The Pileup

Newsletter of the CDXA

Tune Into the Upcoming ZOOM Meeting

One way of keeping "in touch" with CDXA is to attend the ZOOM meetings. Sign in to our upcoming ZOOM meeting:

Date: Wednesday, April 7, 2021

Time: 11:30 AM

Speaker: Ken Claerbout, K4ZW

Topic: ET3AA—A DXpedition to Ethiopia, December 2020

AA4ZZ	Paul Trotter	President
N4HN	Thomas Wright	Vice-Pres.
N4APR	Ray Weeks	Sec./Treas.
K4MD	Joe Simpkins	Cluster Mgr.
W1AJT	Art Tolda	Contest Mgr.
W3GQ	Paul Sturpe	4th Call Area Bureau Mgr.
WB4BXW	Wayne Setzer	Webmaster
K8YC	John Scott	Editor

Our ZOOM meetings in which a presentation is made are generally recorded and appear on the CDXA website under the "Videos" tab within a week or so of the presentation. Those who cannot take the time in mid-day to attend the session live can still view the presentation. Look there for previous presentations, too.

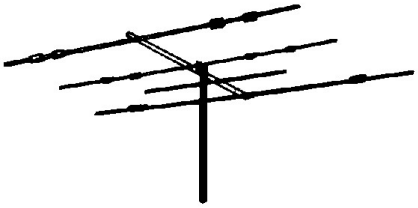
Note: The Meeting ID and Passcode have been sent in a separate mailing to prevent general disclosure. Check your email box for the announcement providing those details.

CDXA PacketCluster & Other Communication Systems	
K4MD (AR V.4 Cluster via Telnet)	k4md.no-ip.com:23
K4MD (AR V.6 Cluster via Telnet)	k4md.no-ip.com:7373
W4DXA (AR V.6 Cluster via Telnet)	w4dxa.no-ip.com:23
W3GQ (CC Cluster via Telnet)	w3gq.no-ip.com:7373
CDXA Repeater 147.18 MHz (+600)	W4DXA, Near Fort Mill, SC
World Wide Web Homepage	www.cdxa.org
Wednesday Luncheon (11:30 AM)	Skyland Family Restaurant, 4544 South Boulevard, Charlotte, NC

The Contest Corner

Participants in any contest related activity for CDXA have a full resource at their fingertips in the "Contest Corner" which can be found on the CDXA website under its own tab. The new contest format being used in 2021 rewards a member if they participate in many contests. A full schedule of contests which are "counters" for the year are displayed in the Contest Corner. A change for CDXA contest participation this year provides recognition for stations ranging from "Big Guns" to "Little Pistols". If your only reason for entering a contest is to accumulate a few new DXCC entities, the new format even rewards one for "butt in chair" time!

The DX King contest is still being run as a separate contest, since it is a year-long activity. When you enter your monthly progress for DX King, the results will also be reflected in the Contest Corner. To encourage full use of the Contest Corner, all future progress in the DX King contest will no longer be compiled in The Pileup but will be available in the Contest Corner.



The Pileup
Official Newsletter of the Carolina DX Association
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The purpose of the Association is to secure for the members the pleasures and benefits of associating with persons having a common interest in Amateur Radio.

Members of the CDXA shall adhere to "The Amateur's Code" as published from time to time in *The ARRL Handbook for Radio Amateurs*, and shall consist of those valid licensed amateur operators having an interest in promoting amateur radio. Long distance communications (DX) is of special interest to members of the Association, but said interest is not a requirement of membership.

Yearly dues are $25.00. A second licensed Amateur family member living in the same household can join for $5.00 for a total family price of $30.00 per year. The total price for 3 or more licensed family members living in the same household is only $35.00 per year. All family members enjoy full member status. Dues are payable annually in December by check to the Secretary/Treasurer:

Ray Weeks,, N4APR
3017 Cutchin Drive
Charlotte, NC 28210

Address, telephone, and email address changes should be directed to the Secretary/Treasurer at the above address or via email at: rweeks1@carolina.rr.com.

DX King - 2021
DXers
The Carolina DX Association

Who will be "King" in 2021?

The 2021 version of DX King is moving right along assisted by the improved solar flux conditions which Cycle 25 is starting to produce. There are nine months left in the year, so you're not too late to start building your 2021 DXCC entity and CQ Zone totals.

For those who may be new to what the "DX King" is all about, take a look at the February 2021 issue of the Pileup available in the newsletter archives on the CDXA website or read about it online in CDXA's Contest Corner on the website.

Remember, all it takes is 150 "points" (DXCC entities plus CQ Zones) in the calendar year to be included in the raffle for a nice prize after the dust settles next year. In the meantime, you can have fun working DX while building your totals!

Here are this year's contestants and the scores they have amassed already. If the propagation is "lousy", these contestants surely have not been paying attention to the pundits!

