AFFILIATED

Printed Circuit

– Jul/Aug 2023 –

Published by the Southwest Iowa Amateur Radio Club Inc.

SWIARC meets the 4th 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

June Meeting Presentation

by Greg NØGR

YAESU WiresX

Greg presented a live demonstration of the WiresX (Wide-coverage Internet Repeater Enhancement System) communication protocol using his laptop and a portable FTM-300 connected PDN style(Portable Digital Mode) thru a cable connection kit between the two devices.

Showing how easy it is to connect to different Nodes using the free Yaesu software on his laptop, Greg made contacts including a New Zealand ham answering his CQ call out. Since they are 17 hours ahead in New Zealand we wished them a Good Weekend, it is still only Thursday here!

The coolest thing about WiresX is the software finds all the Nodes including the Iowa Hub(Greg calls it "Our" hub), this means it is only a click away to worldwide dominance!(Sorry Pinky but NOT today)
For more information regarding WiresX check on the Yaesu website here!

Thanks Greg
73's

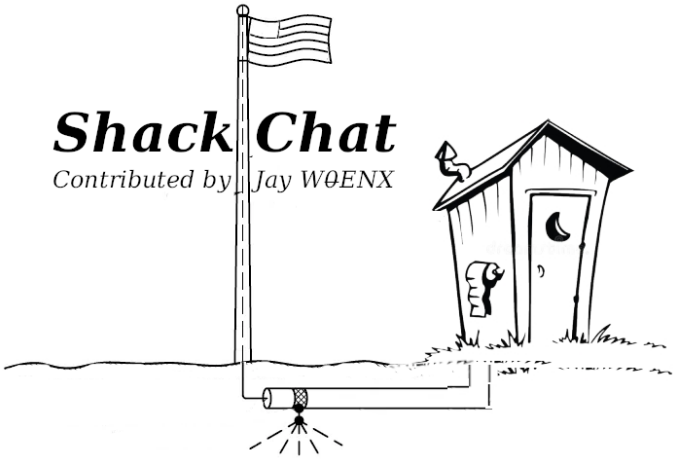
Hold The Presses

Well Okay Don't hold them, We will put out a Special Edition on the "SWIARC Repeaters" Look for it in July !

The Action 2023

Jul 1, 8, 15, 22, 29 8-930am	**Saturday Breakfast** **Sugar's Diner***
Jul 1 9-1030am	**Heartland Hams Monthly Breakfast** **Toby Jack's Mineola Steak House***
Jul 8th 9-11am	**PARC Flea Market** **in North Bend NE**
Jul 15th 8am-1230pm	**Coffee at the Lake** **Lake Manawa, Council Bluffs**
Jul 27 7-8pm	**SWIARC Club Meeting** **Red Cross Building***
Aug 5, 12, 19, 26 8-930am	**Saturday Breakfast** **Sugar's Diner***
Aug 5 9-1030am	**Heartland Hams Monthly Breakfast** **Toby Jack's Mineola Steak House***
Aug 12th	**Coffee at the Lake**
Aug 24 7-8pm	**SWIARC Club Meeting** **Red Cross Building***

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



Always observe the actual polarity orientation of electrolytic capacitors on a PCB before removing them for replacement. This includes boards where the polarity for capacitors, when applicable, is labeled on the PCB. Sometimes the polarity notation on the PCB is incorrect.

While making an initial inspection of a non-working Panamax M5300-PM power conditioner, I encountered this electrolytic capacitor labeling issue. In the first photo you'll observe the polarity of caps C5 and C6 and the "+" sign notations on the board which are contradictory. Normally a person could refer to the schematic to verify the positioning of the caps but in this case the foreign manufacturer of these units does not distribute schematics nor service manuals. If this had been a working unit and I was aware of the chain of custody then it would be almost certain the caps were correctly seated on the board.

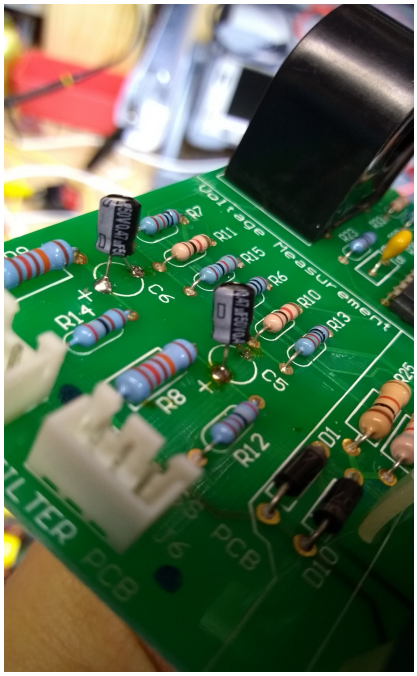


Figure 1: C5 and C6 are mis-labeled on the board

Since I purchased six of these Panamax units, being sold for repair, from an ebay seller it is impossible to know what if anything has been changed. Notice the soldering of these caps doesn't appear as factory work so I was suspicious of their orientation on the board.

