

RAINBOW CANYONS AMATEUR RADIO CLUB NEWSLETTER

CEDAR CITY, UTAH



Club Websites: www.rcarc.info OR www.rainbowcanyons.com

Number 1 – Volume 7 – August, 2019

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.

2019 Club Officer's

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CQ, CQ, It's RCARC BBQ Time



President's Message

Greetings fellow HAMs!

Summer is going by quickly! Had a great time at the last meeting and with the CW class! It is good to see so many people interested in learning CW. I hope everyone has been getting out on the radio despite the warm weather!

Even on bad days we still have our local nets as well as opportunities to participate on HF contests and 6 meters has been opening up so get out there, have fun, and play on your radio. I will be sending out an email about direction finding soon so if you signed up keep an eye out for it! We had a good crew up at Blowhard working on the repeater. The roof should be nice and sealed for the next 20 years! Thank you to everyone who helped!

Remember if you need help with setting up your radio, software or other equipment please ask your fellow HAMs for help. **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.
7:30 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.
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.

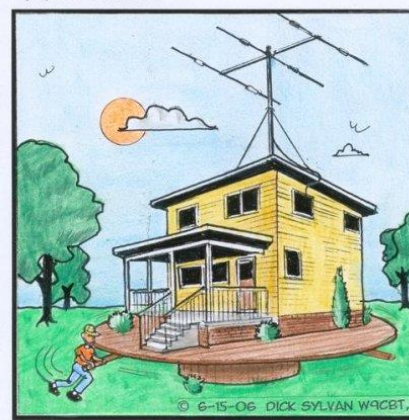
Local Repeaters:

146.980 MHz – Tone 100.0 hz
146.940 MHz – Tone 100.0 hz
146.760 MHz – Tone 123.0 hz
147.160 MHz + Tone 100.0 hz.
448.800 MHz – Tone 100.0 hz

Remote Bases:

449.500 MHz – Tone 100.0 hz
449.925 MHz – Tone 100.0 hz
ILRP/Echolink
449.900 MHz – Tone 100.0 hz

HAM QUIPS



SOMEHOW, CLYDE NEVER FULLY GRASPED THE CONCEPT OF HOW TO ROTATE A BEAM

Save The Date

August 8-10, 2019

ARRL Rocky Mountain 2019 Utah
Division Convention

See information on page 12

Tuesday, August 13, 2019

RCARC Barbeque.

6:00 pm. at the Main Street Park in
the Hexagon Pavillion.

August, 17, 2019

Fire Road 100k Race.

More information to follow.

September, 7, 2019

10th Annual Half Marathon Race.

Tuesday, September 10th

RCARC Meeting presentation will be
on Coax and End Feds

October, 2019

More information to follow.

November 2019

More information to follow

Presidents Message Continued from page 1.

Part of the fun is helping others! Remember you can always pick up the mic and see who is listening! As always, I would like to thank everyone who makes our meetings great by asking questions, providing food and drinks, and by agreeing to lead a presentation or discussion.

I would also like to thank all of our net controls for the nets and everyone who participates! August will be here quickly so start thinking about the RCARC club BBQ!!! We still need more main dishes; I will bring hotdogs and burgers so if anyone else want to bring buns that would be great!

Cheers!
Fred (KI7TPD)

RCARC Club Breakfast

Come join us the first Saturday of every month at 9:00 a.m. for breakfast at the Pastry Pub located at 86 W. Center Street, Cedar City. Check out their website at:

www.cedarcitypastrypub.com

RCARC Club Calendar

For those of you who may not know the RCARC offers a calendar of Club information and other Ham related functions that you may not be aware of.

To access the Calendar, go to www.rcarc.info. From the menu select Club Info and then Calendar. Once the Calendar has loaded it will show you the main topic and time. If you wish additional information place your cursor on the time and left click. This will open a new sub window that will give you more detailed information on the topic if available.

If you have something you would like placed in the Calendar send an e-mail to rcarcnewsletter@gmail.com



Do You Have the Right Tools?

Like any pursuit, to do the job right, you need to have the proper tools. Amateur radio is no exception. To do certain things, you'll need tools that you may not currently have. Without them, you'll seriously handcuff yourself when it comes to enjoying amateur radio.

You may already have a set of hand tools. Most homeowners, for example, have a hammer, a set of screwdrivers, a set of wrenches, and some pliers to make common home repairs. All of these tools will be useful for amateur radio work, but you'll also need some tools specifically designed for working with electronics, including:

- **Needle-nose pliers.** Needle nose pliers are possibly the most used tool on the electronics workbench. They allow you to do things that your big, fat fingers just can't.
- **Diagonal, or flush, cutters.** You use diagonal cutters to cut wire and trim soldered leads.
- **Wire strippers.** A good pair of wire strippers is essential when making cables or when you have to solder wires to circuit boards.
- **Terminal crimper.** You use the crimper to properly attach terminals to wires. Make sure to also purchase a selection of crimp-on terminals.
- **Precision (jeweler's) screwdrivers.** Many of the screws you'll find in electronics equipment are just too small to use normal-sized screwdrivers. A set of jeweler's screwdrivers will have a couple of Phillips-head screwdrivers as well as several conventional screwdrivers.
- **Hobbyist knife.** This is the type of knife that modelers' use. It's just as handy in electronics work as it is in building models.

