

Rainbow Canyons Amateur Radio Club Newsletter Cedar City Utah



Club Website: www.rcarc.info Number 6 – Vol. 9 September 2024

Club Meeting Information

The RCARC meets at 7:00 p.m. on the 2nd Tuesday of each month at the Cedar City Senior Center, 489 E. 200 South. Down Stairs.

2024 Club Officer's

President:

Fred Govedich
K17TPD
1-435-559-2682

fred.govedich@gmail.com

Vice President

Ron Shelley
K7HDX
1-623-261-6555

ronald.shelley@gmail.com

Secretary

Bonnie Bain
K17WEX
1-435-865-1653

Bonnie.bain@gmail.com

Treasurer

Linda Shokrian
KG7PBX
1-435-867-5914

lgshokrian@gmail.com

Newsletter Editor/Historian

Dennis L. West
W6DLW
1-760-953-7935

rcarcnewsletter@gmail.com



CQ, CQ, Happy Labor Day



Presidents Message

Dear Fellow Amateur Radio Operators,

It has been a hot Summer but things seem to be cooling off! Hopefully that means that you can get out and enjoy the nicer weather. Our August BBQ was a great success with over 80 people coming out. It was wonderful to see everyone, especially those who we have not seen for a long time. It is always great to see how enthusiastic and passionate everyone is and how willing everyone is to help out our fellow members. A big Thank you to Terry West for helping with the cooking and to everyone who participated by bringing food and helping with set up and clean up. We have the Cedar City Half Marathon coming up shortly and as always, we have a good turnout for the aid stations. It is wonderful that we have so many members who are willing to help out with this event.

Continued on Page 2

RCARC Club Nets:

7:00 a.m. Breakfast Net - Monday – Saturday – 146.760.
12:30 p.m. Daily – Utah Beehive Net On 7.272.
8:00 p.m. Wednesday – Panguitch Net – 147.160.
7: pm. Thursday– Morse Code Net- This is a Zoom Meeting.
8:30 p.m. Thursday's - WDN Digital Net. Using FLDIGI, FLMSG AND FLAMP – 3.581 +, 1500/MFSK32.
8: p.m. Saturdays – SSTV – 449.925.
9:00 p.m. Daily – Friendship Net – 146.760.
11: a.m. Saturdays (Mtn. Time) QCWA – 160 Net, Utah Chapter,
12: p.m. Freq. 7.272.
8:00 pm. Sunday's – New Harmony Valley Net – Bumblebee Repeater. – 146.680 with a minus offset – PL 100.

Local Repeaters:

Iron Mountain

146.760 MHz – Tone 123.0 Hz
146.980 MHz – Tone 100.0 Hz
448.800 MHz – Tone 100.0 Hz Connected to Mt. Dutton. See below.
449.500 MHz – Tone 100.0 Hz (Off the Air)

Intermountain Intertie:

146.940 MHz – Tone 100.0 Frisco.
146.800 MHz – Tone 100.0 Blow Hard
147.200 MHz + Tone 100.0 Tod's/Hatch
146.820 MHz – Tone 100.0 Utah Hill

Bumblebee/New Harmony:

146.680 MHz – Tone 100.0 Hz

Rowberry:

449.925 MHz – Tone 100.0 VHF Remote

Mt. Dutton:

147.160 MHz + Tone 100.0 Hz.
Connected with the Iron Mountain
448.800 Repeater.

Save The Date

September 10, 2024

RCARC Club Meeting.

7:00 pm. Cedar City Senior Center,
489 E. 200 South. [Ken Munford \(K7KM\)](#) will give a presentation on antennas.

October 8, 2024

RCARC Club Meeting.

7:00 pm. Cedar City Senior Center,
489 E. 200 South. [More info to follow](#)

November 12, 2024

RCARC Club Meeting.

7:00 pm. Cedar City Senior Center,
489 E. 200 South. [More info to follow](#)

December 10, 2024

RCARC Club Meeting.

7:00 pm. Cedar City Senior Center,
489 E. 200 South. [More info to follow](#)

President's Message Continued from page 1.

For September Ken N7KM will be giving a presentation on antennas! It is always fun and educational to hear what Ken can teach us.

I hope everyone has been getting out on the radio! Have fun, and play on your radio. As we move into Fall the temperatures will be falling and you might want to get out a bit more. Remember if you need help with setting up your radio, software or other equipment please ask your fellow HAMs for help. Part of the fun is helping others! As always, I would like to thank everyone who makes our meetings great by asking questions. I would also like to thank all of our net controls for the nets and everyone who participates!

Cheers!

Fred (KI7TPD)

Notice

The 448.800 Repeater on Iron Mountain is now connected with the MT. Dutton Repeater and has good coverage in the Panguitch area.

RCARC Monthly Breakfast

Please come join us on the first Saturday of each month at 9:00 am. for our club breakfast. We meet at the Golden Corral Buffet & Grill (in the back room), 1379 S. Main Street, Cedar City. Their menu offers an unmatched variety of quality foods from breakfast to dinner. See you there.



