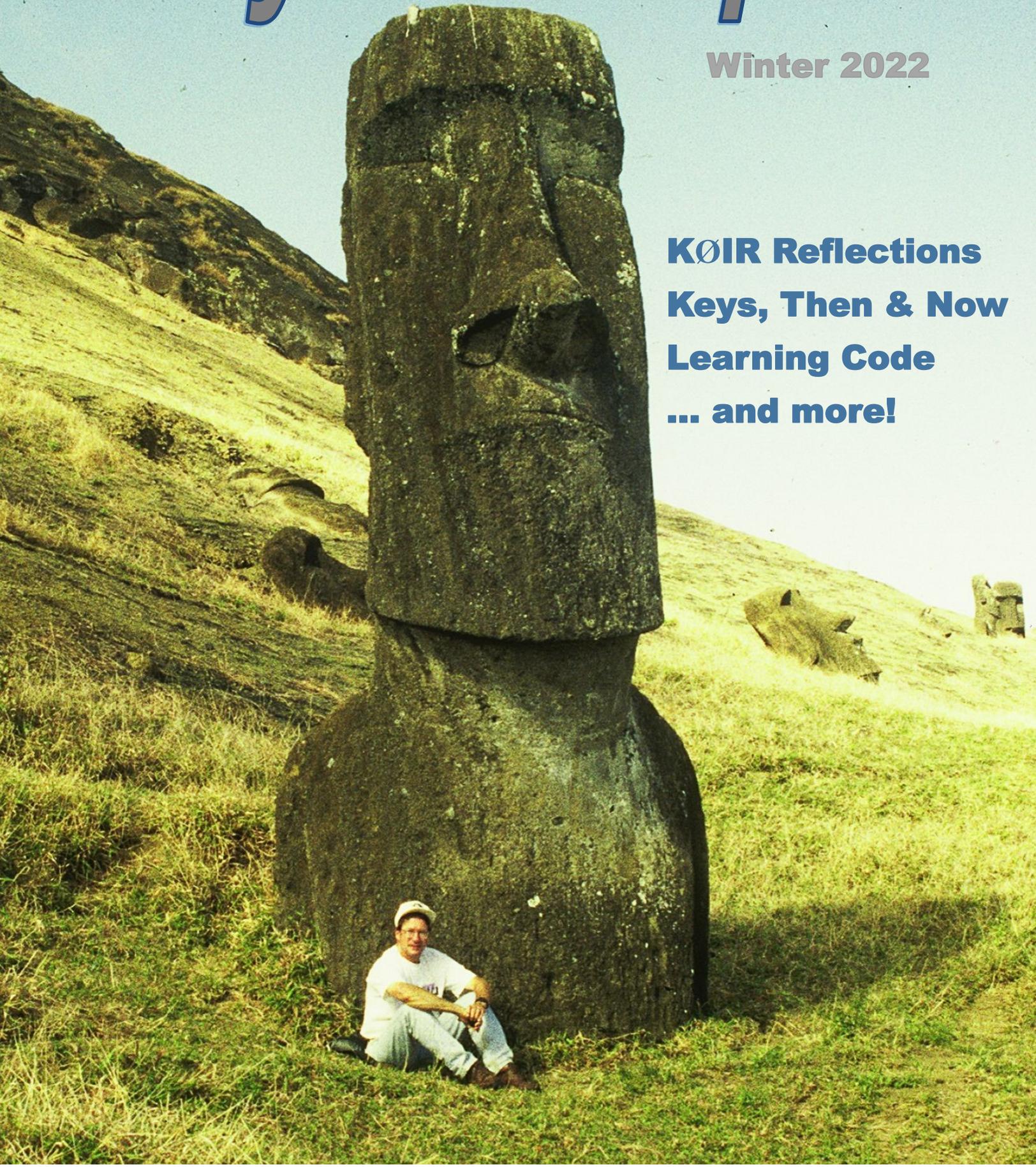


Gray Line Report

Winter 2022

KØIR Reflections
Keys, Then & Now
Learning Code
... and more!





Minnesota

**Newsletter of the
Twin City DX
Association
www.tcdxa.org**



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On the cover...

KØIR exploring Easter Island on one of his many DXpeditions. *See page 3.*

Gray Line Staff...

WØJMP
KØAD
KØJM
WAØMHJ
WØZF

TCDXA DX DONATION POLICY

The mission of TCDXA is to support DXing and major DXpeditions by providing funding. Annual contributions (dues) from members are the major source of funding.

A funding request from the organizers of a planned DXpedition should be directed to the DX Donation Manager, Mike Cizek, WØVTT. He and the TCDXA Board of Directors will judge how well the DXpedition plans meet key considerations (see below).

If the Board of Directors deems the DXpedition to be worthy of support, a recommended funding amount is presented to the membership for their vote. If approved, the TCDXA Treasurer will process the funding..

Key Considerations for a DXpedition Funding Request:

- ◆ DXpedition destination
- ◆ Website with logos of club sponsors
- ◆ Ranking on Most Wanted Survey
- ◆ QSLs with logos of club sponsors
- ◆ Most wanted ranking by TCDXA Members
- ◆ Online logs and pilot stations
- ◆ Logistics and transportation costs
- ◆ Up front cost to each operator
- ◆ Number of operators and their credentials
- ◆ Support by NCDXF & other clubs
- ◆ Number of stations on the air
- ◆ LoTW log submissions
- ◆ Bands, modes and duration of operation
- ◆ Previous operations by same group
- ◆ Equipment: antennas, radios, amps, etc.
- ◆ Valid license and DXCC approval
- ◆ Stateside and/or foreign QSL manager
- ◆ Donation address: USA and/or foreign

To join TCDXA, go to

<http://tcdxa.org/>

Where it all began, Thule Island in the South Sandwich chain. Fouled by centuries of accumulated guano, wreckage from the Falkland Islands War, and some of the planet's worst weather, this is one of the most inhospitable places on earth.



Reflections on a Lifetime of Ham Radio

By Ralph Fedor , KØIR

A 13-year-old boy unhooked the latch of a 2 ft. by 4 ft. wooden door; stooped over to enter the attic of an old farmhouse near Lakefield, Minn.; and changed his life forever.

Light from a single small window shown upon the wooden case of an old radio. I soon removed the case, carried my newfound treasure to an electrical outlet, plugged it in, and marveled at the glowing tubes and other mysterious components on the metal chassis. I attached a piece of wire to a terminal marked, "Antenna," and heard WCCO from Minneapolis loud and clear. That night I heard KAAY in Little Rock, WLS from Chicago and KOMA from Oklahoma City. Soon I noticed an SWL band and was treated to CBC (Radio Canada), HCJB (The Voice of the Andes), and the BBC. I was amazed and astonished.

There was a small segment on the dial marked, Amateur. I listened there and heard nothing. But my interest was piqued. What was this? I pursued the question relentlessly and ultimately learned that my rural mailman, Bud, was one of these "amateurs." I met Bud at our mailbox, asked him about this and was soon paging through *Allied Radio*, *Burstein-Applebee*, and *World Radio* catalogues. My first purchase was a book, *Understanding Radio Electronics*. I also discovered the *Radio Amateur's Handbook* in the school library and devoured it. AC and



Peter I lies below the Antarctic Circle and is essentially inaccessible except by helicopter. In gleaming sunshine it is pristine and majestic. But do not be deceived. Howling blizzards can take you to a white out within minutes.

got my brain to settle on International Morse and never looked back.

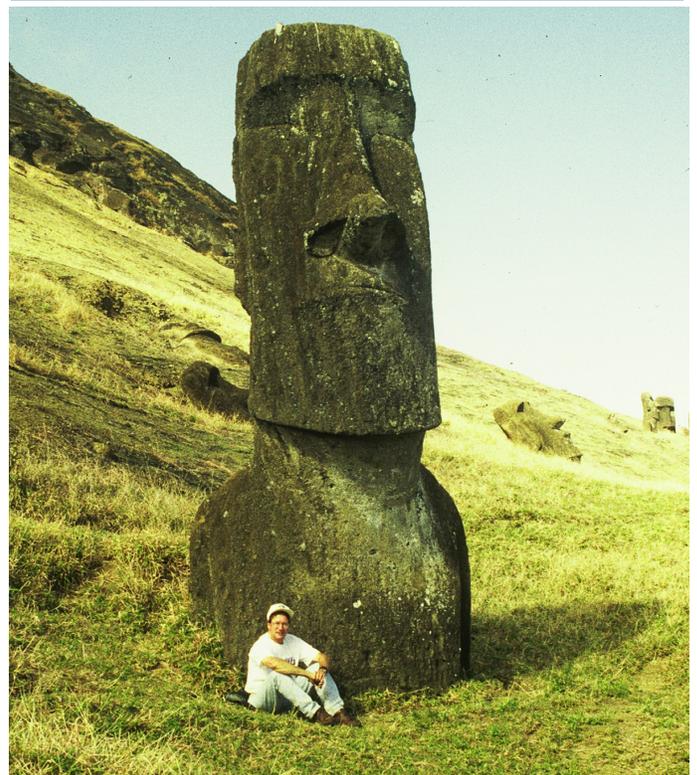
By now, three years had passed. I had my receiver, a functioning antenna, and I knew the code. With continued saving and

DC, capacitance, inductance, reactance, and resonance became part of my vocabulary, and I continued my mailbox visits with Bud, who was WØGBZ (SK). I wanted to become a ham like him.

Bud told me what I needed: a receiver, an antenna, and then a transmitter. I researched my catalogues for these, marveling at the choices. But I was missing one key element, money. I saved every nickel, dime, and quarter I could get my hands on and in a year and a half I purchased a used Hallicrafters SX-99 receiver and put up an 80 meter dipole. Now it was time to learn the code. But there was a problem.

When I was in the fifth grade, I wandered into the railroad depot in my small hometown while my parents were shopping for groceries. The depot agent spotted my interest in his telegraph, took me under his wing, and during my parents Saturday shopping days, he taught me the Morse code. But this was Continental Morse. Hams used International Morse. For a while I had two sets of code in my head, the clicking of Continental Morse and the tones of International Morse. It took a bit of doing, but ultimately, I

Easter Island: The stone moai know its history, but they are silent and leave us in wonder. It was a fabulous place to explore and conduct a game-changing DXpedition.





Landing on Heard Island in 1997 to conduct the VKØIR DXpedition. The wreckage of the old ANARE station is in the background. One word best describes Heard Island – wind

money from some odd jobs, like pulling weeds out of soybean fields, I now had enough money to buy a Globe Chief transmitter kit and an 80 meter crystal from World Radio. Bud gave me my novice test, I became WNØABU, and on August 14, 1961, I made my first QSO with KNØHKT in Minneapolis. A month later someone gave me a 40 meter crystal and I expanded my horizons. I had to be careful and not get too excited when I made contacts because any movement of my desk would send my SX-99 adrift, swinging back and forth across my tuned frequency.

The black rock on Heard Island smoothed by blowing sand. This was the VKØIR SSB position; a very nasty place to be when storms moved through.