Continued on page 6

From ARRL Headquarters
Newington CT

To all radio amateurs

SB QST ARL ARLB015.

ARLB015 The FCC is Not Reinstating a
Vanity Call Sign Fee

An erroneous report this past May suggested that the FCC planned to again impose an Amateur Radio vanity call sign application (regulatory) fee of \$70 for the 10-year term. This incorrect conclusion resulted from an incomplete reading of the May 7 FCC Notice of Proposed Rulemaking (NPRM) in the matter of the assessment and collection of regulatory fees for fiscal year 2019.

Although the Schedule of Regulatory Fees does show a \$7 annual fee for Amateur Radio vanity call signs, a boldface heading in that section of the NPRM states, "REGULATORY FEES. This section is no longer in effect as it has been amended by RAY BAUM'S Act of 2018..."

Section 9(e)(2) of RAY BAUM'S Act gives the Commission discretion to exempt a party from paying regulatory fees when the FCC determines that the cost of collection exceeds the amount collected. A new section 9(e)(1) incorporated the Amateur Radio vanity fee exemption from FCC rules into the statute.

The NPRM makes clear in several other places that regulatory fees no longer apply to Amateur Radio licenses. The FCC eliminated the regulatory fee for Amateur Radio vanity call signs in 2015.

2019 Field Day Points Update

Our Field Day report was sent to ARRL. Rainbow Canyon ARC operating as W7U in Class 5A made 464 contacts. After calculating multipliers and bonus points, we claimed Preliminary **Total Score: 2,430.**

Happy Birthday
and Wedding
Anniversary to
those
celebrating in
August



August Meeting Reminder

RCARC Annual Barbeque

See new time and location

Date: Tuesday, August 13, 2019

Time: 6:00 pm.

Location: Main Street Park @ Main Street & 200 N.

The Club has the Hexagon Pavillion Reserved. It is located in the NW corner of the park by Hermie's Drive-in. See Picture below.



Amateur Radio Timeline History

Part 2 of 2

[See the July RCARC Newsletter for part 1](#)

1959-The Geneva Conference held, no major amateur changes. Technicians get the middle part of 2 meters (145-147 Mc), but not without some controversy over the purpose of the license. The FCC restates their "experimental, not communication" policy.

1960-Wayne Greene fired as CQ editor, forms 73 magazine. 1961-OSCAR I, the first amateur satellite, is launched. Thousands of Amateurs copy it's 50 mw beacon on 144 Mc sending out ".... .."

1962-CONELRAD is replaced by the Emergency Broadcast System. Amateurs no longer have to monitor 640 or 1240 kc while operating their stations.

1963-The ARRL, responding to some complaints about Generals being allowed on 75 & 20 phone, proposes an "incentive licensing" system. Under the ARRL proposal, Generals & Conditionals would lose 75, 40, 20- & 15-meter phone privileges over a 2-year period. The Building Fund, to construct the ARRL Headquarters at 225 Main St., Newington, is in full swing. The amateur population is over 200,000, but CB licenses now outnumber hams.

1964-A ham in the White House? Barry Goldwater, K7UGA/K3UIG is the Republican Candidate for President. (He is defeated). Herbert Hoover dies at the age of 90. As Secretary of Commerce in the 1920's, and President of the United States from 1929-1933, his strong support of amateur radio was invaluable. He lived long enough to see his son (Herbert Hoover, Jr, W6ZH) elected President of the ARRL.

1965-The FCC comes out with its own incentive licensing proposal. General/Conditional Class operators would lose 50% of the 75-15-meter phone bands. A new "Amateur First-Class License", with a 16-wpm code speed, would be the stepping stone between the General and the Extra. Advanced Class amateurs would not be "Grandfathered" into the "First Class", rather, they would be bumped down to General upon renewal. OSCAR III & OSCAR IV allow 2-way QSO's via satellite.

1967-The FCC announced the new Incentive Licensing rules: over the next 2 years.

Continued next column

Amateur Radio Timeline History Part 2 of 2 continued

General and Conditional Operators would lose 50% of the 75-15 meter phone bands, the "First Class" idea was dropped, the Advanced Class was reopened to new applicants, Extra & Advanced Class operators get exclusive sub bands on 80-15 and 6 meters, the Novice license term is doubled to two years, but Novices lose their 2 meter phone privileges, the FCC restates the "Technicians are experimenters, not communicators" policy, and states that the next license step for Novices is the General, not Technician, class.

1968-The FCC authorizes SSTV in the Advanced/Extra Class sub bands. Generals & Conditionals get SSTV later.

1969-The FCC removes the ability for a Technician to hold a Novice license at the same time. The ARRL announces a new policy, they now consider Technicians to be communicators and petition the FCC to give them full VHF privileges, a 10-meter segment from

29.5-29.7 Mc, and Novice CW sub bands. "Long Delayed Echoes" appear. Were they real, or a hoax?

