

RAINBOW CANYONS AMATEUR RADIO CLUB NEWSLETTER



Club Website: www.rcarc.info Number 7 – Vol. 6 June 2025

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.

2025 Club Officer's

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CQ, CQ Happy Fathers Day



Presidents Message

Dear Fellow Amateur Radio Operators,

Hope everyone is having a wonderful spring and that you enjoyed our annual swap meet! June is the month for Field Day. We will be setting up at Three peaks at 9:00am on Saturday June 28 with Field Day contacts starting at noon and running until noon on Sunday June 29 when we will take everything down. We have a good batch of new members so we may have some new HAMS needing our help in the upcoming months so please make sure to introduce yourself and offer a friendly hand!

Continued on Page 2

RCARC Club Nets:

7:00 a.m. Breakfast Net - Monday – Saturday – 146.760.

12:30 p.m. Daily – Utah Beehive Net On 7.272.

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

8:00 p.m. Wednesday – Panguitch Net – 147.160.

7: pm. Thursday– Morse Code Net- This is a Zoom Meeting.

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

8: p.m. Saturdays – SSTV – 449.925.

9:00 p.m. Daily – Friendship Net – 146.760.

11: a.m. Saturdays (Mtn. Time) QCWA – 160 Net, Utah Chapter,

12: p.m. Freq. 7.272.

8:00 pm. Sunday's – New Harmony Valley Net – Bumblebee Repeater. – 146.680 with a minus offset – PL 100.

Local Repeaters:

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

June 10, 2025

RCARC Club Meeting.

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

July 8, 2025

RCARC Club Meeting.

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

August 12, 2025

RCARC Club Meeting.

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

September 9, 2025

RCARC Club Meeting.

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

President's Message **Continued from page 1.**

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

In service,

Fred Govedich (KI7TPD)

Notice

Summer Field Day is coming at the end of the month.

June 28th & 29th.

See Flyer on page 25

RCARC Monthly Breakfast

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



Happy Birthday and Anniversary to those celebrating in June



Happy Father's Day

June 15, 2025

Breakfast & Friendship Net Awards

April 2025

Breakfast Net		Friendship Net		
First Place	Second Place	First Place	W0KLH - Kevin	
K7ZI - Dick	KI7SCX - John	K7HDX - Ron	W6DLW - Dennis	
KC6WFI - Tony		K7NKH - Lee	Second Place	
KE6ZIM - Johnny	Third Place	K7ZI - Dick	KI7LVB - Tammy	
KG7PBX - Linda	KI7LVB - Tammy	KE8OYI - Caleb	KI7LVC - Tim	
KI7TPD - Fred	KI7LVC - Tim	KI7LUM - Bruce	Third Place	
KI7WEX - Bonnie	N7SIY - Sylvia	KI7TPD - Fred	KA7J - Lance	
N7SND - Larry		KI7WEX - Bonnie	N7SND - Larry	
W0KLH - Kevin		KK7UBC - Tommy		
		N7WWB - Darlene		

Rainbow Canyons Amateur Radio Club Treasurer Report May 13, 2025

Bank balance April 1, 2025	\$3,392.59
Membership	+0.00
Expenses	
Antenna Exp	- 202.68
Bank Exp - Check order	- 36.21
Rocky mountain Power (98 repeater elec exp)	- 21.69
 Bank Balance April 30, 2025	 \$3,132.01
May	
Deposits -	
Membership:2025 KC6ZNC	+ 15.00
Donations	+ 43.00
Expenses -	
Rocky Mountain Power (due 5/15/25)	- 11.51**
**Elec cost for 98 repeater after solar panels installed	
 Funds Available after 4/16/2025	 \$3,178.50

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

RCARC Upcoming Events

June 10, 2025 RCARC Membership Meeting at 7:00 PM. Cedar City Senior Center, 489 E. 200 S. lower level.

Saturday & Sunday June 28 and 29, 2025 Summer Field Day (SFD) See flyer on page 25.

July 8, 2025 RCARC Membership Meeting at 7:00 PM. Cedar City Senior Center, 489 E. 200 S. lower level.

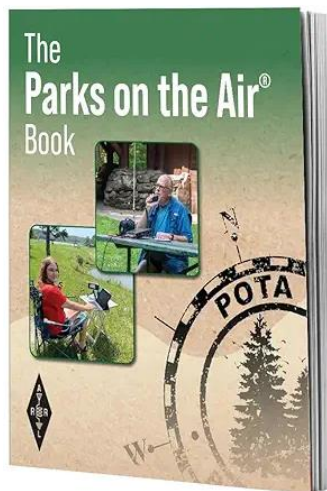
August 12, 2025 at 6:00 PM. RCARC Annual Barbecue. More info to follow. Mark your calendars.

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

Shown below is the book that will be given away at the June 10, 2025 meeting.



