



## April 2020 Newsletter

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

From the ARRL Letter [April 9, 2020]

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

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 Lamptang 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," Lamptang 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.



Dr Gordon Gibby, KX4Z

Photo Univ of Florida

"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.

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.

### Links for Kansas Hams!

|                                     |   |
|-------------------------------------|---|
| ARRL Main Page                      | <a href="http://www.arrl.org">http://www.arrl.org</a>   |
| ARRL KS Section News Page           | <a href="http://www.arrl.org/Groups/view/kansas">http://www.arrl.org/Groups/view/kansas</a>                             |
| ARRL Midwest Director's Newsletter  | <a href="http://www.arrlmidwest.org/newsletter/newsletter.pdf">http://www.arrlmidwest.org/newsletter/newsletter.pdf</a> |
| Kansas Section Pages and KAR's      | <a href="https://ksarrl.org">https://ksarrl.org</a>   |
| Mo-Kan Regional Council of ARC Orgs | <a href="https://mokancouncil.org/">https://mokancouncil.org/</a>   |
| Associated Radio                    | <a href="https://www.associatedradio.com/home.php">https://www.associatedradio.com/home.php</a>                         |
| Kansas QSO Party                    | <a href="https://ksqsoparty.org/">https://ksqsoparty.org/</a>   |
| Ensor Museum                        | <a href="http://www.ensorparkandmuseum.org">http://www.ensorparkandmuseum.org</a>                                       |
| K-Link Repeater Network             | <a href="http://ks0lnk.net">http://ks0lnk.net</a>   |
| Sand Hills Amateur Radio Club, Inc  | <a href="http://www.SandhillsARC.com">http://www.SandhillsARC.com</a>   |

Links to all known Kansas Clubs can be found at the bottom of <https://ksarrl.org>  
If you change your Clubs web address, please contact Kent at [kb0rwi@arrl.net](mailto:kb0rwi@arrl.net)



# S.A.T.E.R.N.

Salvation Army Team Emergency Radio Network

<http://satern.ksarrl.org/>

### Net Reports provided by Richard, KØRCJ

Wichita Amateur Radio Club (WARC)

5 Sessions, QNI: 188, QTC: 0

WARC Fusion nets

5 Sessions, QNI: 40, QTC: 0

QCWA

4 Sessions, QNI: 37, QTC: 0

Reno County KS ARA (RCKARA)

4 Sessions, QNI: 58, QTC: 0

WARC DMR nets

5 Sessions, QNI: 45, QTC: 0

Great Salt Plains ARC (GSPARC)

5 Sessions, QNI: 64, QTC: 0

KS SSB and Phone Nets

31 Sessions, QNI: 977, QTC: 82

KØRCJ

PSHR: 1:40 2:40 3:30 4:0 5:0 6:30 TOTAL: 140



**Supporting Our Veterans - Honorably Discharged**  
[S\\*M\\*A\\*R\\*T - Special Military Active Retired Travel Club](#)

*KCONDG Sherwin  
or SARG; EX-K102 1960 to 1987  
or TOP, 1SG ; Army USAR, Retired 1951 to 1987 --- final discharge 1994*

God Bless those who have served this great country AMERICA

Proud Military Veteran

SEEING THE COUNTRY WE DEFEND

SHERWIN & DOROTHY STIELOW

## Silent Keys

As a service to fellow hams across the state, I urge all individuals and Clubs to send me Silent Key notices. Please include a link to an obituary. I watch Larry's List for announcements of hams from Kansas. If you are not on Larry's List, I will forward the notice to him. He in turn notifies the ARRL. As Larry cannot include pictures, I do my best to find images so that a face can be put with the name and call. Thank you!

### **Vernie L. Ellis, KØIEW**

Vernie L. Ellis, of Kansas City, Kansas, passed away on Tuesday, October 29, 2019 at the age of 94 at The Piper Assisted Living and Memory Care facility. Vernie was born December 15, 1924 to Ermal and Lester Ellis in Maysville, Missouri. He graduated from Maysville High School in 1942. On March 3, 1946, he married Evelyn Schler and had 56 years of marriage before her death in 2002.



