



Affiliate

# Printed Circuit

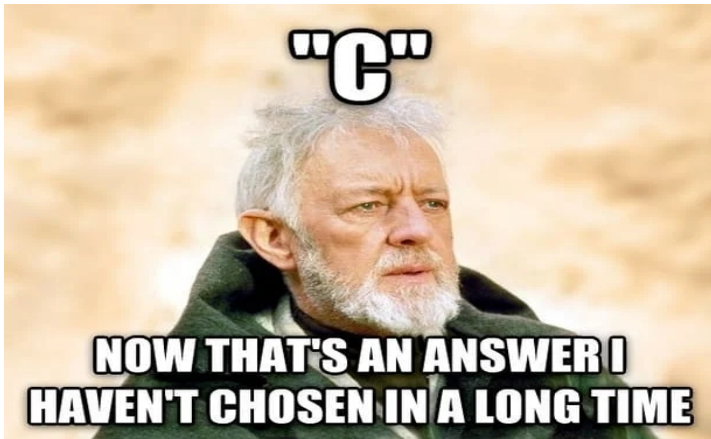
– Sep/Oct 2023 –

Published by the Southwest Iowa Amateur Radio Club Inc.

SWIARC meets the 4<sup>th</sup> Thursday of every month at the Loess Hills Red Cross Chapter  
Charles E. Lakin Human Services Campus  
705 N. 16th Street Council Bluffs, IA 51501



Visit us at <http://www.swiradio.org>



## New Question Pools for Exams

The Question Pools are developed and maintained by the Question Pool Committee (QPC) of the NCVEC (National Conference of Volunteer Examiner Coordinators) by FCC instruction and Part 97 Rules & Regulation : **Sec. 97.523 Question pools** ‘All VECs must cooperate in maintaining one question pool for each written examination element. Each question pool must contain at least 10 times the number of questions required for a single examination. Each question pool must be published and made available to the public prior to its use for making a question set. Each question on each VEC question pool must be prepared by a VE holding the required FCC-issued operator license.’

The question pools are normally valid for 4 years and the current Question Pools are as follows:

Element 2 - Technician - Effective July 1, 2022 until June 30, 2026

Cont Page 2

## The Action 2023

- Sept 2<sup>nd</sup>-30<sup>th</sup>  
8am-930am **Saturday Breakfast**  
[Sugars Diner\\*](#)
- Sept 2  
9-1030am **Heartland Hams Monthly Breakfast**  
[Tobey Jacks Mineola Steak House\\*](#)
- Sept 9 + Oct 14 **Coffee at Lake Manawa**
- Sept 16  
9am-9pm CT **Iowa QSO Party**  
[Link for more](#)
- Sept 23 9-1pm **SOOLAND ARC Hamfest, Sioux City, Ia**
- Sept 28  
7-8pm **SWIARC Club Meeting**  
[Red Cross Building\\*](#)
- Oct 7<sup>th</sup>-28<sup>th</sup>  
8-930am **Saturday Breakfast**  
[Sugars Diner\\*](#)
- Oct 7  
9-1030am **Heartland Hams Monthly Breakfast**  
[Tobey Jacks Mineola Steak House\\*](#)
- Oct 26  
7-8pm **SWIARC Club Meeting**  
[Red Cross Building\\*](#)

ADDRESS	Sugars Diner	Red Cross CB	Tobey Jacks
	2725 E Kanesville Blvd, Council Bluffs, IA 51503	705 N. 16th Street Council Bluffs, IA 51501	408 Main St, Mineola, IA 51554

**Iowa State QSO Party**  
September 16<sup>th</sup> 2023  
9:00am to 9:00pm CT

### Purpose:

The purpose of the Iowa QSO Party is to encourage contact with Iowa amateur radio stations by other Iowa hams and hams worldwide.

### Planned County Activations:

Are you planning to activate one or more Iowa counties?

Email us at

[iowaqsoparty@hotmail.com](mailto:iowaqsoparty@hotmail.com)



# Shack Chat



## John's in QST p.50

NEWS / WEDNESDAY, AUGUST 9TH, 2023

John WBOCMC has a tech article in the August 2023 QST magazine on p.50. He made an audio signal generator, engineered it, and even made the circuit board himself. Wait, it gets better. He's making his own ADF (Automatic Direction Finder) system, and to test it he needed 2 audio signals in quadrature (same freq – one offset 90 deg phase). So he made it.

