RAINBOW CANYONS AMATEUR RADIO CLUB NEWSLETTER

CEDAR CITY, UTAH

Club Websites: www.rcarc.info OR www. rainbowcanyons.com Number 5 – Vol. 1 – January 2023

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.

2023 Club Officer's

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CQ, CQ, - Happy New Year

Presidents Message

Dear Fellow Amateur Radio Operators,

It has been quite a year! Lots of new members and new radio activities. I Hope everyone had a wonderful Holiday season and that you are looking forward to another year! Our Annual Christmas meeting was one of the best so far with over 72 participants this year. I hope everyone had a great time and I would like to say congratulations to all of the winners who took home a prize this year! The truly wonderful members of this club really make all of our activities great and I would like to personally thank everyone for a great 2022. For next year I hope we can all build on everything we did this year. Starting in January we have Winter Field Day on January 28 and 29, 2023. We will meet at the Iron County EOC on Kitty Hawk drive on Saturday morning at around 9:00am to set up and will take down at noon on Sunday. We will have the EComm trailer and the indoor conference room, but come ready for cold weather as the radios will be under the awning outside!

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 0n 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.
7:30 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
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

January 10, 2023

RCARC Club Meeting.
7:00 pm. Cedar City Senior Center, 489 E. 200 South. Program: Digital Modes. See page 15 for additional Information.

February 14, 2023

RCARC Club Meeting.
7:00 pm. Cedar City Senior Center, 489 E. 200 South. Program: Ham Radio and Satellites. George Gallis (AL7BX)

March 14, 2023

RCARC Club Meeting.
7:00 pm. Cedar City Senior Center, 489 E. 200 South. Program to be determined.

April 11, 2023

RCARC Club Meeting.
7:00 pm. Cedar City Senior Center, 489 E. 200 South. Program to be determined.

President's Message

Continued from page 1.

We will have a presentation on digital communications from Ron (K7HDX) and Fred (KI7TPD) for our January 2023 meeting so please come out and join us. I encourage you all to play, share, and have fun on the radio! Everyone has strengths and weaknesses and we are all in this because we love some aspect of radio communications. If you are interested in how radios, antennas, or other equipment work please explore the topic, experiment, and share what you have done with the group! We have members who have been doing this for less than a year up to those who have been doing this for decades. That is what makes this such a fun hobby! Don't be shy, we are all friends here!

In service,

Fred Govedich (KI7TPD)

RCARC Club Dues are Due.

See Page 9

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 January

Happy New Year

Breakfast & Friendship Net Awards
December 2022

Breakfast Net		Friendship Net		
First Place	**Third Place**	**First Place**	W6DLW - Dennis	
K7ZI, Dick	N7SND - Larry	KA7J Lance	KI7WEX - Bonnie	
KE7ZIM - Johnny		K7NKH - Lee	KI7TPD - Fred	
KG7PBX - Linda		N7TCE - Merlin	**Second Place**	
KI7TPD - Fred		K7WEP - Paul	KILUM - Bruce	
KI7WEX - Bonnie		K7HDX - Ron	KJ7LTQ - Brant	
Second Place		N7WWB - Darlene	**Third Place**	
KC6WFI - Tony		K7ZI - Dick	N7SND - Larry	
N7SIY - Sylvia		KK7FLL - Maddie		
		N7SYI - Sylvia		

Rainbow Canyons Amateur Radio Club
Treasurer Report as of Dec 13, 2022

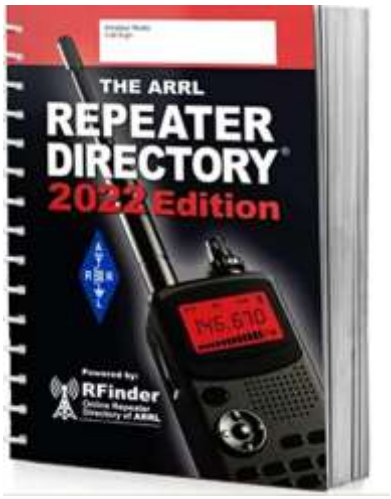
Bank balance (reconciled) Nov 30, 2022	$1,261.98
Deposit - memberships KG7VEJ, KF7GPZ & KF7WIY, NL7EL, K7NKH family, KJ7ZNU	+ 85.00
Checks/expenses	0.00
Funds in bank as of 12/13/2022 (non-reconciled)	$1,346.98
Rocky mountain Power due 12/16/2022	- 19.72
Funds available after Dec 16, 2022	**$ 1,327.26**

Submitted by
Linda Shokrian KG7PBX
2022 RCARC Treasurer
435-867-5914

In This Issue

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

Shown below is the book that will be given away at the January 10, 2023 meeting.



RCARC Book Giveaway Winner.

There was no Book Giveaway in December 2022.

The Winner of January will be posted in February 2023

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
www.rainbowcanyons.com

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

ARRL on Air Events

Straight Key Night | January 1, 2023

Kids Day | January 7, 2023

RTTY Roundup | January 7-8, 2023

January VHF | January 21-23, 2023

Place your cursor on the item above and depress Control and Click for detailed information.

Buzz's January Safety Tip(s)

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 ground.

Continued next column

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.

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.

Continued on page 8

RCARC Monthly Meeting & Christmas Party Pic's

On Tuesday night December 13, 2022 approximately 72 RCARC Members and their families converged on the Cedar City Senior Center to celebrate the Christmas Season with a potluck dinner. It was a great time for members to finally put a face to a call sign and enjoy the fellowship.