Vernie L. Ellis, KØIEW

He worked at the North American Aircraft Plant in Fairfax as well as Stewart Warner, and Westinghouse. Vernie retired from Western Electric where he was an electronic technician. He then volunteered many years with the AT&T Pioneers repairing equipment for "Talking Books". He also enjoyed being an Amateur Radio Operator (Ham Operator) KØIEW, talking to other hams all over the world. He also enjoyed traveling. He was a longtime member of Trinity United Methodist Church in Kansas City, Missouri.

Vernie was preceded in death by his parents; wife, Evelyn; son, Dana; and seven siblings. Vernie is survived by his daughter, Pat Hurrelbrink (David); grandchildren Bill Hurrelbrink (Missy) and Amy Hover (Joshua); 4 great grand children and brother Alvin Ellis (Vivian).

Thank you to the staff at The Piper for 4 years of loving care.

In lieu of flowers, the family requests donations to the charity of your choice in Vernie's name. Services will be held Monday, November 4th at Maple Hill Funeral Home, 3300 Shawnee Dr. Kansas City, Kansas. Visitation is at 10am and funeral services at 11am. Graveside service to follow at the cemetery.

### **Guy K. Clark, ABØDP**

Guy K. Clark, ABØDP 66, died March 3, 2020. He was born July 3, 1953, in Hutchinson, to William and Bertha Marie (Jantzen) Clark.

Guy graduated from Hutchinson High School in 1971. He was an Avionics Technician, until he retired. In Guy's younger years, he enjoyed riding his Harley Davidson, especially for the Wichita Association Toy Runs. But, Guy was most well known as a Ham Radio Operator, with his call sign, 'ABØDP'.

Guy is survived by: daughter, Jeana Clark (Andy Lester) of McHenry, IL; son, Jack Clark (Rebekah); grandson, Samuel Clark, all of Washington, IL; sister, Becky Vincent (Ron) of Hutchinson; former wife, Cheryl; and stepchildren, Norman and Razella.

He was preceded in death by his parents.

Cremation has taken place. The family will greet friends from 1:00 to 3:00 p.m. Sunday, March 8, 2020, at Elliott Mortuary, Hutchinson. Friends may call from 9:00 a.m. to 5:00 p.m. Friday and Saturday and 1:00 to 5:00 p.m. Sunday at Elliott Mortuary. In lieu of flowers, memorials may be made to The Salvation Army, in care of Elliott Mortuary, 1219 N. Main, Hutchinson, KS 67501.

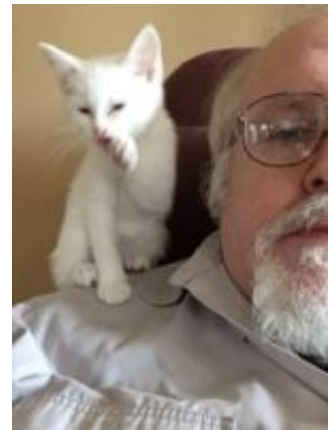
<https://www.elliottmortuary.com/obituary/guy-clark>

### **Richard Dale Carver, WAØKS**

Richard Dale Carver, 64, of Shawnee, Kansas, passed away peacefully at home on April 5, 2020, surrounded by his loving family.

He was born June 7, 1955 in El Dorado, Kansas, and attended school much of his life there, finishing in Odessa, Texas, and graduating from Hamilton High School in Hamilton, Kansas in 1973.

He enlisted in the United States Air Force in 1973. He trained as a Ballistic Missile Systems Analyst at Sheppard Air Force Base in Texas and was permanently stationed at McConnell Air Force Base in Wichita, Kansas. On August 31, 1974, he married his high school sweetheart, Teresa Hayes, in El Dorado, Kansas. They were blessed with 3 children, Brian (41), Barrett (40), and Kelle (27).



