some apparent cost-saving measures were introduced. The (expensive to produce) ball-bearing spring-loaded click-stop gap adjustment mechanism was replaced by a simple rubber 'O'-ring which provided the friction to retain the desired gap spacing. The diecast aluminium cover was replaced by a smooth plastic-resin cover which dispensed with the raised edge profiles and triple-ribbed finger grips of the aluminium version. The former large 'U'-shaped opening at rear became a narrow rectangular slit. The green army version of this latest model is rare, as is the slightly darker green version supplied with their radio equipment by the Rohde & Schwarz company. Most Junker keys in circulation of this 1978-2014 period are of the silver hammerstrike navy/civilian version. Due to the smooth resin covers, the paintwork does not adhere well and is often in poor condition. Production ceased when the Joseph Junker company went into liquidation in November 2014.

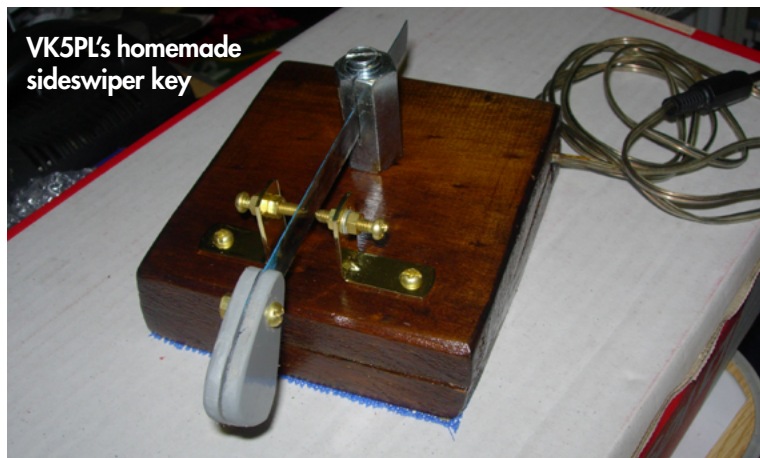## Junker M.T. 1 Mobile Operation Morse Key

The Junker type M.T. key fitted to a leg-clip and intended for mobile army use is known as the Junker M.T.1. Since Germany was not allowed to produce military-related equipment until it joined NATO in 1955, it seems likely that the inspiration for this type of mobile key came from the US Signal Corps J-37/J-45/J-47 key and leg-clip combinations

used by post-war USA armed forces stationed in Germany. The key is mounted on a Pertinax base that slides into the brackets of the leg-clip (Pertinax is a composite material made of paper impregnated with a plasticised phenol formaldehyde resin). A similar distinction as for the M.T. key can also be observed here: the 1955-1978 version still has the ball-bearing and spring-loaded click-stop gap adjustment mechanism. The binding posts are nickel-plated brass. The post-1978 version has the new rubber 'O'-ring gap adjustment mechanism, as well as plastic binding posts. As with the M.T. key, I date these innovations to around 1978, the earliest date I have been able to find. These mobile keys came without a cover.

In the accompanying photograph, the red eagle-shaped inspection stamp in the lower-left corner of the 1955-1978 key has the lettering 'BMVtdg', which stands for 'Bundesministerium der Verteidigung' or 'State Defence Department', and the inspector's number, 117.

The Bakelite sub-base of these mobile M.T.1 keys has narrower dimensions than the 'standard' Junker M.T. key, 53mm x 97mm versus 72mm x 97mm respectively. Even so, it still provides sufficient room for the inclusion of rfi electronics. No documentation survives that provides more specific information about the development of this key (nor indeed for the M.T. key) or its changes over time. Much of the Junker archives were lost during the 1993 river Rhine flood which inundated the basement of the Junker factory at Bad Honnef where the company's documentation was stored. The Junker company and factory in Bad Honnef went into liquidation in November 2014, but by this stage manufacture of these mobile keys would already have ceased, coinciding with the gradual phasing out of Morse/CW by European armed forces in favour of Voice/SSB during the 1980s and 1990s.

I would rate the Junker key (pronounced 'Yoonker') among the top three of straight keys. 'Junk' they are definitely not!

VK5PL's homemade sideswiper key

NATIONAL TRAFFIC SYSTEM NET TRAINING
By ED CONWAY, N2GSL

Some National Traffic System History

The origins of the National Traffic System (NTS) dates to the beginning of radio. The American Radio Relay League, ARRL, was relaying messages by 1914. Dozens of stations were on the air continuously handling traffic. Networks of stations were established. The east coast was well covered. Scheduling and organizing the stations were an issue. The introduction of QST in 1915 helped to maintain the schedules. Six trunk lines were established by 1916. Three ran east-west and three ran north-south. Drills and training led to good success. On February 06 a message was started on the East coast relayed to the West coast. A response was generated, and that answer was received back on the East coast in one hour and twenty minutes total round trip time. [1] The mission then as is the mission today is to relay the message from the origin to the addressee word for word and letter for letter.