Happy Birthday and
Anniversary to those
celebrating in September

Happy Labor Day

Breakfast Net		Friendship Net		
First Place	Second Place	First Place	WA7GVL - Paul	Third Place
K2MFK - Kevin	KI7TPD - Fred	K7NKH - Lee	Second Place	KI7TPD - Fred
K7ZI - Dick	KI7WEX - Bonnie	K7ZI - Dick	K7HDX - Ron	KI7WEX - Bonnie
KE7ZIM - Johnny	N7SYI - Sylvia	KE8OYI - Caleb	N7WWB - Darlene	
KE8OYI - Caleb	N7SND - Larry	KI7LUM - Bruce	KA7J - Lance	
KI7SCX - John	Third Place	KI7LVB - Tammy	KI7LVC - Tim	
KK6FLO - Dave	KG7PBX - Linda	KK7UBC - Tommy	N7SIY - Sylvia	
W0KLH - Kevin		W9KLH - Kevin	N7SND- Larry	
WA7GVL - Paul		W9YNK - Benjamin	W6DLW - Dennis	

**Rainbow Canyons Amateur Radio Club
Treasurer Report Aug 13, 2024**

Bank balance July 1, 2024 (reconciled)	\$3,179.41
July Expenses	
Rocky mountain Power (98 repeater elec exp)	- 20.91
Bank Balance Aug 1, 2024 (Reconciled)	\$3,158.50
Outstanding Check # 133 Field day Exp	- 156.34
Aug Expenses	
Rocky Mountain Power (due 8/15/2024)	- 22.36
Funds Available afer 8/15/2024	<u>\$2,979.80</u>

Submitted by
Linda Shokrian KG7PBX
2023 RCARC Treasurer
435-867-5914

RCARC Upcoming Events

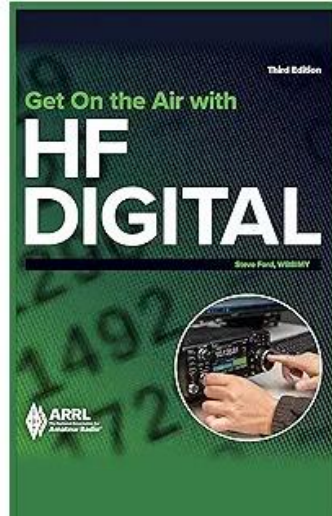
- **September 7, 2024** Cedar City Half Marathon. More information forthcoming. See story on page 17.
- **September 10, 2024** General Membership Meeting. Cedar City Senior Center 489 E. 200 S., Northside of building lower level. At 7:00 pm. Presentation: All you need to know about antennas.
- **September 14, 2024** CERT Training class for Iron County Residents. Cedar City Heritage Center 105 E at 100 N. upstairs. Start time 9:00 am. See the flyer on page 17.

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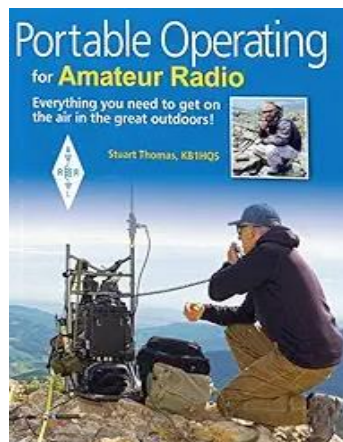
RCARC Book Giveaway. Books are donated by Linda Shokrian (KG7PBX)

Shown below is the book that will be given away at the September 10, 2024 meeting.



The Book below was given away to Tim (KI7LVC) and Tammy (KI7LVB) Nesmith

At the August 13, 2024 meeting



Congratulations Tim & Tammy Pic on page 16

Contact Us.

Mailing Address:

195 E. Fiddler's Canyon Road #3.
Cedar City, Utah 84721

Club E-mail:

cedarcity.rcarc@gmail.com

Newsletter E-mail:

rcarcnewsletter@gmail.com

Website

www.rcarc.info

Face Book Page:

<https://www.facebook.com/groups/440325486875752/>

To Join RCARC or Pay Dues:

Go to www.rcarc.info select "Club Info" and then "Join " RCARC. Follow the instructions on the template.

Make check payable to RCARC. Please write call sign on check.

Thank You

Hamfest Flyer and Arizona Desert Aire Waves (ASAW) September Newsletter.

See URL's below:



September 2024.pdf



HamfestFlyers Reduced.pdf

Information provided by Riki (K7NJ)

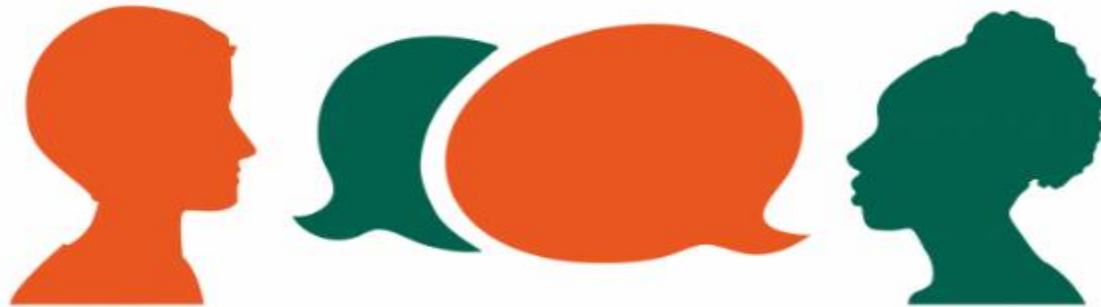


Buzz's September Safety Tip(s)



September is Preparedness Month

DON'T WAIT. COMMUNICATE. MAKE YOUR EMERGENCY PLAN TODAY.



SEPTEMBER IS NATIONAL PREPAREDNESS MONTH!

- Make a plan: Discuss evacuation routes, shelter plans, and how to communicate with friends, family, and employees before, during, and after an emergency.
- Prepare a kit: Gather enough non-perishable food, water, medicine, and other supplies to last at least three days. Consider the needs of each person and pet, such as medication. A basic disaster supplies kit may include:
 - One gallon of water per person per day for drinking and sanitation
 - A several-day supply of non-perishable food
 - A battery-powered or hand crank radio, and a NOAA Weather Radio with tone alert
 - A flashlight
 - A first aid kit
 - Extra batteries
 - A whistle to signal for help
- Stay connected: Keep extra batteries and portable chargers on hand to stay informed.

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Do It Yourself (DIY)

DIY wire winders for the 25-foot counterpoise. Made from 1/2-inch PVC pipe. Look pretty easy to make. Have fun.]



A couple of Home Depot plastic pail (5 gallon) covers and 4 one-half inch PVC couplings and some glue makes for large diameter antenna wire coils!