Contributed by: WA0ZQG

## August Meeting Presentation

by Craig KdØYTI

This month's meeting presentation was on a couple of extremely portable antennas. Craig brought a Wolf River Coil and a Chelegence JVC12 with both taking around 5 minutes to deploy and be on the air!

With a couple of radials and an SWR Tuner these antennas can operate on multiple bands.

The JPC-12 came packed in a extremely small tote bag, the sections break down to 35cm lengths, and at 3.8 lbs it is very light.



Figure 2: JPC-12 Broken Down

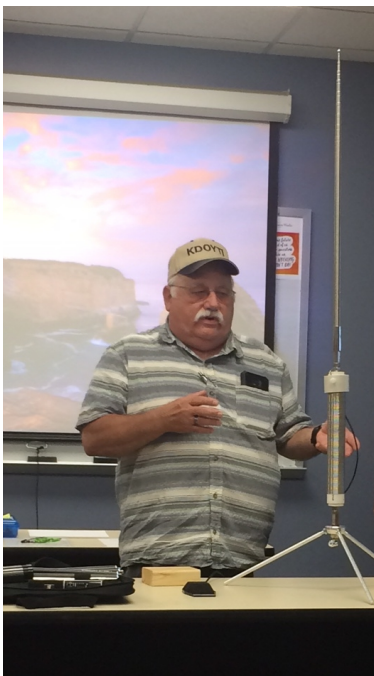


Figure 1: Craig and Wolf River Coil

## New Question Pools for Exams

(Continued)

Element 3 - General - Effective July 1, 2023 until June 30, 2027

Element 4 - Extra - Effective July 1, 2020 until June 30, 2024

Each FCC Element or question pool consists of at least 10 times the number of questions required for a single examination and is released to the public normally 6 months prior to becoming effective for use in examinations to allow plenty of time for publication and study. Each element or pool has a syllabus that is broken down into main sub-element sections (normally 10) and an unlimited number of sub-topic sections under each sub-element. Each sub-element is numbered with a prefix designating the Element number, example T1, T2 etc, followed by the subtopic letter for the section of each sub-element, example T1A,,T1B, etc.

The Question Pool Committee invites submissions for use in all Amateur Question Pools. Currently, the QPC is reviewing and developing a new Element 4 - Extra Class question pool to become effective July 1, 2024. To provide comments or actual questions for consideration to the QPC by email to [qpcinput@ncvec.org](mailto:qpcinput@ncvec.org)

When submitting actual questions for QPC review please provide the following in plain ASCII text.

Cont Page 3

SWIARC ONLINE



## IMPORTANT REMINDER

SWIARC Club Dues \$20/year starting in 2023.

You may bring a check to any 4th Thursday club meeting, or send it to the club address.

SWIARC INC

PO BOX 661

COUNCIL BLUFFS IA 51502

Dues for students are half price!


## ARRL Files Comments Against “Seriously Flawed” HF Rules Petition

08/02/2023

ARRL The National Association for Amateur Radio®, as part of its mission to protect Amateur Radio, has filed comments against a proposal that would introduce high-power digital communications to the shortwave spectrum that in many instances is immediately adjacent to the Amateur HF bands.

The “Shortwave Modernization Coalition” (SMC), which represents certain high-frequency stock trading interests, filed the petition with the Federal Communications Commission (FCC). (Previous coverage can be found on ARRL News.) ARRL responded on behalf of its members and the 760,000 licensees of the Amateur Radio Service in the US.

The ARRL Laboratory performed a detailed technical analysis over several months to determine if the proposed rules would affect operations on the bands allocated to Radio Amateurs that are inter-mixed with the Part 90 bands in the spectrum in question.

For more info click here [ARRL.Org](https://www.arrrl.org) 

### **SWIARC REPEATERS and NETS:**

#### **Club Repeaters**

Primary Club Repeater: 2M @ 146.820 R- No PL

SWIARC digital C4FM 442.225 PL 136.5 Wires-X connected.