Amateurs were off the air from March 1917 to November 1919 due to WW1. By 1921 amateur operators completed a transcontinental relay in 6.5 minutes. Technical improvements such as spark gap transmissions being replaced with CW and improvement of vacuum tube designs allowed for higher frequencies and longer distances. Soon transcontinental contacts were possible.

In 1925 the Army- Amateur Radio System (AARS) was formed. This system's purpose was to provide emergency communications during domestic emergencies, provide communication channels for the civilian components of the armed forces e.g. National Guard, provide a pool of trained operators, provide a means of establishing contact with radio operators, raising public awareness of the Signal Corps, and exchange views on experimental work.

March 1929 saw a new plan for the AARS. Networks for the Army and the American Red Cross were organized in all parts of the country to facilitate communications for distressed communities. The AARS continued passing traffic, moving messages across the county and beyond until 1941. AARS was dissolved due to war and again amateur radio activities ceased.

As the NTS still does today, the AARS passed routine messages as well as priority and emergency messages. LICW member Jim NE0DA provided this example of routine messages handled by the AARS. His YL, Rita NE0DB, found these radiograms (see Fig 1) as she was going through boxes of scrap books from the Young Ladies Radio League (YLRL). These radiograms regarding the QSO party and the participating stations remind us of routine traffic passed today by the NTS. Looking at the bottom of the second radiogram Edward J. Day Jr. W4NG operating station WLMC was the amateur responsible for the radiogram. Using the notation regarding the U.S. Antarctic Expedition daily net we can narrow the date of the radiograms to February 1941. Edward J. Day Jr. and the AARS was officially thanked by the office of the Secretary of the United States Department of the Interior for the services provided to the U.S. Antarctic Service in a letter published in the November 1941 issue of QST[2]. Here is a portion of the letter, "…the expedition owes a great debt of gratitude to: Edward J. Day, Jr., W4NG; WLMC, and B. Aldwell, W6LMB /WLMM, of the AARS for their undivided attention in handling our personal traffic. Mr. Day at WLMC guarded us nightly from 25 November 1939 until 4 May 1941 (that's right - down, there, and back), and something like 15,000 messages passed over this circuit." That is a lot of traffic.

After the conclusion of WW2 amateur radio activities resumed. A new plan for handling traffic nationwide was
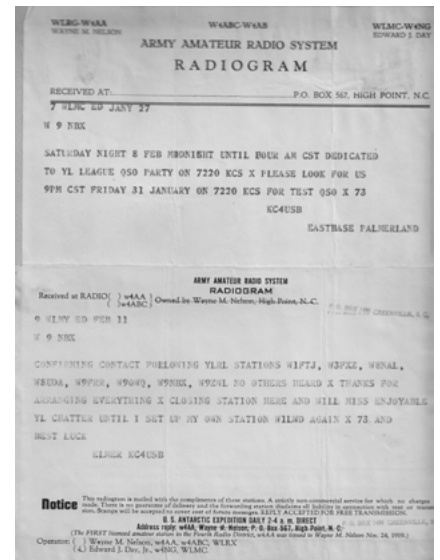
introduced by George Hart, N1JNM in the September 1949 edition of QST (3). This plan is the basis for what we know today as the NTS. If you ever wondered why there were early and late sessions of the same net or what heck is cycle 1 or cycle 4 the answers lie in this plan to enable formal messages to be relayed across the county in a timely matter word for word, letter for letter from origin to addressee. As it stood there were plenty of section sets but confusion rained on how to reliably pass messages out of the section. Net Control Stations (NCS) may have operators to take and move traffic from Alabama to Georgia but not have any path to pass messages to Florida. Large scale nets were very good at moving bulk traffic from fairs, expositions or hobby shows but their coverage could only extend to where they could find experienced operators or their own section nets. Almost all the ARRL sections had ongoing and active traffic nets, but larger region and area nets were not the norm. The new plan called for groups of section nets to be covered by a region net as well as a group of region nets to be covered by an area net. There would be four area nets each one roughly encompassing a time zone. The region nets would roughly cover a call area.