A great big thanks to Ken Richter (KR7KR) for smoking the 2 Turkeys and 2 Hams for the night's dinner (See Pic's).

In addition, there were a number of Ham related items to be given during the drawing. The two top prizes are an ICOM 2730 Dual Band Base Station Radio and a QYT 8900D Dual Band Mobile Radio. Winners are listed on page 22. See Pic's below:

Party set up in full swing. Terry West, Bonnie (KI7WEX), Fred (KI7TPD) and Linda (KG7PBX)

Members arriving and finding their seats

Fred (KI7TPD) welcoming the guest to the Christmas Party

Terry West and Ron (K7HDX) supervising the food set up

Linda (KG7PBX) collecting 2023 dues for the Club & VHF Society. All bundled up is Bruce (KK7CEE)

Continued on page 13

RADIO NEWS

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

EDITORIAL AND GENERAL OFFICES, 53 PARK PLACE, NEW YORK

Vol. 4 JANUARY, 1923 No. 7

Outfits vs. Parts

WE have often heard the remark from business men not thoroughly versed in radio matters that the radio business should not be different from any other. We were told that soon radio outfits would become standardized, the same as the phonograph and the motion picture industries.

Statements such as these, coming from big business men, were taken at their face value, even by radio people who should have known better.

To the business man, the situation looked simple. You have several hundred or a thousand broadcasting stations, and you have 100,000,000 people or more anxious to listen to entertainment and whatnot; therefore, the simple object would be to perfect outfits in such a way that they could be sold like phonographs, or Ford cars, after everything had become standardized, which, in the minds of these business men, would put the radio industry on a solid footing.

Now nothing could be more erroneous. The radio business is decidedly not like the phonograph business, nor like the automobile industry, nor the motion picture industry. The trouble with our well-meaning, but misinformed, business people is that radio has no precedents, and must be treated entirely different, as the following will explain.

To our minds, radio can never become standardized in any way whatsoever, for the simple reason that the new art has too many ramifications. If it were only a matter of listening to 360 or 400 meters broadcast, perhaps radio could become standardized, but the truth is that radio is much bigger than this. The broadcast element is only one phase. Outside of the broadcasting sations, we have the spark and C. W. stations, amateur stations, etc. These operate on waves anywhere from 200 to 6,000 meters.

Next, outside of transmitting intelligence, be it by radio telegraph, or by radio telephone, we have several other phases. One is, for instance, transmitting pictures, photographs and the like by radio waves. Another one is radio telemechanics; that is, moving and operating machines or apparatus at a distance, a thing that has nothing to do with radio communication at all. Scientists are working overtime now and are approaching the solution of radio television, a thing every scientist considers can be done today, and will be accomplished during the next 10 years. We could go on and mention many more phases, but these will do to explain why radio can never become standardized. Quite the contrary. The more we know about it, the less apt shall we be to standardize it.

Naturally not every one (and this is particularly the case with private individuals) would want to have an outfit of that sort, nor would he have any use for it, but that is only half the story. The important part is that radio is in its infancy and is continually changing, some changes coming overnight. What was an excellent radio outfit two years ago is antiquated today. What is new tomorrow will be scrapped two years hence. Furthermore, every time our broadcasting stations make a change in their wave-lengths, chaos reigns in radiodom. For instance, a few months ago, in order to clear up the radio situation, the Department of Commerce decided to allow certain stations to broadcast at 400 meters, the others remaining at 360. Immediately there was an upheaval, for the reason that very few outfits could tune out one or the other set of stations. While this does not hold true so much with oufits employing vacuum tubes, it remains true of nearly all present-day crystal outfits, most of which were designed with a single circuit, with which it is impossible to tune out one or the other broadcasting station, with the result that when two stations operate at one time the listener will hear both, he being unable to separate the two.

This means that manufacturers must make changes in order to obtain sharper tuning. This means adding attachments to present outfits, or scrapping them and putting new ones in place.

If tomorrow the Department of Commerce will make another change, and add still another wave-length, or, perhaps, allow some stations to send at, let us say, 380 meters, the chaos, for the time being, will be even worse; or if a new wave-length of 500 meters should be adopted, it would have the same effect, because many outfits would not be able, without additional attachments, to receive this wave-length.

On the other hand, even the novice, who was not interested in radio when he bought the outfit, is apt to turn into an amateur, sooner or later. The thing fascinates him, particularly if, as surely will happen, he receives dots and dashes and wonders what they are. There will come a time, for the great percentage of the listeners, when sooner or later they will want to learn code, and once they have become educated to that point, the radio novice and the radio "fan" will have become the "dyed-in-the-wool" radio amateurs. Besides receiving broadcast, they will wish to listen to the big Government stations, to amateur stations, to Hawaii, and then to Europe, and further, if they can.

Now, then, the average stock outfit is not built for this traffic. Pretty soon after having become converted to code, our budding amateur will begin to frequent radio stores and he will invest all his spare money in parts.

And this is the reason why, at the present time, and indeed during the past summer, when no radio outfit could be sold at all, there was brisk demand for radio parts of every description. As a matter of fact, the new Armstrong Super-Regenerative Circuit, which made its appearance during the summer, was a God-send to the radio industry, because it stimulated the sale of Condensers, Variometers, Variocouplers, Choke Coils, High Resistances, and Vacuum Tubes to a very marked extent.

The man who owns a phonograph invests his money in new records, while the man who owns a radio outfit soon begins investing his money in radio parts. In many cases, unless he is not mechanically or electrically inclined, he will not use his "boughten" outfit at all, but will try to assemble his own, the fascination of this sort of thing being tremendous. Most any one can buy an outfit, but it takes ingenuity to assemble one with your own hands and brain, and receive stations that are thousands of miles away. This is truly fascinating, much more so than listening to broadcast entertainment alone.