I used regular pvc pipe glue but it doesn't make a super tight bond so I ran #8-32 x 2 1/2-inch stove bolts and washers through the PVC couplings and lid for strength.

You should be able to load a lot of wire on them. In the bottom photo, approximately 25 feet of loose #16 wire can be rolled on each coil.



Project created by KL7JR

Reprinted from the August 2023 RCARC Newsletter

RCARC EComm Membership Meeting Notes and Pictures

On August 15, 2024 the RCARC EComm Membership met at the Cedar City Heritage Center. The meeting was called to order at 5:35 pm. by the EComm Coordinator, Dennis (W6DLW).

Under Old Business the attendees were brought up-to-date on the move to get both the EComm Antenna Trailer and the EComm Communications Trailer front line ready. An inventory was conducted on both trailers and a list of needed materials was created, old or damaged equipment was disposed of. The EComm Board is working with the County Emergency Manager to acquire necessary funding for the identified equipment.

The group call out tree/matrix was updated and filled with new people then distributed to the membership.

The need for EComm members to turn in their volunteer time was discussed. The statistical information gathered from the volunteer time can assist in getting possible funding for items and equipment needed by the EComm group.

Under New Business the group was brought up-to-date on the new Memorandum of Understanding (MOU) with Iron County's, Office of Emergency Management. A new MOU with Southwest Utah Public Health Department (SWUPHD) will be signed soon. In addition, a Cedar City Hospital MOU is in the works.

Under other Business James Moore (KG7VEI) was elected to the EComm Board to fill a vacancy.

Bruno (KG7VVN) is working with Cedar City Public Health to install a beam antenna at Public Health to enable communications directly to the St. George Public Health Office.

Ron (K7HDX) made the recommendation that the core group become proficient with Winlink.

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RADIO NEWS

H. GERNSBACK—Editor and Publisher
ROBERT E. LACAULT—Associate Editor

EDITORIAL AND GENERAL OFFICES, 53 PARK PLACE, NEW YORK

Vol. 5

SEPTEMBER, 1923

No. 3

Music vs. Radio

THE whole country has been watching with interest, and we believe with considerable annoyance as well, the fight between the music publishers and authors, conducted against radio broadcasting stations. The controversy in brief is that the music publishers and authors insist that the broadcasting stations pay them a royalty on their musical compositions, and until this payment is forthcoming, they refuse to let the broadcasters use their music. They claim this right under the copyright law.

Technically the musical interests are, of course, right. We believe they have the power of stopping anyone from using their musical compositions if the broadcasters do not pay for the license.

But the stupidity and short-sightedness of these self same musical interests would be ludicrous if it were not so appalling.

These musical interests, when they get out a new piece, will not hesitate to resort to any means in order to bring it to the attention of the public. Thousands of copies of sheet music are sent out free, and common hand-organs are hired to drum the piece into our heads. Vaudeville and motion picture theaters are in some cases paid good money simply for playing the piece in order to popularize it. Many musical compositions as yet unknown are sandwiched in some musical comedy for the simple purpose of getting them before the public.

When it comes to the greatest advertising medium, radio broadcasting, music publishers hold up their hands in horror and say that we are ruining their trade because if everybody listens to a musical composition by radio, none will wish to buy the sheet music, piano rolls or phonograph records. How these facts rhyme together only the music trades can make out. No one else, unbiased, has as yet been able to understand the peculiar slant of mind of the people behind the movement.

The childish arguments that are used by some of the champions of the cause are often amusing; witness the following, which appeared in a recent issue of the *Music Trades*:

"I am opposed to the radio broadcasting of music, especially the popular variety, for the very good reason that the practice is inimical to the welfare of the record and roll trade and, by no means last, the talking machine and player industry. When radio fans in the larger cities can hear solid dance programs played by the foremost orchestras with a \$5 outfit, it is only reasonable that they should ignore their player or talking machine, even if the rolls and records were supplied them gratis. Other forms of free public music are necessarily insignificant when compared with radio broadcasting."

This statement is made by none other than Mr. Arthur A. Friestedt, President of the United States Music Company of Chicago.

Following along the same line of logic, if Mr. Friestedt goes to see a musical comedy and hears a certain piece

that he likes he will promptly forget all about it. Contrary to his argument, however, as he leaves the theater, he will buy a copy of the selection for himself or for his daughter. As a matter of fact that is just what happens. The piece that was broadcast from the theater has pleased him and he wishes to either play it himself or let a member of his family do so.

If proof is wanted we might cite the following:

"A typical example of the effect of radio broadcasting was furnished by the testimony volunteered at the first meeting of the National Association of Broadcasters when Mr. Wendell Hall, a song writer, made the declaration that 'Mellow Moon' which he had written, made no appreciable headway in the hands of a publisher who resorted to the usual avenues open to publishers for exploiting a new musical creation. There was practically no sale. Then Mr. Hall began singing 'Mellow Moon' at KYW and WDAP Broadcasting Stations. He stated that in the month of April the sale of 'Mellow Moon' jumped to 100,000."

We believe that the entire controversy now staged by the musical interests against the broadcasters is nothing but a hoax and is not being conducted in good faith for the following reasons: The musical interests realize that in Radio they have a tremendous advertising force that will popularize a given piece of music more rapidly than any agency ever did. They know that sooner or later the broadcasters will no longer advertise their music free, but in the near future will wish to be paid for the tremendous service they are now rendering music publishers.

Down in their hearts, the musical interests know this and wish to forestall this move by making a demand upon the broadcasters themselves. They figure that if they could secure an agreement for a number of years, a compromise might be reached whereby the broadcasters would continue to advertise their musical productions free. We hope that the broadcasters will see through this game and will not allow themselves to be ensnared into a long time contract to their detriment.