1970-The amateur population is 250,000 but stagnant. The license fees & Incentive Licensing are blamed. Meanwhile, 2-meter FM is starting to boom. New equipment designed for the amateur market joins the surplus wide band commercial radios which were converted for use on 146.94. "MHz." & "KHz" replace "Mc" & "kc". Amateur Radio is dragged into the Vietnam War protest movement with the "Student Information Net" in operation on College Campuses nationwide.

1971-The Japanese are starting to dominate the amateur markets. National, Hammarlund, Hall crafters and Gonset were beginning to fade away, but Drake, Ten-Tec, Heath kit and Collins were still going strong.

1972-A national 2-meter FM band plan was announced, 146.52 was chosen as the national simplex frequency. The FCC released the first repeater rules, expanded the Technician 2-meter allocation to 145-148 MHz., and relaxed mobile logging requirements.

1974-The Electronics Industry Association proposed a new "Class E CB" using 2 MHz. of our 220 band. The FCC proposed a "Dual Ladder" license structure which would take privileges away from Generals and Technicians (again) and would create a new code free "Communicator" license. Both proposals eventually were scrapped. "WR" prefixes began to appear on repeater call signs.

Continued on page 5

Amateur Radio Timeline History Part 2 of 2 continued from Page 4

1975-1976--A new repeater sub band is established at 144.5-145.5 Mhz. Technicians now have 144.5-148 MHz. on 2 meters, and finally have Novice privileges. Novices are given a power increase to 250 watts. The "mail order" Technician license is eliminated--applicants must appear at an FCC examination site. The Conditional class is abolished.

1977--The FCC expands CB radio from 23 to 40 channels. Hundreds of hams purchase "obsolete" 23 channel CB sets at fire sale prices and convert them to 10 meters. 1978--Technicians finally get all privileges above 50 MHz., and can obtain a RACES Station authorization. The Novice license is made renewable. The FCC relaxed some of its regulations, and instituted a new callsign system using 4 "groups", corresponding to the class of license held. "WR" repeater callsigns are phased out. The amateur population stands at 350,000--33% more than in the early 70's. "Packet" radio first appears on the ham bands, on an experimental basis.

1979--The World Administrative Radio Conference, or WARC-79, takes place in Geneva. The ARRL, IARU & other groups have been preparing for years. We lose nothing & gain 3 new bands at 10, 18, & 24 MHz., which are phased in over the next 10 years.

1980--Spread Spectrum appears on an experimental basis, and the FCC authorizes ASCII on the ham bands. Packet is starting to grow. 1982--The "Goldwater" Bill is passed. It allows the FCC to set industry

1983--A ham in space!! Owen Garriott, W5LFL, becomes the first amateur to operate on board a Space Shuttle. He makes hundreds of QSO's on 2 meters. Another "Code Free" license idea pops up. Amateurs are overwhelmingly opposed, & the proposal is dropped. standards regarding RFI.

1984--The 10-year license replaces the 5 year one. The FCC stopped giving examinations, turning the duty over to the new Volunteer Examiner Program. The HF phone bands are expanded. The amateur population is up to 410,000.

Continued next column

Amateur Radio Timeline History Part 2 of 2 continued

1985--State and local rules which restrict amateur antennas must now comply with the FCC's new policy, expressed in PRB-1. The FCC gives itself preeminence in antenna regulations, and states that local ordinances must provide for "reasonable accommodations" regarding amateur antennas.

1987--Novices & Technicians get 10-meter SSB privileges from 28.3-28.5 Mhz. Novices also get phone operation on portions of 220 & 1296 Mhz. The Element 3 written exam is broken into 2 segments--3A (Technician) and 3B (General). Technicians who passed their exam prior to March 1987 get permanent credit towards the General written exam.

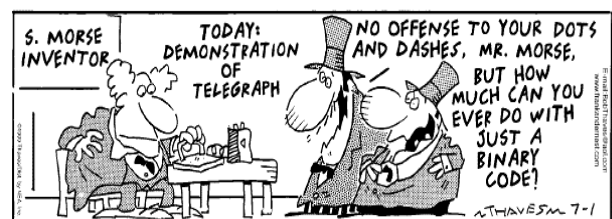
1989--Amid growing calls for a code free license, the ARRL comes out in favor of one. (The ARRL's version does not include voice privileges on 2 meters).

1990-1991--MARS operations increased as amateurs became involved in Operation Desert Shield/Storm. As the war in Kuwait increases, tens of thousands of Americans discover Shortwave Radio, to get the latest news.

1991--Amateur Radio gets its first code free license--the "No Code Technician". "Regular" Technicians are renamed "Technician Plus". The first all amateur Shuttle, the "Atlantis", goes into space. 1991-1998--Amateur Radio grows from 500,000 to over 710,000 hams. The ARRL is at its highest membership ever. Despite the "Doomsday" crowd, amateur radio is healthier than ever. The Internet hasn't killed us. Schoolchildren talk with hams in space. Our Public Service activities are wanted & appreciated. And Amateur Radio looks forward to the next Millennium, confident that it will evolve and grow.

Editor's Note

1991 is where the Timeline History Stopped. I was not able to find additional years of information. If in the future I should come across more or updated information I will publish it.



Do You Have the Right Tools?