All of this is said with no idea of discouraging people from buying complete outfits. Nothing could be further from our minds or intentions. The novice should, by all means, buy a simple outfit, which is the best possible thing he can do in order to familiarize himself with the art. Once the outfit has fulfilled its mission, then, if the owner is so inclined, he can go in for the parts to his heart's content, but to the man not electrically and mechanically inclined we would say do not buy parts, because he would probably make a mess of it and become discouraged. He should start with the outfit by all means.

It would be interesting if some one could get statistics of 10,000 owners who started with a radio outfit. We are inclined to think that a very large percentage of these become radio amateurs in time, which, of course, is as it should be. Nothing could be more desirable; nothing could be better for the art.

There is much to be learned from experimenting with radio, and not too much of it can be done. The more people who experiment in radio, the better for all concerned. There are many things to be learned, and we are still ignorant of many. Take, for instance, the standing puzzle, why it is possible in some cases, with a tuning coil, a "chunk" of Galena and a pair of phones, to receive broadcast over a range of 600 miles regularly, when the average distance is not more than 25 miles.

Radio is in an experimental stage, and we hope that it will always remain so as it is precisely this phase that makes it so fascinating.

H. GERNSBACK.

Safety in the Shack

Continued from page 5

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. Welcome to Ham Radio.

New General Question Pool Released for Ham Radio Licensing Effective July 1, 2023

The National Conference of Volunteer Examiner Coordinators' (NCVEC) Question Pool Committee (QPC) has released the *2023 - 2027 General Class FCC Element 3 Syllabus and Question Pool* to the public. The new General Question Pool is effective July 1, 2023, through June 30, 2027.

The new pool incorporates some significant changes compared to the 2019 - 2023 version. Its 432 questions were modified slightly to improve wording and to replace distractors; 51 new questions were generated, and 73 questions were eliminated. This resulted in a reduction of 22 questions, bringing the total number of questions in the pool down from 454. The level of difficulty of questions is more balanced, and the techniques and practices addressed have been updated.

The pool is available as a Microsoft Word document and PDF. The single graphic required for the new General Question Pool is available within the documents, or separately as PDF and JPG file formats.

"The newly revised pool must be used for General-class license exams starting July 1, 2023," said ARRL VEC Manager Maria Somma, AB1FM, who is a member of the NCVEC Question Pool Committee. "New test designs will be available to ARRL Volunteer Examiners on that date. The ARRL VEC will supply its officially appointed, field-stocked VE teams with new General exam booklet designs around mid-June."

ARRLVEC
Volunteer Examiner Coordinator®

Reminder
RCARC
Dues are Due

Hello everyone, Buzz here with a reminder that the club dues are now due. For information in regards to RCARC dues contact Linda Shokrian (KG7PBX) at (435-867-5914 or fill out and submit the dues form.

RCARC CLUB DUES ARE NOW DUE

Rainbow Canyons Amateur Radio Club (RCARC)

Please fill out the below form with the applicable information. Check the individual or family membership. If family members are hams, please add their name and call signs in the space provided.

Name		
Call Sign		
Address		
City, Street and Zip Code.		
Phone		
E-mail		
Dues	_____ $ 15.00 Individual	_____ $ 20.00 Family
Family	Name: Name: Name: Name:	Call Sign: Call Sign: Call Sign: Call Sign:

Please submit payment to:
Linda Shokrian (KG7PBX) at 2438 W. Carmel Canyon Drive. Cedar City, Utah 84720.
Please write your call sign on your check. Make check payable to RCARC.

Utah VHF Society Dues are Due

If you wish to renew or join follow the below described methods or go to:

http://utahvhfs.org/uvhfs_join_renew.html
and follow the instruction there.

If you wish to mail a check, dues may be sent to:
Utah VHF Society
P.O. Box 482
Bountiful, UT 84011-0482

The PayPal account address for the Utah VHF Society is:

paypal@utahvhfs.org

- **IMPORTANT:** Please note that the above email address is pronounced "Pay Pal at Utah Vee Aiche Eff Ess dot Org"
- ***PLEASE*** check the spelling of the email address to which you are sending your payment and make sure that it is correct and has the word "UTAH" in it - and then check again before you send your payment!

Please note that this is <u>not</u> a link, but the address to which you should send your payment after you log into PayPal. *At the moment, we don't have a "shopping cart" set up for PayPal - sorry.*

If you have a PayPal account, follow these easy steps:

Log into your PayPal account

1. Click on the "**Send Money**" tab
2. Where it says "**To**", enter the Utah VHF Society's PayPal address: paypal@utahvhfs.org

Under "**Amount**" enter the number based on the number of years' membership you wish. *Please enter the amount for <u>at least</u> two years to help minimize the amount of PayPal fees.*

Continued on next column

3. Select "**Purchase**" and select either "**Goods**" or "**Services**". *Please do not select anything under the "Personal" tab.*
4. Hit the "**Continue**" button. This will take you to a new screen.
5. Select your method of payment and hit the "**Send Money**" button
6. ***Thank you for your support!***

If you *don't* have PayPal, don't worry - you can still pay by check/mail to the address above, or in person at the next swap meet.