Cont Column 2

This leaves two immediate options with one being to compare this board to another working board and the other option being a longer process of mapping the traces through to other polarized components on the board such as diodes and transistors. Fortunately, I had several other working boards and it was discovered the caps were indeed correctly positioned by following the traces but the polarity notations on the board were erroneous.

Of the sixteen electrolytic polarized caps across all

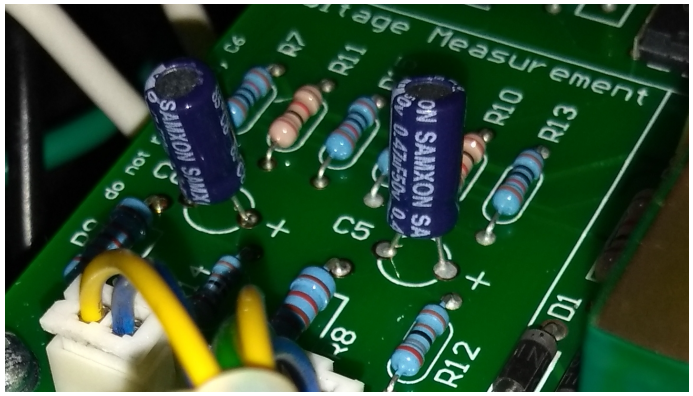


Figure 2: C5 and C6 rotated 90 degrees

boards in this unit only C5 and C6 (see Fig 1)were mismarked. In later versions (See Fig 2) of these power conditioners the lead positions were rotated by ninety degrees and the polarities were properly marked. The final exceedingly remote possibility is that the caps themselves were mismarked but this can be easily dismissed with an LCR meter.

Figure 3: Electrolytic capacitors with non-solid electrolyte have a polarity marking on the cathode (minus) side, with a shorter lead

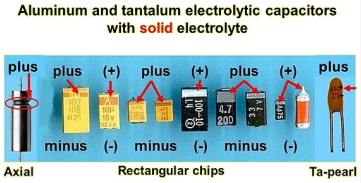


Figure 4: Electrolytic capacitors with solid electrolyte have a polarity marking on the anode (plus) side, except for cylindrical leaded (single-ended) and SMD polymer capacitors[105]

The second tip is take photographs prior to any rework which will inevitably save time and unnecessary effort on a project at some time.

73s

Jay W0ENX

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
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 12

Club Meetings

4th Thursday of the month at the Charles E. Lakin Foundation, Inc.
705 N. 16th Street Council Bluffs, IA 51501

KØHW Estate

SECOND ANNUAL

TAILGATE

Saturday August 19, 2023
9:00 A.M. - 1:00 P.M.

The Lodge at Brulehof Farm
47527 319th Street, Elk Point, SD 57025
Pat Wennblom – 605-659-4825
Brulehof@centurylink.net

There's no charge for space so bring your items and tables and join Jim's Family as we liquidate some of Jim's treasures.

Restrooms and Refreshments will be available in the Lodge.

Directions from I-29: Take Exit 26 (Vermillion exit); Go East 4.5 miles on Hwy. 50, turn South onto 475th Ave., turn East onto 319th Street, go ½ mile to 47527th on the south side of the street.

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 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.

VARA A High Speed Data Mode

Contributed by Matt ALØR

VARA is a recently developed mode utilizing commodity sound interfaces in Windows. There are two versions - VARA and VARA FM. The FM designater is straightforward, meaning this version is intended for VHF/UHF use on FM channels. The plain VARA, which is the HF version, is considered a weak signal mode and connections are often maintained below -20snr! Huffman compression is used which reduces typical text payloads by 30%.

VARA uses orthogonal frequency division multiplexing with up to 59 carriers that run at 42bps, complying with the asinine FCC limitation of 300 baud. If and when this limitation is ever removed, additional speed will be possible. There are three bandwidths available to use, 500, 2300, and 2750hz. Running 2750 requires a good radio with wide filters. Note that VARA FM has two modes, a narrow and wide mode, roughly related to 1200bd and 9600bd packets. The Wide Mode utilizes approximately 4khz of bandwidth while the Narrow Mode uses 500hz.

VARA was designed for HF use with commodity PC sound interfaces, though some commonly used sound interfaces don't deliver maximum performance. VARA works best with hardware PTT and using VOX interfaces (aka Signalink) is not advised. VOX does work, but you will never get the best throughput. Transmit latency is normally less than 25ms and VOX systems simply aren't reliable at this speed.

