



AFFILIATED

Printed Circuit

– Sept/Oct 2024 –

Published by the Southwest Iowa Amateur Radio Club Inc.

SWIARC meets the 4 Thursday of every month at the
Charles E. Lakin Human Services Campus
705 N. 16th Street Council Bluffs, IA 51501



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

Shack Chat



Repeater Committee Report August 2024

submitted by Chris KF0FBL

The upgrades at the IWCC hut are essentially complete! The new floor has been installed, the grounding system has been upgraded, the old non-working window air conditioner has been removed, and the equipment cabinet is back in place.

A layer of 3/4 inch CCX green pressure-treated plywood has been laid over the existing floor. That should last a while. When the old air conditioner was removed it was discovered that the 2x4 framing around it had rotted away, so that has been replaced. The hole where the air conditioner was has been plugged with some of the 3/4 inch CCX green pressure-treated plywood on both the inside and outside of the wall. The outside has been painted with one coat with more to follow.

The new ground buss bar has been installed on the new plywood where the air conditioner used to be. The existing site ground has been installed onto the new buss bar, as has all of the Club's polyphaser antenna surge suppressors. All connections have been made after cleaning the copper and applying copper coat to prevent corrosion and enhance conductivity.

The existing steel cabinet has been re-installed, and the Polyphaser AC surge suppression as well as the cabinet itself have been grounded to the new ground buss bar.

The Action 2024

- Sept 7, 14, 21, 29 8-930am **Saturday Breakfast**
Sugar's Diner*
- Sept 7 9-1030am **Heartland Hams Monthly Breakfast**
Toby Jack's Mineola Steak House*
- Sept 14 8am-1230pm **Coffee at the Lake**
Lake Manawa, Council Bluffs
- Sept 26 7-8pm **SWIARC Club Meeting**
Red Cross Building*
- Oct 5, 12, 19, 26 8-930am **Saturday Breakfast**
Sugar's Diner*
- Oct 5 9-1030am **Heartland Hams Monthly Breakfast**
Toby Jack's Mineola Steak House*
- Oct 12th **Coffee at the Lake**
- Oct 18, 19, 20 All Weekend **Jamboree on the Air**
<https://www.scouting.org/international/jota-joti/jota/>
- Oct 31 7-8pm **SWIARC Club Meeting**
Red Cross Building*

Repeater Committee Report August 2024 Cont.

The Simms rack has been moved from Paul's basement to its permanent home at the IWCC hut and is now operational. The repeater now operates from a DB224 antenna at about 150 feet up the tower at IWCC. The duplexers were re-tuned and the power out is 65W at the input to the duplexers and 50W out at the output of the duplexers. Thanks to Paul WB0GXD Dan KB0TDW Greg N0GR and Derek W0TYG for their assistance

We intend to reinstall the 146.22 remote receiver at a new location in the future.

73's Repeater Committee Chairman: Chris KF0FBL



Dear Doctor In:

The coax to my antenna goes directly from the antenna on a 15 ft pole, along the grass to my shack window where it goes through the wall to my radio? Should I be worried?

signed, A Newbie

Dear Newbie:

I assume you're concerned about lightning which is an everpresent risk around here, and the answer is, Yes, probably, unless you're dozens of feet lower than everything else nearby.

Here's a list of some things that might be at least partially effective in saving your equipment:

You can ground the shield of your coax at the bottom of your pole or tower. (This is done by inserting a double female connector with 2 PL connectors plugged into it, and grounding the panel the double female is mounted on. You can also buy a 'grounding kit' for the coax.)



Figure 1: Coax ground at KD0YTI's Shack

The Doctor is In Cont.

From the 2nd PL connector headed toward the shack, you go a few feet and then wrap the coax in a couple of turns (like, 5 to 10 in diameter) which inserts an impedance to lightning still on the shield headed to your station. The coil should be sequential (or wide spaced), not all wound together. We're looking for inductance with very little capacitance.

You can ground the coax again just outside the shack. Make your own 'grounding kit' out of two 10 ft pieces of copper pipe (1 ft apart at the top) shoved 9 ft in the ground with a flattened piece of pipe bolted to the tops of the 2 pipes. The double female connector (see previous) goes through a half inch hole drilled in the flattened pipe.

Your homemade grounding kit is a good place to put a PolyPhaser. Oh wait, you've already spent fifty bucks on the copper pipes and the family budget isn't up to another hundred for the PolyPhaser? OK, you can leave that out. For you old timers, remember when a half inch copper pipe cost, like, 5 or 6 bucks? There's a political comment hidden there.

