



# The QUARAE



Volume 20 Issue 6

Editor John Lindvay WB3IFD

June 2019

## It Seems to Me

I have some good news. We have three new technicians that will be on 2 meters soon. They are KC3NNW, Dominic Cronauer, KC3NNX, Nathan Huster, and KC3NNY, Ethan Holmes. They are Harborcreek High school students who recently took a class from Drew Mortensen, AC3DS. We can expect some more new hams in the near future.

Drew is very grateful to everyone at the Wattsburg Wireless Association and the Radio Association of Erie for helping to make this a reality.

So if you hear these students on the air, say “Hi” and gently let them know if they are doing something wrong. Also we as a ham community should also be on our best behavior. **NO politics or religion should be argued about.** We should not discuss it at all over the air.

### General Meeting Minutes: 5-02-2019

Began At: 7:00 P.M.

Board Members and Officers Present: AD4UL-DOUG, K1ZIK-ED, N8WXQ-FRANK, K3PLV-CRAIG, KB3ZVH-RICHARD, KC3GBD-BOB

Members Present: N3LBI-BOB, KB3DOM-RON, N3LPO-SUE, WB3IFD-JOHN, K2EJK-ED, KC3KRZ-JIM, KC3BOC-MIKE, WA1YJZ-RICHARD, KE3V-KEVIN, KB3CPV-JOE, KB3RIT-CHUCK

Program: Signal to noise ratio on digital modes

New Hams: None

Silent Keys: W3G

Visitors: KC3KRZ-JIM, K2EJK-JIM

Treasurer's Report: \$1926.88 in Checking

Membership Report: Membership cards are up to date

Facilities Report: Club house is open to all paid up members any time to use club radios

Repeater Report: Echo Link is down. N3GKS working to fix the problem

Public Service: Memorial Day Run At Walnut Creek Baptist Church in Fairview Township May 27<sup>th</sup> at 7:00 A.M. Located on route 20 next to Fortus school. Edinboro Triathlon on June 8<sup>th</sup>. Meet at McDonalds in Edinboro

Contesting: None

Old Business: None

New Business: We received 3 Bids to repair gutters. Motion was made by AD4UL-Doug to accept the \$991.00 Bid and Second by KC3GBD-BOB. Motion accepted by membership.

Meeting End At: 8:19 P.M.

### Received this from Dana Scouten N3RSN

On Saturday June 8, 2019 10:00AM at Cox's Family Auction, the ham equipment belonging to Silent Key Arnold Smrcka N3UBZ will be sold. Hundreds of items will be sold. Please post this information on your club websites and facebook. Tell your friends. This link will take you to Cox Auction website where you will find a partial listing of equipment. Check back frequently as we are adding

additional pictures as we get them. This man was a tinkerer and a collector of vintage and modern ham equipment. You will find treasures beyond belief, large and small!

<http://www.coxfamilyauction.com/upcoming%20auctions.htm>

## Morse Code Celebrates 175 Years and Counting

By Eddie King, Ph.D. student in electrical engineering, University of South Carolina

The elegantly simple code works whether flashing a spotlight or blinking your eyes—or even tapping on a smartphone touchscreen

There's still plenty of reason to know how to use this Morse telegraph key. The first message sent by Morse code's dots and dashes across a long distance traveled from Washington, D.C., to Baltimore on Friday, May 24, 1844 – 175 years ago. It signaled the first time in human history that complex thoughts could be communicated at long distances almost instantaneously. Until then, people had to have face-to-face conversations; send coded messages through drums, smoke signals and semaphore systems; or read printed words. Thanks to Samuel F.B. Morse, communication changed rapidly, and has been changing ever faster since. He invented the electric telegraph in 1832. It took six more years for him to standardize a code for communicating over telegraph wires. In 1843, Congress gave him US\$30,000 to string wires between the nation's capital and nearby Baltimore. When the line was completed, he conducted a public demonstration of long-distance communication. Morse wasn't the only one working to develop a means of communicating over the telegraph, but his is the one that has survived. The wires, magnets and keys used in the initial demonstration have given way to smartphones' on-screen keyboards, but Morse code has remained fundamentally the same, and is still – perhaps surprisingly – relevant in the 21st century. Although I have learned, and relearned, it many times as a

Boy Scout, an amateur radio operator and a pilot, I continue to admire it and strive to master it.