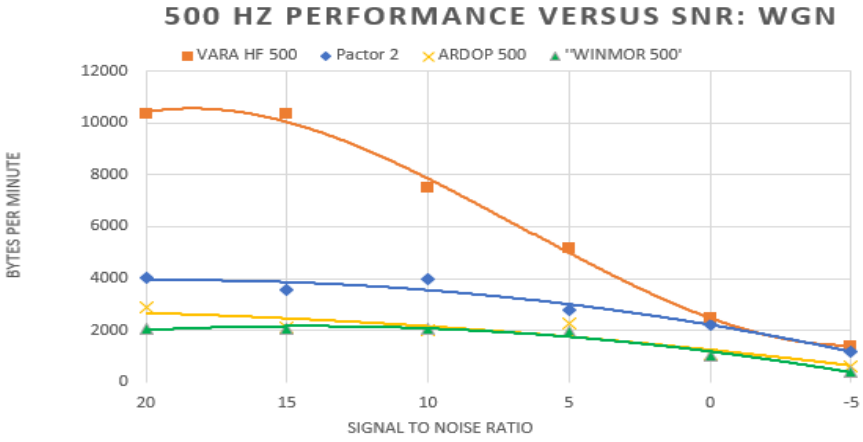


Figure 2: Here are the wideband Gaussian noise results for the 500Hz HF modes based on simulation results using the Teensy IONOS Simulator1 By Tom Whiteside,

It utilizes full ARQ, **A**utomatic **R**epeat Re**Q**uest which is the main technique for error correction, and highly adaptive link management to deliver the highest throughput's possible.

VARA FM can also be used with VOX interfaces, though again, it is not advised. One use case that is possible is through a repeater. While most folks don't enjoy hearing it, if you need to move a critical piece of traffic, it does work. Note that using narrow is your best option when any type of voice infrastructure is utilized. Maximum rates for VARA FM are 12,750bps and 25,210bps. Those are not misprints. Yes, it is at least 10x faster than regular packet.

Today, there are only two widely used applications for VARA - Winlink and **VarAC**(see sidebar page 6). The running application is often referred to as the modem. Given that this is an ARQ mode, it is designed to be point to point. VarAC does have the ability to send limited multipoint "broadcasts" using a specific SSID encoded call, though it is at a fixed rate and limited to 92 characters. Broadcasts use speed level 5 (177bps) and typically decode down to -12snr. Contrast this with Olivia 8/500 at 24bps and a similar snr.

Cont. Page 5

VARA A High Speed Data Mode

continued from Page 4

A comparison of signal levels and data rates.

- Olivia 8/500 is ~30wpm (24bps), pretty slow and painful to read. Runs to about -11snr
- Olivia16/1000 is 40wpm (32bps), -10snr
- Olivia 8/1000 is 58wpm (46bps), -7db
- MT63-1000 100wpm (80bps), -8db
- MT63-2000 200wpm (160bps)
- Vara 500 ranges from 22 to 1,928wpm (18bps to 1543bps), -22snr to +10
- Vara 2300 ranges from 22 to 8,812wpm (18bps to 7050bps), -22snr to +10

VARA FM vs Packet

For those that would like to see a comparison between packet and VARA FM, when used with WInlink, here is a brief matrix showing some recent (2023) tests. I'll note that the originating station utilized an FT-991A, which does not support FM wide on the internal soundcard.

Station	packet session	vara session	packet msg	vara msg	over	distance
K0MMR-10	2:50		1:24		1:26	18
W0ZZK-10	3:12		1:32		1:40	19
KD0IVV-10		0:34		0:05	0:29	35
AL0R-8		0:28		0:04	0:24	19

What this shows is the total session length for each mode as well as the time to actually send the message once the Winlink handshaking was done.

Regarding VARA data rates, keep in mind these are net air rates and do not include the bonus of compression, which further increase these numbers. When using Winlink, the FBB/LZ compression will be somewhat additive, resulting in less data to send.

Almost 3 VARA sessions can complete in the time it takes Packet to deal with overhead. After you add in the message transfer time, 5 separate VARA sessions could have come and gone during the time it takes a single packet session to complete. I'll add that during the last session, VARA FM reached 7,000bps.

While conducting the packet tests, a test was running and another local packet user left a PBBS message in the area, resulting in the session timing out. The test was rerun with no other packet traffic present. It shows how detrimental the "multi user" packet channel can be during message passing.

A view of the VARA window while not in session, showing the 500hz session width. When using VarAC, it is common to see additional 500hz channels in use above and below the calling frequency.

Cont Page 6

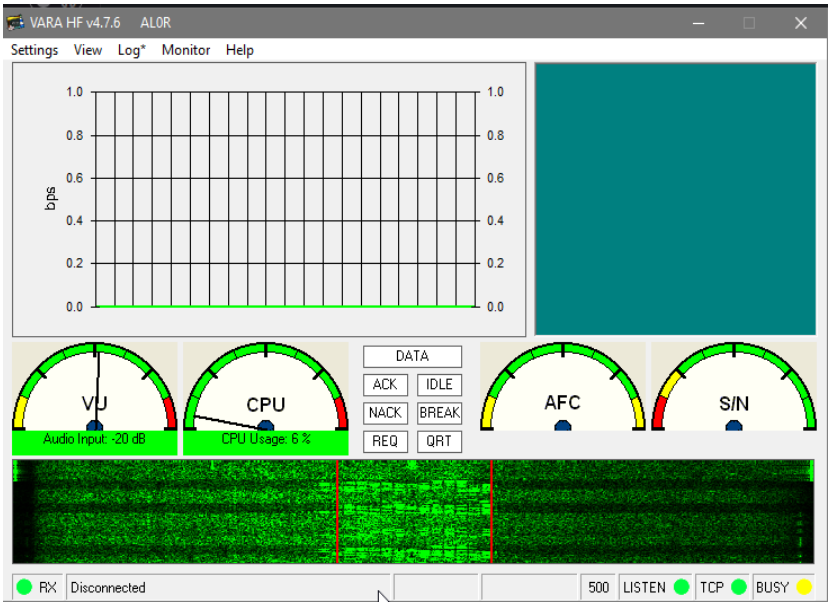


Figure 3: A view of the VARA window while not in session

VARA A High Speed Data Mode pg. 3

Vara Software Versioning
This may be a new term to many amateurs and as you use VARA, it may become bothersome. The author, Jose EA5HVK, has stated that a given version of the application will only be compatible with other versions produced in a 16 month span. This means that a version released in September may not communicate with a version released last December. It isn't a hard and fast rule, but it is something to note.