In three months, I was ready to upgrade to a general license, but there was another problem. For our family to venture outside a radius of 20 miles from our farmhouse was almost unheard of. There was no way I was going to get to the FCC office in St. Paul 180 miles away. Bud gave me a conditional license examination in December, and I became WAØABU on February 4, 1962. I bought another crystal which put me on the MSN (Minnesota Section Net) CW frequency. There, I got a taste of CW traffic handling. When I accumulated another \$175 by saving and detasseling corn, I sold my Globe Chief and bought a used Viking Ranger and D-104 microphone. Since no traffic flowed into or out of Lakefield, I became a liaison station between the MSN and the Tenth Region and Central Area nets. I also enjoyed regular chats with young hams of my vintage on 75 meters and marveled how far my 20 mile radius expanded on 10, 15, and 20 meters. Then, a gargantuan event occurred on April 1, 1962. I worked my first DX. I worked Luke, YN9CIL. He sent me his QSL card and set the hook for my love of DX.

After long, arduous negotiation with The U.S. Fish and Wildlife Service, WØGJ, K4UEE, and NA5U finally secured permission for the K5D DXpedition. Once ashore and with all the bureaucracy behind us, the USFWS personnel and the DXpedition team worked well together. The team netted 115,590 QSOs.



I would go on to work Hawaii, Alaska, Canada, the Canal Zone, and a few Caribbean stations but my low power and low antennas could do no more. “How’s DX” in *QST* was an undiscovered world for me. True DX was 10 years away and radio doldrums lay ahead.



I entered the University of Minnesota in 1963. I had to get the most bang for the buck which meant maximizing credits per quarter, working as many hours as I could, and minimizing sleep. I was a student -- and a janitor, laundromat worker, toilet cleaner, truck driver, chemistry lab assistant, physiology lab assistant, and circuit board assembler. I graduated from the University of Minnesota Medical School in 1970, interned in the war zone known as Hennepin County General Hospital (the old one), and was drafted into

the U.S. Army in 1971. Besides having little time for radio, I entirely missed the hippy movement, the protests, the drug culture, and Woodstock. I was simply too busy; I hardly knew who The Beatles were. I returned to the University and VA Hospitals in Minneapolis for a radiology residency in 1973 and rewarded myself with a new Drake C-Line, a Mosley TA-33 antenna, and a homebrewed KW amplifier. Now I could get a signal across the ocean and I, once again, became that 13 year old boy opening the attic door as the world of DX unfolded before me.



I began practicing radiology in St. Cloud in 1976 and worked lots of DX, did some contesting, and became KØIR. By an odd set of circumstances, I became a team member of the 1992 South Sandwich DXpedition, VP8SSI. We were an eclectic group: WA4JQS, K3VN, KJ9I,

VP8ORK, The South Orkney Islands: The mountains to the right compromised our path to North America, but we netted 63,643 QSOs, enjoyed the welcome of the British Antarctic Survey station crew, and had decent weather.

W7KNT, JE3MAS, W6MBK, the legendary Martti Laine - OH2BH, and me. Most of us had no major DXpedition experience and were bound for a trial by fire in a foul and icy place that Captain Cook called “The most awful place in the world.” The wind, the cold, rain, snow, incredible filth and stench, and even more wind told us that Captain Cook knew what he was talking about.



In 2011 I traveled to Bhutan with WØGJ, WØBM, UA3AB, W8AEF, and our wives. It was a fantastic trip – the other side of the world, a very different culture, great hospitality, DX, and happy wives! From the left: WØGJ, WØBM, and UA3AB.

After we landed; rather after we were hurled ashore from a Zodiac capsized in the surf, I wondered about my new friend, Martti. Could I measure up to his standards? Would I be humiliated? Would he seize the credit and leave crumbs for the rest of us? As the howling winds tore apart our shelters, Martti’s integrity, skills, teaching ability, insight, and encyclopedic DXpedition knowledge became apparent. The island taught me that Nature is always in charge, and that my choices were adaptation or perishing. Martti Laine taught me how to be a just human being in the DX community. After just under 40,000 QSOs, having our shelters nearly destroyed, and the weather worsening; we proceeded to South Georgia, VP8CBA. It was a much more hospitable place.

Two years later helicopters from the Russian icebreaker, *Kaptain Klebnikov* put nine of us ashore on Peter I. The ship then departed for New Zealand, and left us there alone to conduct the 3YØPI DXpedition. I learned damage control and the importance of a coherent, mission-oriented team with mutual trust and respect and the need for a plan to maximize all your resources. Three weeks later the Russian vessel, *Akadedic Fedorov* called at Peter I. The vessel had to wait offshore for the weather to clear, but finally helicoptered us and our gear aboard the ship. We survived and despite the challenges, netted 62,500 QSOs. This DXpedition was likely to be the last of its kind, for the world was about to change.

Malpelo – A rough, steep, barren rock 300 miles off the coast of Columbia is the breeding ground of thousands of hammerhead sharks and was the site of the 2012 HKØNA DXpedition which netted 195,331 QSOs.



In 1995 I was part of the Easter Island XRØY DXpedition team, led by Dr. Robert Schmieder, KK6EK, who changed the growth of DXpedition technology from slow and linear to exponential. Extensive use of the internet, electronic QSO confirmation, web sites, beacons, online logs, and regular uploads of DXpedition news and data were introduced or enhanced on Easter Island and carried forward.¹ New technological doors were opened wide.



The base camp and main station for the HKØNA DXpedition. The 300 ft. rock rising behind the station blocked the path to Japan so we scaled the rock and established station on the high point of the island to give our Japanese friends the QSOs they so badly wanted.

After a transportation implosion in 1996, the vessel *Marion Dufresne* ultimately took 20 of us to Heard Island the following year. The vessel arrived on the evening of January 11 and by the end of the 12th, the ship's helicopter had all of our team and equipment ashore. We took with us the lessons learned from Easter Island and two men, KK6EK and ON6TT were invaluable in the DXpedition's execution. There are hundreds of memories, but I especially recall making VKØIR's first QSO with ON4UN, coffee

A helicopter from the Dominican Republic flew our team from Jamacia to Navassa for the K1N DXpedition. Team members are shown erecting one of the 2-element SteppIR antennas we used on the high bands. The team made 140,011 QSOs.



mugs hanging from the shelter frame and clattering in the wind all night, and Bob, K4UEE, mentoring (a euphemism) a wanna-be 160 meter operator whose abilities Bob found wanting. The *Marion Dufresne* returned for us two weeks, and 80,000 QSOs later. The DXpedition was termed "magic" and we felt it

The VP8SSI, 3YØPI, and VKØIR DXpeditions were unique in that there was no off-shore support for us. A ship landed us and departed. We were entirely on our own with the nearest human being as far as 1200 miles away. I doubt that this will happen again.



Fuel, generators, a shelter, and station equipment were laboriously hauled to the top of Malpelo for a clear path to Japan. The hike there alone was a challenge.

There were return trips to South Sandwich (VP8STI) and South Georgia (VP8SGI) and a trip to the South Orkneys (VP8ORK) -- all with James Brooks, 9Y1YC, one the hobby's finest operators and videographers. I visited Peter I (3YØX) a second time to find an equally hostile but much wetter environment. During the permitting processes, I worked with The National Science Foundation, The U.S. Environmental Protection Agency, The British Antarctic Survey, The Norsk Polar Institute, The Alfred Wagner Institute, and The Australian Antarctic Division. With each passing year, the permitting process and environmental impact documentation became more and more complex. The trend continues.



We operated from two sites on Amsterdam Island, FT5ZM. The Antonelli site is shown above. (EY9MM Photo)

I got a taste of warmer places like Malpelo (HKØNA), Desecheo (K5D), Navassa (K1N), Reunion (TOØR) and Saba PJ6A. My appreciation for monoband beams, tall 160 meter antennas, and amplifiers grew. Being heard is important and gives everyone in the DX audience a better chance of working the DXpedition. DXpedition results and success continuously reinforced my feeling that, next to the composition of the team, propagation study and understanding is the single most important variable influencing the success or failure of a DXpedition. It determines everything – fuel required; the number of stations, antennas, generators, and operators needed; and the amount of sleep you will get. Bob, KØRC, was a tremendous asset in many of my DXpeditions. Bob developed a dynamic Xcel spreadsheet making the operator scheduling process much easier, equitable, and productive.

The realization of a dream team, no compromise equipment, serious propagation research, and an idyllic environment occurred on Amsterdam Island (FT5ZM). A 9-day voyage to the island with the crew of the indomitable *Braveheart* gave us time to bond and plan our operation. The hospitality of the 20 member French team stationed on Amsterdam was incredible. We erected 8 monoband beams and multiple low band verticals,

including a 90 ft. 160-meter vertical fabricated by one of the greats of 160 – Nodir, EY8MM. It was hard work, but we relished the experience and netted 170,110 QSOs. I can still see Jerry, WB9Z, in the moonlight huddled under a tarp and handling out hun-



If you worked FT5ZM on 160, thank this man, Nodir – EY8MM. He pieced together a 90 ft. 160 meter vertical and a receive antenna complex almost unheard of on a DXpedition. He is shown here at the 160 operating position. (EY8MM self photo)

dreds of QSOs. After riding high on the crest of FT5ZM, dealing with the disappointments that followed was difficult.

I have chronicled the 2018 failure of our Bouvet DXpedition attempt elsewhere.² I needed a success story to follow that scenario and planned the Pitcairn Island DXpedition, VP6R. A week before our departure date I became very ill and was hospitalized. I stayed home and handed the reins to Glenn, WØGJ, who rewarded our audience with a fine DXpedition. To date, I have not ventured out on another trip but remain hopeful.

I served as the team doctor on several of these trips and saw severe seasickness, seal bites, fractures, a panic attack, common colds, psychosis, dislocated joints, interpersonal conflicts, drug abuse, the best of men, and the worst of men. I witnessed saving the life of a young seal entangled in a fishing net and a penguin entangled in debris from the Falkland Islands war on South Sandwich. I saw a *Braveheart* crew member dive 100 ft. into icy waters to free the anchor of a stranded Russian fishing vessel and met a man who crashed his DC-6 into the ice at Patriot Hills in Antarctica. I recall the hospitality of Con-

chita and her father at Reunion Island, reading a novel into a recorder for a young Russian sailor so he could practice English, rescuing a very seasick sailor, working with the Alfred Wagner Institute to recover a seismograph on Peter I, arguing with the invincible Nigel Jolly, rendezvousing with a sailor circumnavigating Antarctica in his sailboat, touring the Antarctic bases on King George Island, flying across the Drake Passage in a Uruguayan C-130, boarding Russian ships and helicopters, and celebrating my birthday aboard the *Marion Defresne* on the way to Heard Island. But above all, and what will always stay with me, is the sanctity of a select group of selfless men who put aside personal ambition, build mutual trust, use their collective intellect, watch out for each, and thereby achieve success for the team.

Amateur radio and DXing took me out of the 20-mile radius I knew as a boy and extended it to cover the surface of our Earth. It has given me friends on every continent, permitted me to place my foot on each of those continents, and allowed me to experience the inexpressible wonder of it all.



From the left: OH2BH, W6MKB, KØIR, WA4JQS.

The inexpressible wonder of it all.

Endnotes:
1-Robert W. Schmieder, KK6EK; *DX-Aku: Messages from the Easter Island Expedition*, Walnut Creek, CA, Cordell Expeditions, 1996.

2-Ralph Fedor, KØIR; *The Gray Line Report*, vol. 15, Issue 2, June 2018.

The classic J-38 straight key, the first key owned by many.



