RAINBOW CANYONS AMATEUR RADIO CLUB NEWSLETTER CEDAR CITY, UTAH



Club Website: www.rcarc.info Number 6 – Vol. 5 – May 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 <u>President:</u> Fred Govedich KI7TPD 1-435-559-2682 fred.govedich@gmail.com

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CQ, CQ, Happy Mothers Day



Presidents Message

Dear Fellow Amateur Radio Operators, Hope everyone is having a wonderful spring! We have had some great weather this spring. I hope you are looking forward to our June 15th Swap meet and Field Day at the end of June (22-23)! Don't forget that we will have our Go-Kit contest at the swap meet. Congratulations to our new General and Technician HAMs who took the class and passed their tests! Thank you, James (KG7VEI), for developing the new RCARC EComm app. It is a very useful program. We have a good batch of new members so we may have some new HAMs needing our help in the upcoming months so please make sure to introduce yourself and offer a friendly hand! This month we will have a presentation on First Aid so you probably want to make sure you come.

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. 8:30 p.m. Tuesday's - ORCA Digital Net. Using FLDIGI, FLMSG AND FLAMP – 3.581 +, 1500/MFSK32. 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:

<u>Iron Mountain</u> 146.760 MHz – Tone 123.0 Hz 146.980 MHz – Tone 100.0 Hz

448.800 MHz – Tone 100.0 Hz 449.500 MHz – Tone 100.0 Hz 448.400 MHz -- Tone 100.0/FM & DMR 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 Dutton:

147.160 MHz + Tone 100.0 Hz.

Save The Date

May 14, 2024

RCARC Club Meeting. 7:00 pm. Cedar City Senior Center, 489 E. 200 South. SWUPH will present Basic First Aid.

<u>June 11, 2024</u>

RCARC Club Meeting. 7:00 pm. Cedar City Senior Center, 489 E. 200 South. More info to follow

<u>July 9, 2024</u>

RCARC Club Meeting. 7:00 pm. Cedar City Senior Center, 489 E. 200 South. More info to follow

August 13, 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.

I encourage you all to play, share, and have fun on the radio! We have some newly minted HAMs so let's show them what they can do! If you are interested in any aspect of HAM radio please explore the topic, experiment, and share what you have done with the group! That is what makes this such a fun hobby! Don't be shy, we are all friends here!

In service,

Fred Govedich (KI7TPD)

See new Ham's listing on page 12.

Notice RCARC Ham Swap Meet Coming June 15, 2024 See coming events page 3

RCARC Monthly Breakfast

Please cone 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 May





Breakfast Net		Friendship Net		
First Place	Second Place	First Place	KA7J - Lance	Third Place
K2MFK - Kevin	N7SIY - Silvia	K7HDX - Ron	W1EPR - Austin	K7WEP - Paul
K7ZI - Dick	Third Place	W6DLW - Dennis	K7ZI - Dick	KK7FLL - Maddie
KC6WFI - Tony	KE8OYI - Caleb	N7SYI - Sylvia	W0KLH - Kevin	
KZC6ZIM - Johnny	N7SND - Larry	KE8OYI - Caleb	Second Place	
W0KLH - Kevin	KK6FLO - Dave	W9YNK - Benjamin K7NKH - Lee		
KI7WEX - Bonnie	WA7GVL - Paul	KI7LUM - Bruce KI7LVB - Tammy		
KI7TPD - Fred	KI7SCX - John	KI7WEX - Bonnie	KI7LVC - Tim	
KG7PBX - Linda		KI7TPD - Fred	KJ7LTQ - Brant	
		WA7GVL - Paul	N7WWB - Darlene	

Rainbow Canyons Amateur Radio Club Treasurer Report April 9, 2024		
Bank balance Mar 1,2024 (reconciled)	\$1,583.03	
March Deposits - membership 2024 KGE7OCI, KE7OCJ, K7NJ, KG7VVN	+ 50.00	
Rocky mountain Power (98 repeater elec exp)	- 19.46	
Bank Balance March 31, 2024 (Reconciled)	\$1,613.57	
April donation - Commander 857	+1,000.00	
April deposit - membership AF7TE	+20.00	
April Expenses Rocky Mountain Power (due 4/16/2024)	-19.33	
Funds Available afer 4/16/2024	<u>\$2,614.24</u>	
Submitted by Linda Shokrian KG7PBX 2023 RCARC Treasurer 435-867-5914		

RCARC Upcoming Events

- May 14, 2024 Monthly Membership Meeting. Cedar City, Senior Center at 489 E. 200 S. at 7:00 PM.
- June 15, 2024 Annual Radio Swap Meet & Go Kit Challenge. Christ the King Catholic Church, 690 Cove Drive, Cedar City. Pavilion to rear of church. 9:00 AM to 1:00 PM.
- June 22 & 23, ARRL Summer Field Day at Three Peaks Pavilion.

In This Issue				
President's Message.	Page 1			
Treasurer Report.	Page 3			
RCARC Upcoming Events	Page 3			
Buzz's May Safety Tip(s).	Page 5			
Radio News for May 1923.	Page 7			
Ways to Protect Yourself from Fraud	Page 8			
RCARC General Membership Meeting Pic's	Page 9			
Ham Radios Best Practices	Page 10			
RCARC Participates in the Southwest Utah Public Health Department Great Shakeout Exercise.	Page 11			
Club Grant Program to Return	Page 12			
Spring Severe Weather Preparation Begin	Page 13			
Member Highlight	Page 13			
RCARC EComm Trailer's Work Party 4-13-2024	Page 14			
Ham Radios Many Roles During Solar Eclipse	Page 15			
RCARC September Club Meeting Pic's	Page 16			
Iron County EComm Group Meets	Page 18			
Storing Radio Gear for Long Term Storage	Page 19			
Amateur Radio Saves Family	Page 20			
EComm Members Attend SWUPHD, SPOC/CCC Conference	Page 21			
Time to Plant Yor Spring Garden	Page 23			
RARC EComm Members Attend ICS100 Refresher Training.	Page 24			

RCARC Book Giveaway. Books are donated by Linda Shokrian (KG7PBX) Shown below is the book that will be given away at the May 14, 2024 meeting.