Upon completion of Service in 1979 he became a chemical plant engineer and shift supervisor at Abbott/Air Products Chemical Plant in Haysville, Kansas. Upon moving to the Kansas City area in 1992 he worked as a technical writer and IT engineer throughout the course of his career. He retired in 2016. He spent many enjoyable years with his numerous and varied interests. He and friend John are fishing the heavenly lakes now. He enjoyed traveling, highlights of which include a houseboat vacation on Rainy Lake in upper Minnesota and a trip to Anchorage, Alaska. He was an expert marksman with many awards in Skeet shooting. He was a gunsmith for a number of years. As a Master Mason he was a proud member of Shawnee Lodge 54 and also of Scottish Rite and Rosicrucian and served the Grand Lodge of Kansas. He loved smoking cigars with his fellow Brother Masons. He was an avid HAM radio operator and served on the Shawnee CERT (Community Emergency Response Team) and as a certified national storm spotter.


He was preceded on his heavenly journey by his parents, Merle and Emma Carver. He leaves behind

his wife of 45 years, Teresa, and sons Brian (Shawnee) and Barrett (Michigan) and daughter Kelle (Overland Park), as well as granddaughter Katie and a great grandson.


<https://www.amosfamily.com/richard-dale-carver/>

| <b>KANSAS HF NETS</b>          |         |        |            |                            |
|--------------------------------|---------|--------|------------|----------------------------|
| UPDATED November 6, 2019 11:19 |         |        |            |                            |
| Days                           | Time    | Mgr    | Freq       | Net Name                   |
| M, W, F                        | 6:45AM  | KØRCJ  | 3920 KHz   | Kansas Phone Net           |
| Daily                          | 7:00AM  | WBØBWE | 3920 KHz   | Kansas AM Weather Net      |
| Sat, Sun                       | 8:00AM  | KØRCJ  | 3920 KHz   | Kansas Phone Net           |
| Mon -Fri                       | 12:30PM | KC5MP  | 7253.5 KHz | Central States Traffic Net |
| Daily                          | 6:00PM  | WBØBWE | 3920 KHz   | Kansas Weather Net         |
| Daily                          | 6:30PM  | KØRCJ  | 3920 KHz   | Kansas Sideband Net        |
| Daily                          | 7:00PM  | NB0Z   | 3547 KHz   | QKS CW NTS Traffic Net     |
| Mon                            | 7:30PM  | WD0ESF | 3547 KHz   | QKS SS CW Traffic Net      |
| Daily                          | 10:00PM | NB0Z   | 3547 KHz   | QKS CW NTS Traffic Net     |

I have posted public service nets on <https://ksarrl.org/traffic.php>



## ARES – Amateur Radio Emergency Service



Complete list of ECs and a printable State ARES map <https://ksarrl.org/ares/>

<https://ksarrl.org/ares/alphaks.php/>

<https://ksarrl.org/ares/distks.php>

### AMATEUR RADIO EMERGENCY SERVICE

### MONTHLY EC REPORTS

◆ **Zone 4A – Brian KCØBS**

MARCH MONTHLY ARES REPORT TO DEC & SEC

Total of ACTIVE ARES members: 150 +0

Local Net Name: Johnson County ARES

Emergency Coordinator = Brian Short KC0BS 913-638-7373

Alternate Emergency Coordinator, Recruiting = Jim Andera K0NK 913-884-6613

Assistant Emergency Coordinators:

Herb Fiddick - ECS Liaison

George McCarville WB0CNK - Training, Drills

Matt May KC4WCG - IDs, MECC

Bill Gery KA2FNK - Recruiting, Technology

Darren Martin N0MZW - Net Manager

Brad Kelsey KU0FAN - Membership

Jesse Gonzalez KE0ECS - CERT

Chuck Simpson KC0NUG - Rapid Response

Jim Andera K0NK - KCHEART

NTS liaison is maintained with the KS SSB Net:

Jim Andera K0NK

Terry Reim WA0DTH

George McCarville WB0CNK

Jim Cordill KI0BK

Debbie Britain AB0UY

Rich Britain N0ENO

Net Sessions: 51

QNI: 364

QTC: 0

5 nets - 2 Meter Voice

4 nets - 440 Voice

4 net - 440 Fusion Digital

5 nets - 2 Meter SATERN Voice

4 nets - CW

5 nets - 6 Meter

5 nets - 2 Meter Voice Simplex

5 nets - PSK 31 SATERN

5 nets - APRS Packet

4 nets - 1.25 Meter

5 nets - SATERN 80 meter SSB

Report prepared by:

Darren Martin N0MZW

Johnson County Kansas

◆ **Zone 6A, E & G – Rod K0EQH**

Kansas ARES Net Report Zones 6A, E & G, March 2020

Total Nets.....5

Total QNI.....38

Stations participating: WB0QYA, N0KQX, N0OXQ KD0TWO, AC0E, N0OMC, KG0VA, KD0LQD, K0EQH, KL0CP

Welcome Michael, KLOCP, visiting the area.

SHARC held it's April meeting April 2 by way of a 'virtual' gathering via the area UHF system. 8 members present with discussion on Field Day 2020.

Rod  
KOEQH

NCS



**Tom's Key Strokes - WØEAJ**

Denver, Co. Displaced Kansas Neighbor  
and very gud friend!

[radio@daileyservices.com](mailto:radio@daileyservices.com)



## The Montgomery Ward "Airline"

The "Willard Radio". On this radio, a 1941 Montgomery-Ward "Airline" table model, the Smatlas listened to President Roosevelt announce the bombing of Pearl Harbor and our entry into World War II on December 8<sup>th</sup>, 1941 (the attack was on the 7<sup>th</sup>).. Uncles Hank & Ben were already in the Navy. Ben graduated from Boot Camp in August of that year, and Hank had already seen action in the North Atlantic escorting Allied convoys and fighting German U Boats.

I remember listening to to this radio when I was a very little boy (late 1944 – 1946) in Willard, and after 1951, North of Rossville. Typically, it was turned on only TWICE a day... for the Morning weather, and at Noon, for the farm reports and again, the weather. Mom told me that MUCH LATER on, Aunts Alice, Marie, and Mom would sometimes sneak a listen to radio shows like *The Great Gildersleeve*, *Fibber McGee & Molly*, *Our Miss Brooks*, and others. In those early days, it was ALWAYS tuned to 580 kilocycles – WIBW in Topeka.

Now, electronically restored, it sings of times gone past and a history of our family and our nation.

I cleaned the WOOD cabinet and treated it with Old English furniture polish, choosing NOT to restore the cabinet any further, maintaining the "patina" of age. All the old capacitors (condensers) were replaced and a full alignment was done. The knobs (which still read "VOLUME" and "TUNING") were scrubbed in soapy water, and then sprayed with Pledge to restore their original finish. The dial and window (real glass!) were cleaned with alcohol, then Windex, and the chassis was cleaned of all dust and dirt. All tubes were checked (1 was original!) and found to be good (two USN types were installed – thanks, Ben!). The tube-pin sockets, and variable (tuning) capacitor were cleaned and

### **B & H SALES**

*Amateur Radio Equipment*

Alpha Delta accessories, ARRL publications, Comet Antennas, Hustler, LDG Electronics Equipment, MFJ, Tram, Wilson, W5YI Study materials

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Email: [derbyradioshack@cox.net](mailto:derbyradioshack@cox.net)

treated with DeOxIT (the BEST electronic cleaning agent on the planet), and the chassis reinstalled in the now "almost shiny" cabinet. (would you believe... there's a sheet of ASBESTOS under the chassis, to protect the wood from burning! Ha ha ha)

Note: many of the wires underneath the chassis, when touched, shed their insulation like old tree-bark, so I was very careful about touching them unless absolutely necessary. The audio output (speaker) transformer has a date of OCTOBER 1941 ink-stamped on it, so Grandpa must have bought this one NEW.

I'd restored it once in 1998, but the filter capacitors failed (cheap Japanese components – must have been revenge!). Uncle Bill placed a tag on the back (he tagged EVERYTHING) saying that it was not working right, and to give it to ME. Maybe he sensed something... who knows.

Watching it's soft glow and detecting once again, that beautiful eau d'cologne of capacitors, wire insulation, resistor bakelite and warm tube-dirt... well, it wasn't just the sound that filled my heart with joy... it was that it played the song of... FREEDOM.



Montgomery Ward "Airline"