With the coax now in the shack, you have the ultimate lightning defense, disconnecting it from the radio any time you're not there. Put the free end of the coax some distance from everything else. Three feet at least.

So that's what most people do. Ever thought of eliminating the lightning before it hits? It's caused by a charge buildup between clouds subject to wind, and the ground. A little like rubbing your shoes on the carpet. Here's an idea: Put up another pole nearly the same height as your antenna; ground it, and install an upside down 'witch's broom' of a piece of conduit with 12 to 20 wires clamped to it, all cut diagonally so the sharp ends point to the sky. The idea is that high voltages like to congregate at a sharp point, and that electrons, attracted by a positively charged passing cloud, may jump off into the air thus reducing the charge remaining on the ground. Each point may, under such conditions, leak off about 125 mA. If the charged cloud doesn't move too quickly overhead, those points could reduce voltage buildup so that lightning never happens, at least in your neighborhood.

If this works you may not have to buy the hundred dollar PolyPhaser.

signed, The Doctor

It was 3 hours of magic

Spectacular auroras thrill stargazers across the world (and internet) as intense geomagnetic storm batters Earth (photos)

<https://www.space.com/news>, **By Robert Lea**

A geomagnetic storm supercharged Earth's auroras, or the northern lights overnight on Thursday (Oct. 10), with aurora watchers in the U.S. and across the globe on hand to capture the stunning light-show. Not to be left out, Space.com's own crack team of aurora hunters (the A-Team?) were also out in the field to catch some incredible images.

According to the National Oceanic and Atmospheric Administration (NOAA) Space Weather Prediction Center (SWPC), the geomagnetic storm resulted from Earth being struck by an eruption of charged particles or "plasma" that burst from the sun, more specifically sunspot AR 3848 in the evening of Tuesday (Oct. 8).

The plasma eruption from the solar flare, an example of a "coronal mass ejection" or "CME," traveled to Earth at speeds of 2.9 million mph (4.6 million kph). That's about 2,000 times as fast as the top speed of a Lockheed Martin F-16 jet fighter. Yet, even at these incredible speeds, the CME still took a few days to travel the 93 million miles (150 million km) between Earth and the sun.

When the CME struck Earth's magnetosphere, the resultant geomagnetic storm reached G4 levels on the SWPC's geomagnetic storm scale. This is the second highest grade on the scale, which considers both severity and potential impacts. NOAA stated on Thursday evening that the storms have the potential to reach extreme G5 levels.

It was 3 hours of magic cont.



Text 1: An image of the aurora seen over Griffey Lake, in Bloomington, Indiana, on Oct. 10 at 10:10pm EDT by Space.com's Josh Dinner. (Image credit: Future/ Josh Diner)

"A small number of people began gathering along the levy walkway beside the Indiana reservoir shortly after sunset. There was a faint pink glow as the twilight slipped to darkness, and then suddenly, the sky erupted with a vivid pink and green dance above our heads," Dinner explained. "It only lasted a minute or so, but it could be seen with the naked eye.

"I was absolutely mesmerized."

More at <https://www.space.com/storm-Oct> 2024

SWIARC REPEATERS and NETS:

Club Repeaters

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

SWIARC 70CM Digital C4FM 442.225 R+
PL 136.5 Wires-X connected K0SWI-ND
33633 K0SWI Digital

Club Nets

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

442.225 Wed. ARES Net 9:00 pm - 10:00
pm

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

More Local Nets here:
<https://swiradio.org/ants/>
and

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

Vice President Craig KD0YTI

vicepresident@swiradio.org

Secretary Bill KD0FJR

secretary@swiradio.org

Treasurer Greg N0GR

treasurer@swiradio.org

StationTrustee Chris KF0FBL

repeater@swiradio.org

Paul WB0GXD (Assistant)

Club Committees

Repeater Chris KF0FBL

repeater@swiradio.org

Paul WB0GXD (Assistant)

Field Day

fieldday@swiradio.org

Hamfest Derek W0TYG

hamfest@swiradio.org

Other Contacts

Ham Testing

testing@swiradio.org

Estate Sales

estates@swiradio.org

Newsletter Rich K0RWJ

newsletter@swiradio.org



More Local Nets

Sunday

07:50 PM	144.25 2M SSB	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	147.435	Simplex Net
07:00 PM	147.36	QCWA Net, Chapter 210
		(seasonal, October through March).
09:00 PM	442.225	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	442.225	SWIARC Pott. Co ARES Net

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 USB Net
09:00 PM	28.305	10-Meter Net

Friday

Saturday

09:00 AM	146.775	Pawnee ARC
12:00 PM	442.225	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

Minutes 05 / 2024

Pres Derek TYG called the meeting to order at 7PM and proceeded with the pledge to the flag. Present were these 20 Persons. No technical program.