The Book below was given away to Hugo Ramos (KC9OSA) at the March 9, 2024 Meeting



Congratulations Hugo See pic on page 9

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/gr oups/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

RCARC May 24, 2024 Meeting Presentation

Utah Southwest Public Health Department will present Basic First Aid. Attend the meeting and learn how to treat minor wounds, how to apply compresses, how to make a sling, check for shock and how to treat it along with other first aid advice.

Cedar City Senior Center, 489 E. 200 S. at 7:00 PM.

See you there.



Buzz's May Safety Tip(s)



Safety in the Shack

Safety in the Shack

There are two safety considerations to bear in mind when setting up a radio shack – electrical safety and RF safety.

You will no doubt be using radio equipment that is mains powered, and you will probably use 12 V supplies that can supply up to 25 A or more. Mains electricity can kill you and that innocuous looking power supply could easily cause a fire if a short circuit occurs and you don't have adequate safety precautions, such as a fuse.

Also, you will be producing radio frequency (RF) energy, which should be treated with respect.

Let's deal with each of these in turn.

Electrical safety

Firstly, every family member in your house should know how to turn the power off in your station. In the event of an emergency, and where you are still in contact with an electrically-live appliance, it could make the difference between life and death.

The wiring for your shack should ideally be controlled by one master switch and everyone in the house should know where it is. A fire extinguisher, suitable for use on electrical fires, is also a good investment.

All wires carrying power around your station should of the proper size and quality for the job. Also, all equipment should be connected to a good earth.

When working on equipment you should, if possible, ensure that it is switched off and unplugged. Any capacitors should be discharged as they can store charge for a considerable time.

If you must work on live equipment only do so if you know what you are doing. Also, keep one hand in your pocket at all times and all metal jewelry should also be removed. Avoid bodily contact with any earthed object to prevent you becoming the return path for any voltage source to ground.

Safety in the Shack

Continued from page 5

If possible do not work on equipment when alone and always make sure that you have the correct tools for the job.

RF Safety

Radio Amateurs should be concerned about two aspects of RF safety when planning a station and its associated antennas.

Physical contact with antennas and parts of the station, which may be RF 'hot' and where there is a risk of RF burn or electric shock, must be a primary consideration.

This might include feeders to the antennas, or ungrounded metallic objects within the station or nearby.

Always arrange your antennas and feedlines so that they cannot be touched. This may mean re-routing them or putting them out of harm's reach.

The second aspect is safety near the antennas in the so-called "near field".

This the region where the distance from a radiating antenna is less than the wavelength of the radiated energy.

This implies that on the lower HF bands, say on 160 meters (Top Band), the near field could extend a considerable distance from the antenna.

However, in practice such an antenna would also be physically large, and would result in the incident power being widely distributed over a large area. For resonant dipoles there is a significant magnetic field near the feed, and a high E field near the antenna tips – both of these need to be considered as a safety consideration.

Every radio amateur should always ensure that persons in or near the station are not within the near-field safety zone recommendation of the antenna when transmitting.

But what is that zone? This is complex and you need to read the document "RF Safety and the Radio Amateur" mentioned above.

If you read nothing else, there is a rough rule of thumb.

For example, if you use a dipole, and 400 Watts, take the frequency in MHz, and use that spacing in feet (ft). That is, on 14 MHz a spacing of 14 ft is required as a safety distance. Or ... If you use a beam with a gain of 9dB, and a transmit power of 100W, take the frequency in MHz, and use that spacing.

As you can see the higher you go in frequency the further you must keep away from transmitting antennas. End.



Vol. 5

The Radio Beginner By H. GERNSBACK

F all the people, the Radio Beginner-or shall we call him novice-is entitled to the greatest amount of sympathy; and he of all people does not get much of it. Perhaps the radio industry itself is to blame most for this condition. In the past, only too often has the novice gone to a radio store, only to be sneered at and have fun made of his questions that seemed logical enough to him, but foolish to the "Know-It-All" behind the counter. Even today this feeling has not been eradicated entirely, and it is therefore small wonder that the beginner is not always very anxious to become initiated into the mysteries of radio.

There are two sorts of novices: The one who buys a set complete, and the one who buys the parts, in order to construct the set himself. At the present time the former is in the minority, as there are more people who "build their own" than there are who buy sets complete. For the man who buys the outfit already assembled, his

task is simple. If he is a novice we might say this to him: If you have not much money to spend and you wish to receive local stations only, start in, by all means, with a small crystal set. The crystal set requires no batteries and uses a pair of telephone receivers. It is not possible to attach a loud speaker to a crystal set, as the power delivered by it is very minute. For purity of sound, the crystal set has no peer; however, it does not work well as a rule for greater distances than 15 miles. The tuning of most manufactured sets is not very sharp either; by that is meant, if you are near a broadcast station it will be almost impossible to tune that station out in order to receive another one. Long distance stations cannot be received except under unusual conditions.

The next low priced set to consider is a one tube set. There are some very excellent sets of this kind on the market, some of these being able to occasionally receive stations 2,000 miles away. These sets as a rule also work with a pair of head phones. If a loud speaker is to be added, you need what is called an amplifier, which means one or two more tubes and more batteries. We suggest to the novice that he make himself familiar first with the one tube set before he attempts to work a loud speaker. The one tube set as a rule has but few controls, that is, few knobs and dials with which to make adjustments, and for the novice the fewer adjustments there are the better. More than one dial makes tuning somewhat complicated until you get the hang of it.

you have more money to spend, and wish to get a larger outfitone that works a loud speaker-there are any number to choose from. As a rule, an outfit with less than three tubes does not work a loud speaker well. To get long distance (DX) stations clearly, you need at least a five tube receiver. The storekeeper will be glad to show you how to operate it. The operation of most of glad to show you how to operate it. The operation of most of these sets is very simple after you have become accustomed to working it. The thing that you should not tamper with until you understand more about electricity and radio, is the apparatus itself.