When you pay via PayPal, please include the following:

- Under "**Subject**" please put "Utah VHF Society Dues for <your name>" - remembering to put your name in there.
- Under "**Message**" please include:
  - **Your name, address and phone number.** Also note if you do ***NOT*** want your name, address and/or phone number to appear in the Utah VHF Society booklet.
  - **Your callsign -** if you have one.
  - Whether or not you would like to be included on the net roster. If you don't say "yes" we'll assume that you don't check in on that net regularly.
  - Indicate whether or not you are a member of ARRL.

The Utah VHF Society is a non-profit *(IRS501c3)* organization founded in 1968 to promote the installation and use of VHF amateur repeaters throughout Utah. The Society also provides financial support for aligned repeaters and serves as frequency coordinator for the state. End.

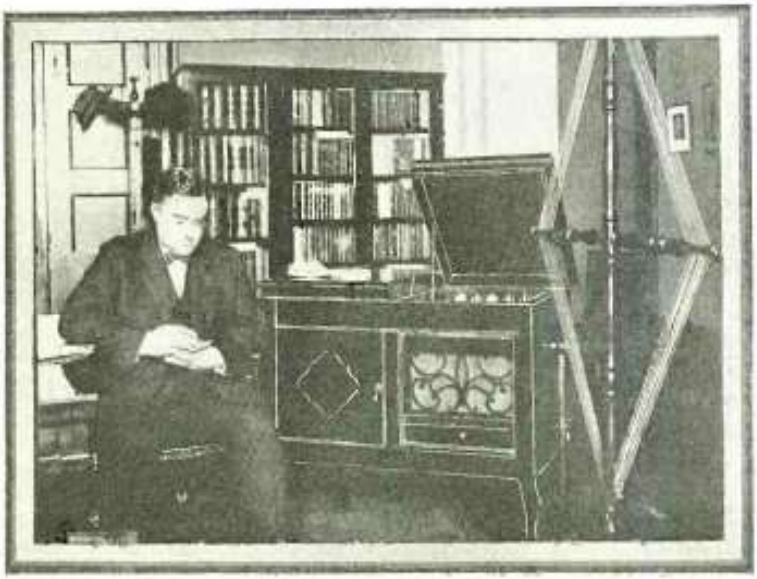
"Looking For an Apartment Where You Can Put Up an Antenna? — Dream On!"

Radio-Telephone Receiving Set Installed in Capitol

By S. R. Winters

REPRESENTATIVE Louis T. McFadden of Pennsylvania, chairman of the Banking and Currency Committee of the House of Representatives, is accorded the singular distinction of being the first member of Congress to permanently install a radio-telephone receiving set in his office. The latter being located in the Capitol, where the sessions of the House of Representatives and the Senate are held, gives a dignified atmosphere to this wireless receiving outfit. The office, Room No. 60, of this Pennsylvania Congressman is located between the rotunda and statuary hall in the Capitol.

The photograph shows Representative McFadden copying the market reports being transmitted by "WWX," the radio-telephone sending station of the United States Post Office Department. As indicated by the illustration, the receiving apparatus is of the more expensive design and its effective range for the reception of speech and music is not limited to local broadcasting stations. Pittsburgh, Newark, Schenectady, and other remote points are within audible range of this wireless equipment. The loop and cabinet are so handsomely constructed that they easily harmonize with expensive office furniture. The loop antenna, of course, serves the purpose of an overhead or towering antenna, the latter installation quite naturally being prohibited on the Capitol.



Representative Louis T. McFadden of Pennsylvania and His Radio Telephone Receiving Set. This Outfit Is Extremely Sensitive and Its Effective Range of Reception Is Not Limited to Local Broadcasting Stations.

The Banking and Currency Committee is one of the most important committees in Congress. All legislation affecting banking and currency is referred to this Committee. It was this Committee, under chairmanship of Carter Glass that framed and piloted the now famous Federal Reserve Act through the House of Representatives.

The radio-telephone receiving set can be made useful as well as novel if properly applied. Other than the reception of crop and market reports, current events, and forms of entertainment, financial information may be heard when disseminated from New York and other centers.

FCC Fines Amateur Radio Operator for Interfering with Fire Suppression Communications

The U.S. Federal Communications Commission (FCC) has proposed a record fine against an amateur radio operator for interfering with radio communications supporting fire suppression efforts in a 2021 massive wildfire in an Idaho national forest.

According to a Notice of Apparent Liability (NAL) for Forfeiture, Jason M. Frawley of Lewiston, Idaho used his amateur hand-held radio to intentionally interfere with radio communications directing fire suppression aircraft that were combatting the "Johnson Fire," a 1000-acre wildfire near Elk River, Idaho. Frawley allegedly transmitted multiple times over two separate days on frequencies expressly allocated and authorized for government use, causing harmful interference with essential emergency communications.

Read the complete text of the FCC's Notice of Apparent Liability in this case.

Place your cursor on the link above and depress Control/Click to download the FCC notice.

December RCARC Breakfast Pictures

Fred (KI7TPD) talking with Tony (KI7WFI)

Members enjoying breakfast and conversation.

Ed (KK7ZL) with his wife Jan

Continued next column

Brody (K7VXV) taking with his daughter and Terry West

Dick (K7ZI) his wife Susan top right. Left is Bruce (KI7LUM) in vest with his wife.

Fred (KI7TPD) waiting for Bonnie (KI7WEX). Not sure what the smile is all about.

RCARC Monthly Meeting & Christmas Party Pic's

Continued from page 6

Several items on the prize table for the drawing

Fred (KI7TPD) conducting self-introductions

Self-introductions continue

Continued next column

Fred (KI7TPD) showing the drawing gifts to the attendees

John Higley (KI7SCX) giving the blessing before dinner is served.