Taking this concept a bit further the nets should meet in timed sequence to facilitate the movement of messages from east to west. The section nets across the time zones meet at the same time "by their clocks" so that traffic moving out of their area could be passed by designated representatives or liaison stations to the larger region nets. Then liaison stations designated by the region nets take traffic going out of the region to the still larger coverage area nets. Area nets then pass traffic to other area nets. The process then reverses itself from the area nets to the region nets and back to the section nets. Therefore, the need for multiple nets each day timed so that there is a way for the traffic to move in and out of the different levels and geographies.

Today much of this plan still exists. There are local VHF and UHF traffic nets as well as section nets. These are the local nets where most messages are entered into the system or as it is said originated. Region and area nets are also still in place. The four time zone area nets have been reduced to three as seen in (fig 2). The need for nets to allow less experienced operators to gain confidence and speed (for
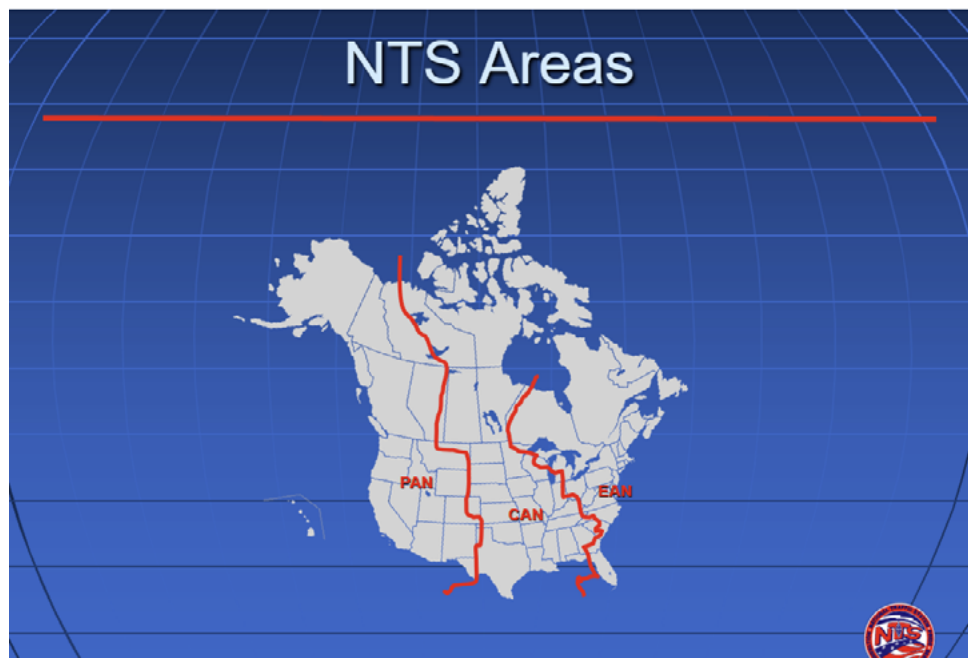
CW operators) was recognized in Hart's plan. Today the local VHF/ UHF voice nets and CW training nets fulfill this need today. CW training nets running at 10 to 13 words per minute can be found across the country. Check out the LICW Slow Speed Net Class Manual in LICW Groups.i/o files area for net listings.

Hart pointed out four things you could do to support the NTS. First, participate in your section (local) nets. Second, originate some traffic to keep the nets busy as "a busy net is a progressive net"[3]. Third, if you have the time make it known to your Section Traffic Manager that you wish to volunteer to take traffic to higher level nets. Fourth, talk about the plan and traffic handling at your club and recruit more operators. All valid points today.

The art of passing messages has been an integral part of ham radio history from the very beginning to the present day. From spark gap to Winlink as technology improved so did the NTS. Today traffic is being relayed by CW, voice and digital modes back and forth across the country. The routine messages allow for training and experience to build so that when the need arises priority and emergency messages can be moved quickly and efficiently to wherever the message destination is.

[1]https://www.qsl.net/d4ares/nts-history.htm
[2]Bailey, Clay W. "U.S. Antarctic Service Expresses Appreciation ", QST, Volume 25 Number 11, November 1941, pg. 17, 68
[3]Hart, Grant "New National Traffic Plan", QST, Volume 33 Number 9, November 1949, pg. 50, 51, 96, 98

RISKY VENTURE CROSS COUNTRY HAM SHACK
By HAL, WA2AKV

Last May 2024, Lorraine and I purchased a 32-foot Winnebago Class C RV motorhome, we've prophetically named it "Risky Venture." This June, we're embarking on a 9 -12 month full time RV journey to explore the USA. Our itinerary includes numerous National Parks, monuments, and lakeshores. We will be combining our passions for earth science and Ham radio, participating in Parks On the Air activities (POTA) along the way.