Omaha area VARA services
VARA FM nodes are being added in the metro area. AL0R-9 runs in Valley and AL0R-7 is located near 80th and Center with both operating on 145.07. The W0ZZK-10 Winlink gateway located in Papillion and KD0IVV-10 gateway near Glenwood operate on 145.03.

The AL0R nodes are collocated with Winlink gateways, AL0R-10 and AL0R-8, providing high speed Winlink service. AL0R-10 is also collocated with the HF RMS AL0R, if out of area radio only messaging is desired.
For an interactive map of Winlink gateways, visit https://winlink.org/RMSChannels

Do the AL0R nodes handle VarAC ?
Yes! The VARA FM digis do. AL0R nodes use odd numbers to indicate digis, other operators use whatever. AL0R-5 (wide coverage near 94), AL0R-7 (84th and Center), AL0R-9 (Valley), and soon to be AL0R-11 (Fremont), are on 145.07. W0ZZK-4 (Papillion) is on 145.03.

VARA is available freely, with the constraint of a 175bps speed limitation and a nag window to license it. The license costs $69 and delivers HF data performance beyond Pactor-3 and often equal to Pactor-4, without spending $1,500 or more for a hardware modem. If you have a need for additional callsigns, the author will provide a discount on the additional licenses. The license is tied to the callsign, thus you can install and use it on as many PCs as you'd like, as long as your callsign is used.

Give it a try and contact me for questions!

Matt ALøR al0r@flyfast.net

SWIARC ONLINE

VarAC main features

VarAC is a FREE, modern HF P2P real-time chatting application for the amateur radio operator that leverages the glorious VARA protocol. The running application is often referred to as the modem.

CQ calls
Call CQ using the VARA protocol

Frequency Monitor
Monitor the frequency for ongoing QSOs

Canned messages
Create predefined messages (RIG, Info…)

Send files & images
Supporting binary files, text, Images and more

"Is typing"
See if your partner is currently typing

Message queue
Type as many messages as you'd like

500/2300Hz support
Select your desired QSO bandwidth

Seamless QSY
Move QSO up or down with a single mouse click

Chat gestures
Having fun while chatting with sounds & emojis

Realtime metrics
For best QSO performance monitoring

Beacons
Let other people know you are on the frequency

Auto QSO logging
Supporting ADIF format and popular QSO loggers

RIG Control
Supporting CAT command, RTS/DTS & OmniRig

Automatic messages
Set preconfigured welcome & away messages

Speller
No more typos. Spell check as you type

Customized look
Chose the colors/fonts you like. Use dark mode.

Dear Dr IN:

I used to tune my old multiband dipole for the local Sunday afternoon 6M net, but it broke over the winter and I've put up a new one that won't tune to 50Mc. so I've put up a dedicated 10ft long dipole. My problem was my wife didn't want it visible from the raised 2nd story deck so I stapled it to the cedar fascia board 10 ft off the ground out of sight below the deck.

It worked OK the first week, but after it rained the cedar wood absorbed a little water and the dipole resonance went way off and SWR was out of the tuning range of my 991.

Here's where things got a little crazy: I have a bunch (hundreds of them – won at a club meeting raffle I think) of black plastic wire ties and used about a dozen to extend the dipole center and wires a few inches from the cedar board. The dipole's SWR tuned way high (here's the crazy part) so I wanted to extend it a few inches, but didn't want to bring out the soldering gun and hundred foot extension cord.

Cont. Column 2

You remember that dipole they used to sell with a bunch of capacitors in series? A 40M I think. Anyway, I wove a couple more wires along my 6M dipole, a foot or 2 at the outer ends, and let the excess wire droop farther off the end a few inches. Hey, it worked! Tuned right near 50.2 with a low SWR.
I've included a picture of my contraption!

Here's my question: Can I get absolution from you for this?

signed, Loose Fit

Dear Loosey:
You're correct in that the ends of a dipole are a high impedance and it doesn't take much capacitance to make a low impedance connection to nearby wires, and that's how your dipole is working now. I cannot grant you absolution however, but definitely innovation.

Praying for You
Dr IN

ARC Newsletter Publications from around the US.

This Name from the Venice, Florida ARC

Newsletter of the TAMIAMI AMATEUR RADIO CLUB, (TARC), Venice, Florida

THE COMMUNICATOR

Mailing Address: P. O. Box 976, Nokomis, FL 34274
W4AC Repeaters: 444.100 MHz (DMR) & 146.805 MHz (-) (PL100Analog)

Incorporated 1984 | https://www.tamiamiarc.org | April, 2023

What do they do in Florida, What Else!