Keys, Then and Now

Collected by Danny Dantzer, WØJMP

Most of us are of the age where our ham radio career by necessity started with Morse code. And Morse code required a key. Many of us started with military surplus keys, most notable the venerable J-38 Army Signal Corp training key. Most of us started on a budget and started with what we could afford. Then, as our ham careers (and hopefully our budgets) progressed, we developed a fondness for certain keys. Some of the fondness is justified, but some is like the age old “Ford vs. Chevy” comparisons. So we polled our members about their favorite keys and paddles, back when they started and now. There is some similarity in the responses and, like automobiles, a lot of variety. Here is what our members said:

Al Dewey, KØAD

There are two CW keys / paddles in my shack that are especially meaningful to me. The first is my old Vibroplex single lever paddle. I purchased this with my paper route money back in the very early 1960s shortly after passing my novice exam. I went on to use it for over 3 decades with a variety of different keyers over the years. I finally retired it in the early 1990s when I purchased an updated chrome plated version of basically the same paddle from Vibroplex. That is the paddle I use today although I often pull out the old green one for use on Field



KØAD's J-38 and Vibroplex

Day or when operating portable somewhere. The straight key pictured has a different story. In 2015, I retired from a 20 year career at Emerson. One of my work colleagues (Skip), who I worked with almost every day, got to be a real good friend. He was not a ham but knew I was, and knew that I operated "Morse Code" a lot. He talked to another ham at Emerson and asked what might be a good gift for a ham that operates Morse Code a lot. He mentioned to Skip that I might like a classic J-38 key. Skip found one somewhere (Ebay or Amazon) and purchased it. Being a wood worker, he built and finished a beautiful base for the key. Skip presented this to me at my retirement party and I was really touched by

his thoughtfulness. In his honor, I take it out every New Years and get on the air for ARRL Straight Key Night.

Bill Meeker, KØKT

I started (in 1963) with a J-38, which I still use today when I need a straight key. There was a bug at our high school club station, but I could not afford one of those. Instead, I built a sideswiper (I did not know it had a name) from an old hacksaw blade, a few nuts and bolts from my father's coffee can of such things, and scrap lumber. That was effective, provided some speed, but probably sounded pretty bad. I was one of the first to order a Heathkit HD-10 when it became available. At some point I graduated to a second-hand Hallicrafters HA-1 keyer and non-iambic paddle. After getting out of school and getting a job, I was able to purchase an MFJ Grandmaster Memory Keyer and a Bencher paddle. I still use the latter.



Flameproof Navy key from WØJMP

Danny Dantzler, WØJMP

My CW experience has waxed and waned over the years as has my time spent enjoying the hobby. I started in 1963 with a cheap plastic-base key from Burstein-Applebee. It cost around a buck. I had some rich friends that bought J-38's but they were around



Keyers & paddles at KØKT

three bucks, out of my price range. CW never came naturally for me. My novice station was very poor and I didn't make many contacts. I flunked the 13 WPM exam for the General first time around and then with my Tech license became active on 6 meters. I finally passed my General and got active on HF CW for a few years. Sometime in the late 1960s I acquired an enclosed flame-proof navy key that I used for many years. It had an OK feel but required disassembly for adjustment. I also acquired a J-47 (J-37 key on a black plastic base) which was a solid key. I bought a 1943 Vibroplex bug sometime in



WØJMP's Vibroplex Bug

the station changes and not have to learn the keyer in the rig. Working DX on CW, as you know, is really just pressing buttons. The skill is more in finding stations, figuring out where to call and timing. Very little actual CW skill is required. So the Winkeyer and Bencher paddles still are the backbone of my HF DX experience. I never had long QSOs with the paddles, so the BY-1 is perfectly fine for me.



WØJMP's J-47 key

A couple years ago, a friend got me interested in SKCC. Then I started having long QSOs with the straight key and wanted something better than the old J-47. I started buying and trying different keys to find one that I liked. It is hard to describe the "feel" of a key. You just have to experience it. After many tries, I ran across the Nye-Viking Speed-X rectangular base key. I mounted it

the late 1960s but never mastered it. I was not too active from 1970 until 1995. I was on the air a bit in the mid '70s. I had a young son and a wife that was an RN and went to work very early. CW with headphones was the ideal mode to let the rest of the house sleep. In the mid 1990s I became active again using the old J-47 key and an old Curtis keyer with Bencher paddles. About 1997, I moved into a house where I could actually set up a decent HF station. I put up a tower for the first time in my ham radio career and became interested in DX. The Curtis was replaced somewhere along the line with a K1EL Winkeyer which I still use. I like it because I can just switch it from rig to rig as



BY-1 and twin SpeedX at WØJMP

on a 4x9 piece of 1/4 inch thick aluminum plate. This was the key I liked! I also operate in VHF/UHF contests and sometimes need a straight key to operate there. I bought an oval base Nye-Viking Speed-X thinking it would have the same feel. It doesn't. So I went searching for another rectangular base. I found a newer model and bought another chunk of aluminum. I thought about mounting both on the same base but having them on separate bases allow more flexibility for future shack layout changes. I now have the "twins," blue key hooked up to HF and the red one for VHF/UHF.



German WW2 key at KØIEA

Recently a friend wanted me to clean up two J-38 keys. She and her husband were both licensed as teenagers in the 1950s and one was her key and the other her late husband's. I did not want to damage or devalue the keys so I did a lot of reading on best methods. K6IX has a wealth of information on J-38 keys so I used his directions for cleaning. <http://k6ix.net/J-38/J38Clean.html> One of her keys is a Lionel and the other an "ARH Type" where the base is white metal. They

cleaned up nicely but were incomplete and had many years of hard use on them. She has been slowly getting rid of many years accumulation of ham gear. I have been trying to help her identify and price the gear as she disposes of it. She recently found another J-38 (brass frame type) and gifted it to me. It is complete and mostly unmolested. I hooked it up and we had a QSO with it. Thank you K4SAF! This is the first J-38 that I have owned. It is a solid key but for daily use, I will stick with my Speed-X. Eventually, I will clean my new J-38 up as well and it will just be for display or maybe use on SKN.

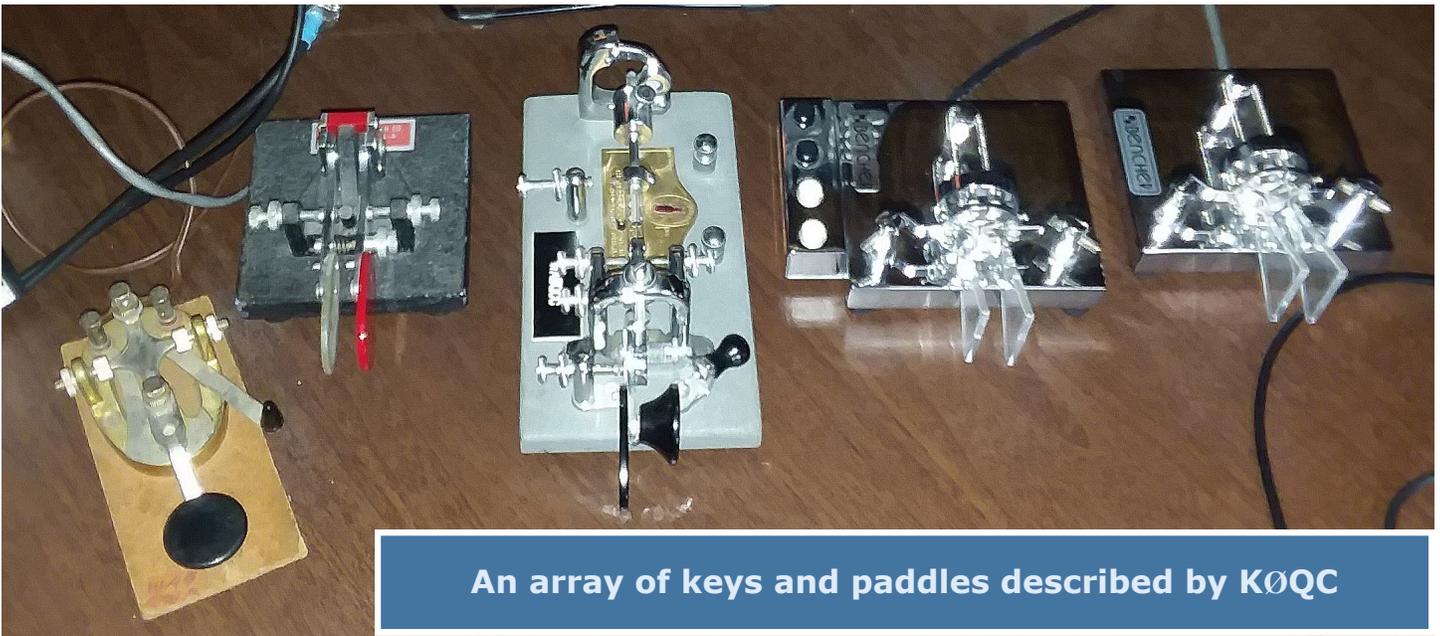
Dave Wester, KØIEA

This hand key was used in WW2 on a German Sub. Jim Junkert brought it back from Germany in late 1957 after serving in the US Army, and gave it to me. Jim and I met on the air, 3 August 1957 on 15m CW. It's a very unique straight key.

Donn Taylor, KØQC

Attached is information on the keys I've acquired and used since my novice in 1965. The first key is a J-18 brass type. It is embossed Japan on the back. Have zero recall of where I got it or how much I paid. It may have been sourced from the Lafayette Radio catalog. It served me until I upgraded to the Vibroplex Original Standard S/N 246954. I got this for a Christmas present in 1966.

I built a WB4VVF Accukeyer in the '70s and then needed a squeeze type key, so I bought the Brown Brothers Machine Company Model BTL-A. Cost was \$24.95. The dit paddle broke, so I improvised a piece of FR4 circuit board. I see there are replacement plastic paddles available on eBay, but I will probably fabricate a replacement myself. I just need to source the plastic blank. This is the key I take when I take my radio



An array of keys and paddles described by KØQC

on vacation. It has a great feel. There is zero vertical slop in the key

The last two keys are Bencher BY-1. One has 4 memory push buttons for the Logikey Model K-1 I now use. I bought the second Bencher for when I had two radios set up, but now have one for the keyer and one for the K-3. Think I paid about \$75 each for the Benchers.

Overall, I really like the feel of the Benchers. The bases have good weight and are very well built.

Gary Hosler, WØAW

I've been using the Begali paddles for about 15 years or so, and the enjoyment hasn't worn off yet.

I used a Bencher for a while, but I wasn't impressed. I also used a Vibroplex keyer, and then tried a set of Mercury paddles and was taken with the feel of the magnetic action. The Begali is also a magnetic action, and just felt oh so right. I had also tried to teach myself how to use a Vibroplex bug, but sending with my left foot would have sounded better.

I know that a bug can sound awesome. A friend (KUØS) could make music with one. Most of the guys that could make a bug sing were railroad operators, or old guys with experience out at sea. I'm an old guy and was in the Navy, but never on a ship. That's my excuse and I'm sticking to it.