Our ham-shack/mobile office in "Risky Venture" is all contained in a 18" x 24" x 12" (H, W, D) equipment rack. A 32" monitor affords plenty of screen real estate for office work. The shack/office is located in the bunk room of our 32 foot motorhome. The bunk room is a separate area conveniently located between the main living area and aft master bedroom."

Here is a video of the station on our website here: https://www.rvriskyventure.com/post/ham-station-mobile-office

Here is a picture of the station aboard "Risky Venture"

LICW - SKCC CLASSES
By CATHY, W4CMG

Long Island CW Club (LICW) and Straight Key Century Club (SKCC) – a perfect community partnership for new and not-so-new CW enthusiasts to learn CW, get on the air, and experience a wealth of support from members of BOTH clubs!

LONG ISLAND CW CLUB HAS TWO GREAT OPPORTUNITIES FOR OUR MEMBERS TO LEARN ABOUT THE TOOLS OFFERED BY THE STRAIGHT KEY CENTURY CLUB (SKCC)

• LICW-SKCC Forum on Wednesdays at 12:00 EST in Zoom B
• Get-On-The-Air (GOTA) class on Thursdays at 8 p.m. EST. in Zoom C

These two LICW-SKCC classes are facilitated by SKCC Board members and long-term SKCC members (either in years, experience, or both!) so you get the benefit of working with ops who have been through the experiences of a new CW operator, and who are now regularly on the air.

During the **LICW-SKCC Forum** on Wednesday at noon (EST) sessions in Zoom B, you can bring specific "how-to" questions about the SKCC activities, awards, support materials, tools (SKED Page, Logger, Skimmer) and member "benefits" such as "The Ragchew" Newsletter, the SKCC Buro, and more! Are you brand new to CW and/or SKCC and don't even know what to ask? That's OK, because we can walk through the process of signing up for free SKCC membership, give some live demonstrations of our tools, as well as some basic tips to make your on the air experience great!

Our Thursday **LICW-SKCC Get-On-The-Air (GOTA)** class provides a high-level overview of the SKCC tools that will help you to get on the air with other SKCC/LICW club members if those participating are not familiar with them. Then, if propagation cooperates, you will get on the air with someone in the class, or one if the instructors, to make a guided on-the-air QSO. We will help you get through your initial finger fright to get on the air during our Thursday night Get-On-The-Air (GOTA) class.

If the LICW session days and times don't work for you, SKCC is offering an "**Introduction to SKCC Forum**", open to all SKCC members, including the many LICW Members who are members of both clubs, and want to know more about SKCC, on the first Friday of each month at 1500 UTC (10:00 AM EST) or the following Sunday at 1800 UTC (1:00 PM EST). We cover the SKCC Handbook, basic tools, and have additional Bonus Topics that change monthly, so watch

on the respective groups.io for info. NOTE: REGISTRATION IS REQUIRED since virtual seats are limited. For more details and registration, contact Cathy, W4CMG at w4cmg. skccintro@gmail.com. See you in class – AND CU on the Bands!