Shark's Tooth Festival

Event Details

- **Date:** April 22, 2023 10:00 am – 23, 2023 5:00 pm
- **Categories:** Other Events

What Is **'Control Operator'**

Only a licensed amateur is eligible to be the control operator, and obviously an unlicensed person can't be the control operator of an amateur station. However they may participate under the direction of a control operator. In cases when a third party(read Unlicensed Operator) is participating, the control operator must be present at the control point and must be continuously monitoring and supervising the third party's participation. Third parties may only communicate directly with countries with which the US has signed third-party agreements (97.115(a) and (b)). The FCC doesn't expect us to carry The FCC Rule Book, but they do expect us all to abide by the rules at all times. It is the hope of the ARRL that everyone will do lots of operating in the public's eyes, demonstrating Amateur Radio to the public, practice our emergency communications capabilities, and most of all, have a good time doing it.

FCC Part 97.115

§97.115 Third party communications.

(a) An amateur station may transmit messages for a third party to:

(1) Any station within the jurisdiction of the United States.

(2) Any station within the jurisdiction of any foreign government when transmitting emergency or disaster relief communications and any station within the jurisdiction of any foreign government whose administration has made arrangements with the United States to allow amateur stations to be used for transmitting international communications on behalf of third parties. No station shall transmit messages for a third party to any station within the jurisdiction of any foreign government whose administration has not made such an arrangement. This prohibition does not apply to a message for any third party who is eligible to be a control operator of the station.

(b) ***The third party may participate in stating the message*** where:

(1) The control operator is present at the control point and is continuously monitoring and supervising the third party's participation; and

(2) ***As long as*** The third party is not a prior amateur service licensee whose license was ***revoked or not renewed*** after hearing and re-licensing has not taken place; suspended for less than the balance of the license term and the suspension is still in effect; suspended for the balance of the license term and relicensing has not taken place; or surrendered for cancellation following notice of revocation, suspension or monetary forfeiture proceedings. The third party may not be the subject of a cease and desist order which relates to amateur service operation and which is still in effect.

(c) No station may transmit third party communications while being automatically controlled except a station transmitting a RTTY or data emission.

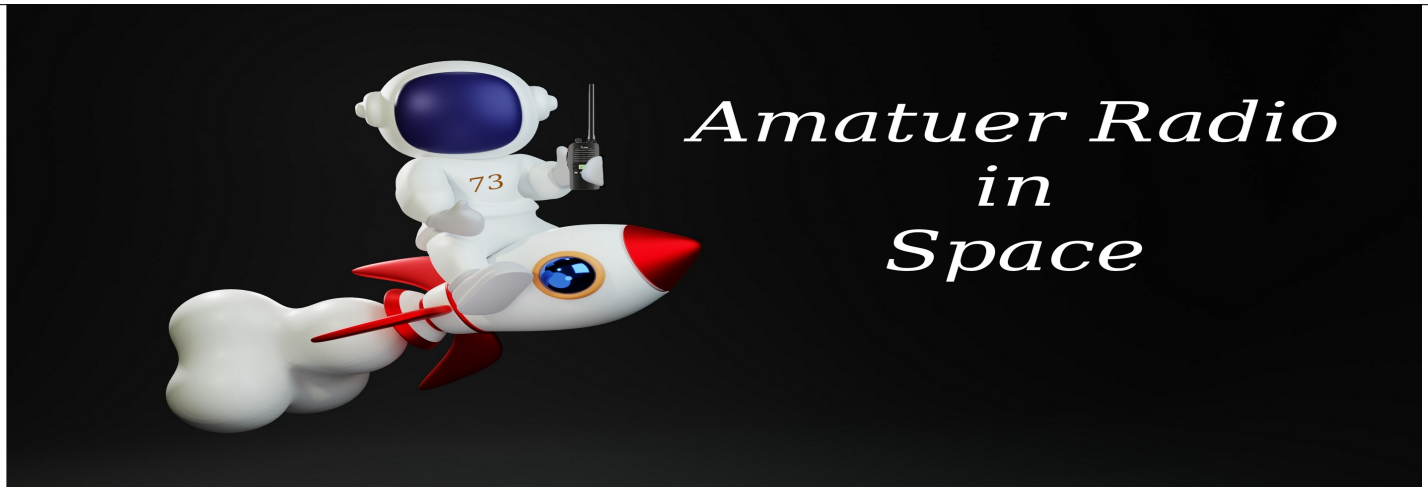
(d) At the end of an exchange of international third party communications, the station must also transmit in the station identification procedure the call sign of the station with which a third party message was exchanged.

[54 FR 25857, June 20, 1989; 54 FR 39535, Sept. 27, 1989, as amended at 71 FR 25982, May 3, 2006; 71 FR 66462, Nov. 15, 2006]

Saturday Morning Coffee at the Lake

2nd Saturdays at Lake Manawa, Council Bluffs

This year we're just doing it once a month, second Saturdays from 9 – 11 AM on the North side of Lake Manawa (500 yards So. of the Casey's gas station on Hwy 92).