WØAW's Begali paddle

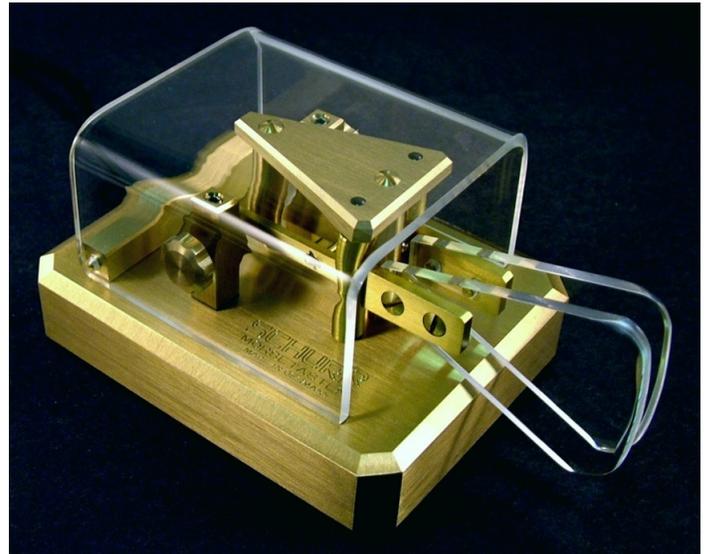
Glenn Johnson, WØGJ

I was licensed in 1966 and used a brass straight key glued to a piece of Masonite. There are no markings on it that I know of. Maybe underneath, but it is glued quite solid. In three months, I had worked all states as a Novice with only three crystals that covered the 80, 40 and 15M Novice bands. I had a Johnson Adventurer transmitter and an RME 6900 receiver. This key was given to me by my Elmer WAØOAI (SK). I still use it every year for SKN with my Johnson Adventurer and RME 6900.



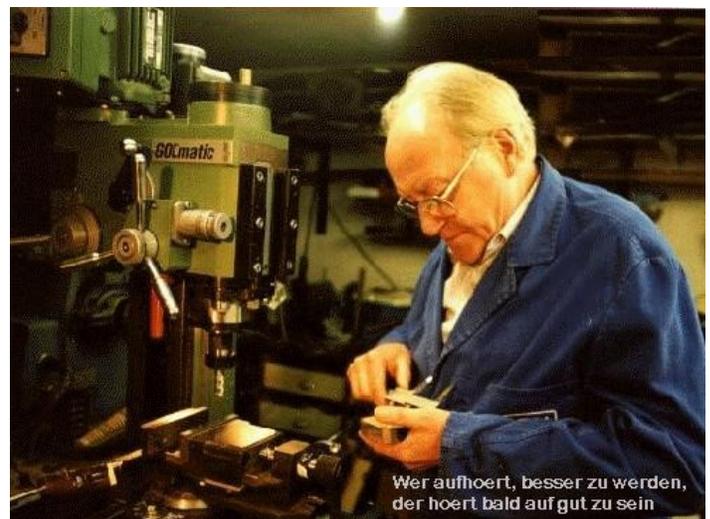
Old brass straight key without a known pedigree at WØGJ

The key I use the most is the Schurr Morsetasten Profi 2, THE VERY LAST KEY made by Mr. Gerhard Schurr DH2SSA (SK) of Germany. His company was Schurr Morsetasten Paddles & Keys.



Schurr Morsetasten Profi 2

I have several Schurr keys, but the last one he made after more than 30 years is very special. I got a very nice note from him about this key and his retirement. They are SILKY smooth, very heavy and never wander around. My Schurr keys drive a FlexRadio ecosystem (6700, PGXL, TGXL, AG), quite the opposite of the Johnson Adventurer and RME 6900!



Gerhard Schurr making his precision Morse keys. The translation: "If you stop trying to be better, soon you will stop being good."



WØGJ also has a couple Schurr Portable Wobblers for portable work. This one has been around the world many times on many DXpeditions.

Along with the note about the last key he made, Mr. Schurr sent a few little brass tags with my callsign to put on my Schurr keys. Thank you, Mr. Schurr!!!

Hans Brakob, KØHB

My first key was a J-38 that my Dad found somewhere for me, I have no idea where. I still have it. In (about) 1963 I sunk a couple of Navy paychecks in a Vibroplex "Presentation" which had a gold plated cov-



The Schurr Morsetasten Profi 2 and the Schurr Portable Wobblers side by side at WØGJ

ering on the base, and a fake "ruby" bearing on top of the arch. Had to get a special permit to use a "speed key" on Navy circuits in those days.

Then I moved "uptown" and built a Heathkit electronic keyer HD-1410, a little box with paddles on the front and no memory. Tension and contact spacing adjustments required removing the cover! I learned "squeeze keying" on that. I sold the Vibroplex and never used another "bug." After that, I built another Heathkit, the SA-5010 "uMatic" memory keyer. That had "capacitive effect" paddles.



KØHB's first key, a J-38, and last, a set of Begali Contour paddles. Both are hooked up, and both get use.

When rigs started having onboard keyers I went to a Bencher BY-1, and later a Kent TP-1.

And finally, a few years ago at Dayton, I2RTF convinced me that I needed magnetic -return, and sold me a "Contour." Where the heck was he back when I was mangling Morse with those Heathkits!

Jim Janke, K9DU

My first key was a cheap hand key. I connected it to a code practice oscillator to gain

CW sending proficiency for my novice exam. I continued to use that same hand key when I got my novice license but replaced it with a Vibroplex bug that I used for a couple years before getting a keyer. At that point I acquired a Vibroplex keyer paddle and sold the bug. I still use that Vibroplex paddle as my one and only paddle. A few years ago I looked up its serial number on Vibroplex's web site and found that it was manufactured in 1960. It's needed a couple replacement parts over the years. Although I've used other paddles at other stations, I find the Vibroplex paddle still fits my needs.



K9DU's Vibroplex paddles

Kirk Pengelly, NØKK

My first key(er) was one I built in 1976 — the Heath "Electronic Keyer" that I still use with my HW-8, also from 1976. This is the keyer that lit my love of CW and it's still as strong today as it was then.

When I came back on the air in the '90s after a hiatus, I bought the Bencher that I still use today most of all. It's solid and sure.

Speaking of Schurr, I was gifted my Schurr portable keyer from DL6LAU after we'd met at J3 for a CQWW DX CW event. Carsten came to Minnesota to visit our family and



NØKK's impressive collection

gifted me with this wonderful key direct from Gerhard Schurr.

After many years of multi op contests at WØAIH, I treated myself to a Vibroplex Bug. It's something to master for sure! Fun and nostalgic.

Larry Menzel , WØPR

I started with a J-38 strapped to my leg as I drove my 18 wheeler down the road, I switched to a Bencher BY-1, and then to another Bencher BY-1 chrome.

When I finally got a shack, I started to go through a bunch of different ones. I had a Schurr Morsetasten (two of them), several Begali models, a Magnetic Classic and a Graciella,

I picked up a Kent, a Brown Brothers,, a Vibroplex paddle and several others over the years. All of those are now gone. I finally settled on a Bencher Mercury (serial #1146)



Paddles at WØPR



KØDPT's Vibroplex Bug. Note the extra weight on the end to slow it down

and I've used it ever since. I have two paddles now, the Mercury and one I picked up off eBay that I like the look of and it works pretty well, too.

Max Hendrickson, KØDPT

My first novice and general key was a J-38. Key #2 was a Vibroplex Bug, when I thought I needed more speed. I never could copy in my head, but always had to write the copy

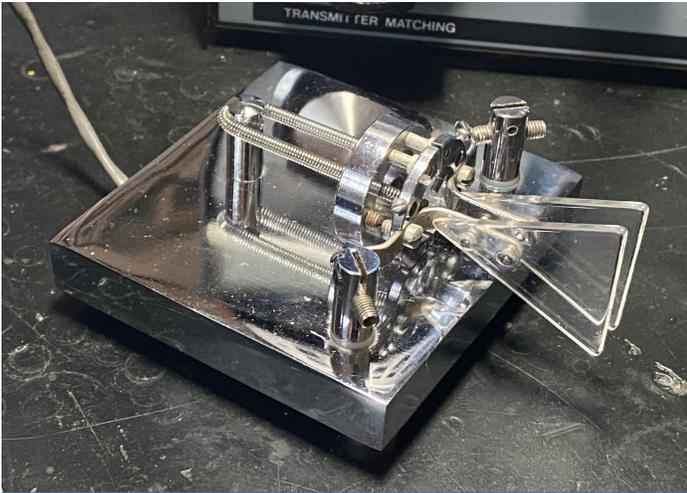
down, so I never got very fast (the Vibroplex was over kill). Both keys were available to me as my dad was WØYUA. Key #3, a Heathkit HD-10 keyer, was a Christmas present and let me send better code.



The Heathkit HD-10 keyer at KØDPT

Mark Endorf, WAØMHJ

As a kid, I started with a very cheap plastic hand key, and used that for quite a while. My friend had a Vibroplex bug. I hated that, and still don't like the sound of them on the air (especially when I hear someone sending dashes that are not even close to each other in duration.) Next up was a Heathkit HD-10. Quite possibly the worst one ever invented.



WØVTT's tried and true Bencher

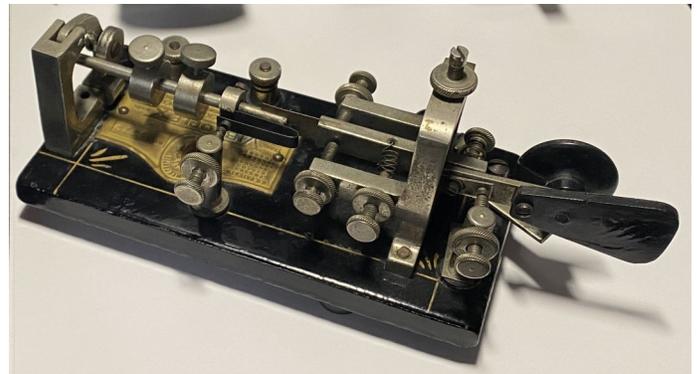
It came to an untimely end, when out of frustration, it was tied to the bumper of my car, and we did spinouts in the parking lot of Minnetonka High School. It magically became kit form again! Next up was the WB4VVF Accu-Keyer paired up with a Vibroplex paddle. That worked okay, other than I often was chasing the paddle across the table surface. I still use the Vibroplex in the field, but it is often duct taped down. My paddle for many years now has been the Bencher BY-1.

I spent a lot of time at Dayton playing with all sorts of paddles. For those that like ornate ones, or complex mechanically engineered ones, there are quite a few out there that fill the need, but I think those look better in a display case. The most comfortable feel,

when you close your eyes and send, to me, are the N3ZN keys. Heads and tails above the rest. Maybe this year I will actually buy one.

Mike Cizek, WØVTT

My first key as a Novice back in 1975 was a cheap straight key from Radio Shack. It was probably at least as good a key as I was a CW operator in those days. My next was an old, beat up Vibroplex Original that I never did really learn to use properly. I later traded that for a 1953 Blue Racer Deluxe that I still have. I didn't really know what the Blue Racer was, but I wanted it because it wasn't as tall as my Original and would slide under the little shelf that held my radios up above the desk. I still have that bug, but don't use it very often.



WØVTT's 1923 Martin Junior bug

I had a few other keys, including some electronic keyer/paddle combos from TenTec and Heathkit. Those clunky old things were pretty awkward to use and didn't last very long. My first good paddle was a Bencher BY-2 that I bought used for \$25 in 1982. I built up a WB4VVF Accu-Keyer to use with it. The Bencher quickly became my #1 key and remained that way for many years.

From time to time, I would get the urge to try something new, hoping to find something "better." I went through at least a doz-



McElroy Stream Key at WØVTT

en other paddles, including some high dollar ones like the Mercury, Jones, March, and Schurr, but none of them lasted very long. I always went back to the Bencher. I used a Kent iambic key for a while and became pretty comfortable with that, until I was seduced by those sexy Italian paddles.