The batteries are of great importance. All vacuum tube sets have two kinds of batteries: First, the "A" battery, which supplies the current for lighting the filaments of the lamps or vacuum tubes. It is usually a storage battery, or when dry cell tubes are in the set, dry cells may be used.

Next, we have the "B" battery or high tension battery. In order to memorize this better, the writer suggests that you associate the letter "B" with *BEWARE*. The reason is that unless you are careful, the "B" battery will cost you a good deal of money. It makes a huge difference how the two batteries, the "A" and "B" types, are connected. Every radio outfit has, as a rule, two binding posts marked for the "A" and the "B" batteries. It is ABSOLUTELY essential that the "A" battery be connected to the "A" binding posts and the "B" battery to the "B" binding posts.

"B" E W A R E, therefore, not to change these connections. If you do, and if you have a five-tube set, this slight mistake is apt to cost you \$25 in the twinkling of an eye, as you will burn out all your vacuum tubes at \$5 each.

After you have used your "A" and "B" batteries for a certain length of time, you will find that the sounds in the loud speaker or telephone receivers gradually become weaker, which is an indication that either the "A" or "B" batteries are getting low. Sometimes it is only the storage battery that is discharged, or the "A" dry batteries run down, This can be usually ascertained by looking at the bulbs themselves. If they emit a very dim light, the storage battery, to be renewed. For they emit a very dim light, the storage battery, if such renewed. Dry "A" and "B" batteries cannot be recharged, notwithstanding the claims made by a lot of wiseacres. The only thing that run down dry cells are good for is the ash can. If the "A" battery has been renewed and still the outfit does not work well, the "B" battery probably is run down as well. Here is a simple test, to find out if the "B" battery is still good or must be discrided.

be discarded:

Take an ordinary 25-watt 110-volt lamp such as you use in your house for lighting purposes. Connect the two metallic parts of the lamp to the two extreme terminals of the "B" battery. If the lamp does not light up at all the "B" battery is dead. This test can only be made with a 45-volt "B" battery or two 22½-volt "B" bat-teries, which of course must be connected in series in order to make the test. By series we mean attaching the plus (+) terminal of one battery to the minus (-) terminal of the other with a short piece of wire. That will leave one plus (+) and one minus (-) terminal on each of the 221/2-volt "B" batteries. Connect two short wires to these terminals and with the two wires touch the two metal parts of the incandescent lamp. Unless the lamp lights, one or both batteries are dead. In connecting "A" and "B" batteries with a set it is of *extreme* importance that the plus (+) and minus (-) connections match up with the markings on the binding posts. Plus (+) must connect with the plus (+) and minus (-) must be connected with the minus (-) terminal.

We now come to the Aerial-one of the most important parts of your outfit. For best results, the total length of your aerial should be less than 100 feet. It must be insulated from ALL points on the building with good insulators. By 100 feet we mean the total length of the wire from your outfit up to the other end on the roof. The bare wire should never come in contact with the building, with the window moulding, etc. Where the aerial wire leads to the outfit it must positively be insulated, as a matter of fact the entire aerial can be insulated contrary to popular opinion. The radio waves pass easily through all insulation, so it makes no difference whether the wire is insulated or not, but the wire MUST be insulated wherever it touches stone, coping, woodwork, walls, etc. The best aerial is an uninterrupted piece of wire. If you must use more than one piece, do not attempt to just twist the wire ends together or you will have trouble. If you cannot solder the pieces together yourself, have someone do it for you.

The Ground is all important. By ground is meant a connection direct to Mother Earth. Any continuous wire or metallic object that makes a permanent and good union with the earth is called a ground. As such we have water pipes, gas pipes and radiator pipes. A gas pipe should never be used because it is sometimes insulated and does not establish a real connection with the earth. The radiator ground is not always good either because not all radiator pipes are connected with the earth. The safest bet is always a cold-water pipe. But again, here is where the little thing is important. Do not attempt to just wrap the ground wire-which connects to the ground binding post of your set-to the water pipe. This will spell F-a-i-l-u-r-e. Get a 10c or 15c ground clamp from your radio store and attach it to the cold-water pipe. The important part is that the pipe must be scraped metallically clean where the ground clamp is attached. This is most important. The ground clamp must be attached so tightly that it cannot be moved by hand. The wire is then connected with the ground clamp as tightly as possible—then you may safely forget it.

Ways to Protect yourself From Fraud Take these steps to keep

safe from scams, identity theft and spam calls.

Improve your password protection

Many online retailers, financial companies and service providers offer dual-factor authentication" (After you successfully enter your name and password, they send you a unique code via text or email that you have to enter before you can get to your account.) Turn it on as part of your account settings. It takes an extra step, but it is a veritable fortress of extra security.

Protect your mail

Informed Delivery is a free service from the U.S. Postal Service in which the agency sends, via email, images of letter sized mail expected to be delivered to you soon. This is a great way to monitor that nothing is stolen by ID thieves from your mail box.

Visit <u>https://informeddelivery.usps.com</u> to sign up.

Filter your phone calls

To help curtail the flood of spam calls, enter all your trusted contacts into your smart phone. This way when the phone rings, your caller ID will let you know if it is one of them. Do not answer if you do not know the callers; if it is important they will leave a message. Even better: Research call blocking apps on your smart phone and talk to your phone company about what it can do for you.