The value of indirect advertising through broadcasting is tremendous. When Grand Opera Houses and Musical Comedies are playing to empty houses, they often resort to broadcasting one or more acts of the production. The result is like magic. The writer has seen it happen time and again when for instance a Musical Comedy was broadcast from Broadway that the attendance rose to tremendous proportions during the next few days. This is not a vague general statement, but has been carefully checked up from actual observation and with talks among theatrical producers. And the time will come, as the writer has predicted before, when theatrical producers will pay broadcasting stations handsomely for broadcasting one or more acts of their productions, and that time is nearer than any of us realize. If broadcasting stations can fill otherwise empty houses they should and will be reimbursed for such services. This is legitimate and we believe fair.

H. GERNSBACK,

RCARC August RCARC Monthly Breakfast Pictures

Pictures taken by Paul Erickson (WA7GVL)



Dick (K7ZI) left with Susan (wife). Kevin (K2MFK) right in fore ground along with Ron (K7HDX) conversing over breakfast.



Bonnie (KI7WEX) with Brody (K7VXV) center rear with Fred (KI7TPD) on phone.



Bruce (KI7LUM) and Sherry (Wife) having breakfast.

RCARC EComm Membership Meeting Notes and Pictures

Continued from Page 6

New Winlink Gate Way coming soon. Set up a monthly Winlink Net to keep proficient with the program.

Meeting adjourned at 6:33 pm.

See meeting pictures below:



Dennis (W6DLW) bringin the meeting to order.



Dennis (W6DLW) conducting business with the group.



Ron (K7HDX) discussing his Winlink Proposal. End



Cedar City Half Marathon

Save the date:

September 7, 2024

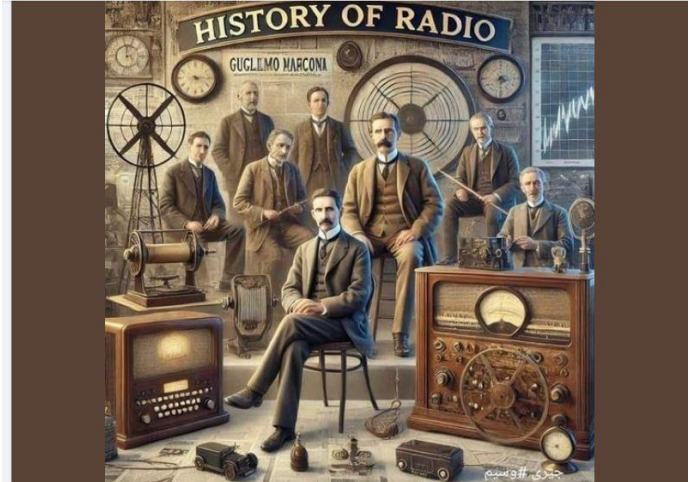
The 15th annual running of the Cedar City Half Marathon down Cedar Canyon will feature plenty of pleasant surprises and one of the most spectacular downhill closed-canyon runs ever. Whether it's the sound of Coal Creek, breathtaking views, enthusiastic aid station volunteers, or energy-pumping music with crowds urging you to finish strong—the focus of the "Cedar Half" has always been on a quality runner experience over quantity. It's rare to run a half marathon or a canyon without worrying about traffic. You'll have the roads and trails to yourself in the Cedar Half. On race day, Cedar Canyon is closed to all vehicles, and at the mouth of Cedar Canyon all runners will transition onto Cedar's magnificent trail system all the way to the finish line.

The crisp canyon air rushes through aspens and the sounds of water rushing down Coal Creek accompany runners as they wind their way through eons of geologic formations to the mouth of Cedar Canyon. Majestic sandstone pyramids mark the intersection of the Great Basin and the Rocky Mountain formation. This is where runners will transition from SR-14 to Cedar City's spectacular trail system along Coal Creek through Canyon Park, Veterans Ball Fields, and the welcoming finish at the Bicentennial Soccer Complex. Along the Coal Creek Trail System there are three road underpasses allowing runners to avoid street traffic. The Start Line is 1/3-mile up SR-14 from Woods Ranch (Bus Drop Off). This is necessary to get the proper race distance.

If you would like to participate contact Ron Shelley. See his contact information on page 1.



History of Radio



The history of radio is an interesting story that was a technological invention. Which made it easy for us humans to acquire and transfer information and communication methods from one place to another. It started from the nineteenth century and even today millions of people are benefiting from its use in their daily lives.

We cannot give the credit of the invention of radio to a single scientist because radio is a result that was achieved through the hard work of many scientists. One of them was Guglielmo Marconi, an Italian engineer who was able to transmit signals over long distances for the first time in 1885. Marconi continued to work on improving his technology and finally in "1901" achieved a significant success in sending a radio signal across the Atlantic Ocean. 🌐

Another name that appears in the history of radio is Nicola Tesla, who was the main theorist of this research. Information can be easily transferred from one place to another. While nobody knows (Tesla) as today people know (Marconi) regarding the invention of radio, but still his services were very important for the development of communication transmission technology.

A Canadian scientist (Reginald Fessenden) in "1906" sent the sound and music of the first audio broadcast program from (Brant Rock, Massachusetts). Thanks to this scientist, a new positive and powerful sound of radio broadcasting, which is not only a telegram signal, but also complex sounds, including music or human voices, could be sent.

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Buzz's

September Safety Tip(s)

Continued from page 5

During an emergency, you can follow these tips:

- Follow your emergency plan
- Get your emergency kit
- Make sure you are safe before helping others
- Listen to the radio or television for information from local officials and follow their instructions
- Stay put until all is safe or until you are ordered to evacuate

Access the URL's below for additional, detailed information on how to build a kit along with other useful information from ready.gov and be ready Utah.