THE JOY OF OPERATING FROM DISTANT PLACES
By QUENTIN, K7DRQ

My main operating position, in Western Washington, is not a great station. While I have 100W to put out, my antenna is an EFHW for 40m, stretched out between our house and the close-by neighbor's, and below the roofline everywhere. I typically hear very little on the bands and I don't get much QSO action as a general rule.
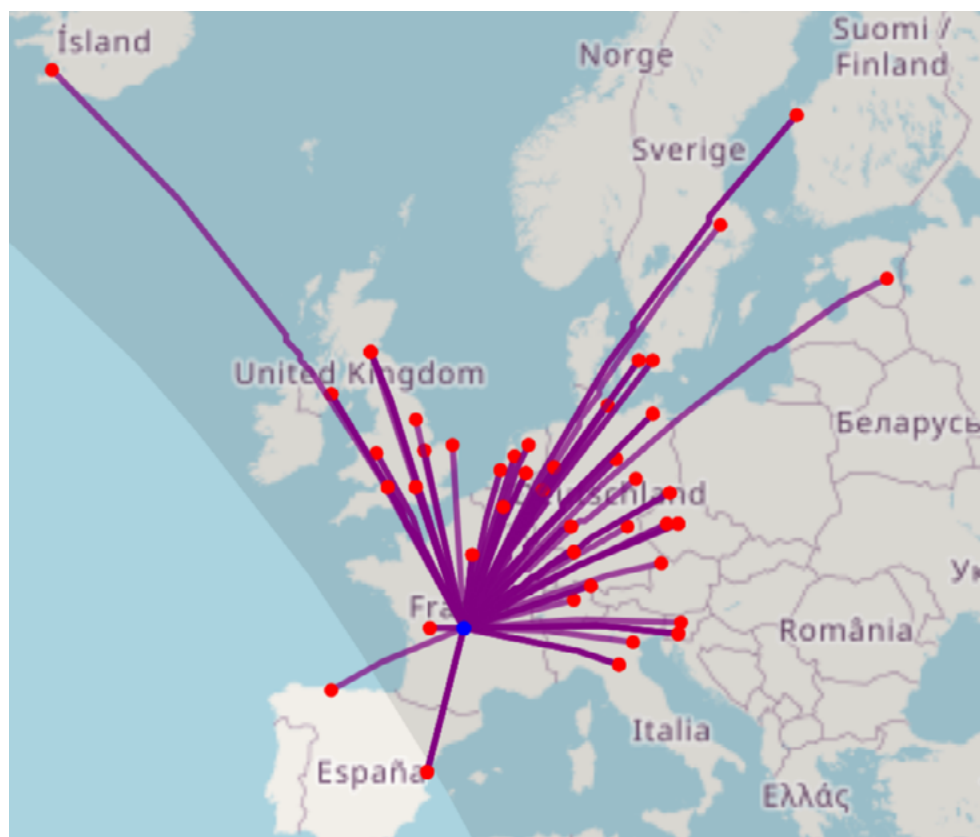
Earlier this month, I was in France visiting my parents. They live in a very rural area, with the nearest village over two miles away, and only a handful of houses in between. For the visit, I had brought with me my portable operating kit : a MountainTopper 4B v2, a SOTAbeams linked dipole, a telescopic mast, and a 3 Ah battery from BioEnno. During some downtime between the copious meals (and vast quantity of cheese), I set up the dipole to direct my signal in an east-west direction, pulled out my 3D-printed CWMorse single-lever paddle, and called CQ.

It's amazing how well you can get out on 5W. After my first couple of CQs (calling as F/K7DRQ), the Reverse Beacon Network showed quite a pretty picture – I was heard essentially all over Western Europe. Within an hour, I'd had contacts with stations in six different countries, several operating on just 1W, and I had a QSO, partly in French, with our very own Jean-Jacques, F5IJO. As it turns out, head copying in French is a challenge !

I suspect operating with a call like F/K7DRQ probably made me an appealing target. In several of the short ragchews, many asked about the prefix, and what an American callsign was doing operating from France. I'd explain that I was visiting family in the Bretagne region. We often chatted about our new year, and spending time with loved ones. I really enjoy these ragchews, especially with folk who are very far from where I typically live. It's great fun to hear about what's going on in their world, and get a brief look into their lives.

In the end, I closed down operations when my fingers stopped working. It was a balmy 2°C (under 36°F) and after a while, I started having trouble sending cleanly. Still, I had a blast; I'm writing my QSL cards to Austria, Hungary, Sweden, France, the UK, and Italy as we speak.

Operating from a new location – be it a different country or even a local park – can offer you different operating conditions. A distinct antenna setup and different local geography can have an immense impact on your operating success, as many frequent /P ops know. If you haven't tried operating from a different location, consider giving it a try. You don't need a full SOTA-style kit – you might be able to operate from your vehicle, or with a friend. Part of the joy of this style of operation is making due with limited equipment. Why drag a three-element beam with rotor and car battery up a mountain, when a piece of wire will do ?

All this to say, when the weather gets warmer, find a pretty place, throw up a wire, and put out a handful of watts. You may be surprised who you hear calling !

WELCOME TO THE LONG ISLAND CW CODE CHALLENGE!

By Kasey, KD2YMM

With a New Year upon us, the first quarter of 2025 has begun and with that comes a 'points reset' of the LICW Challenge. Over fifty operators submitted their scores on the Logger App for Q4 of 2024, with a frantic dash till the end for the top spots!

With the continuation of the weekly GOTA assistance class (Saturdays 17:00 UTC in Zoom C), there is never a better time to get on the air, no matter your operating speed. Full details, rules for participation and past scores can be found at https://licwchallenge.org/

Submitting and tracking your scores has never been easier thanks to the online Logger App located at

https://licw-apps-h96ku.ondigitalocean.app/logger/

Any operator wishing to be listed as a Special station, including the coveted opportunity to use the LICW Club Call, may email kd2ymm@gmail.com.