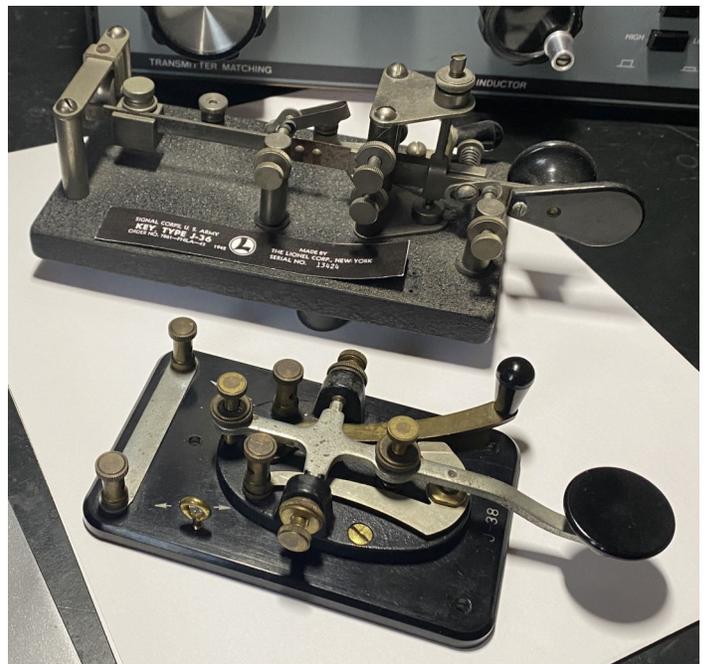
Two years ago, I was asked to handle the sale of the key collection of a good friend who had recently passed away. Naturally, I had to “test out” the keys before selling them to make sure they worked properly. One of the keys was a Begali Simplex Basic, and I quickly fell in love with its feel and those perforated aluminum finger pieces. A Begali Pearl followed a while later, also with the perforated finger pieces, and I would alternate between the two, but used the Pearl most of the time. My love affair with Begali lasted over a year, but now I’m back to that old \$25 Bencher again. It just feels “right” after all these years.

One of the other keys in that estate was a 1923 Martin Junior bug that was in remarkably good shape. Most of the pin striping on the base was still there, and all it needed was a little dusting off. It was easier to use than any other bug I have ever tried, so I just had to buy that one and keep it. Whenever I get the urge to use a bug, that’s the first one I choose.

I still keep a straight key as part of my station, and not just for SKN on New Year’s Eve. There are times on 80 and 160m when the noise is so bad that I will switch to the straight key and send very slowly. My favorite straight key is an ugly old McElroy stream key on a black base. It’s amazing how different hand keys can feel, especially considering most of them use the same basic design. I also have an old Signal Electric land line key that has a very nice feel.

I’m very happy to have two WWII era Lionel keys here, a J-38 straight key and a J-36 bug (military name for the Vibroplex Lightning Bug). They are both nice keys, but I must confess the only reason I have them is that my brother and I used to have a basement full of Lionel trains when we were kids. I just couldn’t resist.

The old WB4VVF Accu-Keyer worked fine, but it was eventually replaced with a Curtis 8043 keyer. I remember using those Radio Shack project boxes for both circuits and

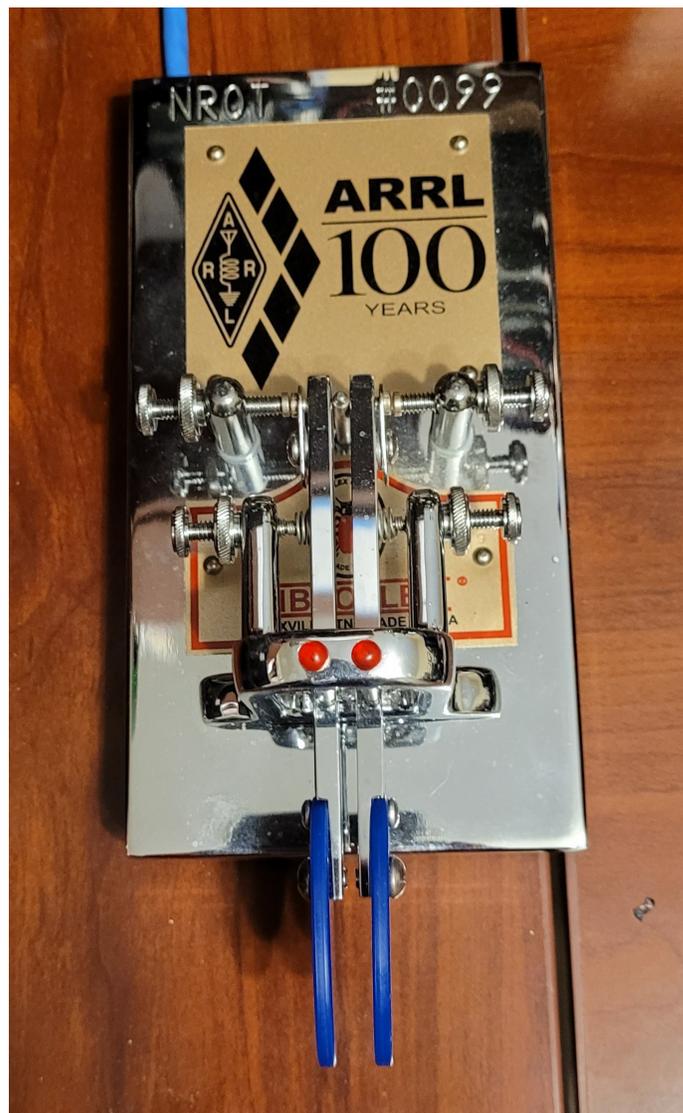


Two Lionel military keys at WØVTT

felt rather proud of my crude attempts at building. I later discovered the Logikeyer by Idiom Press and that remains my keyer of choice today. The Winkeyer is a wonderful device for contest operating, but I never felt like I could send very well with it. I knew something about the Logikeyer was different, but never understood what it was until reading an article by Karl DJ5IL called “All About Squeeze Keying.” http://cq-cq.eu/DJ5IL_rt007.pdf Karl’s article takes a look at most of the iambic keyers that have been made, and he clearly explains the timing differences in the Logikeyer. It’s an interesting read for folks like me who are geeky CW nerds.

Rolf Krogstad, NRØT

My first key was an old J-38 which I used as a novice. I got a Vibroplex paddle and electronic keyer when I upgraded to General/Advanced in 1971.



NRØT’s ARRL Centennial Vibroplex paddle



One of many Begali paddles at KØMD

I had several other paddles before purchasing the ARRL Centennial Vibroplex paddle.

Scott Wright, KØMD

I started off as a novice with a straight key bought from the local Radio Shack. It was a J-38 knockoff, I suspect. Periodically I was at a station that used a Vibroplex bug. I was proficient with the bug but preferred iambic keying. As a teenager, I upgraded to a Bencher iambic paddle as soon as I could. I had a Heathkit iambic paddle and an external keying box to use in those days with the paddle. I used the Bencher BY-1 until some-



The Begali miniature compliments KØMD's Icom IC-705 portable rig

one gave me a Begali Signature as a thank you gift in the late 2000s. I have owned a series of Begali paddles ever since. I prefer the Sculpture. I own two for my SO2R contesting set up. I recently bought a miniature Begali which works with my Icom 705 for portable operating.

My QRZ page lists all of the Begali paddles I own and use. Each rig in my shack has a Begali for CW operation. The Begali's and I are on speed dial now it seems when new products come out. Recently I purchased their Covid 19 pandemic special edition paddle commemorating the *QSO Today* expos. I plan to use it as a tribute to all who have sacrificed for healthcare in the pandemic and place it under glass as a reminder of these challenging times.

I was able to gift my Bencher to a teenage CW op in Virginia several years ago giving him a much needed paddle and the paddle an owner who would use and appreciate it.

Doug Arntson, KØPX

Most of us started as a novice with a straight key. For me it was a J-38 purchased in 1972 at Acme Electronics downtown. I mounted it to a wooden board and started making very slow QSOs!

After getting my code speed up and wanting to get my General ticket in 1973, I bought a used Vibroplex bug. Affordable keyers back then were not common, so off I went to get my code speed up with a lot of practice. Needless to say, it was an improvement for me from the straight key.

For some reason, I was hooked on bugs. I have a collection of ten or so. Some real old ones and unique varieties. Here a couple of my favorites:



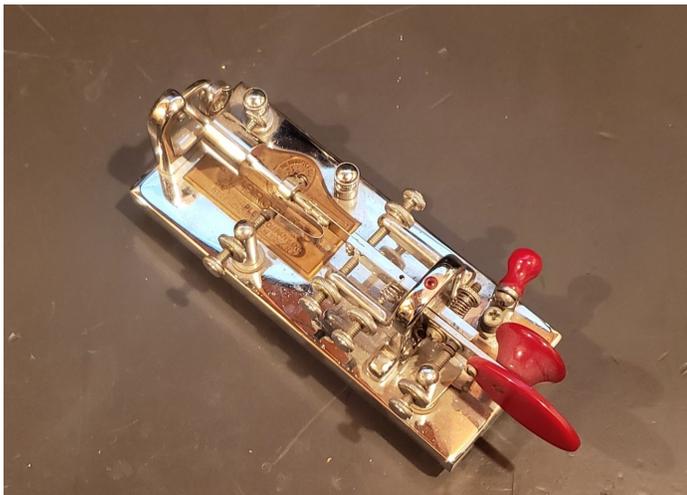
KØPX's Johnson SpeedX bug

A Johnson Speed-X. I always loved the feel this bug has. I use it with my Johnson Ranger / Collins 75A4 combo.

Vibroplex is the king of bugs. Mine is a vintage Blue Racer. The unique narrow base is chrome plated. You can still buy this today!

I have a Japan-made 'Hi Mound BK-100' coffin bug from the '50s, sold by Lafayette Electronics. It also has a nice feel and the added bonus of not worrying about dust.

In the late '70s I progressed to an electronic keyer. I built many solid state keyers from



Vibroplex "Blue Racer" with narrow chrome base at KØPX

scratch and also started collecting vintage tube gear. My Hallicrafters T.O. keyer was a nice addition for those who could afford one in the day. Running a keyer with a tube XMTR, you need a keyer that can handle the higher voltages like this can.

Of course I needed a key for a keyer. I bought a new Vibroplex single paddle.

As time went on through the years, I have had many iambic paddles. I started with something simple, then upgraded through many over the decades.



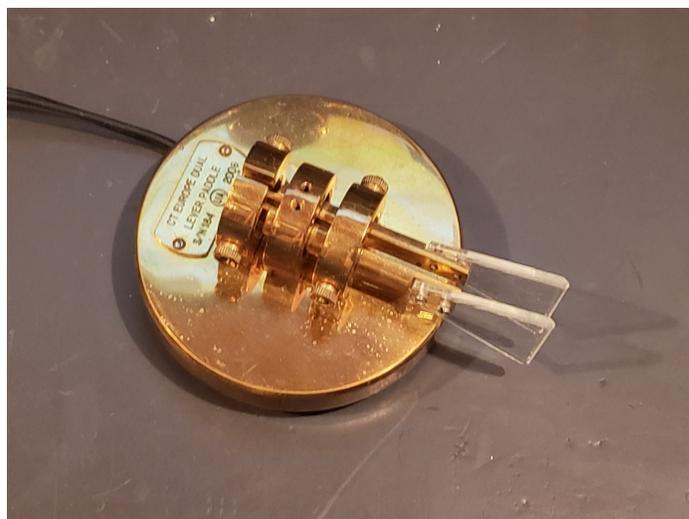
'Hi_Mound BK-100' coffin bug is from the '50s at KØPX

My main paddle today is a Bencher Mercury paddle (also known as the N2DAN, who created it). It's very heavy and has an awesome feel. I highly recommend one.