Members Present:

Derek	W0TYG	Brian	WE0BEP
Keith	KE0AEP	Norm	WA0JYD
Don	W0AF	Wayne	KN0WDJ
Bruce	NOBHB	Rick	KA0RLR
Rich	K0RWJ	Chris	KF0FBL
Bill	KD0FJR	Dan	KB0TDW
Don	W0AF	Terry	KS0L
Dennis	WA0VJL	Craig	KD0YTI
Suzanne	KE0WYL	Paul	WB0GXD
Kevin	NOMHK	Richard	WA0// WA5ZQG

20 Members Present Or on Zoom

Business Meeting started at 7:00

FJR presented printed Minutes from last month, and a YTI a double barreled Treasurer's report. Both were approved – the Treasury subject to audit. Some details of the finances:

Starting Balance \$ 4,578

Payment of Dues and additions

Ending Balance of \$4678.22

Motion to accept for audit by Derek 2nd by Norm Passed

Craig KD0YTI is serving as temporary Treasurer.

Repeater

Paul GXD, And Chris FBL, Trustee discussed Our repeater systems. They reworked remote command equipment that allows adjustments, Or on/off control of our equipment remotely without a trip to the antenna site. Some adjustments were made on .82 . Paul re-aligned .82 Was having some desense problems And getting internment spurs every 60 kilohertz Fixed. On Wednesday May 22nd The 146.82 Repeater was transmitting a continuous signal, issue quickly assessed and fixed.

The Repeater Committee welcomes signal reports on both systems, ..

Our VHF .82 repeater 'lifeboat system' consists of the .22 Rx out at IWCC; a UHF link, and the 82 transmitter at the same Memorial Park site as 225,. We need a good site for .82. Several possible sites. There have been some QRM issues at times Especially bad on Ak's146.94

Paul said some maintenance was done with the voter and audio levels at the IWCC receiver site as the receiver system wasn't passing audio at time..

Field Day

The NEW site is Bob WORJE's house 5 miles North of the Sugar's Saturday breakfast location way past Cow Patty's. On old 191.& L34 Shelter will be available IF severe weather shows up.

A motion made to allocate \$400.00 allowance for field day expenses. Funds for the rental Porta-Potty already approved.. Motion By Dan and 2nd by Paul. PASSED.

Old Business Con't

Out gavel for the President's use seemed to be missing... Paul GXD has gotten a new one.

SWIARC will provide communications support at the Celebrate CB Parade in downtown Council Bluffs on May 11th. Meet at the EOC at Willow And Main at 8:30 AM 16 volunteers showed up and all went well. Used 800 Mhz radios.

We have been asked to help with the Veteran's Day Parade to be held on Nov 9th.

Also some discussion of late summer Air Show at Offutt AFB

It was noted that the 13 Colonies contest will be held over 5 days in early July.

New Business on page 2

New Business

AMENDED

In more of 'New Business' the Treasurer HAD said he is moving out of town in a month. Pursuant to our Club Constitution, we nominated several people to fill out the 2024 Treasurer's term, Craig KD0YTI accepted to continue as Treasurer until the end of 2024 Norm motioned to Close nominations. Rick RLR motioned to elect Craig 2nd by Bill FJR

PASSED Elected by Acclamation. Norm inquired IF the Club has any time deposits> NO

There was a discussion of needing to change bank accounts for club funds as bank rules makes signer changes difficult CLUB MEMBERSHIP VOTED TO CLOSE THE OLD SWIARC Inc CHECKING ACCOUNT! <<<<<

Bill FJR brought a box of various items to the meeting for anyone that wants them.. He has a number of items that Rich WA0ZQG didn't wish to take to Oklahoma!!

Speaking of Richard Swig A fancy certificate was GIVEN FOR His many years of loyal service to the club thought to be around 50 years!! Rich is soon moving to Bixby, Oklahoma and plans to ask for call sign WA5ZQG, A round of applause for Rich !!

ANNOUNCEMENTS:

Norm, WA0JYD mentioned the upcoming Hamfest at North Bend, NE on Saturday July 13th Bill KD0FJR has rented a table and will be bring many of Rich;s ZQG;s old items.. Always a good Hamfest!