The First Smoked Turkey

Continued on page 14

Brody (K7VXV) carving the Turkey

Smoked meats ready to serve

The First Smoked Ham

A few of the side dishes

Brody (K7VXV) carving the Ham

The dessert Table

Continued next column

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RCARC Upcoming Meeting Program Information

Save the Date

Tuesday January 10, 2023

Meeting Program Topic – Digital Modes

Ron Shelley (K7HDX) will present APRS, Winlink and JS8 Call.

Fred Govedich (KI7PD) will present FLDigi, RTTY and FT8.

See below for a brief description of the different modes.

APRS

Automatic Packet Reporting System (**APRS**) is an amateur radio-based system for real time digital communications of information of immediate value in the local area.[1] Data can include object Global Positioning System (GPS) coordinates, weather station telemetry, text messages, announcements, queries, and other telemetry. APRS data can be displayed on a map, which can show stations, objects, tracks of moving objects, weather stations, search and rescue data, and direction-finding data.

FT8

FT8 or **Franke & Taylor 8** is a frequency shift keying digital mode which was released on June 29, 2017, by the creators Joe Taylor, K1JT and Steve Franke, K9AN along with the software package WSJT.[1] FT8 is a popular form of digital weak signal communication used primarily by amateur radio operators to communicate on amateur radio bands with a majority of traffic occurring on the HF amateur bands.[

FLDigi

FIdigi (short for **F**ast **l**ight **digi**tal)[4] is a free and open-source program which allows an ordinary computer's sound card to be used as a simple two-way data modem. The software is mostly used by amateur radio operators who connect the microphone and headphone connections of an amateur radio SSB or FM transceiver to the computer's headphone and microphone connections, respectively.

This interconnection creates a "sound card defined radio" who's available bandwidth is limited by the sound card's sample rate and the external radio's bandwidth.

Continued Next Column

Winlink

Winlink, or formally, **Winlink Global Radio Email** (registered US Service Mark), also known as the **Winlink 2000 Network**, is a worldwide radio messaging system that uses amateur-band radio frequencies and government frequencies to provide radio interconnection services that include email with attachments, position reporting, weather bulletins, emergency and relief communications, and message relay. The system is built and administered by volunteers and is financially supported by the Amateur Radio Safety Foundation.

RTTY

Radioteletype (**RTTY**) is a telecommunications system consisting originally of two or more electromechanical teleprinters in different locations connected by radio rather than a wired link. Radioteletype evolved from earlier landline teleprinter operations that began in the mid-1800s.[1] The US Navy Department successfully tested printing telegraphy between an airplane and ground radio station in 1922. Later that year, the Radio Corporation of America successfully tested printing telegraphy via their Chatham, Massachusetts, radio station to the R.M.S. Majestic. Commercial RTTY systems were in active service between San Francisco and Honolulu as early as April 1932 and between San Francisco and New York City by 1934. The US military used radioteletype in the 1930s and expanded this usage during World War II. From the 1980s, teleprinters were replaced by personal computers (PCs) running software to emulate teleprinters.

JS8 Call

JS8 Call (JS8) is an amateur radio QSO communications mode based on FT8. It is popular among amateur radio operators for its ability to send and receive messages despite challenging propagation conditions, high noise environments, low power operations (QRP), or even compromised antennas.

JS8 Call turns FT8 into a “chat” mode, allowing stations to send longer messages “keyboard-to-keyboard.” JS8Call can be thought of like a very weak-signal radio broadcast form of ‘e-mail’ (though it is not e-mail), where operators can check their messages inbox and reply later. Messages can also be sent out to be relayed through other operators to reach a recipient operator. JS8 Call conversations can also be had in real-time. End

Cedar City Hospital Honors its Volunteers with a Christmas Dinner

On November 29, 2022 Cedar City Hospital Honored its Volunteers with a Holiday Dinner at the Cedar City, Courtyard by Marriott.

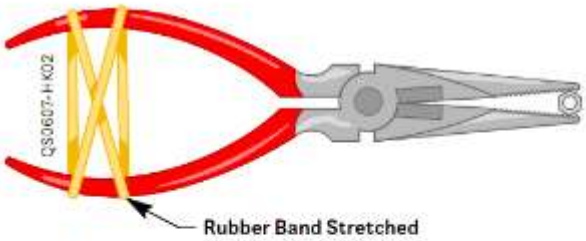
Kaelei Corbridge Program Manager for Hospital Volunteer Program welcomed the attendees. After several introductions were made attendees enjoyed a delicious Ham dinner with all the trimmings.

The Rainbow Canyons Amateur Radio Club (RCARC) EComm group has several members who volunteer with the hospital's Emergency Management Office (OEM) to provide Ham Radio Emergency Communications during activations, training exercises etc.

Along with the other hospital volunteers the EComm members received a Certificate of appreciation and lapel pin with the number of hours they donated in the last year.

Pictured below are Brad Biedermann (WA7HHE) on left, Ken Richter (KR7KR) center and Dennis West (W6DLW).

Hints and Hacks



Using a rubber band to make a needlenose pliers vise.

HINT

Needlenose Pliers Vise

All you need is a rubber band to turn needlenose pliers into a vise for holding small items during assembly, or for holding wires while you solder them. Just stretch a rubber band and wrap it tightly around the handle as shown.

Jack Rosen, KA8LFX

HINT

Traveling with Rubber-Duck Antennas

Many of us travel with our handhelds and want to keep our radios in good shape while they're in our luggage. Many of today's rubber-duck antennas fit into a plastic toothbrush holder. Pick up a few and use them to protect your antennas and their connectors from bends and breaks.