LICW CHALLENGE QUARTER 4 (OCT - DEC 2024) TOP 10 SCORERS

Rank	Callsign	Name	LICW #	QTH	Total Score
1	K2GV	Jerry	41 I	New York	188
2	KC0DWZ	Don	3982 I	Minnesota	139
3	N0IPA	Jim	588 I	Colorado	110
4	N5DCH	Dave	3064 I	New Mexico	96
5	AI5BE	Tim	882	Mississippi	91
6	K9VIC	Eric	2404 I	Illinois	87
7	KG5LJZ	Jay	5327	Texas	78
8	KQ3Q	Lidiette	4685 I	Florida	57
9	K6TTA	Jeff	6561	California	53
10	WB2KWC	Ken	921 M	New York	47

LICW CHALLENGE AWARDS

As listed on the bottom of the challenge homepage under Prizes, we are happy to announce the creation of downloadable certificates, available at

https://licwchallenge.org/award-certificates/

So grab your favorite key, get on the air and aim for the gold!

ESSENTIAL OPERATING SUBJECTS

By ANTHONY, K8ZT

Notes from Essential Operating Subjects Sessions
• 7 PM Tuesdays on Zoom B with Anthony Luscre, K8ZT
• 10 AM Thursdays on Zoom A with Catherine Goodrich, W4CMG
• 10 PM Thursdays on Zoom A with Catherine Goodrich, W4CMG

What in the world are Essential Operating Subjects?

When you are looking through the extensive and sometimes overwhelming schedule of LICW Classes, you may see Cathy's or my sessions listed as Essential Operating Subjects and wonder, "What in the world is that?" In this article, I will try and answer that question. Unfortunately, it is not as straightforward as "Beginners" or "Intermediate" class descriptions because Cathy and I always cover a wide and varying set of topics. The common thread, though, just like when your mother said, "Eat your vegetables" or "Take your vitamins," is that it is good for you and your LICW progress. As a matter of fact, one of Cathy's sayings is, "Time on the air – get your Daily CW Vitamin – one a day!"

Although our approaches vary, we both strive to help you get on the air and be successful Amateur Radio Operators. We constantly strive to provide you with broader goals, tips & tricks, operating aids, and a wide variety of operating opportunities and activities. These include contesting, POTA & portable operating, award chasing, new bands to try, and more. We also cover tools to help you maximize your experiences with logging & contesting software and QSLing (both traditional and online, including LoTW and eQSL), ways to check your own signal and find other potential contacts with DX Clusters, Reverse Beacon Network and free Online, Tunable SDR Receivers.

We are also there to answer questions on almost any aspect of operating on the air. In addition, we will be providing a little pushing, urging and goal-setting to keep you moving forward in your LICW and Ham Radio journeys.

We encourage club members of all levels and experience to join us weekly, and if the time is inconvenient, view recorded sessions via LICW Dropbox Folders 66. I also maintain a continuing document with upcoming and previous materials from my Tuesday "Joy of Operating" version of Essential Operating Subjects at tiny.cc/joynotes. You can also find Cathy's notes on her sessions in the Recaps Folder in Dropbox 66.

Cathy and I do tag-team articles for LICW newsletters and would love your feedback.

Yet Another Getting On The Air Opportunity

One of the best ways to improve on any newly learned skill is by practicing what you have learned. One of the best ways to exercise your CW skills is to get on the air and operate. One of my suggestions to all new hams or hams new to a mode is to get on during contests.

You have heard me encourage you to get on the air during a wide variety of weekly, quarterly or annual contests and events, including CQ Worldwide, ARRL Sweepstakes, State QSO Parties, etc. But this time, I want to focus on a different type of contest. One without complicated rules, running, rates, multiple multipliers, busy weekends, etc. This contest does not limit you to specific bands or modes. It runs 365 days, and you can pick when to operate. It is the CQ DX Marathon.

The CQ DX Marathon (https://dxmarathon.com) has follows simple premises:
• Use any band from 160 to 6 Meters
• Use any mode (simplex- no repeaters, satellites, etc.)
• Work as many of the Listed Countries (dxmarathon.com/resources/countries -a combination of ARRL DXCC list and Worked All Europe list) as possible
• Work as many of the 40 CQ Zones (dxmarathon.com/resources/zones) as possible
• Add the two numbers together, choose your entry category and submit your score before Jan 5.

Of course, this was covered in detail for my Dec 17 Essential Operating Subjects session, and you can watch the recorded session in Dropbox 66. But having you there for each topic we cover weakly is even more fun.