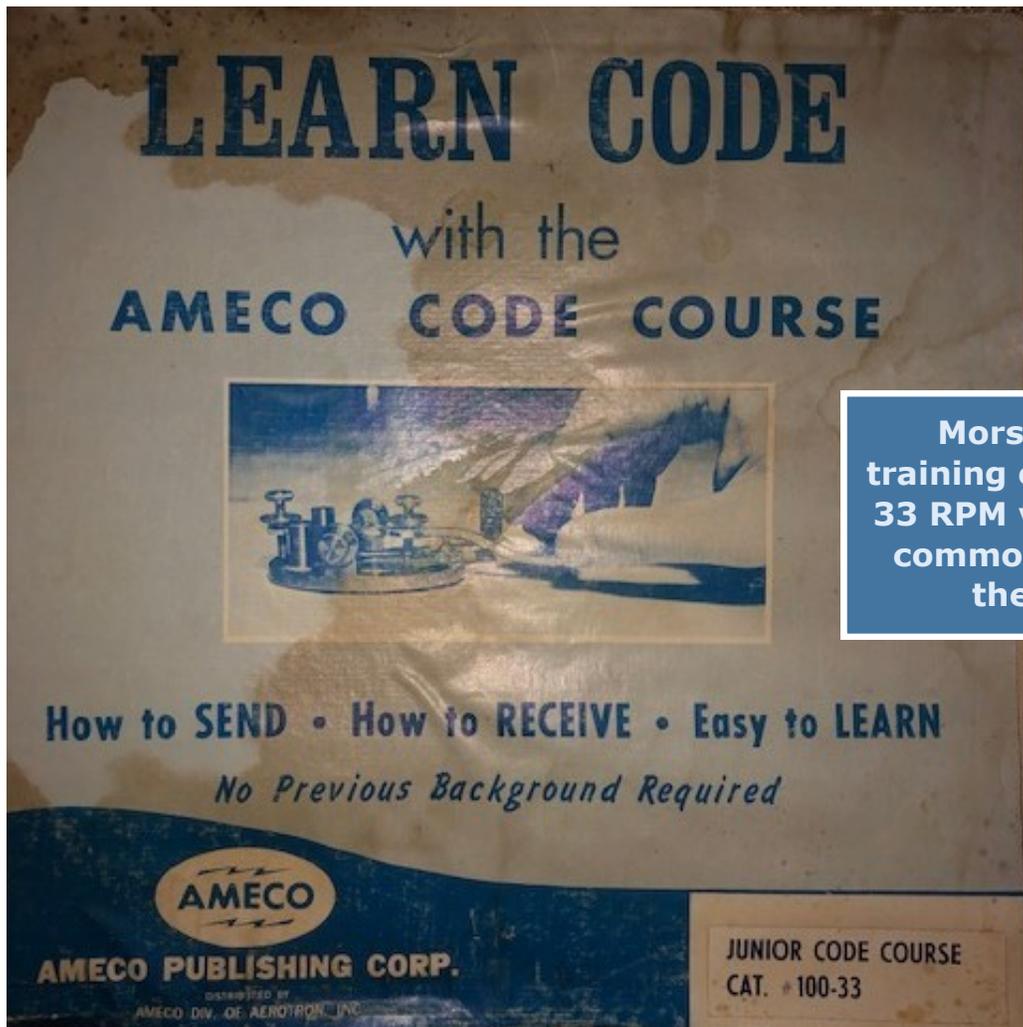
KØPX's Bencher Mercury Paddle

Another favorite paddle I use on a secondary radio is a CT EUROPE gold plated version. Another paddle with a great feel.



CT EUROPE gold plated paddle at KØPX

*A lot of great keys, and a lot of great stories!
Thanks for your submissions.*



Morse code training courses on 33 RPM vinyl were common back in the day

Learning the Code – Back Then and Now

By Al Dewey, KØAD

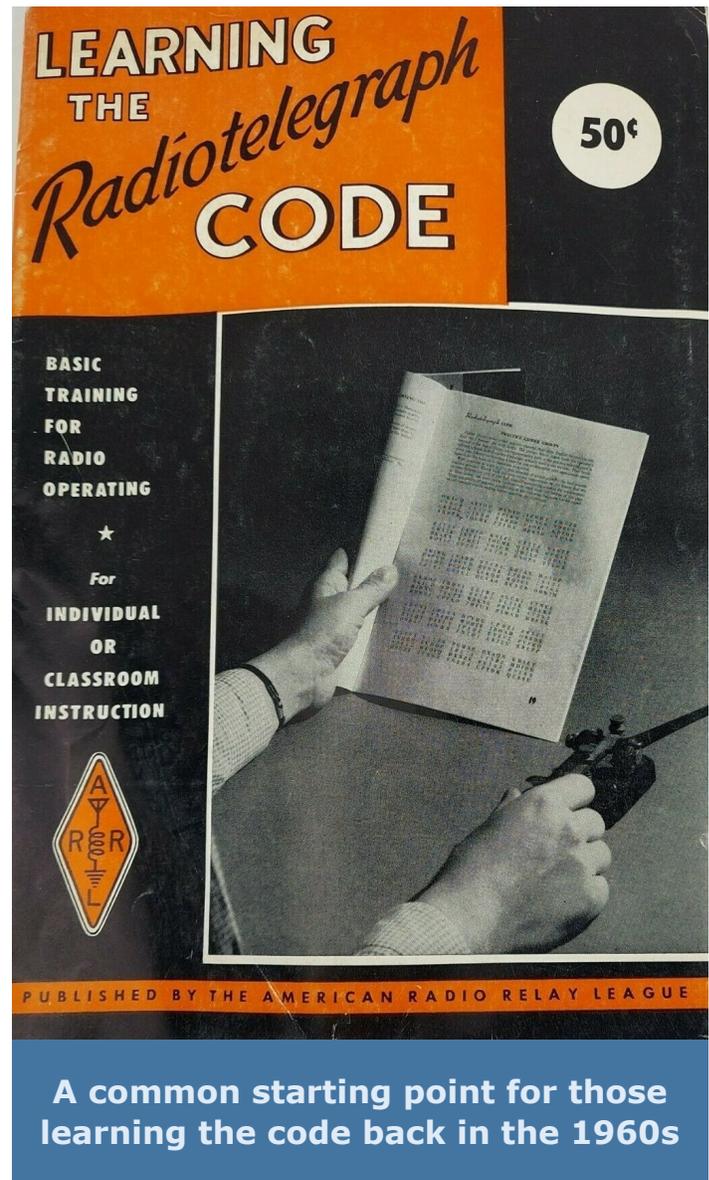
I recently completed my tenth semester as a CW Advisor in the CW Academy's Morse Code training program. A "semester" consists of 16 one hour sessions held over a two month period on Zoom. There are four course levels (Beginner, Basic, Intermediate, and Advanced.) I have been an Advisor at both the Beginner and Intermediate level. In 2021, there were over 2500 students registered in CW Academy. More than 1400 have completed a class thanks to the help of over 79 volunteer Advisors. A typical class has an advisor and five students. For those students who augment these classes with daily practice, the success rate of students in CW Academy for learning the code (or improving code speed) has been very high. Needless to say, this gives me optimism about the outlook for CW in our hobby going forward.

On completion of my recent Beginner class, I got to reflecting on how much teaching the code has advanced (for the better!) over the time when many of us first learned the code many decades ago. The intent of the article is to talk about some of these advancements in the hopes that they might be useful for members who may find themselves in a position to mentor a new ham trying to learn the code.

Back In the Day

I first started attempting to learn the code back around 1960. I was 14 at the time when my Dad told me about Amateur Radio. He was not licensed himself but had an interest in electronics and radio, having built a “wireless set” when he was my age. I looked into it and found that the first step in getting an Amateur Radio ticket was the Novice license. In those days, the novice license included CW privileges only in special “novice bands” on 80, 40, and 15 meters. Power was limited to 75 watts and novices were not allowed to use VFOs. The key thing about the novice license was that it was valid for only one year and was non-renewable. That meant you had one year to use on-the-air practice to get your code speed up to 13 WPM in order to pass the General.

I can't remember the exact process I used to learn the code. I know I purchased the “*ARRL Learning the Radiotelegraph Code*” manual and started plodding through it. Once I learned the dot dash combinations, I used it mainly for sending practice. Another tool I picked up somewhere was the *AMECO Junior Code Course* record. I used this for receive practice and it was useful. It was a 33 RPM record and one of the nice things was that you could turn up your record player to 45 and 78 RPM to increase the speed. The downside was that, after a while, you learned some of the text that was being sent. I floundered around by myself for a while and made so-so progress. The big event that pushed me forward was when new neighbors moved in next door with a 16 year old son who was licensed and active as KN9WWT. We became fast friends and he let me listen (and transmit!) CW once he got his novice station set up in his basement. I was over there all



the time and my code speed picked up to the point where I was comfortable enough to take the Novice Code Test and Exam which I passed. About that time, my Dad purchased me a used NC-57 receiver and somehow I ended up with a Heath DX-35 Transmitter. I picked up a J-38 telegraph key at the electronics army surplus store on Michigan Avenue in Chicago. When my ticket arrived, I was ready to get on the novice bands as KN9DHN. As I tell my students today, my biggest progress in code speed was achieved by just getting on the air and talking to people on CW, which I did a lot.

I also listened to the W1AW Code Practice a lot. It was useful back then and still is now. Besides getting on the air a lot, I used W1AW code practice to get my code speed up to the point where I felt comfortable taking the code test for general (13 WPM) and amateur extra (20 WPM) which I did and passed. There was one big drawback to the W1AW Code Practice bulletins which I will talk about later. I upgraded my station a bit to an SX-71 receiver and a Globe Chief transmitter along with a Knight Kit VFO. Shortly thereafter, the Globe Chief was replaced with a Heathkit Apache. Somewhere along the way, my Dad came up with parts for me to build a simple electronic keyer using 12AU7 tubes. Using my paper route money, I purchased a Vibroplex paddle which I still own today and often use on Field Day. I never owned (or learned to use) a bug.

I started operating a lot of NTS Traffic nets and sent (and received) a LOT of formal traffic on CW. I also started operating some CW contests – mainly the old CD Parties which are similar to today’s North American QSO Parties. This meant that I was doing a lot of WRITING when copying CW which may have hindered my code speed progress a bit. I’ll talk about that more later.

Learning the Code Today

Over the decades, a lot of progress has been made in how new hams learn the code. It still takes dedication to practice but some of the tools and techniques used today can make the process easier (and more fun!). I’ll talk about some of the methods that advisors in CW Academy (including myself) are using today to make the process easier. Most of what I talk about will be oriented towards those learning the code for the first time.

Learning by Sound and the Farnsworth Method

It has been known for some time that the most effective way to learn the code is by learning the unique sound of each character rather than associating a specific dot-dash combination with specific letters. So rather than learning that a “B” is “a dash and three dots,” one should learn that the sound “dahditditdit” is the sound for the letter “B.” If for example, a beginner is trying to establish an initial code speed of around 7 to 8 word per minute (WPM), it is helpful if the character speed can be sent much, much faster and the space between letters increased a just a bit to allow decoding by the student. In CW Academy, I always start with a character speed of about 20 WPM for beginner students and increase the spacing between characters so that the effective speed is around 7 WPM. This is often referred to as the Farnsworth method. The Farnsworth method makes it more difficult for the student to count dots and dashes and forces them to listen to the overall “sound” of the letter.

