



### President's Message

Members and friends, Peoria Area Amateur Radio Club finds itself in the same crucible facing other groups: We have work to do which requires many hands, but those hands are prevented from being in close quarters. This forces us to meet electronically, to face some extra challenges, and to be concerned for our own families in the new age of coronavirus. How we will get through to the end of this year will be a story of innovation and some struggle, but we will get there. Please be patient.

As 2020 rolled around, we believed we had our meeting-room, communications, and liaison situations well in hand. Now, there is every chance that Palm Sunday and Easter will pass without significant public gatherings to celebrate them. Like National Weather Service personnel, we are constrained by a series of restrictions on the close approach of individuals to one another, by the close presence in public of persons who may or may not be infected with coronavirus (or influenza, as I was), and the need to help each other to remain safe from the disease pandemic ravaging our world. It is a lot to think about, I know, but it is entirely necessary that we keep our heads and our distance during this national emergency.

In the months to come, PAARC will continue to plan for our expected September roll-out of Superfest. At the same time, daily issues such as repeater availability clamor for our attention. W9UVI (147.075 MHz) is a decision point, as is K9PEO (146.85 MHz). The question has been, "Is there sufficient access to WIRES-X and Fusion?" We are studying this while we look at present usage, and it is likely there will be changes to these two repeaters in the next couple of months.

If you are still trying to get your first license, or to upgrade to General or Amateur Extra, we have not forgotten you. There will at some point be opportunities to test and move forward; April 2020 sees the Morton Library closed and our social distancing orders in place, so that session cannot proceed. We will let you know when another is open (hopefully soon). I loved the feeling of successfully navigating a license examination, having done so for the first time in the summer of 1979.

Keep studying, volunteering, and being safe in an uncertain world; we will have to work a little harder for the future we want.

Jon A. Dainty, Sr., NM0O

President, PAARC

#### April Club Events:

April 2<sup>nd</sup>: Board Meeting

April Club Meeting:

**CANCELLED**

Please NOTE the April ARRL testing session has been **CANCELLED!**

April 23<sup>rd</sup>: Superfest Meeting TBA

#### May Club Events:

May 7<sup>th</sup>: Board Meeting

May 14<sup>th</sup>: Club Meeting at ARC

May 20<sup>th</sup>: ARES Meeting at ARC

May 28<sup>th</sup>: Superfest Meeting at ARC

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## Peoria County ARES

<u>Date/Time (CST)</u>	<u>Event</u>	<u>Location</u>
April 1st/ 8:00pm	NET	075 Repeater
April 8 <sup>th</sup> / 8:00 pm	NET	075 Repeater
April 16 <sup>th</sup> / 7:00 pm	Meeting	Teleconference

Meeting Agenda: Weather Spotting, Training, Voice NET Options, Winlink Peer-to-Peer VHF Net, Winlink Tip of the Month, Illinois ARES Website, and more.

Rich Holtman, KD9ANU, Assistant Emergency Coordinator for Peoria County ARES email: [kd9anu@arrl.net](mailto:kd9anu@arrl.net)  
Winlink: [kd9anu@winlink.org](mailto:kd9anu@winlink.org) Cell: 309-256-4272 ARES website: <http://www.peoriacountyares.org/>

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### Club Sunday Night Net

The club holds a weekly net on Sunday Evening at 8:30 PM Local Time on the 147.075 repeater. All Amateurs with 2-meter privileges are invited to check in.

The Sunday Night W9UVI Net check-in results for the month are shown in the table below.

March 1st	March 8th	March 15th	March 22nd	March 29th	Total:
22	17	26	29	28	122

March 1<sup>st</sup>: KD9HZZ, KD9JXR, K9TNT, KD9IBC, KD9FQL, KD9IVV, KB8SF, W9WGN, W9JPD, K9FIT, K8ROY, KC9YTT, KD9ANU, KD9NTP, K9JLX, KT9TB, N9SJZ, KB9ATO, W8NWG, KD9JFF, KD9ERS, KD9NYE Submitted by KD9DBQ 73

March 8<sup>th</sup>: KD9JXR, KD9IVV, K9TNT, AE9DM, W9WTF, W9WGN, KC9YTT, K9HJZ, KD9IBC, KT9TB, KB9TNZ, N9TYE, W8NWG, N9NDF, KB9ATO, W9TTX, KC9RAV Submitted by KD9DBQ 73

March 15<sup>th</sup>: KD9ERS, W8NWG, N9SJZ, K9TNT, NM0O, W9JDP, W9WGN, KD9IBC, W9TTX, KD9JXR, KD9HZZ, N9NDF, K9JLX, KD9W, KT9TB, KD9IVV, KD9NYG, KC9RAV, KB9ATO, W9WTF, KA9RYV, KD9NYE, W9GMK, KD9BRV, KD9ANU, K9CEW Submitted by KD9DBQ 73