Callsign	Thru	Cat	Cntry	Zones	Tot
K5EK	March	Unl	213	40	253
K7BV	February	Unl	191	40	231
K4ZO	March	Unl	187	40	227
W3GQ	March	Unl	163	35	198
W4HG	March	Unl	155	38	193
N4PQX	March	Unl	149	40	189
W1AJT	March	Unl	153	36	189
K3WA	March	Unl	151	37	188
W4PNY	February	Unl	148	37	185
AA4R	March	Lim	133	36	169
K8YC	March	Unl	135	33	168
W3OA	March	Unl	111	30	141
VE3UTT	March	Unl	77	29	106

CW-Elmer: An Advanced Morse Code Learning System

By John Scott, K8YC

That's the title of an article of an article that appeared in the January 2021 issue of QST. Hmmm, that it used an Arduino controller for its "brains" piqued my interest. CW-Elmer is designed to assist a person in learning or improving skills in using the Morse Code. The emphasis is on actually using a straight key and by doing so, the user will really understand the timing and durations of dit, dahs, inter-character timing, and inter-word timing. It does all this under control of an Arduino controller. It allows the user to set speeds from 5 words per minute (wpm) to 30 wpm in 5 wpm steps, and it allows practice of letters only, letters and numerals, or letters/numerals/punctuation codes. The pitch of code tone can be set from 200Hz to 1000Hz in steps of 200 Hz.

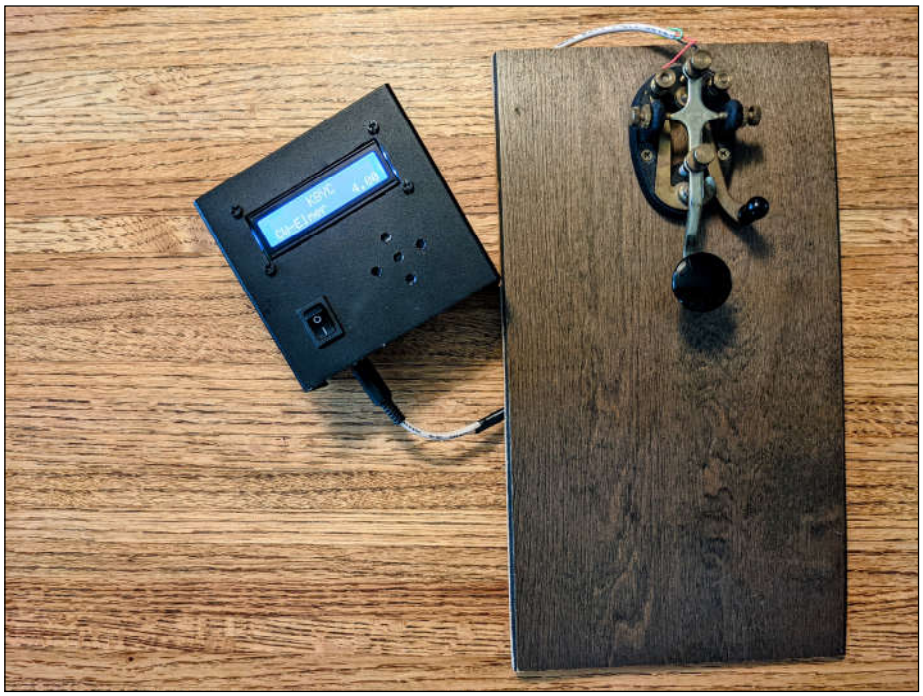
Learning is broken into SENDING, RECEIVING, and EXERCISE modules. Using the accepted 3:1 ratio of the timing of a dit versus a dah and intercharacter spacing, the controller sets the durations of these code elements based on the selected WPM chosen by the user. For a given WPM rate, the duration in milliseconds is set for a dit, and three times that *number* is chosen for a dah with inter-element and inter-character spacings also set using appropriate ratios.

Instruction in SENDING lets you send any chosen character and immediately displays the character it deciphers, including the dits/dahs it "heard" so you'll see what your code partner heard on the display. The decision as to whether a dit or dah is heard is based on whether the code element sent is less than or more than the median expected time for one or the other. If you're used to the nice correct spacing your Curtiss Keyer chip has been giving you all these past years, you might be surprised at how much of a skill it is to send good code with a straight key!

Instruction in RECEIVING lets you choose whether you want letters only, letters and numerals, or letters, numerals, and special characters. The "Elmer" will then announce you are to be sent a 3, 4, 5, or 6 character random group which is sent at the requested WPM. After a short pause, the group sent will be displayed on the display to allow you to check how well you copied the group. This provides excellent skill building for copying "unstructured" content which this author finds is one thing that is holding back his progress to become a good CW operator.

Several EXERCISE options are available to improve one's timing of dits, dahs, inter-character, and inter-word timing.

All selection of menu options is done using the straight key initiated by use of an "overlong" DAH allowing you to start the selection process from the top of sequentially presented menu choices.