The Book below was given away to

David Despain (K7DLD)

at the May 13, 2025 meeting



**Congratulations David
See Pic on page 13**

Contact Us.

Mailing Address:

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Newsletter E-mail:

rcarcnewsletter@gmail.com

Website

www.rcarc.info

Face Book Page:

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

To Join RCARC or Pay Dues:

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

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

Thank You

Reminder

**RCARC EComm Membership Meeting
June 19, 2024 at 5:30 PM.**

Heritage Center (Upstairs). Our local Civil Air Patrol will do a presentation on the local squadron.



Buzz's June Safety Tip(s)



Ham Radio Safety

Safety is paramount when installing ham radio equipment, especially when dealing with antennas and power lines. Always maintain a safe distance from power lines and ensure proper grounding of all equipment to minimize the risk of electric shock and RF safety hazards. Keep antennas and feedlines out of reach and consider the near-field effects of your antenna on your surroundings.

Electrical Safety:

Power Lines

Never assume that any power line is insulated. Treat all power lines as if they are live and potentially fatal. Maintain a minimum safe distance from power lines, ideally at least twice the height of the antenna or mast.

Never assume that any power line is insulated. Treat all power lines as if they are live and potentially fatal. Maintain a minimum safe distance from power lines, ideally at least twice the height of the antenna or mast.

Grounding

Proper grounding is crucial for protecting yourself and your equipment from electrical hazards and RF interference. Use multiple ground rods, run heavy-gauge copper wire from equipment to the ground rods, and ensure all connections are tight and secure.

Equipment Safety

Be careful when opening up equipment for servicing, as it may be powered by the electrical mains. Inspect equipment for any signs of damage or wear and tear, and replace any worn or damaged parts.

Old Radios

Be aware that older radios with obsolete two-wire plugs can pose an electrical safety hazard if the chassis is directly connected to the line cord.

RF In the Shack

Improper grounding can lead to a condition known as "RF in the shack," where RF energy leaks into your station. This can cause tingling sensations when touching equipment or SWR readings that change when you touch the radio.

RF Safety:

RF Exposure

While ham radio is generally a safe activity, it's essential to be aware of RF exposure guidelines and take precautions to ensure your health and the health of others.

Near Field Effects

Be mindful of the near-field effects of your antenna, especially on lower HF bands, where the near field can extend a significant distance.

Continued next column

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RADIO PROCEDURES DURING NORMAL OPERATING CONDITIONS CALLING AND COMMUNICATING TECHNIQUES

The secret to working quickly and efficiently in an emergency net is to use standard procedures. The techniques presented herein are the most common. It doesn't take much analysis to see that standards and guidelines must be established and then utilized.

Before you key your mike, gather your thoughts about what you are going to say. Many people with radios have a tendency to talk and/or repeat too much. Say what you need to say without unnecessary repeats. Keep in mind that you must strive to get your message through the first time.

In general, there are five parts to Calling/Communications. The more serious or complex the situation, the more important these procedures become. The information contained herein **MUST** be practiced until it is second nature.

Practicing proper day-to-day radio procedures will make emergency radio procedures automatic and reduces confusion. Another way of saying this is that the secret to working quickly and efficiently in an emergency is to use common **approved** radio communication procedures and guidelines and practice, practice, practice.

1st, you **MUST** give the radio callsign of the station you are calling. This alerts that station that they are being called and that they should listen to determine who is calling.

2nd; say "THIS IS". The called station knows your tactical call follows. This is extremely important in cases where there is a lot of confusion or poor signal conditions.

3rd, give your radio callsign. Don't give your first name. Radio callsigns are important and first names are not, egos notwithstanding. Remember, we are licensed for radio to radio **NOT** person to person communications.

You **WILL** create confusion if you reverse the first three steps, especially during emergencies and when you are communicating with a dispatcher or people who do not know you. If your practice is the reverse of the "norm", you will not be able to change "on the fly" especially during the added stress brought on by an emergency situation.

4th, give your message. Speak clearly. Don't speak too fast especially if the message needs to be written down. Pause after logical phrases. Do not use the word "break" when you pause. It is confusing, wastes time and has other connotations. Merely unkey and pause. If the other station has questions, they should key up and make their request known. This also permits other stations to break in if they have emergency traffic.

5th, you can end your conversation with "CLEAR" however it isn't required.

EXCEPTIONS OR VARIATIONS

1. It is sometimes permissible to omit the radio callsign designator of the station you are calling, **BUT** only after communications have been established and no confusion will occur. Don't waste time, by using superfluous tactical callsign.