Manage your emails

Start making as spam any suspicious or unwanted emails that show up in your inbox, so similar messages will be automatically routed to trash. If your inbox continues to fill with unwanted spam, investigate other email providers

Continued next column

Do a quick Facebook privacy checkup

On your Facebook page click on Settings & Privacy and privacy checkup. This easy-to-use wizard will guide you through settings that will enable you to lock your profile so that only your friends can see it---and scammers will be locked out.

Vet Unfamiliar e-retailers

Before purchasing something from a retailer you haven't used before, do a web search for the company's name, followed by the words "scam," "fraud" and "complaints", in order to get a fast read on its veracity. Then read other user reviews. Also read the About page on the company's website to find out who owns it and where it is based. It's better to know that the business you by from can help you avoid any fraudulent deals.

Say no to gift Cards

Prepaid gift cards have become one of the fastest-growing requested forms of payment from criminals, and they are virtually untraceable. Take the pledge: "I will never, ever, ever buy a gift card for someone I don't know." Gift cards should only be purchased for family and friends.

Copy all of the contents of your wallet today

This is a simple way to protect yourself from identity theft and credit card fraud. If you have copies of the front and back of all ID and credit cards stored in a safe place, you'll have the account numbers and customer service lines instantly available.

Stop, breathe, ask

Often, scammers rush their victims and push lots of emotional hot buttons to get you to stop thinking rationally. Never let strangers force you into fast decisions. Please, calm yourself, and think clearly and critically. Chances are you'll quickly see the situation for what is realty is.

RCARC General Membership Meeting and Program Pictures.



Fred (KI7TPD) Brining the meeting to order.



Fred (KI7TPD) conducting the Pledge of Allegiance.



George (AL7BX) giving the Repeater Report.



Fred (KI7TPD) conducting meeting business and sharing information on Winlink ref. the Upcoming Utah Great Shakeout Exercise.



Hugo (KC9OSA) showing the book he just won.



James (KG7VEI) presenting his new App to assist in disaster and a Geocaching Exercise planned for the future.

HAM Radio Best Practices

HAM Radio is a whole new world for you, and you want to jump into it ASAP, however you are bound to make mistakes on occasion and that's alright. Play nice with everyone you speak to. Here are a few tips and even unwritten **rules in Ham Radio** to help you avoid pitfalls and maybe some embarrassing situations:

On the air:

- After pressing your <u>PTT</u> button, wait about ½ second before speaking, especially if you're communicating through a repeater. The repeater takes a second to "catch up" with you.
- When speaking into your microphone, keep the microphone a little bit away, don't talk into it like you see in the movies. This will make sure you don't sound bloated on the air.
- Place your hand microphone about four to six inches from your mouth when transmitting. Speak clearly and use your voice without yelling in to the mic.
- When announcing your call sign along with that of another ham, the rule is to put yourself last, as in "KI5LMR, this is KI5WTR" if your call sign was KI5WTR.
- While it's customary to call out CQ on HF bands, it's best practice on the 2-meter and 70-cm bands to announce your call sign instead, especially on a repeater.

- If another ham points out a problem with your transmission ("you're sounding a little scratchy"), always assume the problem is with you (location, orientation, power too low, etc.) or your equipment first, and always admit your mistakes
- If you'd like to jump into an ongoing conversation, avoid using the word break; instead, say your call sign between their transmissions. Usually, they will acknowledge you and allow you to speak.
- After your contact releases his PTT (Push-to-talk) button, wait one to two seconds before you press yours, in case another person wants to join the conversation or has an emergency.
- Avoid "Ker chunking ", which is repeatedly pressing and releasing your PTT button without announcing your call sign; it's not only illegal, but irritating to others, especially those listening on a repeater. Remember...good practices!
- When speaking through a repeater, try and keep your conversations to under a few minutes. Most repeaters will have a time out. The repeater I use times out every two minutes. Don't sweat it, you will get used to this. Remember, this is all new to you right now.

Personal:

• While it's not always possible, try and make your conversations positive and upbeat; sounding positive attracts friends, while negative comments tend to turn other hams away from you, even if well-intended.

RCARC E-Comm Group Participates in the Southwest Utah Great Shake Out Exercise

We all must get better prepared for major earthquakes, and practice how to protect ourselves when they happen. The purpose of the 2024 Great Utah Shake Out is to help people and organizations do both. Rainbow Canyons Amateur Radio Club registered to participate.

On Thursday morning April 18,2024 at 10:15 a.m. Bruno Debaker activated the RCARC E-Comm group due to a large Earthquake that just occurred in Cedar City.

Bruno then using Amateur Radio (also known as ham radio) conducted a roll call. Members that acknowledged were asked what mode they would be using to send the Damage Assessment Report (DAR) and a picture of the damage in their area to the Iron County Emergency Operations Center (EOC) Planning Section either FLDigi, Winlink or both.

At this point E-Comm members began to compile and format the requested information using both the Fldigi/Flamp and Winlink Software that is used to send this type of information over the air through ham radio.

The DAR askes a number of questions related to the given emergency to give First Responders an idea of what the status is in their community.

Some of the questions on the DAR report:

Are there injured people, deceased and or trapped persons, are there fires burning, gas leaks, water leaks, chemicals leaking, electrical problems, collapsed or damage buildings, road conditions, access to the area and the same for animals.

Once this information is compiled and sent to the EOC) it gives the Emergency Managers a quick snapshot of the current situation in the city. This then allows Emergency Resources to be sent to the areas with the greatest impact.

The E-Comm Group are all volunteers and live in Cedar City or surrounding areas.

These members train in using the Fldigi/Flamp and Winlink Software throughout the year and participate in exercises such as the Utah Great Shakeout.