I had an email exchange with the CW-Elmer's creator, David Duncan (K7DUN). He has a new release of the code (Version 4.0) over that given in the article. The new code allows for use of a less expensive Arduino controller and also has several less expensive options for the 16 x 2 LCD display cited in his QST article. Dave tells me that MFJ has been in touch with him about arrangements to build the CW-Elmer as one of its products. So, a CW-Elmer may appear in your next MFJ catalog. Or, you can build one for yourself. To the left is a photo of my newly completed tutor. Now, I must get down to practicing those random code groups.

Welcome New Members

As the sun "awakens" somewhat after a long hiatus of minimal activity, it seems to have awakened a few hams to the fun and challenges of DXing. Three new names have been added to the CDXA roster since the January/ February Pileup.

Tommy Mitchell (W4ZM) of Davidson, NC was the first to appear shortly after the last issue of the Pileup went to press. More recently **Michael Eckard (KE4DHK)** of Mount Pleasant, SC wrote wondering whether we had members as far away as Charleston, SC. Since Charleston is much closer than the QTH of our most distant member in Trento, Italy, we assured Michael that "distance" is not an issue for DXers! To the North of Charlotte, **Harold "Hank" Aaron (WB4CW)** up near the crest of the Blue Ridge in Spruce Pine, is able to launch his signals from an altitude of greater than 3000 feet.

To our newest members, welcome to CDXA!

Arduino CW Trainer

The use of Arduino controllers, Raspberry Pi computers and other inexpensive "smart" electronics continues to bring innovative devices to many fields of endeavor--amateur radio being but one such field. Elsewhere in this newsletter is an article on one of the newer gadgets (CW-Elmer) assisting in Morse code training. But did you recall that CDXA's own **Tom Lewis (N4TL)** published an article in QST in September 2016 describing his creation to assist in mastering CW transmission? The article is entitled Arduino CW Trainer. Tom's creation took a slightly different approach by focusing primarily on receiving the code in your head and repeating what you heard by use of a PS/2 keyboard. After keying in a response, his device confirms that your keyed response was correct. Connections to the Arduino controller are almost of identical simplicity to that of the CW-Elmer discussed elsewhere in this issue. The primary difference is the need to connect a PS/2 keyboard to the Arduino. The CW Trainer has a more restricted speed range of 20 wpm to 30 wpm, but if your primary concern is improving your code copying speed, the Arduino CW Trainer may be your preferred choice. Details of Tom's creation can be downloaded from the archives at ARRL. Maybe now is the time to dabble with some Arduino technology before Cycle 25 makes being on the air an irresistible attraction!!

Pun Pfun

The joke may be on the readers of the Pileup. If your editor doesn't get some material submitted by the membership for the next issue, the entire issue may only consist of an anthology of puns. Then we'll listen for the real groaning. In the meantime, here is an example of what you may have to bear in future issues if nothing "materializes" from the membership.

What did the grape say when it got crushed? Nothing, it just let out a little wine.

A crazy wife says to her husband that moose are falling from the sky. The husband says, it's reindeer.

Did you hear about the restaurant on the moon? I heard the food was good but it had no atmosphere.

Need an ark to save two of every animal? I noah guy.

I don't trust stairs because they're always up to something.

Yesterday, I accidently swallowed some food coloring. The doctor says I'm okay, but I feel like I've dyed a little inside.

Never trust an atom, they make up everything!

Waking up this morning was an eye-opening experience.

Never discuss infinity with a mathematician, they can go on about it forever.

And the winner is: What do you get when you mix alcohol and literature? Tequila mockingbird.

Need a source for Printed Circuit Boards?

You'll have to pardon your editor for the commercial message below, but it just appeared in my email inbox. There are some of you that possess the patience at working with the chemicals to produce a PCB, but the folks at Digi-Key have now provided all of us a way to get a PCB ready for populating with components with less fuss. I make no assertions about the cost or quality of this vendor, but if you've been looking for an entity to make the circuit board for your newest "brainchild", this may be a company to look into.

Digi-Key is excited to announce DKRed™: a low-cost, quick-turn option for sourcing unpopulated custom printed circuit boards. Now you can order your parts – and PCBs – all from one reputable and trusted source. Key aspects of DKRed include:

- Low physical size minimum of 1 inch x 1 inch
- Cost of $6 per square inch
- Minimum purchase of 4 copies
- Order processing time of 10 days
- Free shipping to US addresses!

Boards are produced and shipped from the United States. With low minimum requirements in both terms of size and order, this service lends itself well to all stages in the journey from prototype to production and wherever a circuit board is needed.

DKRed can be accessed within the PCB Builder tool on the Digi□Key website. Start by uploading a Gerber file into the configurator to receive instant pricing and the ability to begin the checkout process.

Buying a new piece of radio gear?

A number of schemes have been used to introduce a new piece of radio gear to one's shack. They are as creative as the human mind can imagine! In a recent rendition of the comic strip "Pickles", cartoonist Brian Crane lets us into the world of Opel and Earl to observe what often happens when one tries to deceive a spouse.

PICKLES