Continued from Page2

- **Digital multimeter.** With a digital multimeter (DMM), you can make voltage, current, and resistance measurements. It's the most basic piece of test equipment you can own, and every ham should have one.
- **Soldering iron or soldering station.** Even if you're not going to be doing a lot of building, you need a soldering iron to make simple repairs and build simple cables. Being able to solder is an essential skill for a radio amateur.
- **De-soldering tool.** If you do any soldering, there will undoubtedly be times that you have to de-solder a connection. Buy a spring-loaded "solder sucker" and not a hand-operated desoldering bulb. The spring-loaded units work a lot better.

Other tools that you'll find useful if you intend to do a lot of building include:

- **Anti-static mat and/or wrist strap.** Many electronic components can be damaged by an electrostatic discharge. That's why you want to use an anti-static mat and/or wrist strap. These drain off static electricity so that you don't zap your electronics. Amazon, not surprisingly has a wide selection. You can also get them at Radio Shack.
- **Tweezers.** You need tweezers if you're working with very small components, such as surface-mount devices.
- **Table vise.** You need a table vise to hold a circuit board while your building or repairing it, or to hold a connector that you're soldering wires onto.
- **Lighted magnifier or magnifying visor.** If you're north of 40 years old, then you need good lighting and probably some magnification. Some of the parts used today are very small, making the markings hard to read and making them difficult to handle. A magnifying light or magnifying visor makes working on circuits a lot easier.

If you're really starting from scratch, you might want to consider buying a complete tool kit. Sears (yes, Sears!) sells many different electronics tool kits. Some of the tool kits include a digital multimeter and soldering iron. The nice thing about buying a tool kit is that some kits include a carrying case. Other sources for toolkits include [Jameco](#), [Sparkfun](#), and the [Electronic Tool Box](#).

My own tool set has evolved over the years. I still have some needle-nosed pliers and some diagonal cutters that I acquired over 30 years ago when an electronics manufacturing company that I worked for took them out of service. I got a set of tweezers at some Hamfest. The table vise I use is an el cheapo from Harbor Freight. You could do the same, acquiring the tools as you find them, but the problem with that is that they may not be on hand when you need them.

However, you get your tools, make sure that you do get them or have access to them. If you can't make a cable or perform a simple repair because you don't have the tool to do it, it will be frustrating at the very least, and it could be expensive if you have to pay for a new cable or pay someone to make a repair for you.

Good luck and have fun as you build your kit.



Amateur Radio Operators Prepare for Worst-Case Scenario

BY DAN STARCHER, THE DAILY RECORD, WOOSTER, OHIO / JUNE 24, 2019

Drills Help Amateur Radio Operators Prepare for Worst-Case Scenario

While unlikely, a catastrophe such as a tornado or major flood could cripple the electrical grid. But, rest assured: Groups of people known as amateur radio operators are ready to jump into action should the need arise.

Imagine that, all of a sudden, there was no electricity, cell phone service, radio, television, internet or any other methods of communication. What would happen? Is society capable of handling such a scenario?

Continued on page 7

This past weekend, the Silver creek Amateur Radio Association (SARA) and the Wayne Amateur Radio Club (WARC) took part in the annual 24-hour nationwide American Radio Relay League (AARL) on-the-air field day drill to hone their skills in case the unthinkable should happen.

SARA held its event at the American Legion hall in Rittman, while WARC operated out of the communications building at the corner of Oldman and Burbank roads in Wooster.

Retired Rittman Chief of Police and Silver creek club member Mike Burg remembers a time when the services of amateur radio operators were called into action.

"Some years ago, when I was a sergeant, the Orrville power plant exploded and burned," Burg recalled. "The explosion took out communications. I called in the help of two amateur radio operators, one in Rittman and one in Orrville, and we took the 911 calls from Orrville. In order to get that 911 information back to Orrville, we used amateur radio."

What makes amateur radio unique is that, even with the power grid offline, it still works. Because it can operate from the use of portable generators or solar power, there is no need to rely on any outside resources. While the situation needs to be dire for operators to be called into action, they are standing by.

"Field Day is a combination of a club picnic and disaster preparedness drill," Burg said. "We operate for 24 hours on as many (radio) bands as we can without the use of commercial electricity."

The clubs maintain a relationship with local emergency management associations (EMS), and some members volunteer for training, alongside police and fire personnel, on how to respond in emergency situations. Those individuals then become part of the Amateur Radio Emergency Services corps, or ARES.

"(ARES) individuals have the knowledge, equipment and the training needed so that in case of an emergency, they can step in and know their place," said licensed radio operator Capt. Doug Hunter of the Wayne County Sheriff's Office and emergency coordinator for ARES. "Most of the time they will serve under the direction of the EMA (Emergency Management Agency). There are many individuals across Ohio that serve in this capacity."

Hunter explained that ARES members are a unique group of volunteers who are willing to step up and answer the call-in emergency situations in Wayne and surrounding counties.

"Part of the goal is to force (members) to operate outside of their comfort zone," Hunter said. "They go into a makeshift location, operate under general power, put their antennas up and establish communications."

"They are self-contained," Hunter continued. "Phone service and internet systems rely on infrastructure; amateur radio transmits radio-to-radio."

Wayne County Sheriff Travis Hutchinson visited operators at the WARC site to see their operation firsthand and learn more about the group.