This year a total of 14 members participated in the exercise with the breakdown as follows:

#	Winlink Reports Submitted	
10	Did You Feel it (DYFI)	
5	Disaster Assessment Form (DAF)	
4	Damage Pictures	
#	FLDigi Reports Submitted	
4	Disaster Assessment Report (DAR)	
3	Damage Pictures	
1	ICS214 Report Submitted to Bob	
	Craven at the State level,	

Additional information on the Winlink Exercise.

Hams that participated in the Winlink (Did You Feel it) portion of the exercise not only have their information on the damage assessment report along with a photograph of earthquake damage submitted to the County Emergency Manager but the same information is provided to the USGS (United States Geological Survey) with accurate, timely, situational awareness – "ground truth" - of the intensity of the earthquake which will provide for a more accurate understanding and response to the disaster.

While we know that not all E-Comm. members were able to participate for many reasons a great big thanks goes out to everyone for just being an E-Comm. volunteer.



RCARC Last General Class Information and VE Testing Results.

On March 7, 2024 the RCARC General License Class commenced with classes each Thursday Night through Aprill 4, 2024. The VE Testing was completed on April 11, 2024.

Congratulations to the following listed below with one new ham and others upgrading.

Name	Call Sign	License Class
Gary Cutler		Tech
Frank Gagliardi	KJ7NZU	General
Gavin Hollinger	KC7IHE	General
Gary Hurd	KF6CFL	General
Tony Karbowski	KC6WFI	General
Sonia Karbowski	KD6HYH	General
Kevin Kilcoyne	K2MFK	Amateur Extra
Brant Palmer	KJ7LTQ	General
Hugo Ramos	KC9OSA	General



Last class on April 4, 2024. Bill (K6QOG) sharing information in ref. Sub element 9, Antennas and Feedlines.

Continued on Page 16

Club Grant Program to Return

The ARRL Foundation Club Grant Program is

returning for 2024. After receiving additional funding from Amateur Radio Digital Communications (ARDC), the next round of grants will be available later this year. More than \$500,000 in grants have been awarded to clubs across the country. This program centers around club projects that are transformational in nature (i.e., projects that have the greatest impact on the local community). Previously successful grants concentrated on the recruitment and training of new hams, STEM programs, emergency preparedness, and amateur radio technology development. ARRL Director of Development Kevin Beal, K8EAL, said, "ARRL is proud to partner with ARDC to administer the Club Grant Program. These grants offer an opportunity to have a significant impact on amateur radio's future."

More information will be announced on all ARRL news outlets in the coming weeks. Now is the time for your club to consider if you have a project that could qualify for a grant. Start thinking just how your club can impact amateur radio, today and in the future. Grants will be available for up to \$25,000 and will include reporting and media requirements. Stay tuned for additional information, and get ready for the next round of the Club Grant Program.



Member Highlight



Paul Erickson

(WA7GVL)



In the picture above left is Joe Barnes (WA7GVL – Silent Key). Right is Maude Barnes (WA7GVJ – Silent Key). They are Paul's Grandparents.

Paul now has his grandfather's call sign as a vanity call and Pauls' daughter has her great grandmother's call sign. Very cool.



Spring Severe Weather Preparations Begin

The severe weather season (March through May) is here, and the National Weather Service (NWS) offices across the country are prepared. Warning Coordination Meteorologist Brandon Peloquin at the Wilmington, Ohio, NWS office said many of the NWS offices across the country meet with partner organizations in the spring to make plans for the weather ahead. "Amateur radio operators and weather spotters are extremely important, and we could not do what we do without them," he said. "In fact, many of the watches and warnings issued are made because weather spotters provided critical information."

Peloquin said that Doppler radar is a great tool for tracking storms, but weather spotters have a different vantage point and can see things that radar can't.

Severe Weather Awareness Weeks are scheduled by each state and usually occur during March to remind and educate communities about severe weather seasonal threats and how to avoid them. The NWS SKYWARN Storm Spotter Program is a volunteer program with almost 400,000 trained severe weather spotters. Spotter training is available at the state level and is offered several times each year. Every December, NWS and ARRL hold SKYWARN Recognition Day to honor all SKYWARN storm spotters and amateur radio operators for their contributions during severe weather.



RCARC Last General Class Information and VE Testing Results.

Continued from page 12



Bonne (KI7WEX) sharing information ref. sub element G0, Electric and RF Safety.



Class attendees in the process of testing after 7 weeks of classroom instruction.



Ron (K7HDX) setting up a PC to be used for testing

RCARC EComm Trailer's Work Party on April 13, 2024

This past April 13th a dozen members met at the Iron County EOC to tackle the first steps in getting the EComm Communication's and Antenna Trailers back to being front line ready.

Brad (WA7HHE) and several members completed an inspection and inventory of the Communications trailer. A list of items that need repair, replaced along with a, wish list of additional items that need attention was created. It was discovered that the trailer printer is missing or misplaced.

Bruno (KG7VVN) assisted by a number of work party volunteers completed an inspection and inventory of the Antenna Trailer. In addition, the storage boxes were cleaned out. A list of items that need repair, replaced along with a, wish list of additional items that need attention was created.



Brad WWA7HHE) and his helpers inventorying the electronic storage boxes where the radios and Power supplies are kept.



Bruno (KG7VVN) vacuuming the Storage Boxes on the Antenna Trailer. Continued on page 16

Ham Radio's Many Roles During Solar Eclipse

In one of nature's most spectacular visual displays, on April 8, 2024, the sun will align with the moon and the Earth, casting a shadow that will transit much of North America.



Totality as seen in Madras, Oregon in 2017 [Sierra Harrop, W5DX, photo]

Spectacular Display and Gathering

Millions will gather along the path of totality the section where the sun is fully blocked by the moon - to witness something that happens, on average, once every 375 years for any place on our planet. The moon's shadow path will begin over the South Pacific Ocean, and then it will cross into North America, passing over Mexico, the United States, and Canada. Weather permitting, the first location in continental North America that will experience totality is Mexico's Pacific coast, at around 11:07 a.m. PDT. The shadow will exit continental North America on the Atlantic coast of Newfoundland, Canada, at 5:16 p.m. NDT.