My topics for the last year have included:

Amateur Radio Logging Software	How to Make That QSO- Rhythm, Rhyme & Dance
ARRL DX Contest	Introduction Amateur Radio Contesting
ARRL Sweepstakes CW	Keeping Up with Amateur Radio News & Events
Choosing Your Ideal Callsign	Log Data Analysis
Contest Logging Software N1MM	Making HF CW Contacts
CQ DX Marathon	Maps & Charts for Amateur Radio
CQ WW CW- Snag Some DX!	Q & A Sessions
Field Day Results	QRP
Guest Host- Cathy Goodrich, W4CMG	QRZ.com
Guest Host- Vic DiCiccio VE3YT	QSLing in a Digital World
Hamfests & Conventions	Recap of Dayton Hamvention
HF Station - "Setting Up An HF Station"	Successful Operating Tools for Assessing Performance
HF Station - "Buying AR Rigs"	The Ten Worst Antennas & How You Can Do Better
History of Callsigns	What is "Joy of Operating" & Who is K8ZT?

Many of the topics have come from weekly attendees, and I am always open to suggestions. Cathy and I love spending our time online with LICW members and helping them with Essential Operating Subjects. Whether it is a how-to, what did you do recently?, why isn't this working?, can you give me more information?, etc. we will spend time during our Essential Operating sessions to help you and each other.

MY JOURNEY WITH LICW
By DON, KC0DWZ

I write this as I celebrate my second anniversary of becoming a member of the Long Island CW Club. As I look back fondly on those two years, I think about all the wonderful members, students, instructors and forum leaders I have had the chance of meeting, either virtually in Zoom or in person at Hamvention (or in one case, a POTA activation!)

A little background first. I had an interest in ham radio since about the age of 11. Not having access to mentors or learning methods in the late 1960s, I knew I had no chance to learn CW. Those old 12" vinyl 33 rpm records with the code at 5 WPM were not doing it for me. I felt I could pass the written test since I had an interest in electronics (later becoming an electrical engineer) but CW was my obstacle. I resigned myself to never becoming a ham. Instead I focused on "chicken band" radio until cell phones came into vogue. Life, career, family, children all occupied my time.

Fast forward to August of 2020. Deep in the middle of the COVID pandemic I saw a video that featured a ham in Ohio who was discussing comms in the case of emergencies. It was interesting; he showed how throwing a wire in a tree and running a rig off of a battery was both easy and could be beneficial. Then he said the magic words: "There are no longer morse code requirements to becoming a ham." My ears perked up; I immediately verified it through several sources, including the FCC, and ordered the Element 2 (Technician) level study guide that afternoon. I took the exam in September, 2020 and passed. I ordered the General (Element 3) study book that day and 4 weeks later passed

the General test. Ordered the Extra book and got my Extra in early November, 2020. I got on the air (HF Sideband) for the first time on New Year's Eve, 2020, using a 40M dipole wrapped around the top corner of my garage. (It was December in Minnesota, after all!)

After being a ham for just over two years and enjoying SSB QSOs with some FT8 thrown in, I decided it was time to confront my demons. I was already a VE so the last hurdle to clear was learning CW. I had first heard of LICW when a net controller, LICW member Ian NV4C mentioned he was going to learn CW through LICW. So when I determined it was time to learn CW, I remembered Ian's comment and investigated. (Trivia note: When Ian went to LICW his class was at the same time as the net we participated on, so I ended up filling in for him on the same net. Not exactly Lou Gehrig replacing Wally Pip!) And today I often run into Ian in the "Ask the Elmer Forum" on Saturdays. Small world.

So when I investigated LICW, I thought it would be what I needed. I even saw Howard on a YouTube stream (not sure which one) and signed up. The lifetime membership fee was a bargain if I could learn CW, and I gave it a shot. It was a great decision and I became a member January 12, 2023 and attended my first class on January 15.

After going through the attendant BC1 and a couple of the BC2 classes, I had my first, extremely clumsy, on-air QSO with one of my instructors Ed B., W4EMB in early March of 2023. He coached me through the exchange on Zoom but the actual exchange was over the air. Feeling energized, I then answered a 10 WPM CQ call by a fellow in NY. I never saw him on the air again so I suspect my novice fist swore him off CW!