#### **Club Nets**

146.82 Tues. OPS Net 9:00 pm - 10:00 pm

146.82 Wed. Ragchew Net 9:00 pm - 10:00 pm

146.82 Sat. Swap Net 12:00 pm - 1:00 pm

**More Local Nets here: <https://swiradio.org/ants/>  
and  
a clippable list on Page 5**

### **Emmet Tinley NØCSD (sk)**

It saddens me to announce the passing of one of our local amateurs. Emmet Tinley III, NØCSD was active in SWIARC in the late 70's and into the '80s and '90s. Emmet passed away on June 21, 2023.

**-Paul WBOGXD**

### **New Question Pools for Exams**

*Continued from Page 2*

- (1) Questions must have no more than 210 characters, including spaces, or a maximum of three 70 character lines.
- (2) Distractors must be no more than 140 characters, including spaces, or two 70 character lines in length.
- (3) Each multiple choice question must be accompanied by 4 possible answers. The answers may be in any order, but the correct answer must be indicated.
- (4) Provide resource for correct answers or Part 97 rule to support correct answer and explanation of the correct answer for QPC review.

If you want to locate a Volunteer Examiner (VE) to administer an operator license examination to you or to file other applications for you, such as an application for renewing your license, change of address, or change of name, or if you are an amateur radio operator and would like to be accredited as a VE, Check the link for more information: [Volunteer Examiner Coordinators](#)

### **ARC Newsletter Publications from around the US.**

**This Name from the Smoky Mountain ARC**



**Smoky Signals**

Smoky Mountain Amateur Radio Club

Summer 2023





## **Remember Jack Edward Burchfield of Ten-Tec and Inductee of the Amateur Radio Hall of Fame**

Jack Edward Burchfield, K4JU, 88, of Clemson, S.C, and formerly of St. Joseph and Seymour, Tenn., passed away on July 15, 2023.

He was born in St. Joseph, the son of Gerald and Hildred (Hawks) Burchfield, and grew up in the house that his grandfather built in 1898.

He was a graduate of the University of Michigan, receiving a bachelor's of science and a master of science in electrical engineering.

Jack attended the University of Michigan funded in full with a scholarship from the Whirlpool Foundation. He was one of its first two scholarship recipients. His original plan was to attend the University of Michigan for two years and then transfer to the Massachusetts Institute of Technology (MIT). Early in his freshman year, he met a young lady at a freshmen dance. Marian Allerton Blakeslee became the love of his life; the transfer to MIT never occurred. They were married for 62 years.

While at the University of Michigan, Jack lettered as a member of the gymnastics team with a specialty in trampoline and tumbling. Even in his mid-80s, his preferred way of tying his shoes was to swing his leg up on the kitchen island. He was also a cheerleader and was one of the founders of its alumni cheerleading group. Jack was a member of the Vulcans, a University of Michigan honor society for engineers, as well as Tau Beta Pi, the engineering equivalent of Phi Beta Kappa. He was also a member of the Theta Xi fraternity.

Jack began his career with Electro-Voice in Buchanan as an acoustical engineer. In the late 1960s, he, along with Albert Kahn and Tom Mitchell, founded Ten-Tec, a manufacturer of amateur radio equipment in Sevierville, Tenn. Jack designed the initial line of products and most of the radio equipment that followed. His radios were on display at the Smithsonian Museum of American History for many years. He was an amateur radio enthusiast known by his call sign of K4JU and was inducted into the Amateur Radio Hall of Fame in 2004.

Jack had a quick wit and loved to make people smile. Even when dementia had robbed him of his ability to speak, he would find a way to coax a laugh or a smile out of people. You could see the twinkle in his eye, and his smile would form.

He is survived by his daughters: Beth (Gary) Kern and Cathy (Bert) Wall, as well as his son, Ed (Shelley) Burchfield. Also surviving are seven grandchildren: Emily, Holly, Josh, Adam, Sam, David and Alex, and six great-grandchildren.

Services will be at 11 a.m. on Monday, July 31, at Starks Menchinger Funeral Chapel in St. Joseph, with visitation at 10:30 a.m.