Nathan Ciufo, KA3MTT

A plastic toothbrush holder makes a convenient, packable storage container for rubber duck antennas. If you carry more than one, add a stick-on label to help you keep track of which antenna is in which holder.

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Hints and Hacks

Continued from page 16

HACK

Degauss Your Tools with a Soldering Gun

Sometimes tools become magnetic. This happens in a number of ways, but generally speaking, if a tool fabricated from a ferrous material such as iron or steel is exposed to a strong magnetic field, the molecules in the tool become aligned, forming a permanent magnet.

Though this can come in handy, such as when you're trying to retrieve a dropped screw from the bowels of a piece of gear, it can also be annoying, such as when you're working on something delicate in a small area, and suddenly an unrelated screw ends up on the end of your screwdriver.

You can solve this problem by immersing the tool within an ac magnetic field and withdrawing it slowly. The ac magnetic field alternates the direction of magnetization as the tool is slowly withdrawn, resulting in a cancellation of the magnetic effects over the length of the tool.

There are specialty devices available for this purpose, but if you have a soldering gun of the type with two terminals that protrude and are connected to a copper loop on the "business end," you can use that to degauss as well. The copper loop is one portion of a transformer winding that encloses a magnetic field when the trigger is pulled.

To use a soldering gun to degauss a tool, slip the tool within the copper loop. Pull the trigger and slowly withdraw the tool from the loop. If the first try doesn't do it, a second pass usually will. If you have a tool that won't fit within the loop, you can temporarily remove the loop and install a larger loop of 10 gauge wire. Take care not to burn yourself, as the tip of the soldering gun will still get hot.

Hugh Inness-Brown, W2IB

HACK

Dress Up Your Mobile Antenna Mount

I use a "Hamstick"-style mobile antenna on my vehicle, and I had installed a pair of old-style springs between the ball mount on the side of the vehicle and the antenna. With age, they became rusty and looked pretty nasty, but they still worked fine. To neaten the installation, I went to a local performance truck parts shop and bought a shock absorber boot made of flexible vinyl. These shock absorber boots come in several colors to match or contrast with the color of your vehicle. I tie-wrapped this to the top of the upper spring, because it fit neatly down on the top of the ball mount. To keep the bottom of the shock absorber boot from wrinkling up, I cut a slice off a 2-inch diameter PVC pipe and tie-wrapped that PVC ring just inside the bottom of the boot. If desired, you could construct a disk of plastic or other material to lock between the bottom of the spring and the antenna mount to support the shock absorber boot, but I didn't see the need for that in my installation.

Geoff Haines, N1GY

RCARC Monthly Meeting & Christmas Party Pic's

Continued from page 14

Members lining up to fix their plates

Dick (K7ZI) famous Dutch Oven Potato's

Serving line wraps around room

2023 Winter Field Day

History

In June of 2006, Charles, N5PVL, asked if SPAR (The Society for the Preservation of Amateur Radio) would be interested in sponsoring a Winter Field Day activity. Discussions, proposed rules, and modifications followed, and in September, SPAR's Board of Directors voted to approve sponsoring a Winter Field Day. Next came a flurry of activities to get the word out, and the first Winter Field Day was held just four months later, on January 13-14, 2007. Based on comments from participants, Winter Field Day would soon become an annual event.

Walt (W5ALT) and **Charlie (KY5U)** contributed significantly to the success of SPAR and WFD. However, due to health issues, activity within SPAR slowly declined, and so did their support of WFD.

Because of these health issues and the aging members of SPAR's Board of Directors, there was a delay in scoring and releasing the 2015 WFD results. Members who had participated in WFD over the last nine years were upset, and with no official response from SPAR, rumors spread, and some feared that WFD might fade away. Stepping up to the challenge of keeping WFD alive, a small group of WFD enthusiasts banded together and formed the **Winter Field Day Association (WFDA)**.

In late 2015, the remaining SPAR Board Members handed over the reins and the responsibility of Winter Field Day to the Winter Field Day Association, who scored the 2015 entries, and have been promoting the event ever since.

A WFD committee was formed to oversee the rules and manage the event. Subtle changes to the rules have been made as needed, but the event's purpose has remained the same.

Continued on next column

A WFD committee was formed to oversee the rules and manage the event. Subtle changes to the rules have been made as needed, but the event's purpose has remained the same. Through the hard work and dedication of **Tom (W8WFD), Bill (VE3FI), Dave (W3DET), Erik (WX4ET), and Ken (N8KC)**, Winter Field Day has continued to grow and thrive. For many who have participated in WFD over the years, it is no longer just an event but an annual tradition. In 2022, the WFDA processed over 2,500 logs from stations around the world, and once again reigns of Winter Field Day were passed to a new board of directors.

RCARC Winter Field Day Information

This year's RCARC's Winter Field Day Operations will be held at the Iron County Emergency Operations Center (EOC) facility on Kitty Hawk Drive between Bull Dog Road and Airport Road across from the Cedar City Animal Control Office.

Set up will commence at 8 am. On Saturday January 28, 2023 and Winter Field Day will start at 12 pm. and continue for 24 hours until 12 pm. on Sunday January 29, 2023.

Field Day demonstrates ham radio's ability to work reliably under any conditions from almost any location and create an independent communications network.
"It's easy for anyone to pick up a computer or smartphone, connect to the Internet and communicate, with no knowledge of how the devices function or connect to each other," said **Sean Kutzko KX9X** of the American Radio Relay League, the National Association for Amateur Radio. "But if there's an interruption of service or you're out of range of a cell tower, you have no way to communicate.