"They have provided radio service for us in the past at local events," Hutchinson said. "This is an interesting field. If there was a total breakdown in communications, their radios would still work — and we would rely on them."

Hutchinson explained that it isn't economically feasible to keep backup radio equipment on hand and having groups like ARES is akin to having a private civil response organization.

Amateur Radio Operators Prepare for Worst-Case Scenario Continued from page 7

"Right now, with all of the flooding going on, these operators are providing a valuable service to people in flood zones," he said. "I don't know what we would do without them."

While the two organizations provide emergency communications when needed, they also provide behind-the-scenes communications services at many local events that go unnoticed.

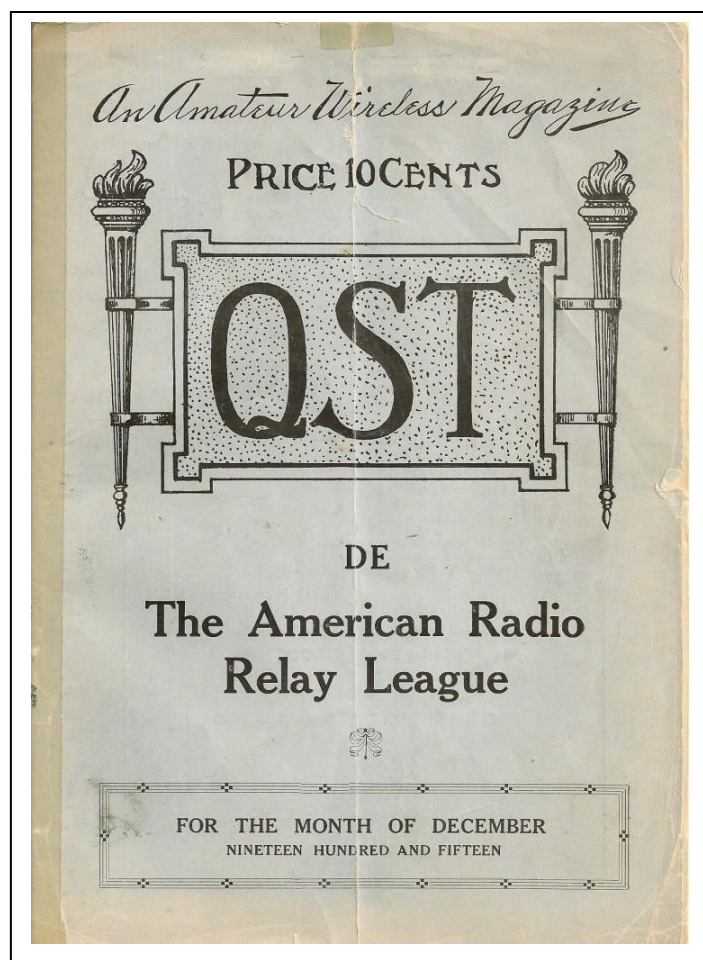
"This past weekend we provided communications for the Mohican 100-mile run," said Russell McQuate, treasurer and secretary of WARC. "We had members stationed along the route ready to handle emergencies and coordinate the delivery of supplies."

According to McQuate, interest in becoming a licensed amateur radio operator is growing.

"Our club membership has seen an uptick," he said. "And there has been more people participating in Skywarn (severe weather spotters) classes."

To learn more about amateur radio, visit SARA online at <https://w8wky.org>, WARC at www.w8woo.org and AARL at www.arrl.org.

— Reporter Dan Starcher can be reached at 330-287-1626 or dstarcher@the-daily-record.com. He is on Facebook at www.facebook.com/WoosterWriter and Twitter at www.twitter.com/danstarcher.



Cartoon





RCARC Christmas Party Gift Survey

Hello Everyone,

If you read last month RCARC Newsletter you may have read my heads-up article on this survey.

The RCARC Board is asking for your input as to what type of Grand Prize you want to be raffled at our Christmas Party this year.

Please provide your thoughts, idea's and wished to any of the Board members.

Their contact information is available on page 1.

So far, the following prizes have been suggested:

1. A dual band Mobile Radio.
2. An Antenna Analyzer.
3. External Battery.

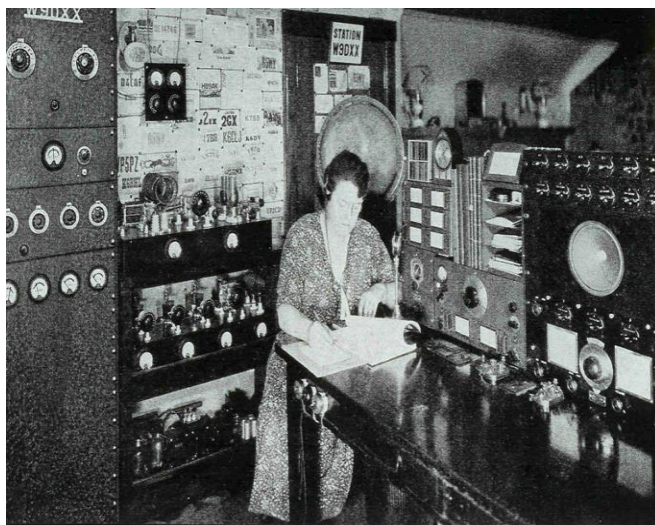
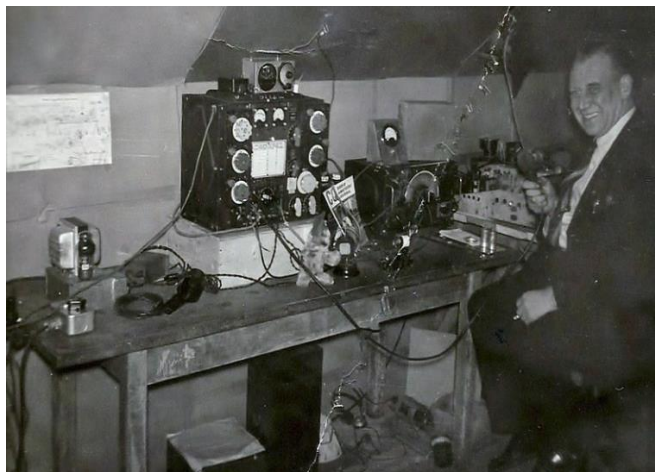
(Give us your thoughts on what brands and model numbers).

Is there something else you would like to see as the main raffle prize? Let a Board member know.

You can also e-mail your ideas and thoughts regarding a raffle prize to me, Buzz at the below e-mail address.
rcarcnewsletter@gmail.com

I hope to hear from you.

Vintage Radio Pic's from the Past



One of the World's Finest Amateur Radio Stations.
W9DXX, Owned and Operated by Alice R. Bourke, Chicago, Illinois.

Batteries and the Airlines

Pilot Tom Mills, AF4NC, travels frequently to QRP operating and hiking locations around the world. He has completed the Appalachian Trail, the John Muir Trail and summited 11 peaks over 14,000 feet in Colorado. Mills uses an Elecraft KX-1 or KX-3 with a simple MFJ vertical antenna and a 12 V 7 Ah battery. He carries his gear in a Tamerack Expedition 10 camera backpack, which has enough padding, pockets, and external holders for two water bottles. It has plenty of room for accessories including the small antenna tuner and Begali key.

When traveling, some amateurs have simply purchased a new battery at their destination rather than deal with the perceived hassle of transporting a battery. (Using AAA or AA batteries is just not enough power if you are out for a few days).

Mills is often asked what kinds of batteries can be transported on a plane. After research, he has determined that non-spillable wet batteries (absorbed electrolyte) up to 12 V and 100 Watt-hours are permitted to be carried aboard planes. Absorbed electrolyte battery types include gel cells, AGM, etc. Batteries must be kept in a strong outer case with the terminals protected from shorting out with non-conductive caps, tape, etc. Mills says his 7 Ah batteries can be carried in "carry on" or checked baggage.

Passengers are limited to carrying two batteries. Watt/hours are calculated: 12 V times the rated capacity in Ah of the battery. In Mills' case, his battery is permissible on board: 12×7 is 84 watts, less than the 100 Watt-hours maximum permitted.

While the above is a Federal rule, the airlines *can* impose stricter rules. Mills has not had any problems with US air carriers, but a good precaution is to check with the carrier *before* leaving home. When traveling on foreign air carriers, check with them directly, but from what Mills has said, he has not heard of any problems.

Here is an FAA "pack safe" page that presents battery restrictions:

<https://www.faa.gov/hazmat/packsafe/>

See also:

https://www.faa.gov/about/office_org/headquarters_offices/ash/ash_programs/hazmat/passenger_info/media/Airline_passengers_and_batteries.pdf



NECESSITY WAS THE MOTHER OF INVENTION DURING THE INTERNATIONAL RELAY CONTEST

July Pic's of RCARC Club Members enjoying the monthly breakfast at the Pastry Pub.



Pictures from the July 9th RCARC Monthly General Membership Meeting.



Our President Fred (KI7TPD) conducting business at the July RCARC Membership Meeting.



Fred (KI7TPD) doing a presentation on Fox Hunting.



Additional Fox Hunting presentation picture



Different types of Fox Hunting Antenna's along with Software and Hardware.



Ken Munford (N7KM) presented an introduction to Morse Code. The RCARC hosted a 3-session Morse Code training classes on July 11, 18 and 25th at the Cedar City Senior Center.

Friendship & Breakfast Net Awards

Friendship Net / Breakfast Net

July 2019

1st Place

Sylvia - KB7UMU
Fred - KI7TPD
Bonnie - KI7WEX

Dennis - W6DLW

2nd Place

Lance - KA7J

3rd Place

Lee - N7NKH

1st Place

Fred - KI7TPD
Sylvia - KB7UMU

2nd Place

Linda - KG7PBX
Wayne - KI7QZA

3rd Place

Denise KF7WIY
Daniel - KI7JUA



Read all about.
RCARC Net
awards
announced.

2019 Rocky Mountain Division Convention

It's not too late to register

It's not too late to register for the 2019 ARRL Rocky Mountain Division Convention which will be held on August 8th, 9th, and 10th 2019 on the campus of Weber State University, in Ogden Utah.

You can register online at utahhamfest.org. Those who register before July 16th are automatically entered into a drawing for a Yeasu FT70D dual band handheld.