Donations in lieu of flowers may be made to the Department of Electrical Engineering and Computer Science at the University of Michigan.

Published by The Herald-Palladium on Jul. 24, 2023.



### **Submit an article to the SWIARC Newsletter**

We encourage your involvement. Share your stories, wit, knowledge, experience, and upcoming events here. Submit your articles at a SWIARC Meeting, or to [newsletter@swiradio.org](mailto:newsletter@swiradio.org) or SWIARC PO Box 661 Council Bluffs, Iowa 51502. Please use this email address to also make requests for newsletter re-prints and your feedback of the newsletter.

# S.W.I.A.R.C.

## Join the Club!

SWIARC club dues are \$20/year for 2023. You may bring a check to any 4th Thursday club meeting, or send it to the club address:

SWIARC INC.

PO BOX 661

COUNCIL BLUFFS IA 51502

Dues for students are half price per year.

## Club Officers

President Derek W0TYG

[president@swiradio.org](mailto:president@swiradio.org)

Vice President Craig KD0YTI

[vicepresident@swiradio.org](mailto:vicepresident@swiradio.org)

Secretary Rich WA0ZQG

[secretary@swiradio.org](mailto:secretary@swiradio.org)

Treasurer Greg N0GR

[treasurer@swiradio.org](mailto:treasurer@swiradio.org)

StationTrustee Chris KF0FBL

[repeater@swiradio.org](mailto:repeater@swiradio.org)

Paul WB0GXD (Assistant)

## Club Committees

Repeater Chris KF0FBL

[repeater@swiradio.org](mailto:repeater@swiradio.org)

Paul WB0GXD (Assistant)

Field Day

[fieldday@swiradio.org](mailto:fieldday@swiradio.org)

Hamfest Derek W0TYG

[hamfest@swiradio.org](mailto:hamfest@swiradio.org)

## Other Contacts

Ham Testing

[testing@swiradio.org](mailto:testing@swiradio.org)

Estate Sales Rick KA0RLR

[estates@swiradio.org](mailto:estates@swiradio.org)

Newsletter Rich K0RWJ

[newsletter@swiradio.org](mailto:newsletter@swiradio.org)



# More Local Nets

## Sunday

02:00 PM	50.2 Mhz	6 meter net
07:50 PM	144.25 2M USB	Heartland Hams
09:00 PM	146.94	Aksarben ARC

## Monday

07:00 PM	145.29	Heartland Hams ARES informal net
08:00 PM	147.39 PL: 131.8	Bellevue ARC
09:00 PM	146.94	Aksarben ARC Chat Net

## Tuesday

07:00 PM	147.36	QCWA Net, Chapter 210 (seasonal, October through March).
09:00 PM	146.82	K0SWI SWIARC Tuesday OPS Net

## Wednesday

07:00 PM	146.67	Dodge Co. Ne. ARES
08:00 PM	147.39 PL 131.8	Mid-America Council Radio Scouting Net
09:00 PM	146.82	K0SWI SWIARC

## Thursday

07:30 PM	145.31	Lincoln Ne. SATERN Net.
08:00 PM	28.35	10-Meter SSB Net.
08:00 PM	144.25	2-Meter Simplex U-SSB Net.
08:00 PM	146.36	Heartland DX Ass.
09:00 PM	28.305	10-Meter Net.

## Friday

## Saturday

09:00 AM	146.775	Pawnee ARC
12:00 PM	146.82	K0SWI SWIARC Swap Net
07:00 PM	145.29	Heartland Hams Tech. net
08:30 PM	3.921.00	QCWA Chapter 20.

Want Other Nets listed ? Let me know, email [newsletter@swiradio.org](mailto:newsletter@swiradio.org)

## Hey Fellow Hams

Let's put together a "Beacon" Lists for local Ham use ?

Send me your Beacon Knowledge and I will publish it in a future Printed Circuit issue. <mailto:newsletter@swiradio.org>

# Minutes 06/2023

Meeting began right on time, 7 PM, with the pledge to the flag (projected on screen) and club Pres Derek TYG leading introductions.