Ham radio functions completely independent of the Internet or cell phone infrastructure, can interface with tablets or smartphones, and can be set up almost anywhere in minutes. That's the beauty of Amateur Radio during a communications outage."

"Hams can literally throw a wire in a tree for an antenna, connect it to a battery-powered transmitter and communicate around the world," Kutzko added.

QUARTZFEST* 2023

What? Quartzfest© is an annual HAM Radio RV'ers Boondocking event which is held in late January every year with dates coinciding with the Quartzsite Arizona "RV Show".

When? January 22nd thru 28th of 2023 (make sure you add these important dates to your 2023 calendar)

Where? 7 miles south of Quartzsite Arizona - on US 95 at La Paz Valley Road

Who Can Attend? ANYONE! If you don't have your Amateur Radio Operators License yet, you'll be able to take your Amateur Radio Operators License Exams at Quartzfest©

Cost? FREE!!!!

Our Annual Amateur Radio "get together" is called "Quartzfest©" and is open to ALL to attend. Quartzfest© is not a club, no officers, no budget and no dues..and is absolutely FREE!! During the week of Quartzfest©, RV's are everywhere across the desert, as far as you can see..every make and model you can imagine!

There are hundreds of groups that meet in Quartzsite every year in different parts of the desert who share like interests. Our group, Quartzfest©, started out in 1997 as just a few HAM RV'ers getting together, camping in their RV's in the middle of the desert..no power, no running water. Solar Panels and Generators are in use everywhere (Porta-Potties are available for our tent campers and day visitors).

Quartzfest© is similar to a Hamfest but lasts an entire week and is packed full of scheduled Seminars and Activities. Talks range in topics from Genealogy and Crafts for Non-HAM's to Solar Power and Battery Information, Technical information for the seasoned HAM, and introductory information for the new HAM. Also included in the week's activities are VE Amateur Radio License Testing, Antenna Shoot Out, Antenna Walkabout (touring other HAM's RV Antenna installations), Solar Walkabout, 4x4 Off Road Trip in the Desert, Prospecting, Campfires (some with musical entertainment), night time movies, Pot Luck dinner, Hootenanny and lot's more!

We Camp on BLM (Bureau of Land Management) land which is FREE, but you can only camp there for 14 days at a time.

For more information, drop a note to our Quartzfest Organizer*

Kris - KR1SS

kristynweed@gmail.com

or visit us on the web

www.quartzfest.org

RCARC Monthly Meeting & Christmas Party Pic's

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Members continue to fill their plates

The room became quiet as dinner was served. Front left are Dick (K7ZI) and Ken (N7KM)

Brody (K7VXV) and Family

Continued next column

Members enjoying dinner.

Packed house

Brant (KJ7LTQ) and family

Iron Mission Days Update

As most of you are aware our club participated in the Cedar City Iron Mission days this past November 11th & 12th.

This year's Iron Mission Days Commemorated the 171st anniversary of the first Iron Works in the Rocky Mountains.

During the two-day event the club made over 500 contacts utilizing CW, 20 and 80 meters.

A contact certificate was offered to those that wished one. The club's website was offered as a contact point.

Russ Chaffe (N7BO) took on the responsibility of making sure that the certificate requests were processed and e-mailed to the recipients.

Russ advised as of December 16th he had processed 30 certificates by e-mail and one by US Mail for a total of 31.
See certificates below:

Thank you, Russ, for your dedication to this endeavor

Iron County's Community Emergency Response Team (CERT) and RCARC Emergency Communications (EComm) Unit Christmas Party

At 6:00 PM on December 15, 2022 RCARC EComm & CERT members gathered at the Cedar City, Heritage Center for the annual Christmas Party get together hosted by (George Colson) Iron County's Office of Emergency Management (OEM).

Attending members received a Certificate of appreciation for their volunteer work throughout the year showing the number of hours volunteered. See Pic's below.

Dinner is served

Darlene (N7WWB) left, Terry West center and Bonnie (KI7WEX) fixing their plates. **Continued on page 24**

RCARC Christmas Party Prize Winners

AJ Moore (KK7FLI) won the ICOM 2730 Dual Band Base Station Radio

Linda Shokrian (KG7PBX) won the QYT8900 D Dual Band Mobile Radio

Dennis West (W6DLW) won the Wolf River Coils Silver Bullet 1000 HF Antenna

Continued next column

George Gallis (AL7BX) won the 3 pack flashlights

Darlene Shelley (N7WWB) won the G5RV HF Antenna

Merlin (N7TCE) won the 3 pack Head lamps

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RCARC Christmas Party Prize Winners

Continued from page 22

Fred (KI7TPD) won the Radio Rescue Book

Sylvia (N7SIY) pictured was the proxy for Ann (KJ7OGZ). Ann won the Morse Code Oscillator Kit and Sylvia picked it up for her

Darlene (N7WWB) pictured was the proxy for her dad Lee (K7NKH) who won the Stocking & Elf candy bag. Darlene picked it up for him.

Continued next column

Bonnie Bain (KI7WEX) won the Baofeng Microphone

Brant KJ7LTQ won the Arrow Jpole Antenna

Paul (WA7GVL) won the S & K Jpole Antenna

Meet the Newly Elected Rainbow Canyons Amateur Radio Club (RCARC) 2023 Board of Directors

Fred Govedich (KI7TPD)	President	Bonnie Bain KI7WEX)	Secretary	Dennis L. West (W6DLW)	Newsletter Editor, Historian
Ron Shelly (K7HDX)	Vice President	Linda Shokrian (KG7PBX))	Treasurer	Congratulations to all	

At the RCARC General Meeting December 13, 2022 the above members were nominated and elected to serve as the club's Board of Directors for 2023. Congratulations to the new Board.