It was December 12, 1961 when ham radio started in space with the OSCAR 1 satellite. (SEE Printed Circuit Article in Jan/Feb 2023) That was a low earth orbit mission that sent "HI" in Morse code during its 3 week mission.

The first Ham Radio contact during human spaceflight was nearly 40 years ago. Astronaut Owen Garriott took an HT up during shuttle mission STS-9 a Dec. 1983 Space Shuttle *Columbia* mission and made contacts thru a Motorola Commercial Handheld with the antenna taped to the window of the orbiter. His first contact was with Lance Collister, WA1JXN, now W7GJ, in Montana, while crossing the Western United States. Owen was on 145.55MHZ using 5 watts as he circled the Earth.

Artemis 2

The next planned space mission to send Amateur Radio Astronauts into space is the Artemis 2 mission scheduled to lift-off November 2024 Their will be 3 licensed Hams on this first manned trip around the moon with the fourth astronaut having plans to obtain their license when a sudden 6 month earlier take-off date was re-scheduled.
The team members of this flight are
Commander Reid Wiseman, KF5LKT,
Pilot Victor Glover, KI5BKC,
Mission Specialist 1 Christina Hammock Koch, and
Mission Specialist 2 Jeremy Hansen, KF5LKU.
The Artemis II mission is scheduled to launch in November 2024 and hopefully a Ham Community involvement will be announced.

Now About Artemis 1

ARTEMIS I is the first in a series of increasingly complex missions that will enable human exploration to the Moon and Mars.
NASA officials announced that a network of 18 volunteers, organizations and space agencies will assist with tracking Artemis 1, which will send an uncrewed Orion spacecraft to orbit around the moon after blasting off from Earth atop a Space Launch System (SLS) rocket.

Figure 4: Artemis 1 on the Launch Pad

Amateur Radio in Space cont.

The selected volunteers, **including two Private Citizens in the amateur radio community**, will "*demonstrate whether they can receive Orion's signal, and use their respective ground antennas to passively track and measure changes in the radio waves transmitted by Orion"* NASA officials said in a statement on Monday (Oct. 31).

The 2 accepted Amateur Radio Volunteers to assist with tracking are Scott Chapman K4KDR, U.S. and Scott Tilley VE7TIL, Canada

Scott Chapman on Twitter

@scott23192

Hello! This particular project accepted submissions Aug. 16-24, but in general, RX of a moving transmitter results in an ever-changing freq to a stationary receiver. So, record the freq over a time period!

5:56 PM · Aug 26, 2022

Scott Chapman

@scott23192

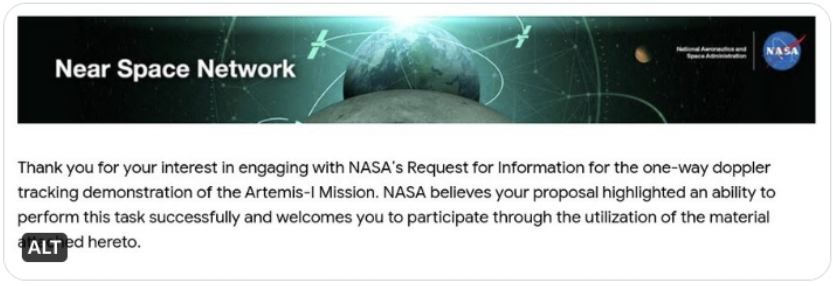


Figure 5: Oh my! Not only does NASA have a place for the Amateur Community to contribute, but even from a smaller station. As if I wasn't looking forward to the Artemis launch enough already... Scott Chapman K4KDR

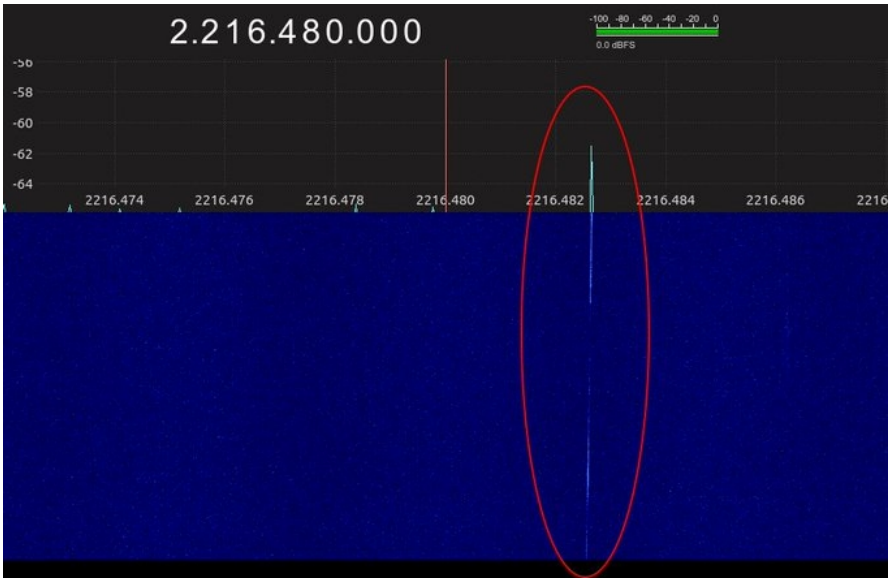


Figure 6: 9:26 AM · Nov 16, 2022

Scott Chapman

@scott23192

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Getting a bit west of me, but with Artemis-1/Orion switching to residual-carrier mode, I'm pleased to report that the smaller of the 2 civilian stations participating in the NASA Doppler Monitoring Study is AOS!