Ham radio will be there - operators will participate in scientific experiments, serve local communities that will be overrun with hundreds of thousands of visitors, and provide a valuable tool for communicating if the mobile phone networks become overloaded.



The diamond ring effect of the 2017 eclipse [Sierra Harrop, W5DX, photo]

Regular sun and moon watchers will be out in force while many scientists, astronomers, and amateur radio operators will be "working" the eclipse. ARRL has partnered with Ham Radio Science Citizen Investigation (HamSCI), a NASA citizen science project, to encourage hams to send and receive signals to one another before, during, and after the eclipse. The project will be led by Nathaniel Frissell, W2NAF, a professor of Physics and Engineering at the University of Scranton in Pennsylvania.

HamSCI participants will share their radio data to catalog how the sudden loss of sunlight during totality affects their radio signals. All radio amateurs are welcome to participate in the ionospheric research that is being conducted. Information is available at the <u>Solar Eclipse QSO</u> Party on the HamSCI website.

NASA plans to point a large telescope at the eclipse and broadcast the entire event across North America. The agency will host live coverage of the eclipse from 1:00 to 4:00 p.m. EDT (17:00 to 20:00 UTC) on April 8 on the <u>NASA YouTube</u> channel. There will be live views of the eclipse from watch parties across the country, and even from NASA's Glenn Research Center in Ohio, which happens to be inside the path of totality.

In addition to NASA's plans, the Super Dual Auroral Radar Network (SuperDARN), a collection of radars located at sites around the world, will bounce radio waves off of the ionosphere and analyze the returning signals. Their data will reveal changes in the ionosphere's density, temperature, and location.

There is also the Radio JOVE project, which is made up of a team of citizen scientists dedicated to documenting radio signals from space, and especially from Jupiter. During the total solar eclipse, Radio JOVE participants will focus on the sun. Using radio antenna kits that they set up themselves, they'll record solar radio bursts before, during, and after the eclipse.

RCARC EComm Trailer's Work Party on April 13, 2024

Continued from page 14



The project supervisors, Terry West and Sonia (KD6HYH).



Fred (KI7TPD) and Bruno (KG7VVN) separating the antenna coax and ropes.



Kevin (K2MFK) checking the trailer tires air pressure. Continued next column



Bruno (KG7VVN) and Fred (KI7TPD) looking at the driven element that needs repair on the antenna.



The antenna trailer storage box cleaned and restocked in an orderly fashion.



The new storage area for all the Iron County Emergency Preparedness, CERT and Ham Trailers.

Ham Radio's Many Roles During Solar Eclipse

Continued from page 15

Many first responders, including law enforcement, medical personnel, and fire departments, will be ready to respond to any emergency that might occur during the eclipse. Those officials represent some of the served agencies that radio amateurs work to support.

Most ARRL Sections within the path of totality have been working with their local served agencies to provide communications volunteers through amateur radio. In New Hampshire, for example, where cell phone and road networks are expected to be overwhelmed, New Hampshire ARES has local groups activated in many communities.

Public Information Coordinator of the ARRL New Hampshire Section Skip Camejo, AC1LC, said members across the state are ready. "A small team pulled from several NH-ARES groups will be providing limited communications support for the American Red Cross, using both HF and VHF. We will have an RV-based station in Lancaster, NH, and another in Pittsburg, both at locations provided by the New Hampshire Department of Transportation," he said.

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Continued next column

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In the event of a mass-casualty incident or a need for emergency sheltering, the teams will travel to the scene with a state police escort. They're expecting 10,000 to 50,000 visitors on Monday in that community alone.

Other ARES groups have been preparing and drilling over the last few months. In the ARRL North Texas Section, a set of criteria has been established as reportable to the local served agencies' emergency operations centers. Look for more details on ham radio involvement during the eclipse in next week's *The ARRL Letter*.

Outreach

Many groups are holding eclipse festivals. Some amateur radio groups and clubs are taking advantage of these gatherings to get radio in front of the curious public. Vice Director of the ARRL Hudson Division Ed Wilson, N2XDD, is preparing an informational display for an event at his local library.

The Suffolk County Radio Club on Long Island, New York, will be participating in the Solar Eclipse QSO Party from the Moriches Branch Library.



An amateur radio outreach booth at The Big E in Springfield, Massachusetts. [Nancy Austin, KC1NEK,

Ham Radio's Many Roles During Solar Eclipse

Continued from page 17

Wilson saw radio as a perfect addition to the library's eclipse activities. "Another club member and I went down to the librarian and spoke to her about the HamSCI event. We asked if we would be able to set up a ham radio station during the course of the day. They loved the idea and approved it, and they invited us to some other events that they're having in the next few months," he said.

For clubs that may have a public presence during the eclipse, there are <u>resources on the</u> <u>ARRL website</u> detailing how to help explain the hobby to the uninitiated.

The total solar eclipse will be the last of its kind for more than two decades in the contiguous U.S. The next total solar eclipse on U.S. soil won't occur until March 30, 2033, and it will be viewable only in Alaska. End

STORING SPARE RADIO GEAR – PREPARING FOR LONG TERM STORAGE

Almost every one of us has some spare radio gear. Sometimes it is gear we would like to set aside and store for a "rainy day" or hoping that our youngsters might want it. Of course, there is also gear set aside purely as back-up if our main gear took a lightning strike or was otherwise damaged.

I asked several preparedness types, a couple exmilitary gear service techs, and looked around for other's recommendations – all distilled into a protocol.

Step One – Selection and Completeness

Gear to be stored usually is working gear, though I do know people who set aside projects for the future. There are a couple points about selection that were pointed out to me:

Will it work in the future? No point in storing gear that requires a computer that is likely to be obsolete unless you store a working computer with it.