<https://www.ready.gov/kit>

<https://beready.utah.gov>



History of Radio

Continued from Page 9

Radio began to gain popularity in the 1920s when the first commercial radio station was built. In "1920" radio station KDKA was established (in Pittsburgh). It was the first radio station in the world to be built in the United States. Who started the daily information and program in the world. Since the beginning of radio, its use and popularity started to increase and radio became an essential part of our lives. From which we started getting knowledge of daily news and music and other activities.

During World War II, radio played a very important role in communication and management. The ruling politicians used to address the people through radio and the radio broadcast broadcasted the alarming news from the station, which kept the people informed of the moment-to-moment situation. Radio was the only medium of that time through which people were kept informed about every news related to the war.

Over the decades, radio continued to introduce new frequency modulation (FM) that made the sound louder and better. Radio became more popular in 1960's due to its excellent performance and people began to listen to it and get a unique experience with new music programs.

The history of radio is a testament to the inventiveness of human beings to improve our communication. From the beginning of Telegram to today's modern digital broadcasting system. Radio has been such a steadfast medium in people's lives to connect them with other people and bring the world closer. End



RCARC August 13, 2024 Membership Meeting/Barbeque Pictures

Pictures by Dennis L. West (W6DLW)



Members arriving and waiting for the meeting to start.



More members and family have arrived.



Fred (KI7TPD) and Terry West moving forward with the grilling of the Dogs and Burgers.



Looking so good.



George (AL7BX), Linda (KG7PBX), Dick (K7ZI) and Susan relaxing just before the meeting start.



Many of the Pot Luck side dishes

Continued on page 15

Continued next column

ARRL Urges Protecting the Amateur Radio 902-928 MHz Band

The Federal Communications Commission (FCC) accepted for public comment a [Petition for Rulemaking filed by NextNav Inc.](#), a licensee in the 900-MHz Location and Monitoring Service (LMS), to completely reconfigure the 902-928 MHz band and replace the LMS with high-powered 5G cellular and related location services.

The FCC [Notice requested comment](#) on the effects that NextNav's proposals would have on amateur radio operations in the band. ARRL® is preparing comments urging protection of existing and future amateur uses in this band and urges all amateurs to file their own comments describing their activities in this band and the expected effect of the proposed changes. [Click here for a guide to filing comments.](#)

NextNav currently holds licenses in the 900-MHz band that authorize it to provide services limited to determining the location and status of mobile radio units. NextNav ties its request to provide high-power broadband, cellular and location services to the vulnerabilities of the current satellite-based GPS system and argues that implementation of its proposal would complement GPS by providing an alternative nationwide terrestrial location system in addition to cellular and broadband services. Under its proposal, NextNav would be designated the sole nationwide licensee for this spectrum in exchange for its more limited licenses.

The new nationwide license would authorize NextNav to provide much higher-powered traditional broadband and 5G cellular services as well as the related location service occupying 15 of the total 26 megahertz available in the band. The reconfiguration proposed by NextNav would create a 5-megahertz-wide uplink sub band at 902-907 MHz paired with a 10-megahertz downlink sub band at 918-928 MHz. The 5-megahertz uplink sub band would be limited to use by mobiles with a maximum of 3 watts ERP. On the 10-megahertz downlink sub band, up to 2000 watts ERP would be permitted in rural areas and 1000 watts ERP in urban and suburban areas, radiating from tower structures that could reach 1000 or more feet above average terrain. These configurations reflect the FCC's rules for standard cellular configurations that have been adopted to govern a number of other bands used for similar 5G and like services.

Although uses by the Amateur Radio Service in this band are secondary to LMS, NextNav is proposing substantial technical and use changes that would completely alter the foundation upon which the current rules and spectrum sharing arrangements rely and undercut shared use of the band by amateurs as well as a variety of other users. In addition, NextNav proposes deletion of a specific interference provision in the Commission's rules that was adopted to encourage and protect continued sharing with amateurs and other secondary users.

Continued next column

Continued on page 13

ARRL Urges Protecting the Amateur Radio 902-928 MHz Band

Continued from page 13

NextNav, in its petition, argues without evidence that the changes that it proposes to the 902-928 MHz band “will not impede amateur operations.” In an [8-page description](#) of NextNav’s proposal released by the FCC’s Wireless Telecommunications Bureau, the FCC staff asks a series of questions that would clarify the proposal and help the Commission ascertain the likely effect of the proposed changes on existing users if the requested changes were adopted. Comment was specifically requested on the extent of amateur operations in the band, the potential impact of the proposed changes, any other spectrum options that may exist, and the costs for relocations if other options exist.

ARRL is preparing comments urging protection of existing and future amateur uses in this band. ARRL urges all amateurs to study the proposal and file their own comments describing their activities in this band and the expected effect of the proposed changes. The filing deadline is September 5, 2024. Replies to comments are due by September 20, 2024. [Click here for a guide to filing comments.](#) End



Miscellaneous Pic's



Girls just want to have fun. Early 1940's



Ham Radio Picture from the 1920's



Marconi's First Radio Broadcast made over 125 years ago.

Solar Cycle 25 Producing Record High Sunspot Numbers

Solar Cycle 25 Impressing Propagation Experts

By: Frank Donovan, W3LPL

Editor's note: This article was written earlier in the week. The latest measurements show even higher numbers. See K7RA Solar Report, below.

Record High Solar Cycle 25 Solar Maximum Sunspot Numbers Have Improved HF Propagation Since Mid-July and Possibly Bringing Worldwide 6 Meter F2 Propagation this fall According to the NOAA Space Weather Prediction Center (SWPC), Solar Cycle 25 likely reached its highest sunspot number yet of at least 299 on August 8th.