In the summer of 2023 I was what I call a "BC5 student" meaning I was on the air and had completed BC1-BC4 but got intimidated by the Intermediate curriculum. Then Howard asked me to become an instructor. (It was at this time I had concern for Howard, fearing me might be suffering from delirium for some reason!) I protested citing I was not qualified but Howard, in his persuasive way, convinced me I was capable and I agreed. It was one of the most satisfying decisions I made as I became a BC2 instructor in October 2023, thanks to my mentor Ron WD0END and the training by Ed B. W4EMB. After about a month of that, Randy KB4QQJ asked me to fill in for him on his Wednesday evening sending class starting January 2024 while he fulfilled his SKCC Straight Key Month obligations. That ended up being more permanent than expected and coincided with my being asked to teach a revised INT 1 curriculum. (Are you starting to get the idea it is tough for me to say no?!) I find great reward in helping students achieve their goals, especially those that have hit a stumbling block or feel they are "stuck." Most students

underestimate their abilities and sometimes it just requires a virtual pat on the back to get them to adjust their approach and restore their confidence. I also try to make students feel relaxed and have fun in all the classes which I lead.

So while the above may sound like a "this is your CW life, KC0DWZ" article, it really is leading to a few points. First, to all the new students who have recently joined, this isn't life or death. Relax and have fun. Second, don't avoid a class for fear of your not being "good enough" or being embarrassed. Trust me, almost everyone has at one time or another felt the same way. Third, don't let class time replace practice time. Class time gives you the tools and methods to learn and improve your CW; practice is what makes it happen. Take it from someone who likely spent more time in class because of the fellowship than practicing those same drills independently. Fourth, don't be afraid to ask an instructor, either in class, Guided Practice, on Discord, or groups.io for help. We all became instructors to help spread the gospel of CW and to develop new ops. Use us.

My final point has nothing to do with the curriculum but rather the benefits of the club. While getting folks on the air with CW is the major goal of LICW, enjoy the access to experts and recorded media available. We have hundreds if not thousands of hours of recorded classes and forums in our archives. Chances are if you have a question or interest in a topic, there is a video on it. Check out our forums: The Antenna Forum, the Ask the Elmer Forum, the Doctor Is In Forum, the Radio and Related Technology Forum (currently providing Basic Electronics knowledge), the Portable Operating Forum, the Boat Anchor Forum, and then all the specialized classes on keys, paddles, bugs, traffic handling, and so on. The material is comprehensive and exhaustive. And the folks who lead these are all subject matter experts and willing to answer all your questions. This is the best AMATEUR RADIO CLUB (not just CW) of which I am or have been a part. The access to the content and knowledge is vast and is worth the price of a lifetime membership. My mantra to others is "Come for the CW training, stay for the knowledge and fellowship."

It really is amazing what the club has evolved to under Howard's leadership and that of many behind the scenes folks who manage the training, the curriculum, the tools, etc. I was member #44 from Minnesota two years ago; today I saw we now have 94. And the current member numbers are about 3,500 more since I joined. We had 3 Zoom rooms; we now have 6. We are increasing our class offerings to accommodate Asia, Oceania and Europe. The main limitation to our growth is instructors. So if you enjoy your learning experience and want to give back to the club as well as gain satisfaction in helping train others, please consider becoming an instructor. You won't regret it. GL ES 73!

A 5/8 VERTICAL FOR 6M BAND
By JEAN-JACQUES, F5IJO

I have had an old CB antenna gathering dust in my garage for over 20 years. It looked like a fairly good quality unit, so I thought it might be converted into a vertical for the 6m band. I searched the Internet for some ideas and found a 5/8 design by F5RCT and G3JVL that I could work from. The 5/8 offers a bit of gain which might prove helpful to extend the reach over Europe.

The whip was of course far too long and was adjusted to 3.40m. The matching coil was also different: fewer coils with a larger pitch (2 coils in series in fact).
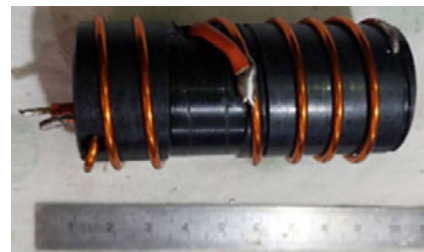
I turned a new mandrel with the longest pitch my lathe would allow, about 7.8mm. The weather protection base then, needed to be longer. I machined a plastic extension, split in two to ease assembly, and also an aluminium ring used to attach the four radials (8mm tubes).
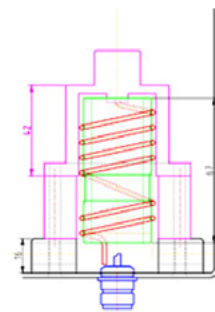
I made a few attempts to find the best tap point, but I was rewarded with good values on my 25 year old MFJ:

It looks good on the test mast, but actual "on the air" tests have yet to be made as I need to erect a tower section with a mast to put it up. Too cold outside for me at the moment, and anyway, 6m really opens up when the sun is higher!