Iron County Office of Emergency Management (OEM) EComm Group Meets

Thursday April 18,2024 the Iron County Office of Emergency Management (OEM) EComm Group Met to discuss several topics.

Under Old Business: Iron County Maps

25 Copies of a map of Iron County were printed. 20 of those were lamented. Members of the EComm Radiation Reading Group received 1 copy each. Additional copies will be placed in the Old Iron Town CERT, Beryl CERT and Iron County CERT trailers.

RCARC EComm Trailer's Work Project:

EComm Trailer

Brad (WA7HHE) gave a report on the current condition of the trailer which included an inventory and a list of items that need to repaired or replaced, such as a new Printer, Polyphaser Lightning Arrestor and Faraday cloth to line radio storage boxes.

Still need a lead person for the EComm Trailer.

Antenna Trailer

Bruno (KG7VVN) gave a report on the current condition of the trailer which also included an inventory and a list of items to repaired or replaced, such as the PL259 on the driven element cable. Adding metal outriggers to stabilize the trailer, replace or upgrade tools etc.

Next steps are to review, prioritize and set a work plan in motion.

ICS 100 Refresher Presentation:

An ICS 100 refresher Presentation is scheduled for April 27, 20-24 at 09:00 to 12:00 PM.

New Business:

The Great Utah Shake Out Review.

See Page 11 for a detailed report.

Iron County Office of Emergency Management (OEM) EComm Group Meets

Continued from page 18

Other Business

EComm Trailer Window coverings.

Tony (KC6WFI) and Sonja (KD6HYH) have volunteered to make indoor window coverings and to make wiring (lights) for the antenna trailer.

Airconditioning Unit for the EComm trailer:

There was discussion on purchasing some type of air-conditioning unit for the EComm trailer. One manufacture was "Coolzy" reported to be Ultra Quiet, Ultra Compact and Low Power. Additional research will be completed before a recommendation is made.



Ron (K7HDX) and Darlene (N7WWB) waiting for the meeting to start



Attendees citing the pledge of Allegiance. Continued next column



Dennis (W6DLW) conducting meeting business.



Ron (K7HDX) presenting a briefing of the UGSO exercise statistics from early that morning. Both FLDigi and Winlink.



Can't forget the goodie table.

Amateur Radio Saves Family in Death Valley National Park

04/12/2024

Death Valley National Park is in a remote desert in southern California, where mobile phone networks are spotty at best. On Saturday, April 6, a radio amateur and his family were enjoying the park when their vehicle became stuck in mud in a dangerous area. Without access to a cell network, the ham called for help on the 10-meter band.

According to a news release from the Black Swamp Amateur Radio Club, Caleb Gustwiller, KD8TGB, jumped into action.

Gustwiller was monitoring from Ohio when he picked up the distress call. He was able to hear the call sign and the general location of the ham in distress. He lost the signal to the noise, so he wrote a post in the Parks on the Air® Facebook group asking for other hams to listen for the calls.

Several hams contacted emergency officials in southern California, which led to the ham and their family being rescued within a few hours by park rangers. The club stated in their Facebook post: "Without Caleb hearing this distress call, it could have quickly become a very deadly situation for the operator and his family."



HAM Radio Best Practices

Continued from page 10

- Don't get offended just because another ham can't remember your name or call sign, most likely until later on, you will have the same issue. People will eventually get to know you around your area. I used a pen and paper to write down call signs and names when I was on the radio to help me remember who I talked to.
- If another ham does offend you, let it go; don't retaliate or try and belittle the other ham for it; be the adult in the encounter, even if you're a kid. This is not a place to troll others. Save that for Facebook!
- Be considerate of your contact's time, and minimize dead-air time by at least thinking of what you're going to say before keying up.
- Avoid making insulting or disparaging remarks about others on the air; what people hear you say about others, they'll also believe you'll say about them. You are trying to make new friends here after all.
- If you feel you must correct the behavior of another ham, do so offair, tactfully, and out of earshot of others.
- Within reason, avoid burping, coughing, sniffing, clearing your throat, smacking your lips, and making other bodily or disgusting noises on the air. Why? It's just gross...EWWWW!
- Whenever possible try not to engage in political or religious conversation. These are too hot topics that can easily get out of hand due to varying feelings on the matters. There are thousands of other subjects you can talk about.

HAM Radio Best Practices

Continued from page 20

Equipment:

- Make sure your radio is programmed with an appropriate frequency list before you stash it away, but be sure to accompany it with a card or sheet to remind you of what the frequencies or channel names are for. If your radio has an SD card as a backup, this will save you a lot of grief later if something happens.
- Learn how to manually program your radio; you might not know when you need to travel through a location where there is no cell signal available for your phone or tablet
- Join a regularly held net, which will give you weekly practice on your radio, to keep you acquainted with your equipment operation and limitations
- As far as practical, keep your radio equipment clean; you might never know when you'll need to share your microphone with somebody else, and keeping your controls clean will help ensure that they'll work for you the next time. You paid for it, take care of it! End.



Happy Memorial Day Monday, May 27, 2024

RCARC EComm Members Attend Southwest Utah Public Health Department (SWUPHD) SPOC/CCC Conference

On April 20, 2024 a number of RCARC EComm members attended the SWUPHD SPOC/CCC Conference at the Cedar City Heritage Center.

Attending: were Ron Shelley (K7HDX), Darlene Shelley (N7WWB), Anthony Karbowski (KC6WFI), Sonja Karbowski (KD6HYH), Terry West and Dennis West (W6DLW).

The conference was well attended and presented a variety of Topic's with regards to Disaster Preparedness and Emergency Management. Topics included The American Red Cross, See Something-Say Something, Phycology First Aid, Civil Air Patrol, Ham Radio, Being Prepared for a Disaster, Home Fire Safety, Search & Rescue and Emergency Management.