March 22<sup>nd</sup>: KD9ERS, KD9JXR, K9TNT, KG9IW, KD9BRV, N9NDF, NM0O, W9WGN, W8NWG, KD9AER, W9GMK, KC9YTT, KD9IBC, KD9HZZ, N9SJZ, KA4DEB, K9HJZ, KD9MPI, KD9HZS, KT9TB, KA9RYV, KD9HZX, KD9IVV, KD9LQL, KB9ATO, N9GZ, KD9ANU, W9TTX, KD9NYE, K9FIT

March 29<sup>th</sup>: KD9JXR, N9SJZ, K9TNT, W8NWG, W9WGN, NM0O, KD9IBC, K9FIT, KB9ATO, K9HJZ, K9QZ, KD9AER, W9WTF, KD9IVV, KA9RYV, KD9JMX, W9GMK, K9CEW, KT9TB, N9NDF, KD9ANU, KD9HCY, W9GTX, KD9NYN, KD9BRV, N9GZ, KD9NYE, KC9CJ, Submitted by KD9DBQ 73

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### Club Directors

President Jon Dainty, NM0O; Vice President Craig Worrick, K9CEW; Secretary, Patty Martinez, KD9NYG; Treasurer Melinda Hubert, K9GOA; Directors Neil Hubert, KC8FYI (1 year); Jim Polson, W9JDP (2 Year) ; Trustee Tom Hunt, W8NWG; Superfest Chair Deb Suhs, KA4DEB.

## Minutes of PAARC Club Meeting

The March Club meeting was cancelled due to risk of COVID-19 exposure to our members.

### Repeater Committee to help maintain and improve PAARC's four repeaters and plans for the future.

One of the club's primary activities is the operation of area repeaters. We operate four repeaters, two analog and two digital modes (D-Star and Fusion). We want the repeaters to be easy to access and enjoyable for all users. Therefore, we are looking at ways to make better use of them including analyzing digital mode usage and improving access and ease of use of our analog repeaters.

These repeaters require attention and planning. Therefore, this year we put a Repeater Committee in place to assist in this process. The committee consists of Steve Grob, KD9AER, Neil Hubert, KC8FYI, Craig Worrick, K9CEW, Matt Behnke, KD9ERS, Corey Ressler, KC9RAV, Rich Holtman, KD9ANU, Gary Kantner, W9GMK and Tom Hunt (Club Trustee), W8NWG. This group brings a wide range of talents to the club, including expertise in digital (including D-Star and Fusion), analog, RF, IT, networking, facilities, planning, documentation, legal and other necessary skills. The Repeater Committee's primary purpose is to ensure smooth operation of our systems, developing ways to improve service, and to plan ahead for further innovations in VHF/UHF amateur communications.

At present, the 147.075 repeater operates in both analog and digital modes. We experienced problems with one of the nodes or "rooms" locking up and forcing the repeater to stay on the air in digital only for extended periods of time. This was extremely annoying for everyone and made the repeater essentially unusable. We found the problem to be with a node called "America Link." Not only was America Link giving us problems, but it was wreaking havoc on Fusion repeaters around the country. The only solution was to block out the offending node, which we did several weeks ago. The repeater is now functioning normally.

As always, we welcome your suggestion.

## Repeaters

The PAARC operates three 2-meter repeaters, which are open for all amateurs with 2-meter privileges. The 146.250 (input)/146.850 (output) (K9PEO) repeater is located in Glasford. The repeater uses a 103.5 Hz input tone. The 147.675 (input)/147.075 (output) (W9UVI) repeater is located in Groveland. This repeater is used for the Sunday night net. This repeater uses a 156.7 Hz input tone for CTCSS squelch control. The W9PIA D-Star 144.505 (input)/145.105 (output) repeater and 448.46875 (input)/443.46875 (output) repeaters are located in Groveland.

## Membership Information

Membership in the Peoria Area Amateur Radio Club is available to any licensed amateur and is administered as follows:  
Voting Membership: \$25 per calendar year. Ages 18 and under, or 65 and older are \$20 per calendar year.  
Family Membership: Voting membership for first member and \$15 for each additional member in same household. Non-voting Membership: \$10 per calendar year for amateurs who are interested only in occasional participation.  
Honorary Life Memberships: are free and are awarded by a vote of the general membership after

Steve Grob, KD9AER; Craig Worrick, K9CEW; Neil Hubert, KC8FYI; Matt Behnke, KC9ERS; Corey Ressler, KC9RAV; Tom Hunt, W8NWG (Repeater Trustee)

recommendations from the Board of Directors. Dues are payable by February 1ST of each year.