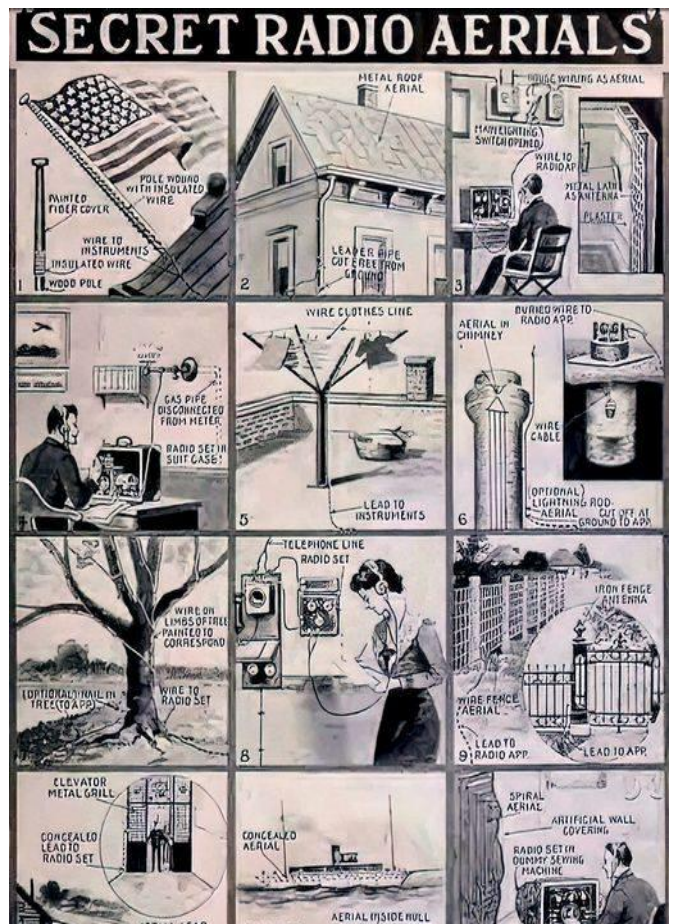
www.swpc.noaa.gov/news/solar-cycle-25-likely-reached-highest-sunspot-number-over-20-years

The World Data Center - Sunspot Index and Long-Term Solar Observations (SILSO) publishes near-real-time Estimated International Sunspot Number (EISN) reports based on its global network of reporting stations. Daily EISN reports during Solar Cycle 25 were consistently well below 200 until suddenly rising to 218 on July 14th and reaching 289 on July 18th, but then declining to 178 on July 22nd.

While occasional brief daily EISN increases are not unusual during solar maximum, after only five days, the daily EISN suddenly rose to 212 on July 27th, reaching a Solar Cycle 25 record high 297 on August 8th and remaining mostly well above 200 through this writing on August 11th. Daily EISN reports are likely to remain well above 200 during most days through late September and possibly much longer.

Continued next column

Since February 2002, worldwide 6-meter propagation has been mostly limited to sporadic occurrences of trans-equatorial propagation (TEP) near the equinox months and occasional sporadic-E propagation reaching many thousands of miles during June and July. Worldwide 6-meter F2 propagation may again occur -- perhaps very frequently -- starting in late October 2024 if daily EISN reports consistently remain well above 200. See www.sidc.be/SILSO/eisnplot. End.



RCARC August 13, 2024 Membership Meeting/Barbeque Pictures

Continued from page 11



Fred (KI7TPD) conducting a short meeting before the barbeque portion gets underway.



Dennis (W6DLW) celebrating his 77th Birthday.



The chow line is in motion.



The Dessert Table.



Brant (KJ7LTQ) and Daughter Gabby getting ready to get their Dog and Burger.



Terry West serving the burgers and dogs.

Continued on page 16

Continued next column

RCARC August 13, 2024 Membership Meeting/Barbeque Pictures

Continued from page 15



Members and Family enjoying the potluck.



Ken (K7KM) in middle red shirt conversing with the group.



Members having a great time.

Continued next column



After serving others Terry West gets her chance to eat.



Fred (K17TPD) in conversation with Jame Moore (KG7VEI)



Tim (K17LVC) and Tammy (K17LVB) Nesmith were the winners of the Book Give Away.

Portable Operating for Amateur Radio

Continued on page 22



**FREE TRAINING
FOR IRON COUNTY
RESIDENTS**

SATURDAY, SEPTEMBER 14, 2024

9:00 am to 4:00 pm | Festival Hall, Room 1
105 North 100 East, Cedar City UT 84720

What is CERT?

Community Emergency Response (CERT) teams respond in the period immediately after a disaster when response resources are overwhelmed or delayed. It is the bridge to professional responders until they are able to arrive. This training covers basic skills important to know in a disaster when emergency services personnel are unavailable. This training is sponsored by the State of Utah, Division of Emergency Management, and the Iron County Office of Emergency Management.

Skills taught during the CERT classes are:

- First Aid*
- Incident Command System (ICS)*
- Light Search & Rescue*
- Emergency Communications and more*



Please review class information and requirements before signing up:



bit.ly/ironcountycert23

QUESTIONS:

TERRY MEISSNER,
IRON COUNTY CERT COORDINATOR
(435) 691-3742 TMEISSNER@ESCGROUP.US

RSVP:

GEORGE COLSON,
IRON COUNTY EMERGENCY MANAGER
GCOLSON@IRONCOUNTY.NET

ARRL IT Security Incident - Report

08/22/2024

Sometime in early May 2024, ARRL's systems network was compromised by threat actors (TAs) using information they had purchased on the dark web. The TAs accessed headquarters on-site systems and most cloud-based systems. They used a wide variety of payloads affecting everything from desktops and laptops to Windows-based and Linux-based servers. Despite the wide variety of target configurations, the TAs seemed to have a payload that would host and execute encryption or deletion of network-based IT assets, as well as launch demands for a ransom payment, for every system.

This serious incident was an act of organized crime. The highly coordinated and executed attack took place during the early morning hours of May 15. That morning, as staff arrived, it was immediately apparent that ARRL had become the victim of an extensive and sophisticated ransomware attack. The FBI categorized the attack as "unique" as they had not seen this level of sophistication among the many other attacks, they have experience with. Within 3 hours a crisis management team had been constructed of ARRL management, an outside vendor with extensive resources and experience in the ransomware recovery space, attorneys experienced with managing the legal aspects of the attack including interfacing with the authorities, and our insurance carrier. The authorities were contacted immediately as was the ARRL President.