<b>Derek</b>	<b>W0TYG</b>		
<b>Allen</b>	<b>K0AAI</b>	<b>Terry</b>	<b>KS0L</b>
<b>Don</b>	<b>W0AF</b>	<b>Rick</b>	<b>KA0RLR</b>
<b>Bruce</b>	<b>N0BHB</b>	<b>Rich</b>	<b>K0RWJ</b>
<b>Fred</b>	<b>K0FG</b>	<b>Dan</b>	<b>KB0TDW</b>
<b>Bill</b>	<b>KD0FJR</b>	<b>Den</b>	<b>WA0VJL</b>
<b>Greg</b>	<b>N0GR</b>	<b>Wayne</b>	<b>KN0WDJ</b>
<b>Paul</b>	<b>WB0GXD</b>	<b>Craig</b>	<b>KD0YTI</b>
<b>Norm</b>	<b>WA0JYD</b>	<b>Rich</b>	<b>WA0ZQG</b>

Greg N0GR began with a program on the **Yaesu WIRES-X** system using a dual band mobile connected to a laptop, displaying a duplicate screen on a 32 inch monitor so we could see it better. Contacts were made with a VE3 in Canada, former active club member **Fred K0FG** (ex WB0BLR) in Missouri, and then Andrew ZL1KN hours South of Auckland NZ, all without a Watt fired out of the radio.

## Business Mtg.

Minutes of last month's meeting were approved and Treasurer reported \$8,173 in the bank plus \$45 from Jay W0ENX and \$20 from KS0L.

There was no discussion of Field Day.

**Explanatory Note:** Although we have a \$400 budget for FDay, we do not have a chairman, and those who do it privately may assign their points to the club when reporting to the ARRL.

## Repeater

As reported earlier Paul GXD got our old antenna from the Simms site and John QKH has made minor repairs to it. The VHF .82 is using our 'remote' receiver at IWCC and a temp antenna at Memorial Park for transmit.

The UHF 442.225 is on a 170 ft tower at Minden (nearer Greg N0GR's house) running 100W. That's the one that'll run either FM or the Yaesu digital C4FM mode, also with WIRES-X functionality through a link to Greg's house.

Club equipment includes 4 repeaters. (See the articles on club site, **SWIRadio** dot org, titled '**Mtg Highlights**' for more on this.) One of the 2 Yaesu 7000 boxes is on .82 and the other is sick, only 8 W out instead of 50 rated. The dual band Yaesu Fusion repeater is on .225 out in Minden Iowa, and a 10W transmit board from our 1990s Kendecom box lies in wait. The 3 Yaesu items are synthesized while the 10W Kendecom is crystal controlled. (i.e. The Yaesus will work on .94 or any other VHF freq.)

The Memorial Park site is due for tower work, perhaps in August, and if we pay \$4.6k they'll put our antenna on top – 200 ft. Don W0AF made a motion to repair the 2<sup>nd</sup> Yaesu 7000. Passed. The final transistor goes for \$69.

## New Business

Terry KS0L passed along thanks from Pride Week parade, and mentioned a Veteran's parade in November. He also offered a bunch of old QST magazines which were snapped up.

PARC has a Hamfest in North Bend NE 08 July. Paul GXD wants a program on DMR.

Meeting adjourned 8:09 PM.

Minutes by Club Sec'y, WA0ZQG

## Program

This is Greg N0GR with the WIRES-X demo.

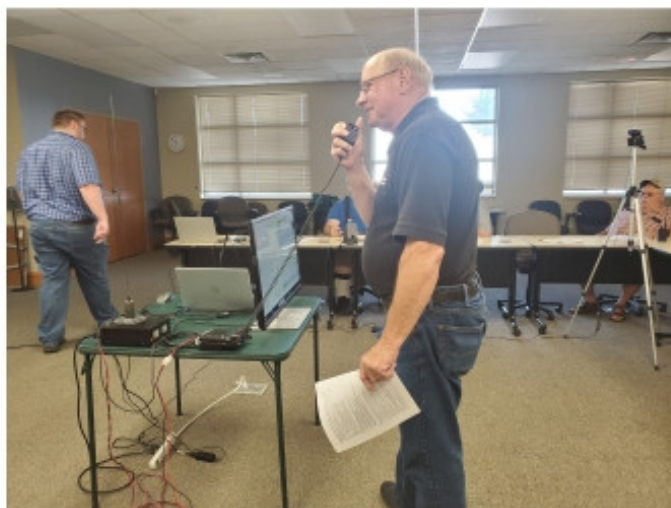


Table L to R: p/s and Yaesu radio.  
No RF was transmitted.