A wide variety of presentations and forums are scheduled for Friday and Saturday of the Convention. Popular topics include, HF, Digital modes, High Altitude Ballooning, Raspberry Pi Hot Spots, New Ham Workshop, Grab and Go Kits, Antenna building, Antenna modeling, and many more. It is a great opportunity to connect with the experts.

Bob Heil K9EID, CEO and founder of Heil Sound and host of the Ham Nation podcast, will be the keynote speaker on Saturday August 10th. Howard E. Michel (pronounced Mickel) the CEO of the ARRL will be the Friday keynote speaker.

DX University is still open for registration. It will be held on Thursday August 8th and requires a separate registration. You can see the agenda for it online.

You can register, see the schedule, and learn more about the 2019 ARRL Rocky Mountain Division Convention by visiting utahhamfest.org.

J-Pole Antenna Sale

At the June RCARC Membership Meeting Dick Parker (K7ZI) presented to the membership an offer by Arrow Antenna. If 10 or more individuals order the J-Pole antenna they can be purchased for \$38.50 with no shipping costs. If interested please contact Fred Govedich (KI7TPD) or Dick Parker (K7ZI) for ordering information.

This offer is still available this month. Contact Fred or Dick. We are two away from getting the 10 needed.

RCARC Morse Code Class Pictures

July 11, 2019



KEN Munford (N7KM) talking about Morse Code at the July 11, 2019 Training Session.



A number of different types of keys from Ken's collection.

The K7RA Solar Update

Tad Cook, K7RA, Seattle, reports: As was the case in the previous reporting week, the current week had only 1 day, July 13, on which sunspots made a brief appearance; both were new spots from Cycle 25, according to their magnetic signatures.

The average daily solar flux declined marginally from 67.5 to 67.1.

Predicted solar flux for the next 45 days is 68 on July 11 - 18, and 67 on July 19 - August 24.

Predicted planetary A index is 8 on July 1; 5 on July 12-27; 8 on July 28; 5 on July 29 - August 4; 12, 15, and 12 on August 5 - 7; 5 on August 8 - 23, and 8 on August 24.

Here's an interesting [article on space weather](#) from *The Conversation*: "Solar weather has real, material effects on Earth."

Space Weather Woman Tamitha Skov, WX6SWW, has posted [a new video](#).

Sunspot numbers for July 4 - 10 were 0, 0, 0, 12, 0, 0, and 0, with a mean of 1.7. The 10.7-centimeter flux was 67.8, 67.5, 66.5, 67.3, 66.5, 66.8, and 67.6, with a mean of 67.1. Estimated planetary A indices were 5, 5, 3, 5, 9, 17, and 15, with a mean of 8.4. Middle latitude A index was 8, 6, 5, 5, 7, 16, and 13, with a mean of 8.6.

A comprehensive K7RA Solar Update is posted Fridays on the ARRL website. For more information concerning radio propagation, [visit](#) the ARRL Technical Information Service, [read](#) "What the Numbers Mean...", and [check out](#) K9LA's Propagation Page.

A propagation bulletin [archive](#) is available. [Monthly charts](#) offer propagation projections between the US and a dozen DX locations.



Blowhard Repeater Location Building Maintenance Pic's

Here's the gang taring the roof and helping Don inventory & check antenna's



RCARC Monthly Meeting
July 9, 2019

Welcome and Pledge: Fred Govedich KI7TPD.

Business:

1. Dick Parker K7ZI found a good deal on a J-Pole. It costs less to buy the kit than to buy the supplies and build according to the internet instructions. But to save on cost we need to buy 10 kits. We have 8.
2. George Gallis AL7BX would like help working on the Building for Blowhard Repeater.
3. Brad Biedermann WA7HHE would like help with patching up the ECOM trailer.
4. Help is needed to fix up the antennae trailer. It needs new coax. Cameron Abbaticchio KF7YWY had lots of coax in his yard he has been willing to donate.
5. Reminder to fill out survey on the link attached to the newsletter to help decide the final prize for participation.
6. Ron Shelley K7HDX– Fire Road Race will be August 17. Half Marathon will be September 7 beginning an hour later than last year. They will close the canyon at 7:30 and the race will begin at 8:30 am. A sign-up sheet was passed around for sizes of T-shirts. Some suggestions were given to improve things this year: Don't have 2 different sound systems blaring in the same place as the finish line at the same time. It was difficult to hear the announcements and beginning of race. Park the ECOM trailer in a different spot, maybe closer to the bathrooms. All the backpack to be returned to the runners were in the back of one trailer. It was very crowded for all 150 people to be getting their belongings.
7. A signup sheet for the August BBQ Pot Luck was passed around. The list follows.
8. Hats, Badges and Polo Shirts are still available for order. See Fred Govedich KI7TPD.
9. Ribbons for participation winners on Friendship Net and Breakfast Net see Newsletter.
10. Linda Shokrain said that George Gallis AL7BX played with Echo Link and now 2 people can be on at the same time.
11. Don't forget The ARRL Rocky Mountain Division Convention comes to Ogden Utah August 8th, 9th, and 10th, 2019. Registration is now open at the website www.rmdc2019.org.
12. Nerd Caravan heading to WWV for their 100th Anniversary. The government has extended financing so it will continue to operate. They will be holding an Open House on October 1. It is located in Fort Collins Colorado. Those interested see Tim Nesmith KI7LVC or check it out at WWV100.com.