## Circuit Board for Bare-Bones Ventilator Moves Toward Production with Radio Amateurs' Help

04/01/2020

Radio amateurs continue to play key roles in developing the electronic control system for an open-source/architecture, modular, low-cost human patient ventilator. The device itself was designed by researcher Sem Lampotang and his team at University of Florida Health — the school's academic health center — using such commonly available components as PVC pipe and lawn-sprinkler valves. The idea is to create a bare-bones ventilator that could serve in the event of a ventilator shortage.

"The way I looked at it is, if you're going to run out of ventilators, then we're not even trying to reproduce the sophisticated ventilators out there," Lampotang said. "If we run out, you have to decide who gets one and who doesn't. How do you decide that? The power of our approach is that every well-intentioned volunteer who has access to Home Depot, Ace, Lowe's, or their equivalent worldwide can build one."

His team is working on adding safety features to meet regulatory guidelines, then they will run engineering tests to determine safety, accuracy, and endurance of the machine, which can be built for as little as \$125 to \$250.

Dr. Gordon Gibby, KX4Z — a retired associate professor of anesthesiology at the University of Florida and an electrical engineer — is among those involved in the project, developing control-system prototypes. He reports that a trial printed circuit board is being created, populated, and tested prior to large-scale fabrication. "This should lead to a documented open-source design that can be replicated or improved upon by any interested manufacturer," Gibby said, noting that the board could be built anywhere in the world, based on the Arduino Nano microcontroller.

"A huge amount of work has gone on in the design of the circuit boards," Gibby told ARRL. "We have at least two, maybe three designs, ready for fabrication." Current design specifications and a video of prototypes have been [posted online](#). The Arduino-based control software will set the respiratory rate and other key parameters in treating critically ill coronavirus victims. Other radio amateurs involved in the control system aspect of the project include Jack Purdum, W8TEE, and uBITX transceiver maker Ashhar Farhan, VU2ESE.

Using a [Groups.io](#) forum, up to 140 volunteers have been studying or working to push the project to completion. Software is being created by multiple volunteers, with amateur radio operators involved in that phase as well.

### Bandbits Policy

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The ventilator's valves will precisely time the flow of compressed oxygen into a patient with lungs weakened by viral pneumonia in order to extend life and allow time for the body to clear the infection.

Among the project's assumptions: The Food and Drug Administration will waive clearance for the bare-bones design, if a massive shortage develops; traditional medical components and supplies used in ventilators will be in short supply, and transportation will be impaired or disrupted.

<http://www.arrl.org/news/circuit-board-for-bare-bones-ventilator-moves-toward-production-with-radio-amateurs-help>

Commercial Products Channel Partner and full line of ICOM Land Mobile, Amateur, Marine and Avionics Dealer.

Midwest 2-Way also sells from brands such as Tram-Browning Antennas, Able-2 Lights and Sirens, Diga-Talk and Uniden.

Midwest 2- Way is owned and operated by Bill Schock, N9JOZ, for contact information visit [www.midwest2way.com](http://www.midwest2way.com)

Midwest 2-Way has a large assortment of pre-made coax jumpers in stock!

Midwest 2-Way is a proud supporter of Peoria-Area Amateur Radio Club.

#### AREA FCC EXAMS

##### Morton:

April 18 <sup>th</sup> <b>CANCELLED!</b>	June 20 <sup>th</sup>	August 15 <sup>th</sup>
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FCC Amateur Radio Exams are held at the Morton Public Library, 315 West Pershing at 12:00 noon the third Saturday of even numbered months. If no one is there at that time the examiners will leave as they are all volunteers. Walk-ins are welcome. Please bring your original Radio License (if any) and a copy, and the original and a copy of any of any Certificate of Completion (CSCE) not already acted upon by the FCC. Copies are needed to send with your license application. Fee for 2019 is \$15.00. You will also need identification such as a Driver's License, and a Social Security Number. Contact Bob Bush W9WTF at W9WTF@ARRL.net for more information.

##### Bloomington:

Please stay tuned for more dates

Testing is held at the Bloomington Public Library Community Room located at the intersection of E. Olive St. and S. East St. Entrance is off S. East St. Testing begins at 1:00pm. Bring two forms of identification. You will need a copy of your current license plus and CSCE you want to apply. Contact Keith Hanson AC9S at ac9s@hotmail.com (preferred) or (309) 378-4416 for more information. Note on testing – A Social Security number is now required for all FCC exams.