# Minutes 07/2023

It was 92 deg. F today, but air-conditioned in the Red Cross building. Derek TYG set up **Zoom** in case people wanted to stay at home, and began the meeting promptly at 7PM with the pledge.

Derek	W0TYG	Kevin	N0MHK
Allen	K0AAI	John	KB0QKH
Keith	KE0AEP	Rick	KA0RLR
Bruce	N0BHB	Rich	K0RWJ
Tom	AB0ER	Dan	KB0TDW
Bill	KD0FJR	Suz	KE0WYL
Greg	N0GR	Craig	KD0YTI
Mark	KF0GVT	Rich	WA0ZQG
Paul	WB0GXD	(17)	

Greg N0GR still had stuff left over from an estate sale in Omaha, even after Don AF, Steve ORU from Anita, and Joel OQL looked it over a month ago, and handed out another bunch to those present using a combination of drawn numbers and specific 'gifts' (with some present hesitant to accept them, you know, the XYL).

John QKH, DVD player/recorder  
Craig YTI, mini AM/FM stereo  
John QKH's name again, for a DVR  
Kevin MHK, VHS player & AM radio  
Bruce BHB, asst video tapes  
Derek TYG, box w audio amp mode D modules  
Tom AB0ER, large box  
Rich RWJ, MFJ 16011 ant tuner  
Bill FJR, Heathkit GDO (Grid Dip Osc)  
Kevin MHK, 2 cassettes  
Craig YTI, Scott AM/FM stereo  
Keith AEP, asst DVDs  
Keith AEP, transistor kit  
Kevin MHK, AM/FM headset radio  
Allen AAI, something.  
Mark GVT, box  
Rick RLR, calculator  
Allen JHA, calculator  
Rich ZQG, ATT trimline phone

Rich ZQG handed out a Consp Theory sheet, and suggested an assortment of conditions and regulations that will result in TEOTWAWKI by mid winter. We'll see.

## Business Mtg.

Previous month's Meeting Minutes and this month's Treas report were accepted, a balance of now \$3,631 which is **4600 less** than last month after paying a tower crew to install an antenna.

## Repeater

Good news is our UHF 442.225 works great from a 200 ft tower on a hill in central CoBlfs. We were going to have .82 there, but after putting up the antenna (for \$4,600) several different **SWR Analyzers** showed high SWR, so the antenna was taken back down. Same thing when putting up the UHF antenna – high SWR. Turns out those **Analyzers** give false readings if there's a transmitter nearby.

Net result was, after a day's work, we have the UHF antenna working well and the 442.225 box in the shack at the bottom in dual mode like before, FM or the Yaesu digital **C4FM mode**.

Our backup Yaesu 7000 VHF repeater is shot. We're having the finals replaced so if the one on .82 quits we will have a working backup.

## Field Day

We didn't have one and nobody working at home shared their points with us. Keith AEP said the Omaha club (AksarbenARC dot org) made 590 contacts.

Allen AAI (ex KC0JHA) said Glenwood made about 430 QSOs, of which he made 38 on 80M. Rick RLR was with PARC at Fremont NE doing Class 4A with 6 rigs and 6 antennas, mostly the End Fed type. Rick also worked the recent 13 colony contest, and got all 13 plus 2 specials.

Dan TDW and his group down near Humboldt NE contacted 7 different FDay countries.

## Announcements

Dave WJ0Z from Omaha and Emmet N0CSD in Council Bluffs have become Silent Keys. Omaha club is having a Flea Market 11 August in the Red Cross parking lot. Mark GVT says the linked repeaters across SD on I-90 are great.

Rich RWJ wants your input for Printed Circuit newsletter, and we elect club officers for 2024 at the September meeting.

Meeting adjourned 8:21 PM.

Minutes by Club Sec'y, WA0ZQG