The Ham Radio presentation was presented by Dennis Wilds (KJ7ETX), Washington County Amateur Radio Emergency Services (ARES) coordinator. Durning his talk he asked Dennis West (W6DLW) to join him at the microphone.

He asked Dennis to give a brief overview of the Rainbow Canyons Amateur Radio Club (RCARC), EComm Group and some of the served agencies we represent as well as other activities. **See Pic below.**



Dennis (W6DLW) addressing the Attendees at the SWUPD SPOC/CCC Conference.

STORING SPARE RADIO GEAR – PREPARING

OR LONG-TERM STORAGE

Nor is there much sense to store a project without the needed spares if they are likely to be unavailable in the future.

Then pay attention to completeness – you want the gear, all accessories, critical spares, paper manuals, service/tech manuals if you can get them, consumables and printouts of support notes from the internet if they are useful. You want it all much like if you were shipping the radio to a remote Island where you would be setting it up without any outside resupply. Pay attention to special connectors – Molex variations come to mind – and any add-ons that can be found now.

The object is to have everything you need to get the radio up and going, AND take care of it, when you open your storage parcel years later. Obviously be prudent – example, I wouldn't store oils/lubricants with the radio.

Don't forget to really make sure what you store works well, and is up to snuff. One ham I ran into sends radios in for full service and alignment before storage. Really nice to get some of his gear when he decided he didn't need everything he had stored.

The Dry-Wrap

Treat the radio like you were wrapping fresh room temperature meat. Bring the gear up/down to room conditions, clean and dry. Then wrap it twice in food grade paper. Butcher Paper and Parchment paper (used for baking) have been suggested. The idea is a pH neutral paper unlikely to take-up or give-off chemicals which could damage your stored radio.

The Piggy-Back

To the wrapped radio add the manuals, accessories and spares if being stored as one. Some units will be stored in partial units – which even at this stage would then be marked *1-of-4*, *2-of-4* and so on.

The add-ons can be in their own paper or bags.

To these add several large desiccant sachets, which you should prepare by oven-drying them to a very dry state.

The First Vacuum Pack

Using Food Grade plastic, heat seal and vacuum pack everything. You do NOT need to crank the vacuum up high, just bring it down. Some preparers suggested prefilling the plastic bag with nitrogen or CO2 from some dry ice.

Continued next column

Once you have some vacuum the heat seal the bags completely closed. They should not puff back out. The Anti-Static Nod to Mr. Faraday

Double wrap the vacuum pack with commercial grade aluminum foil (this is much heavier) or electronics industry anti-static conductive materials. Use conductive tapes if possible.

The Final Vacuum Packaging

The foil-wrapped unit is put into another Food Grade Plastic Bag and like the bag under the foil vacuum heatsealed everything again.

The Importance of Labels and Instructions

Make sure to label the unit, and if you have any short instructions for storage or opening attach them. I've put labels so they can be seen through the Final Vacuum Packaging as well as an outside label – hedging again the plastic wrap fogging over time.

The Box or Can Over-Packaging Question

At this stage advisors were split – several suggested boxed up the package in a storage box, and few wanted to store it in a metal garbage can out of EMP fears. There is no civilian authority to reference on whether EMP threats are real enough to protect against, and whether the double foil-wrap is enough protection without a metal casing.

Regardless of your personal decision, make sure your box/store the package in way that you won't drop it when handling. No point in doing an awesome storage job to fumble the radio putting it on the shelf – or even having it walk off the shelf in tremors.

If you do some planning, you can use the original OEM packaging, even if you have to include it inside one of the Vacuum Packing layers.

Duplicate, if Required

The saying is "Two is One, and One is None." This reflects the idea that you have a high likelihood of having a working station if you have spares to swap in, but if your only unit goes down you are off the air. The same applies to spares. Consider if you want duplication of stored radio gear.

All this is a lot of work, but I am told that those with experience have found it worth the effort. The protected radio gear has a high likelihood of being serviceable after lengthy storage. End

Time to Plant Your Spring Garden

Planting your Spring Garden For the Garden of your Daily Living

Plant Threes Rows of Peas

- 1. Peace of Mind
- 2. Peace of Heart
- 3. Peace of Soul

Plant Four Rows of Squash

- 1. Squash Gossip
- 2. Squash Indifference
- 3. Squash Grumbling
- 4. Squash Selfishness

Plant Four Rows of Lettuce

- 1. Lettuce be Faithfull
- 2. Lettuce be Kind
- 3. Lettuce be Patient
- 4. Lettuce Love One Another

No Garden is Complete Without Turnips

- 1. Turnip for Meetings
- 2. Turnip for Service
- 3. Turnip to Help One Another

To Conclude Our Garden, We Must Have Tyme

- 1. Tyme for Each Other
- 2. Tyme For Family
- 3. Tyme For Friends

Water Freely with Patience and Cultivate with Love. There is Much Fruit in Your Garden Because You Reap What You Sow.



A little Ham Humor



RCARC EComm Members Attend Incident Command System ICS 100 Refresher Presentation

On the morning of April 27, 2024 John Higley (KI7SCX) retired Iron County Emergency Manager presented a very insightful Incident Command System ICS100 refresher class.

ICS100 introduces the Incident Command System (ICS) and provides the foundation for higher level ICS training. This course describes the history, features and principles, and organizational structure of the Incident Command System. It also explains the relationship between ICS and the National Incident Management System (NIMS).

Those in Attendance were Fred (KI7TPD), Bonnie (KI7WEX), Ron (K7HDX), Darlene (N7WWB), Sonja (KD6HYH), Anthony (KC6WFI) and Dennis (W6DLW).

A great big thanks goes out to John for his very informal style of teaching/presenting the information to the students.