Some of the code practice programs on the web (which I will talk about later) allow the student to set the character speed as well as the effective (or Farnsworth) speed. The W1AW Code Practice transmissions use a character speed of 18 WPM even at the lower effective speeds (i.e. 5 to 15 WPM). Of course, once the effective speed catches up with the faster character speed, Farnsworth sending becomes a moot point. Above speeds of about 20 WPM, the character speed and the effective speed become basically the same.

Instant Character Recognition

Instant Character Recognition is just what the names implies – the ability to recognize a character that is sent instantly with no delay. Some CWA Advisors (including myself) will often do the following simple demon-

stration after the students have learned the Morse code alphabet. I tell my students to put down their pencil, close their eyes, and then just listen. Using my watch, I then verbalize a simple sentence by saying something like “T H E S K Y I S B L U E” speaking each individual letter one at a time out loud. I use an effective speed of about 20 WPM. I then ask the student what I just said. Virtually all of them are able to repeat the sentence. I then take another sentence and send it on CW again at about 20 WPM. Some of the students get a few letters and maybe one to two of the words but most cannot copy it all. What’s the difference between the first and second example? In the first example, each letter I say is recognized instantly by the students. In the second example, the student may recognize most of the characters but not instantly. While trying to remember what letter a particular sound represents, the next character starts coming and they have busted the word.

Not having Instant Character Recognition (or ICR) is a common problem solved by practice, practice, and more practice. One of the on-line tools that CW Academy uses called “Morse Trainer” has a good exercise for practicing ICR. When the exercise is started, a random letter or number is sent and then pronounced one second later (adjustable) later by the program. The student simply closes their eyes and attempts to say the letter out loud before it is spoken by the program. They press ENTER and the next letter is sent. And so on. I encourage students to do this exercise a lot (maybe even decreasing the delay down to ½ second) until they are always able to say the letter before the computer does.

Head Copy

When I learned the code back in the day, I always wrote everything down at first. Perhaps, my heavy involvement in CW traffic

nets even reinforced this. At some point along the way, I got to the point where I could not write as fast as I could copy and just started copying most things in my head. During a QSO, I just made notes (e.g. CALL, RST, QTH, NAME, etc.) rather than write everything down. I think this was a common way in which head copy evolved back then.

In CW Academy, head copy is encouraged from the very beginning. Some advisors are very strict on this and do not allow pens or pencils to be used at all in their classes except to make QSO notes. Some new students struggle with this but in the long run, it benefits them. To practice this, I will have my students use one of the on-line CW practice programs (such as LCWO described below) that will send random words of various lengths and then allow the student to type in the word when the word is complete (i.e rather than a letter at a time). Two and three letter words are usually not a problem. But long words require more to be kept in the student’s head before typing the answer.

Another kind of “head copy” relates to sending. When sending, some students want to make sure whatever they are sending is written down in front of them first rather than from their head. I usually do an exercise where I ask them to look around their room and send five things they see (without writing them down first). Like everything, sending from your head comes with practice.

Interesting Content

Once students have learned all the letters, numbers, common prosigns (e.g. AR, AS, BT, etc), and punctuation, it is helpful that they practice using things that will be useful to them when they get on the air. It is certainly important that they learn commonly used abbreviations (e.g. ANT, ES, STN, DE, CQ, NR, HI, CU, RST, 5NN, etc) as well as common Q signals used on the air (e.g. ,

QTH, QSL, QRM, QRN, QSY, QRZ, QRX, etc.). Once all the letters are learned, the homework assignments in CW Academy contain a lot of simulated QSOs to copy. During class time, we will hold simulated QSOs between the instructor and students as well as students to students. Things in a QSO that are second nature to veteran CW op are often new to those just learning the code. Toward the end of the class, I will often attempt to work the students on the air and have a very simple QSO. This can be an exciting time for the beginner. In later courses, simulated contests and working DX can be used during class time.

Besides simulated QSOs, having some interactive conversation using CW is also a way that keeps students engaged. As an advisor, I usually come to class armed with a list of questions I can send and then have the students send back the answer. These can be sports related questions, state capitals, world geography, and even ham radio itself! By listening, and then sending a response, the students start to get the “feel” of an interactive conversation via CW.

In the early days of CW Academy, recordings of the W1AW Code Practice bulletins were part of the homework assigned to students between classes. Often students would report that “they did not get a chance to copy the W1AW files.” When pressed a bit, students would report that the transmissions were really boring. They were often just text sent from a random article in *QST* magazine. A while back the W1AW files were replaced in CW Academy with “short stories.” The box above shows a typical short story used in the Intermediate course. At first, I thought they were kind of silly. Then my students told me how much they appreciated how the stories introduce words early in the story and then repeat them (perhaps in the plural or past tense form) as the story went on. By hearing these words multiple times in the story, they started to recognize words, and it gave them more confidence.

HUNGRY BIRDS

THE BABY BIRDS SAT IN THE NEST. THERE WERE TWO BABY BIRDS. THE NEST WAS IN THE TREE. THE BABY BIRDS WERE WAITING FOR THE MAMA BIRD. THEY WERE HUNGRY. WHEN WOULD MAMA BIRD BE BACK? THEN THEY SAW MAMA BIRD. SHE LANDED ON THE NEST. SHE HAD TWO WORMS IN HER MOUTH. SHE GAVE ONE WORM TO EACH BABY BIRD. THE WORMS WERE DELICIOUS. THE BABY BIRDS ATE THE WORMS VERY FAST. THEN THEY OPENED THEIR MOUTHS. THEY WANTED ANOTHER WORM. MAMA BIRD FLEW AWAY. SHE WENT TO GET MORE WORMS.

A typical “short story” used in the CW Academy Morse Code classes for receive practice

Sending

Back in the day, it was common to learn to send with a straight key and then move on to a bug or a keyer. Many thought that receiving was the “hard part” and sending not so much. In CW Academy today, many advisors (including myself) spend as much time on sending as we do on receiving during our classes. We stress good sending from the start. We require that all students start with a paddle – not a straight key. Although we sometimes get some pushback, we are very firm about this because we believe that advances in code speed are difficult for those using a straight key. When speeds get up to 20 WPM or so, it can set the student back if they have to abandon their straight key and go to a paddle at this point. Better to start at the beginning with a paddle. For those who complain about the cost, we will sometimes recommend they look for a used paddle or connect with their local radio club to find one.

In the early days, keyers used “single lever” paddles where you simply pushed the lever one way for dots and another way for dashes. I still use this method today with my VibroPlex paddle. When keyers started includ-

ing “iambic” capability, dual lever paddles became popular and are most likely in the majority of ham shacks today. With iambic keying, one can “squeeze the two paddle levers together to send a “dahditdahdit.....” or “ditdahditdah.....” pattern when forming a letter. In theory, this significantly reduces the amount of hand movement needed to form characters. In reality, I have found that many CW operators use dual lever paddles but use them like a single lever paddle (i.e. they do not squeeze them to form characters). There is nothing wrong with this of course. When students ask me whether they should learn squeeze keying, I do not give them a recommendation one way or the other. I tell them it will be harder to learn that way but may have some benefits to them in the long run. But I do not push it. I do not use squeeze keying myself.

On-Line Tools

There are many on-line learning tools on the Web for learning and practicing CW. Many of them are marginally effective but a few are pretty good and I even recommend three of them for different reasons. The first is CW Trainer ([CWops Morse Code Trainer | Morse Code World](#)) which is designed to be used with the CW Academy curriculum but can also be useful afterwards. I particularly like the ICR exercise (described earlier) in CW Trainer. The second is LCWO (www.lcwo.net) which is particularly good at practicing common words and code groups of different lengths. It keeps good statistics of how you are doing and it is easy to see your progress in terms of speed and accuracy. The third one is the AA9PW Morse Code Practice Page (www.aa9pw.com/morsecode). I like this last one for one specific reason. It has a “random QSO” feature that formats a

typical QSO transmission using a big database of names, call signs, RST, rigs, QTH’s, occupations, etc. Sometimes the QSO transmissions are sort of entertaining but copying them is good practice. All three of these recommended tools allow the user to set both the character speed and the Farnsworth speed discussed above.

For more advanced students, MorseRunner ([DX Atlas: Amateur Radio software](#)) can be a lot of fun. With it, you can simulate running in a real contest. With the program, you “call CQ Contest” and are answered by other stations. It has some amazing settings such as QRM, QRN, Fading, and even LIDS. You can even set the level of contest “activity.” When activity is set to “high,” the pileups can be challenging. MorseRunner is used in the Intermediate and Advanced level courses in CW Academy.

Final Thoughts

I am encouraged and gratified by the number of amateurs learning the code for the first time. Many have been licensed for a long time and just never used CW. Others have obtained their licenses more recently by passing exams that no longer have a code test. One of the things I ask my students in our first class is “why are they learning the code?” I get a variety of answers. Some say they have a modest station and want to be able to work more stations including DX. Others have developed an interest in the challenge of QRP and simple portable operation. They like the idea of setting up a simple radio in an outdoor portable location. And others are looking for a new challenge in the hobby. The fact that so many current amateurs are learning the code “even though they don’t have to” is, to me, a good sign for our hobby going forward.



The MWA Contest Corner

My Top Ten Favorite Contests - UPDATED

By Al Dewey, KØAD



Almost nine years ago, I wrote this column on what were my top ten favorite contests at the time. Recently I've been wondering if I still feel the same way today as I did nine years ago. Back in 2013, I was in my mid-sixties rather than my mid-seventies. I was still working full time back then with my retirement taking place in 2015. So I started by calling up my original *Gray Line* article from the March, 2013 issue. The box on page 32 shows my Top Ten Contest Lists from 2013 and my updated 2022 list. As I looked at that list, I realized that the contests that motivate me today have changed in the last nine years.

Contests that make my top ten list are usually (but not always) ones in which it is possible to be competitive nationally from the Midwest with an average station. At 75 years of age, they tend to be shorter contests that don't require staying up all night (or even

late at night) to succeed. The majority of them are CW events although a couple "mixed mode" contests also made my updated list. I like contests where you can run a lot and use SO2R to pick up additional stations and multipliers. Contests in my top ten list are ones in which I will make a reasonable effort to clear my schedule in order to participate with a significant effort.

My Updated Top Ten List

The contest that tops my updated **2022** Top Ten list is an event that was just getting started back in **2013** and did not even show up on my original list. It's the **Weekly CW Ops CWT Contests**. These mini-contests take place every Wednesday at 1300Z, 1900Z, and 0300z (Thursday) and are one of the high points of my week. I will make an effort to not schedule anything that will conflict with the afternoon (i.e. 1900z) CWT. I rarely miss one. It's a contest in which I have been able to consistently place in the top 5 in the low power category and have even won it a few times. It ticks a lot of the boxes for me. It's a short domestic CW contest in which skill with SO2R can make a difference.

My number **two** favorite contest remains the **CW North American QSO Party (NAQP)** just as it was in 2013. Again, a fun domestic CW contest in which you can utilize all 6 HF contest bands, have great rates, use SO2R, and more. Your strategy of working new multipliers vs. making more QSOs is especially important in this contest. Although the top ten is out of reach for me in this event, I have won the MN section a few times despite some really good competition in our state.