The ransom demands by the TAs, in exchange for access to their decryption tools, were exorbitant. It was clear they didn't know, and didn't care, that they had attacked a small 501(c)(3) organization with limited resources. Their ransom demands were dramatically weakened by the fact that they did not have access to any compromising data. It was also clear that they believed ARRL had extensive insurance coverage that would cover a multi-million-dollar ransom payment. After days of tense negotiation and brinkmanship, ARRL agreed to pay a \$1 million ransom. That payment, along with the cost of restoration, has been largely covered by our insurance policy. From the start of the incident, the ARRL board met weekly using a continuing special board meeting for full progress reports and to offer assistance. In the first few meetings there were significant details to cover, and the board was thoughtfully engaged, asked important questions, and was fully supportive of the team at HQ to keep the restoration efforts moving. Member updates were posted to [a single page on the website](#) and were posted across the internet in many forums and groups. ARRL worked closely with professionals deeply experienced in ransomware matters on every post. It is important to understand that the TAs had ARRL under a magnifying glass while we were negotiating. Based on the expert advice we were being given, we could not publicly communicate anything informative, useful, or potentially antagonistic to the TAs during this time frame.

Today, most systems have been restored or are waiting for interfaces to come back online to interconnect them. While we have been in restoration mode, we have also been working to simplify the infrastructure to the extent possible. We anticipate that it may take another month or two to complete restoration under the new infrastructure guidelines and new standards.

Most ARRL member benefits remained operational during the attack. One that wasn't was Logbook of The World (LoTW), which is one of our most popular member benefits. LoTW data was not impacted by the attack and once the environment was ready to again permit public access to ARRL network-based servers, we returned LoTW into service. The fact that LoTW took less than 4 days to get through a backlog that at times exceeded over 60,000 logs was outstanding.

The board at the ARRL Second Board Meeting in July voted to approve a new committee, the Information Technology Advisory Committee. This will be comprised of ARRL staff, board members with demonstrated experience in IT, and additional members from the IT industry who are currently employed as subject matter experts in a few areas. They will help analyze and advise on future steps to take with ARRL IT within the financial means available to the organization.

We thank you for your patience as we navigated our way through this. The emails of moral support and offers of IT expertise were well received by the team. Although we are not entirely out of the woods yet and are still working to restore minor servers that serve internal needs (such as various email services like bulk mail and some internal reflectors), we are happy with the progress that has been made and for the incredible dedication of staff and consultants who continue to work together to bring this incident to a successful conclusion. End

PVC Headphone Stand



Tools

- Measuring Tape
- Marker
- PVC Cutter – [Orbit 1/2-Inch – 1-Inch PVC Pipe Cutting Tool \(Amazon affiliate link\)](#)



Materials

- 3' of 3/4" PVC pipe
- 4x 3/4" T fittings
- 6x 3/4" end cap fittings
- 7x 1/4" round felt pads (optional)
- PVC Cutter
- Measuring Tape
- Marker - See how to assemble on U tube.

Continued on page 21

YAESU AND QYT RADIOS FOR SALE



The FT7900R is a ruggedly-built high quality Dual Band FM transceiver providing 50 Watts of power output on the 144 MHz Amateur Band and 45 Watts on the 430 MHz band. Featuring 1055 memory channels.

\$ 150.00



The FT8800R is a ruggedly-built high quality Dual Band FM transceiver providing 50 Watts of power output on the 144 MHz Amateur Band and 35 Watts on the 430 MHz band. Featuring 1054 memory channels.

\$ 165.00



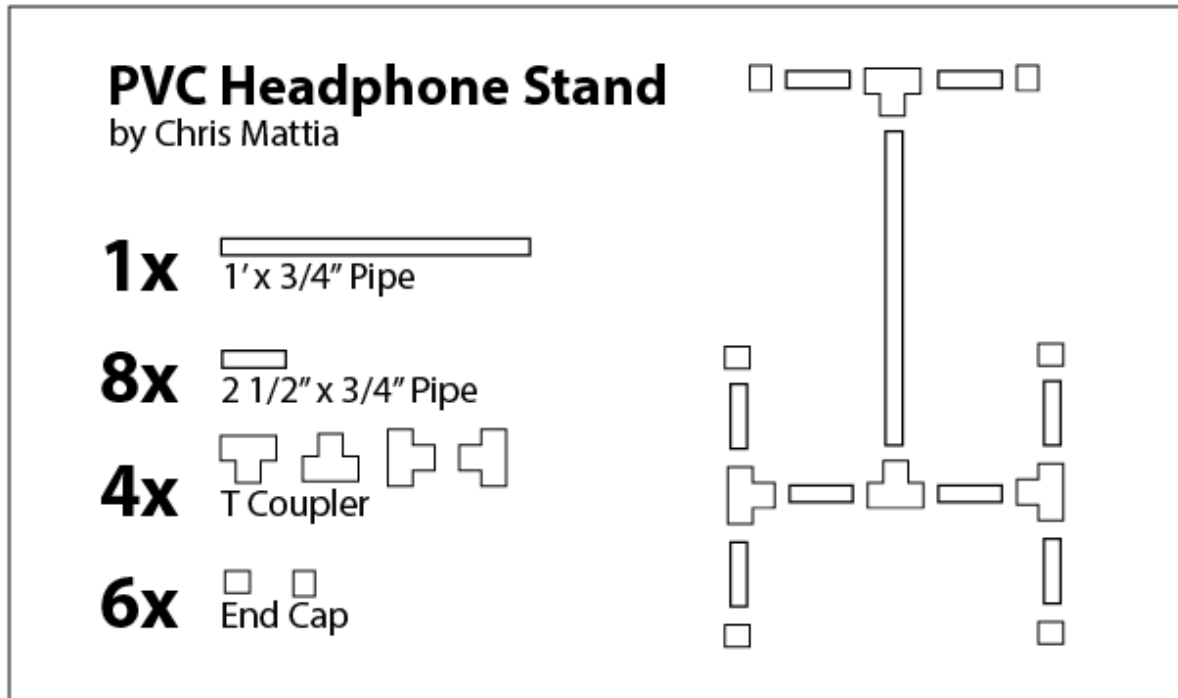
The QYT KT8900 offers up to 25 Watts VHF and 20 Watts UHF operation in high output mode. It features 256 channels, with CTCSS and DCS, channels scan and DTMF technology.