Scott Chapman

@scott23192

·

Now over 300 THOUSAND km from Earth, Artemis-1/Orion is invisible to my small station when downlinking wideband data. Fortunately, they were in carrier mode for a time this morning, so I'll have some data to contribute to the NASA Doppler Project again tonight!

Interested in NOTA Special Events?

Read On to Page 11 and Check out the Link to AMSAT!

An excellent place to start is AMSAT's Station and Operating Hints page. AMSAT, or the Radio Amateur Satellite Corporation, has played a key role in building, launching, and using amateur satellites.

***NOTA** is a ham radio consortium formed among the NASA field centers across the agency. NOTA stations operate together on-the-air throughout the year in a coordinated fashion to celebrate significant events that hallmark the rich history of NASA(See Calendar Below)*

The club stations at the various NASA centers and facilities plan to be on the air with special events to celebrate the milestones(spreadsheet below) and some may be offering commemorative QSL cards. There will be a special certificate indicating how many centers you worked on various bands and modes that may be downloaded. QSL instructions are available on the QRZ.COM site for each individual club station. We have a web-based system for you to check your points total and download a certificate at the end of the event in December 2022. Visit the Scores section for a link to that system. Points will be awarded for each center worked on each band and mode (phone, CW, digital).
All operating modes are fair game including satellites, repeaters, EME, ISS APRS, etc. We hope to be on the air for casual contacts and contests as well.

Month	Anniversary	Historic Date	Suggested NOTA ops Weekend	Event	Significance
Feb	1st	2/26/23	2/25-26	SpaceX Crew-6 mission	Hams aboard
Mar	65th	3/17/58	3/18-19	Vanguard 1	Oldest manmade object still in orbit
Apr	1st	4/20?	4/12-30	SpaceX Starship OFT Launch	1st Orbital Test Flight of Starship/Super Heavy booster
May	50th	5/13/73	5/13-14	Skylab Launch	1st US Space Station
June	40th	6/18-24/83	6/17-18	Sally Ride STS-7	1st US Woman in Space
Aug	40th	8/30-9/5/83	8/26-27	Guy Bluford STS-8	1st African-American in Space
Sep	10th	9/6/13	9/9-10	LADEE (Lunar Atmosphere and Dust Environment Explorer) small spacecraft launch	Consequential Ames led small spacecraft launch of newengineering and technology.
Oct	65th	10/1/58	9/30-10/1	NASA begins operation	Eisenhower signs NASA into existence in response to Sputnik crisis
Nov	30th	11/17/93	11/18-19	Announcement of International Partnership to build the International Space Station	Unprecedented collaboration across international partners; Boeing is prime contractor
Dec	55th	12/21-27/68	12/23-24	Apollo 8	1st crewed spacecraft to leave LEO and to moon.

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 Rich WA0ZQG

secretary@swiradio.org

Treasurer Greg N0GR

treasurer@swiradio.org

StationTrustee Chris KF0FBL

repeater@swiradio.org

Paul WBØGXD (Assistant)

Club Committees

Repeater Chris KF0FBL

repeater@swiradio.org

Paul WBØGXD (Assistant)

Field Day

fieldday@swiradio.org

Hamfest Derek W0TYG

hamfest@swiradio.org

Other Contacts

Ham Testing

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Estate Sales

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Newsletter Rich K0RWJ
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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	146.82	KØSWI 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	KØSWI 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 USB Net
09:00 PM	28.305	10-Meter Net

Friday

Saturday

09:00 AM	146.775	Pawnee ARC
12:00 PM	146.82	KØSWI 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

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.

newsletter@SWIRADIO.org

SWIARC Meeting Minutes 04/2023

Club Pres Derek TYG was there as usual, half an hour early to set up the Zoom equipment (only one who used it this month was Don W0AF).

Derek	W0TYG		
Don	W0AF	Kevin	N0MHK
Bruce	N0BHB	Rich	K0RWJ
Chris	KF0FBL	Dan	KB0TDW
Bill	KD0FJR	Wayne	KN0WDJ
Greg	N0GR	Craig	KD0YTI
Paul	WB0GXD	Rich	WA0ZQG
Rick	KF0IQL	(15)	
Norm	WA0JYD		

Program

Per the recently adopted resolution Rick K0RWJ gave a program on Antenna Propagation Patterns first, before the business meeting, AND with the aid of Derek TYG on the projector, completed it in less than half an hour, 7:30 PM.