KØAD's Top Ten Favorite Contest List - Updated

2013

1. NCJ North American QSO Party - CW
2. NCJ North American Sprint - CW
3. NCCC Sprint Ladder
4. IARU HF Championship – Mixed
5. ARRL Field Day
6. ARRL Sweepstakes – CW
7. Minnesota QSO Party
8. ARRL RTTY Round Up
9. ARRL DX Contest – CW
10. CQ WW DX Contest - CW

2022

1. CW OPS CWT Contests
2. NCJ North American QSO Party - CW
3. IARU HF Championship – Mixed
4. ARRL Field Day
5. ARRL RTTY Round Up
6. CQ WPX Contest – CW
7. ARRL DX Contest – CW
8. CQ WW DX Contest – CW
9. Minnesota QSO Party – Mixed
10. ARRL 160 Meter Contest - CW

In 2013, the second and third contests on my list were the NCJ North American Sprint and the NCCC Thursdays Night Sprints. These events no longer make my top ten list. Although the special QSY rule provides a unique challenge in the Sprint contests, I found it more and more frustrating to get beat out on so many S&P QSOs. Since you only get one shot at calling an S&P station, the stations with big signals have a huge advantage. I simply got tired of getting beat out so much and lost interest in these events. With the elimination of the Sprints from my list, those contests in the number four and five spots in my 2013 list moved up a notch. My **third** favorite contest becomes the **IARU HF Championship** in July. I continue to believe that this contest has the perfect start time, end time, and length. To me, the 7:00 AM start time on Saturday morning and the 7:00 AM end time on Sunday morning are ideal. There are plenty of stations to work especially in the WRTC years (i.e. every four years). I usually operate this one low power

mixed mode and have been able to make the top ten a few times. Fun contest.

The **fourth** contest on my list is **ARRL Field Day**. Although technically this is not a contest, you can treat it that way if you want. Except perhaps during my first few years after graduating college, there have been very few years since becoming a ham back in the 1960s that I have missed Field Day. Today, I especially enjoy the comradery of planning and operating Field Day. For the past decade or so, I have operated with NØAT, NØKK, NØSTL, WØOR, and a host of others and really had a blast doing it.

Number **five** on my list is the **ARRL RTTY Roundup** – up from number 8 in my 2013 list. I always operate in the low power unassisted class. I like getting in the “SO2R Groove” in this contest, especially on 20 and 15 meters. It keeps me busy and never becomes boring. There is a lot of very strong competition in this event in our Dakota Di-

vision but I have managed five Dakota Division plaques in the low power category and a few top ten finishes (often when my nearby competition have not participated or only done part time efforts).

The sixth spot on my 2022 list did not show up on my 2013 list. Each year, I seem to enjoy the **CQ WPX CW** contest more and more. There is so much worldwide activity in this event, that it never becomes boring to me. If you are able to borrow a semi-rare prefix in this contest, it almost makes you feel like DX as others strive to add another prefix (multiplier) to their score. The few times I have been able to use KTØR's call, it really seems to have made a difference. There are so many multipliers in this contest that it is really fun to see your score grow almost exponentially as the contest goes on. Never boring. This event usually happens over Memorial Day weekend which means that Monday can be a recovery day for those still punching a clock.

Positions **seven** and **eight** on my top ten list are the two major DX contests of the year – the **ARRL International CW DX Contest** and the **CQ World Wide CW DX Contest**. Although I do not have a big enough station to compete nationally in these events, I enjoy supporting the MWA Club score. I slightly prefer the ARRL event because the world works US/VE so it is a bit easier to run. CQWW CW is fun also and I have many fond memories of multi-op efforts especially at WØAIH. CQWW is probably the premier contest in the hobby so it is hard to not have it on my top ten list.

The **Minnesota QSO Party** occupies position **nine** on my list which is two lower than in 2013. Although I still enjoy handing out both CW and SSB QSOs in MNQP (and

even feel a bit of an obligation to do so), it was a lot more fun for me in 2013 when I was driving around the state with NØPI. Getting the adrenalin rush each time we entered a new county was really awesome. It has been great to see how much this event has grown over the years to become one of the premier QSO parties in the country.

The **tenth** (and last) contest to make my updated Top Ten list is the **ARRL 160 Meter Contest**. Although many of the criteria I mentioned above are not met by this contest, there is just something fun about it. Maybe it is the comradery of all the other MWAers participating. I don't have a RX antenna for the top band nor is my TX antenna that great. I rarely work much DX outside of the Caribbean and occasionally a western European station or two. I prefer the ARRL 160 contest to the CQ 160 contests perhaps because there are more multipliers available to the antenna challenged stations.

One other contest from my 2013 list that did not make my updated Top Ten list is the ARRL CW Sweepstakes. As many of you may know, I have been long opposed to the late start time of SS. The 4 PM start time on Saturday makes no sense to me. It forces serious contenders to stay up to the wee hours of the morning the first night and to have to go all the way to 9 PM on Sunday. Very family unfriendly in my opinion. Still, I will operate it but not full time any more. One good thing (I guess) is that there are a lot of different categories in which to go for a plaque.

So that's my list. Of course, I still enjoy a lot more than these ten contests but these are the ones that get my most attention now.

See you in the pileups.

Dollars for DX Report

Mike Cizek WØVTT, DX Grant Manager

Despite most of the world being shut down by these annoying germs, there is still some activity on the DXpedition front. We currently have two teams planning trips to Bouvet, and a Frenchman making an extended trip to Crozet. Let's start with Crozet.



Thierry F6CUK has arranged to visit and operate from Crozet Island from December 2022 until March 2023. He has some pretty severe restrictions on antennas so this will most likely not be an all band, all mode operation. A number of clubs and foundations, including NCDXF, have offered support. TCDXA has not (yet) been asked to make a donation. Crozet was last activated in 2009 by F4DYW who was mainly active on 20m SSB. Your scribe's last Crozet QSO was on 20m CW in September of 1991. Information about the operation, including a short history of previous operations from Crozet, is on the DXpedition website: <http://crozet2022.r-e-f.org/> Crozet is currently #3 on the Clublog most wanted list.

The Rebel DX Group led by Dom 3Z9DX is still planning their 3YØI operation to Bouvet. They have not yet asked for any support through the usual channels, and details of their operation have not been made public. Some information is available on the Rebel DX Group Facebook page: <https://www.facebook.com/rebeldxgroup/>

The Norwegian group 3YØJ appears to be making good progress and has very solid plans for their operation. They are tapping the expertise of Norwegian scientists and sailors who have sailed to, landed on, and worked on Bouvet. They have already raised \$500,000 of their \$660,000 budget, so they are still in need of funding. TCDXA has already donated \$5000, which is the most we have ever given to a single DXpedition. Details on the operation may be found on the DXpedition website: <https://www.3y0j.no/>



Gray Line Report

Gary Grivna KØGX



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Computer Sales-Repairs-Upgrades
Audio-Video-Electronic Repair

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TCDXA OPERATING BUDGET FY 2022
(Sep 2021 - Aug 2022)

January 4, 2022



INCOME	ACTUAL	BUDGET	Actual 2021
Surplus from FY 2021 (balance 8/31/2021)	12915.93		9100.90
Member Dues 2022 by Cash/Checks/PayPal	3277.25	4400.00	5122.90
Door Prize Ticket Sales club share	0.00	500.00	55.00
Donatons (estates, wills, etc.)	0.00	0.00	0.00
Refunds and Reversals	0.00	0.00	0.00
TOTAL INCOME	16193.18	4900.00	14278.80
EXPENSES			
		BUDGET	Actual 2021
Member Recruitment/Retention/Zoom	0.00	(300.00)	(160.96)
Website ISP & Domain Name	(10.00)	(150.00)	(75.69)
Office Supplies, Miscellaneous expenses	0.49	(50.00)	(46.22)
Flowers <SK> and Hospital gifts	(80.63)	(200.00)	0.00
Holiday Party Dec 2021	0.00	(500.00)	0.00
ARRL Spectrum Defense Fund	0.00	(250.00)	(250.00)
NCDXF Donation	0.00	(250.00)	(250.00)
MWA Plaque	0.00	(80.00)	(75.00)
DXpedition Contributions Total	(5,546.07)	(8000.00)	(500.00)
#1 Dxpediton - 3YØJ Bouvet	(5,045.00)		
#2 Dxpediton - 3DAØRU Eswatini	(250.00)		
#3 DXpedition - 7P8RU Lesotho	(251.07)		
#4 Dxpediton -	0.00		
#5 Dxpediton -	0.00		
#6 Dxpediton -	0.00		
#7 Dxpediton -	0.00		
#8 Dxpediton -	0.00		
#9 Dxpediton -	0.00		
#10 Dxpediton -	0.00		
TOTAL EXPENSES	(5636.21)	(9780.00)	(1357.87)
NET	10556.97	-4880.00	
Checking balance	10218.87		
PayPal balance	338.10		
Cash / Checks on Hand	0.00		
NET BALANCE	10556.97		

When required, Wells Fargo & PayPal online statements can provide detail not shown in this report.

Note from the President

Bert Benjaminson, WBØN, President

Hi All. Well, our yearly elections are over and sorry to say you are stuck with me again. Thanks to Mark Endorf, WAØMHJ, for his service on the board, and welcome Tom Weigel, ABØJ, to the board as Vice President. Thanks, also, to Pat Cain, KØPC, for stepping up for another year as Secretary/Treasurer, to Mike Cizek, WØVTT, for keeping on as DX donations Manager/Director, and to John Rusciano, NGØZ, for keeping on as a Director. And a special thanks to Dan Dantzler, WØJMP, for running for Vice President.

We are also in dire need for someone to take Dan's place on the *Gray Line* club newsletter. I think this is very important as we have had one of the best club newsletters in the country, and it would be a crime if we let it slip away.

Now, one thing that hasn't gone away yet is that darn Covid. It keeps making us cancel our fun in person meetings at Pub42 and making us just stick to the Zoom part. Hopefully this will soon be calm enough for us to go back to Pub 42.

One more thing: Anyone with ideas for guest speakers for upcoming meetings please feel free to email me at WBØN@yahoo.com with your ideas. So far just January is booked, but we are working on others and hope to fill the year up soon.

Ok now for the fun part... I hope you have all been enjoying the improving conditions on the HF bands as I have. Come on sun-spots! 73 all de WBØN, Bert

Backscatter

Collected by Mark Johns, KØJM

WELCOME ABOARD

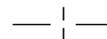
New members of TCDXA include...

James Anderson, K8OS
Brooklyn Park, Minn.

Silent Keys

We regret to report the passing of ...

Craig Anderson, W9CLA
Hudson, Wisc.
Sept. 23, 2021



New Low-Power Limit for ARRL HF Contests Goes into Effect on January 1

ARRL has set a new standard for what counts as low power for ARRL-sponsored HF contests. The new limit is 100 watts, which is down from the 150 watt limit that has been permitted in some events, including the ARRL November Sweepstakes.

With the exception of ARRL Field Day, this change goes into effect on January 1, 2022, for all ARRL-sponsored HF contests, as well as the IARU HF World Championship.

This change has been implemented to standardize low-power categories within the contesting community. However, on a more practical level, the typical modern HF transceiver has a maximum power output of 100 watts.

For more information, contact the ARRL Contests program. -- *Thanks to The ARRL Letter and ARRL Contest Update*