Approval of Minutes by Secretary Tammy Nesmith KI7LVB sent in the Newsletter.

Treasurer's report: Larry Bell N7SND. Currently the club has \$2577.06 in the bank.

Repeater Update: Don Blanchard WA7GTU. 1) The Intertie had problems but now Arizona can be accessed. 2) We are still trying to get to the antennae pointing to the ground. We were waiting for the snow to thaw, now we have to wait for the repairs on the washed away road. The link is working, 80% of the time it works fine. 3) The interference problem has been identified. It is being caused by the non-galvanized steel that was bolted to the tower. When the wind blows it creates a lot in noise. 4) We are having trouble with Rowberry. It doesn't want to deactivate. 5) Frisco Peak is up and running.

Upcoming Events:

August 3 Breakfast at Pastry Pub

August 13: Ham Club BBQ at 6:00 pm at the Main Street Hexagon Pavilion.

Presentations:

1- Ken Munford will be teaching a CW Class on the next 3 Thursdays: July 11, 18, 25 at 7 pm at the Cedar City Senior Center.

A little history lesson: In 1860 Russell Majors and Wadell began the Pony Express. It “only” took 120 riders, 184 stations, 400 horses and 700 personnel to go from the east coast to the west coast in 10 days! A couple of years later Deseret News, 68 S. Main Street in Salt Lake City, sent the first telegraph message from Salt Lake City to Cleveland Ohio. Brigham Young was given the privilege of sending the first message. President Lincoln sent the first message from the east coast to the west coast. In 1867 the lines from Salt Lake City to St. George were completed. Cedar City's own Maude Matheson, age 16 was the first telegraph operator for Cedar City. The offices were located in the “old” Post Office (by the Rock Church.) Brigham Young has his own telegraph operator who traveled with him so they could tap in wherever they happened to be. (His own cell phone.)

There was a downed Navy pilot, Jeremiah Denton, captured by Viet Nam. They wanted him to say on film that they were being treated humanely, but he blinked a Morse code message at the same time that said they were being tortured.

Johnny Cash was a Morse Code operator. He could copy 45 words a minute in Russian!

We're going to try to teach Morse by sound. We will try to hear the rhythmical sounds of words rather than just learning the ABCs.

A good program to practice on a phone or tablet is called Morse Toad.

2- Fred Govedich KI7TPD discussed Direction Finding. He displayed several different types of direction-finding equipment.

What is the reason for using Direction Finding? Finding someone jamming your signal, find downed aircraft, Search and Rescue, finding a direction out at sea, wildlife tracking and many other reasons.

How is it done? Thru the variations in the signal tone and strength. There is a 5-degree chance of error so the closer you are, the more accurate.

There is a sign-up sheet going around for those interested in having a Fox Hunt.

We need suggestions for September, October, and November Meetings:

1. Kinds of antennas
2. Pipes
3. Types of coax and feed lines
4. Raspberry pie

Attendance: Tom Adams KI7LUI, Bonnie Bain KI7WEX, Carolyn Bauer KG7YIB, Larry Bell N7SND, Brad Biedermann WA7HHE, Don Blanchard WA7GTU, Sylvia Clements KB7UMU, (Tawnee) “Jack” Coulter KG7VEJ, Bruno DeBacker KG7VVN, Johnny Ellison KE6ZIM, George Gallis AL7BX, Fred Govedich KI7TPD, John Higley KI7SCX, Wayne Holcomb KI7QZA, Lance Jackson KA7J, Brody Johnson K7VXV, Jerel Johnson KI7SDA, Riki Kline K7NJ, Terry Lee KD7TTT, Ken Munford N7KM, Tammy Nesmith KI7LVB, Tim Nesmith KI7LVC, Burton Nichols KI7DRA, Ed Padgett KK7ZL, Dick Parker K7ZI, Dennis Porter KA7QJN, Chris Quick KA1CMQ, Ken Richter KR7KR, Denice Sheffield KF7WIY, Fred Sheffield KF7GPZ, Darlene Shelley KI7WEZ, Ronald Shelley K7HDX, Linda Shokrian

KG7PBX, Bill Stenger K6QOG, Dennis West W6DLW, and Terry West.

August BBQ sign-up results:

Drinks/Water: Dennis West W6DLW has 90 bottles of water, Linda Shokrain KI7PBX has what is left over from Field Day.

Appetizers/Salads: Brody Johnson K7VXV is the only one who has signed up.

Breads/Rolls: John Higley KI7SCX, Brad Biedermann WA7HHE, and Bruno DeBacker KG7VVN.

Chips/Dips: Sheffields KF7WIY and KF7GPZ.

Relish Tray: Larry Bell N7SND.

Dessert: Terry West will bring cookies.

Linda Shokrain KI7PBX has enough paper goods for ALL!

CAUTION: NO ONE HAS SIGNED UP FOR MAIN COURSE / MEAT

Is this supposed to be provided by the club funds?