CERT/EComm Christmas /Party Pictures

Continued from page 21

Tony (KC6WFI) left, Lance (KA7J) center and Brad (WA7HHE) right filling their plates.

EComm/Cert members enjoying the dinner and conversation. Empty space is your truly.

Tony (KC6WFI) and his wife Sonia (KD6HYH) enjoying their dinners.

Terry Meissner (KG7MMB) and several CERT members getting ready to partake of their meals.

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CERT/EComm Christmas /Party Pictures

Continued from page 24

Lance (KA7J) forefront, Linda (KG7PBX) center and George (AL7BX) right enjoying dinner.

George Colson, Iron County Emergency Manager thanking all the participants for their volunteer service over the last year.

ARLB026 Rep. Bill Johnson Introduces Bill to Eliminate Private Land Use Restrictions on Amateur Radio

Congressman Bill Johnson (OH-6) introduced a bill in the U.S. House of Representatives (H.R.9670) on Thursday, December 22, 2022, to eliminate private land use restrictions that prohibit, restrict, or impair the ability of an Amateur Radio Operator from operating and installing amateur station antennas on property subject to the control of the Amateur Radio Operator.

The exponential growth of communities subject to private land use restrictions that prohibit both the operation of Amateur Radio and the installation of amateur station antennas has significantly restricted the growth of the Amateur Radio Service. These restrictions are pervasive in private common interest residential communities such as single-family subdivisions, condominiums, cooperatives, gated communities, master-planned communities, planned unit developments, and communities governed by community associations. The restrictions have particularly impacted the ability of Amateur Radio to fulfill its statutorily mandated duty of serving as a voluntary noncommercial emergency communications service.
Congress in 1996 directed the Federal Communications Commission
(FCC) to promulgate regulations (Public Law 104-104, title II, section 207, 110 Stat. 114; 47 U.S.C. 303 note) that have preempted all private land use restrictions applicable to exterior communications facilities that impair the ability of citizens to receive television broadcast signals, direct broadcast satellite services, or multichannel multipoint distribution services, or to transmit and receive wireless internet services. ARRL attempts to obtain similar relief for Amateur Radio were rejected by the FCC with a statement such relief would have to come from Congress.

ARRL Legislative Advocacy Committee Chairman John Robert Stratton, N5AUS, noted that Congress, in 1994 by Joint Resolution, S.J.Res.90/H.J.Res.199, declared that regulations at all levels of government should facilitate and encourage the effective operation of Amateur Radio from residences as a public benefit. He continued by stating that "H.R.9670, the Amateur Radio Emergency Preparedness Act,

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ARLB026 Rep. Bill Johnson Introduces Bill to Eliminate Private Land Use Restrictions on Amateur Radio

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is intended to fulfill that mandate and preserve the ability of Amateur Radio Operators to continue to serve as a key component of American critical communications infrastructure."

ARRL President Rick Roderick, K5UR, and Mr. Stratton both extended on behalf of the ARRL, its members, and the Amateur Radio community their thanks and appreciation for the leadership of Rep. Johnson in his tireless efforts to support and protect the rights of all Amateur Radio Operators.
The full text of the bill in PDF format is available online at, https://www.arrl.org/files/file/HR9670/HR9670-Amateur-Radio-Emergency-Preparedness-Act.pdf

ARLB025 Rep. Lesko Introduces Bill to Replace Symbol Rate Limit with Bandwidth Limit

Congresswoman Debbie Lesko (AZ-08) introduced a bill in the U.S.
House of Representatives (H.R. 9664) on December 21, 2022, to require that the Federal Communications Commission (FCC) replace the current HF digital symbol rate limit with a 2.8 kHz bandwidth limit.

After being petitioned by ARRL, The National Association for Amateur Radio, in 2013 (RM-11708) for the same relief, in 2016 the Commission issued a Notice of Proposed Rulemaking (WT Docket No. 16-239) in which it agreed that the HF symbol rate limit was outmoded, served no purpose, and hampered experimentation. But the Commission questioned whether any bandwidth limit was needed in its place. Most amateurs, including the ARRL, objected to there being no signal bandwidth limit in the crowded HF bands given the possibility that unreasonably wide bandwidth digital protocols could be developed, and since 2016 there has been no further FCC action.

In conjunction with introducing the legislation, Congresswoman Lesko stated that "With advances in our modern technology, increased amounts of data can be put on the spectrum, so there is less of a need for a regulatory limit on symbol rates.

Continued next column

I am pleased to introduce this important piece of legislation to update the FCC's rules to support the critical role amateur radio operators play and better reflect the capabilities of our modern radio technology."

ARRL President Rick Roderick, K5UR, hailed introduction of the bill.
Roderick stated that "the FCC's delay in removing this outdated restriction has been incomprehensible, given that the biggest effect of the delay is to require totally inefficient spectrum use on the already-crowded amateur HF bands. I hope that the Commission will act to remove this harmful limitation without waiting for the bill to be passed."

ARRL Legislative Committee Chairman John Robert Stratton, N5AUS, added that "the symbol rate limit hampers experimentation and development of more efficient HF data protocols by U.S. amateurs.
For all practical purposes the field has been ceded to amateurs outside the U.S., where there is no comparable limit. Removing the restriction not only will allow U.S. amateurs to use the most efficient data protocol suitable for their purpose, but it also will promote and incentivize U.S. amateurs to experiment with and develop even more efficient protocols." End.