CW contest is being held with a century old Key as the Prize!! Organized by Mike KC0FAN

And a VHF contest being held June 1 TO July 30th CW and simplex voice on FM and SSB modes..

Early thoughts of doing an radio event at Offutt AFB base are being considered for late summer.

Bill KD0FJR Did send an condolence card to the family of N0IVI Barbara Lindsley and Her husband

Terry on behalf of SWIARC and AARC. Terry expressed His thanks for the Card. Also sent Rick KA0RLR a get well card also....

Motion made to adjourn.

Some old QST's were brought to the meeting for members to look at and take home.

We adjourned the meeting at 7:46 PM.

Minutes by Club Sec'y, KD0FJR

73's

Minutes June 27 / 2024

Pres Derek TYG called the meeting to order at 7PM and proceeded with the pledge to the flag. Present were these persons.

Members Present: 21

Derek	W0TYG			
Allen	K0AAI	Wayne	WN0WJD	
Norm	WA0JYD	on Zoom	Terry	KS0L
Don	W0AF	Dell	KF0NSP	
Rick	KA0RLR	Matt	KF00WB	
Bill	KD0FJR	Dan	KB0TDW	
Greg	N0GR	Bill	N0WWA	
Mark	KF0GVT	Craig	KD0YTI	
Jon	KE0NWM	Suzanne	KE0WYL	
Chris	KE0FBL	Paul	WB0GXD	
Dennis	WA0VJL	Bob	W0RJE (21)	

Terry KS0L And Paul WB0GXD presented a program on ARES in Pottawattamie County.

Business Meeting started at 7:41

FJR presented printed Minutes from last month, Bill provided a revised copy of the minutes and an official gold stamped copy to Club President, Derek. Then Craig YTI stated the Treasurer's report. Both were approved – the Treasury subject to audit. Some details of the finances:

Monthly Treas. Report

JUNE bal. \$	4,698.22
membership dues	+ 20.00
Repeater Donation	+ 500.00
some checks waiting to clear...	

Repeater

Paul GXD, And Chris FBL, Trustee discussed Our repeater systems. They are working on relocating the 146.820 antenna site. Some adjustments were made on .82 While not at full

power .82 seems to have improved coverage. >.82 is currently hosted at Paul WB0GXD's QTH. The voter unit is DEAD! Dan has offered a replacement unit for \$100.00 Some re-tuning made. The Repeater Committee welcomes signal reports on both systems.

We need a good site for .82. Several possible sites have been considered – But No site found. There is the possibility of returning to the IWCC tower in east Council Bluffs. The intent is to migrate the .82 rack to the IWCC hut AFTER we fix the decayed hut floor. Coordinating with Joel Stacy OQL at IWCC facilities.

A motion had been made By GXD to keep all SWIARC nets on the 442.225 repeater Greg N0GR stated that the club might want to turn the PL back on both repeaters to help with QRM issues....

Motions passed. A generous donation of \$500.00 was made by Denny WA0VJM. Thank You!

Field Day

The NEW site was Bob W0RJE's house 5 miles North of Cow Patty's on Old 191 and L34 on June 22 – 23 . We operated as 3A We had 612 contacts as 160 Digital 252 as phone contacts None on CW! UNOFFICIAL number of points of 1,894 TOTAL. Dan and Dell were a big help!

A round of applause for everyone's efforts. Dell made an contact with Ukraine! And the Wi-Fi set up worked well.. Many Thanks to Bob W0RJE for the use of his QTH location.

A reimbursement request on Food was asked for by Chris. We contacted Most states & Hawaii.

P.S. Bill Snyder took a number of Field Day pictures and will share them at the next meeting in book form.

NEW BUSINESS

Dan KB0TDW motioned to allocate \$80.00 towards the purchase of 2 "generic" Ham Radio Event -- Public welcome FLAGS with masts. Motion passed 2nd by Rick RLR

Don Brown will order these for the Club.

Since Rich WA5ZQG moved to Oklahoma the club bank account is in the process of being revamped..

Minutes continued on next page -->

Minutes June 27 / 2024

ANNOUNCEMENTS:

The always popular 13 Colonies Contest is being run from July 1st Until July 7th on the East Coast!
A VHF contest runs though the end of July
AND
A CW contest to October.

Bill KD0FJR mentioned the Hamfest On July 13th at North Bend, NE and will have much of the items that came from Rich Swig WA0//WA5ZQG available for sale.

The meeting was adjourned at 8:15 PM GXD / FJR

Minutes by Club Secretary Bill Snyder
KD0FJR