Morse's key insight in constructing the code was considering how frequently each letter is used in English. The most commonly used letters have shorter symbols: "E," which appears most often, is signified by a single "dot." By contrast, "Z," the least used letter in English, was signified by the much longer and more complex "dot-dot-dot (pause) dot." In 1865, the International Telecommunications Union changed the code to account for different character frequencies in other languages. There have been other tweaks since, but "E" is still "dot," though "Z" is now "dash-dash-dot-dot." The reference to letter frequency makes for extremely efficient communications: Simple words with common letters can be transmitted very quickly. Longer words can still be sent, but they take more time.

The communications system that Morse code was designed for – analogue connections over metal wires that carried a lot of interference and needed a clear on-off type signal to be heard – has evolved significantly. The first big change came just a few decades after Morse's demonstration. In the late 19th century, Guglielmo Marconi invented radio-telegraph equipment, which could send Morse code over radio waves, rather than wires. The shipping industry loved this new way to communicate with ships at sea, either from ship to ship or to shore-based stations. By 1910, U.S. law required many passenger ships in U.S. waters to carry wireless sets for sending and receiving messages. After the Titanic sank in 1912, an international agreement required some ships to assign a person to listen for radio distress signals at all times. That same agreement designated "SOS" – "dot-dot-dot dash-dash-dash dot-dot-dot" – as the international distress signal, not as an abbreviation for anything but because it was a simple pattern that was easy to remember and transmit. The Coast Guard discontinued monitoring in 1995. The requirement that ships monitor for distress signals was removed

in 1999, though the U.S. Navy still teaches at least some sailors to read, send and receive Morse code.

Aviators also use Morse code to identify automated navigational aids. These are radio beacons that help pilots follow routes, traveling from one transmitter to the next on aeronautical charts. They transmit their identifiers – such as “BAL” for Baltimore – in Morse code. Pilots often learn to recognize familiar-sounding patterns of beacons in areas they fly frequently. There is a thriving community of amateur radio operators who treasure Morse code, too. Among amateur radio operators, Morse code is a cherished tradition tracing back to the earliest days of radio. Some of them may have begun in the Boy Scouts, which has made learning Morse variably optional or required over the years. The Federal Communications Commission used to require all licensed amateur radio operators to demonstrate proficiency in Morse code, but that ended in 2007. The FCC does still issue commercial licenses that require Morse proficiency, but no jobs require it anymore.

### Blinking Morse

Because its signals are so simple – on or off, long or short – Morse code can also be used by flashing lights. Many navies around the world use blinker lights to communicate from ship to ship when they don’t want to use radios or when radio equipment breaks down. The U.S. Navy is actually testing a system that would let a user type words and convert it to blinker light. A receiver would read the flashes and convert it back to text. Skills learned in the military helped an injured man communicate with his wife across a rocky beach using only his flashlight in 2017.

### Other Morse messages

Perhaps the most notable modern use of Morse code was by Navy pilot Jeremiah Denton, while he was a prisoner of war in Vietnam. In 1966, about one year into a nearly eight-year imprisonment, Denton was forced by his North Vietnamese captors to participate in a video interview about his treatment.

While the camera focused on his face, he blinked the Morse code symbols for “torture,” confirming for the first time U.S. fears about the treatment of service members held captive in North Vietnam. Blinking Morse code is slow, but has also helped people with medical conditions that prevent them from speaking or communicating in other ways. A number of devices – including iPhones and Android smartphones – can be set up to accept Morse code input from people with limited motor skills. There are still many ways people can learn Morse code, and practice using it, even online. In emergency situations, it can be the only mode of communications that will get through. Beyond that, there is an art to Morse code, a rhythmic, musical fluidity to the sound. Sending and receiving it can have a soothing or meditative feeling, too, as the person focuses on the flow of individual characters, words and sentences. Overall, sometimes the simplest tool is all that’s needed to accomplish the task.

This article was originally published on The Conversation.

## Ham Radio Calendar

June 1 – Kentucky QSO Party

June 1 – 10-10 International PSK Contest

June 4 – Corry Club Meeting

June 6 – RAE Club Meeting

June 8 – ARRL June VHF Contest

June 8 – Edinboro Triathlon. See AD4UL to sign up. He can be reached any night during the week at 9 PM on the Ragchew net.

June 11 – Wattsburg Club Meeting

June 13 - Union City Wireless Meeting

June 15 – VE Session

June 15 – West Virginia QSO Party

June 16 – Father’s Day

June 17 – Conneaut Club Meeting

June 22 – ARRL Field Day