\$ 40.00

This radio was programmed but has not been used.

If interested please contact Dennis L. West (W6DLW) at 760-953-7935 or send an email to dwest@email.com.

Layout Diagram



Assembly

Assembly is really straight forward. Everything is dry fit together. I had considered glueing the stand together, but never found that I needed to do that.

Connect the center ports of 2x T fitting on either end of your long pvc pipe section. This will act as the central support for your stand. In my diagram I used a central pipe that was 12 inches long. Make sure that your two T fittings are aligned with each other by laying the parts down on a flat surface and pressing both T's into alignment with each other.

Next add the 4x short side arms, I used parts that were 2 1/2 inches long. On the top two arms add an end cap fitting. On the bottom two side arms add another T fitting.

Finally add the remaining 4x short PVC legs with an end cap on each one. The end caps help to balance the stand.

Make sure the headphone stand will stand up straight and press all of the parts together tightly.

Optionally add the felt feet to the bottom face of each of the base fittings.

Notes

The only modification I ever made to the PVC headphone stand was to add the small felt pads to the bottom of the stand so that the stand didn't scratch my desk, and if it got accidentally bumped during a recording, the small pads would act as tiny silencers.

<https://chrismattia.com/projects/pvc-headphone-stand> - Check out this URL for a video of assembly.

RCARC August 13, 2024 Membership Meeting/Barbeque Pictures

Continued from page 16

Pictures by Bonnie Bain (KI7WEX)



Fred (KI7TPD) conducting a short business meeting prior to eating.



Attendees preparing their plates with all the trimmings for the burgers and dogs as well as the side dishes.



Terry West yelling come and get it. Burgers and Dogs are ready. **Continued next column**



Others waiting their turn at the food table.

Continued on Page 23

RCARC August 13, 2024 Membership Meeting/Barbeque Pictures

Continued from page 22



The Chefs Ron (K7HDX) Fred (KI7TPD) and Terry West in the smoke working hard to keep the burgers and dogs coming.



Merlin (N7TCE) and other guests enjoying their dinner.

Continued next column



Dennis (W6DLW) reacting to something that was said.

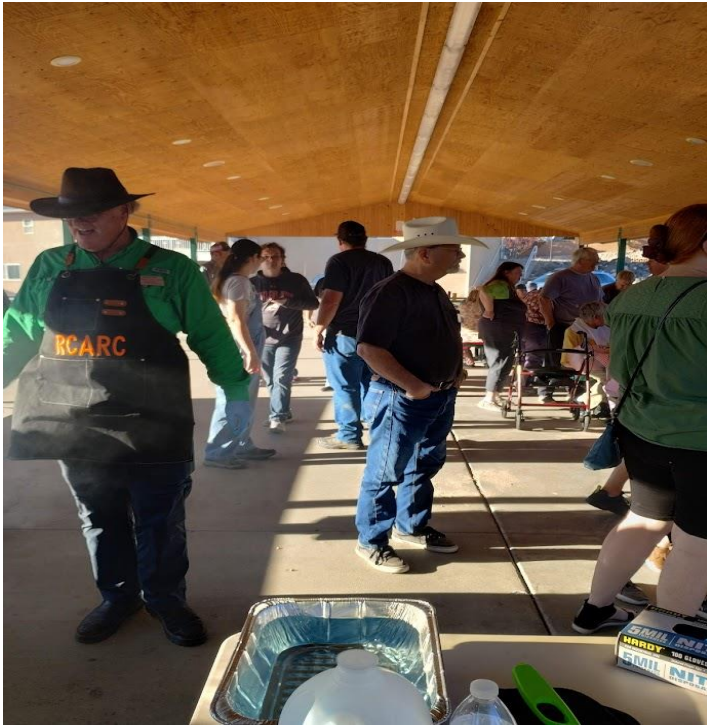


James (KG7VEI) right and Brant (KJ7LTQ) in conversation.

Continued on page 24

RCARC August 13, 2024 Membership Meeting/Barbeque Pictures

Continued from page 23



Paul (WA7GVL) center waiting his turn at the food table.



Fred (KI7TPD), Linda (KG7PBX) in blue and Terry in yellow prepping the food table for the event. End

Morse Code Tid Bit

One-way hams displayed their technical identity was by using Morse code. Their admiration for the code as the ideal form of communication stemmed from the importance granted to coding skills in the FCC licensing examination and from hobbyists' appreciation of how the code transformed language. Tapping out sequences of short and long electrical pulses on a telegraph key required human synergy with machinery and gave words a technical feel. Still, the sender's personality transmitted through the machine. "Code operators quickly learn one another's 'touch,'" wrote an Army radio specialist. "The way a person sends code is almost as distinctive as his voice." Hams referred to this human accent detectable in code transmission as the sender's "fist."



THE NIBBLER



THE TEA DRINKER



THE SLAPPER



THE HITCH HIKER



THE TAPPER



THE JITTER



THE CLUTCHER



THE POUNDER

An illustration in an article on "Proper Sending Techniques" caricatured several undesirable styles for tapping out Morse code on a telegraph key. From MARS Bulletin, March 1952.