Minutes and **Treasurer's** report were 'approved' and 'accepted for audit' with $8,113 balance. Recent checks were $250 for McClelland hall rental; $200 for club liability insurance, and $112 for Zoom license (see last month's for details).

Repeaters

The $5k authorization to put up a UHF antenna at Memorial park is on hold because it may be possible to put .82 there. It's a hill with a 200ft tower! (Maybe .82 will be good again.) Right now we're using the IWCC site for .22 receive, and John QKH's house near Simms St for .82 Tx.

We'd have to buy a kilobuck repeater antenna, but have some 1 ¼ Heliax from Ch. 6. (Old .82 antenna and hardline is at the old cell tower site and we'd have to both gain access and probably Pay to get it down.)

Field Day

F/Day Chmn Rick RLR has stepped down to deal with some health issues. Derek TYG will E/M the Park Ranger to see about the Lake Manawa site we used last year. **No hands** were **raised** when asked for planned participants.

Field Day (cont.)

Craig YTI would like to 'stop by' Field Day, and Norm JYD agreed to around dinner time. Rich ZQG motioned to provide a budget of $400 subject to whomever agrees to be F/Day Chmn, and it did pass, but only by a 9 to 4 vote.

New Business

The club constitution requires we vote in a new officer if one resigns (Rick RLR concerns about his health) and after a couple of 'No thanks' former officer Craig YTI said he'd volunteer and was elected VP by acclamation. (Yes, Paul GXD ran it all in accordance with Robert's Rules.)

Announcements

Zooming in from Glenwood, Don W0AF said the **Lake Manawa Saturday** get-together is on this year, 2nd Saturday of each month starting **05.13.**

Paul GXD said we're helping the Pride Week Parade the same day, 8AM downtown to get the 800 Mc H/Ts, and done before 1PM.

You know that's the date of the Lincoln Hamfest.

Paul GXD said his 442.525 is going again. Requires a 100 PL tone.

Meeting closed at 8:28 PM.
Minutes by Rich WA0ZQG, club Sec'y

This is the Memorial Park / Gleason St site, a 200 ft tower beside original .22 water tower

SWIARC MEETING
Minutes 05/2023

We blame nice weather for relatively low turnout at meetings and nets lately. Pres Derek TYG had the Zoom setup going early so stay-at-homes could see the action, but again, Don W0AF who lives South in Glenwood was the only user.

Derek	**W0TYG**	**Norm**	**WA0JYD**
Don	**W0AF**	**Rick**	**KA0RLR**
Bruce	**N0BHB**	**Rich**	**K0RWJ**
Chris	**KF0FBL**	**Dan**	**KB0TDW**
Bill	**KD0FJR**	**Wayne**	**KN0WDJ**
Greg	**N0GR**	**Craig**	**KD0YTI**
Paul	**WB0GXD**	**Rich**	**WA0ZQG**
Rick	**KF0IQL**	**(15)**	

ZQG said he had a 2 minute program on noisy LED headlights for his car, using a 20 Amp commercial power supply in a metal cabinet to show it didn't bother an AM radio, and then hooked up a 9005 LED headlight that had a 12V DC fan on it that **did** make noise in the radio.

Paul GXD hosted a Jeopardy game with subjects like Ham Radio History, SWIARC History, and Tech questions. Great fun (see Pgm Descrip.)

Business Mtg.

Greg N0GR handed out half a dozen meters to people who said they only had one (1) meter at home. They were a miniscule portion of estate of a non-Ham that Greg had to dispose of.

Minutes and Treasurer's report were handled with $8,108 in the bank. ($50 repaid to Paul GXD for repeater expense, and $45 from Jay W0ENX.)

Repeater

Antenna news: Paul GXD was driving by the old Simms site and noticed a tower crew working. Asked them to take down our old DB224 4 pole (four folded dipoles in phase) and give it to him. Gave them a fifty buck tip for thanks. We got our old thousand dollar repeater antenna back.

We have conditional permission to put .82 at the new Memorial Park site (if it does not cause interference with all the other stuff there). We'll start with it on the (lower) roof of shack mounted antenna.

Pott County is having some work done at the Memorial Park site in late June or July. If we can be ready at the same time, our cost for putting up antenna and coax will be less, $4,606. (Hey, ain't it great we don't have to buy a new kilobuck antenna because Paul snagged our old one?)

Note: Old Simms St. site used 7/8 in. heliax. New site will use inch and a quarter. Thus we will have lower loss coax on new setup.

The UHF 442.225 Fusion repeater will likely be at Greg N0GR's house for awhile. You know it has WIRES-X functionality, that is, you can talk to Fred K0FG in Missouri or use C4FM on it.

Old Business

Uh oh. No one volunteered to chair Field Day.

Paul GXD said the Pride Week parade went well with 16 volunteers using those 800 Meg H/Ts. (Motorola prices those things at $7,200.)

Meeting adjourned 820PM.

Minutes by Club Sec'y, WA0ZQG

Program

Paul GXD ran a Jeopardy game that was very popular. Bill FJR answered most questions and won a non-functional Kenwood TM241 2M rig. Tech for 100 Q. was 'What is Ohm's Law.' Answ. was I=E/R and No, it's not R=E/I.