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RADIO NEWS

H. GERNSBACK, Editor and Publisher
SYLVAN HARRIS, Associate Editor

EDITORIAL AND GENERAL OFFICES, 55 PARK PLACE, NEW YORK

Vol. 6

JUNE, 1925

No. 12

NEW RADIO DEVELOPMENTS

By HUGO GERNSBACK

THE broadcast situation in this country has now reached a point where it has become necessary for the authorities in charge to do something toward alleviating a situation that threatens to become impossible. At the time this is written, there are in actual operation in this country 564 broadcast stations. There are, however, only 100 channels to accommodate all of these stations, these channels being separated by 10 kilocycles. It is like trying to run a dozen trains on a single track—not an impossibility in itself, but somewhat of a task. With the broadcast stations, the problem has been solved for the present—not in a satisfactory manner, but tentatively, at least:

First, by dividing time among some of the stations, which at once gave us 200 channels instead of the original 100.

Secondly, there are a number of stations operating on the same wave-length, but so far removed from each other that not much conflict between the stations is incurred thereby. Thus, for instance, a station in New York may be operating on the same wave-length as one in San Francisco. The difference in time alone between the two stations is of much help, and the great distance separating the stations makes for little interference, although there is, of course, some interference. By this means we have again doubled our channels, having 400 partial channels for the five hundred and sixty-five broadcast stations.

Moreover, the Department of Commerce is besieged right now with a great number of applications for more broadcast stations, while at the same time the available channels have been more than exhausted. There is no possible way of relieving the situation except by again splitting up time, which has not been done as yet to any extent. This, however, would work a severe hardship on the various stations which, having great capital investment behind them, would view such a procedure with much disfavor, and it might conceivably raise havoc with the entire industry.

To go up in the wave-length band, that is, beyond 600 meters, is not possible for many reasons, principally on account of international agreements, as most ship stations are operated on this wave band. There remains only one outlet, and that is in the lower wave band.

Until very recently the radio amateurs were in possession of the band below 200 meters. Of their own volition, however, because they found that their communication was vastly improved thereby, they have abandoned the 200-meter wave band entirely, and most amateurs are now transmitting on 80 meters and below. An entirely new channel has, therefore, been opened almost automatically, and it is now proposed that, by this fall, the broadcast wave band should include the wave-lengths from 150 to 600 meters. This additional 50 meters immediately gives us 50 entire channels which, when split up by dividing time, will give us double this number, or 100 new channels. If, again, these channels are split up by allocating the same wave-lengths for stations in the East and on the Atlantic seaboard, as well as on the Pacific coast, we shall get a total of 200 channels, thereby accommodating as many new broadcast stations, making a grand total of 800 possible stations without undue crowding.

THE reader may now wonder what good these low-wave broadcast stations will be. The objection will immediately present itself that no broadcast receiving set made at the present time will be able to tune down to 150 meters, when these new stations go on the air next fall.

The answer to this is, of course, simple. Manufacturers of broadcast receiving sets have already been apprised of this situation and know that new receivers built after this date will have to include the lower wave band. When automobiles were first manufactured they were of the one-cylinder, snorting and puffing construction. After a while, the manufacturers found out that two-, four- and six-cylinder cars worked better, so they adopted them as the auto-

mobile art progressed. Also, the puffing, evil-smelling and smoking automobile was provided with mufflers and the manufacturers soon found that they had to have them on their cars if they wanted to sell them.

Exactly so in radio today. The new fall sets, therefore, will be constructed along such lines that they will tune in the lower wave bands. That does not mean that all of the present-day outfits will have to be junked or thrown aside, for their owners will still be able to use them next fall, if they do not wish to buy new sets. They will still be able to enjoy a great variety of programs, even if they are not able to tune down to 150 meters. It is just like the man who owns a 1922 automobile, without balloon tires and without four-wheel brakes. The old car will still give him service until it wears out or until he wishes to acquire a new one. Exactly so with radio outfits. The new wave band will work no hardship on anyone—neither on the public nor on the industry. But for the man who has not acquired a radio set as yet, the 1926 outfit that tunes from 150 meters to 600 meters will be of an added interest, just as the 1926 car will be to the man who does not now own a car.

And all this is a good thing, for the simple reason that there is still a large public refraining from buying sets because it thinks great revolutions are about due in radio sets.

We believe such a view is totally unfounded, and that no great revolutions are to be made in radio sets for the next few years. In other words, if you do buy a 1925 model radio set now, that set will be an excellent one, even if it does not tune down to 150 meters. It is much better for changes of this kind to come along gradually, so that they do not cause upheaval and confusion in the trade and with the public.

The next few years will show great refinements in radio sets, rather than revolutionary changes. The radio set industry has now settled down into an orderly business, the same as the automobile industry. In both it is a matter of refinements, of improvements, rather than of revolutionary changes.

THAT part of the public which is withholding the purchase of radio sets now because of expected revolutionary changes should fully understand that there is nothing at all in this argument. 1922 sets are still doing excellent work in thousands of homes throughout the country. These sets will do good work and serve their owners for years to come, notwithstanding the fact that the 1923, 1924, 1925 and 1926 sets have been greatly improved.

So the writer repeats, as he has often mentioned, *the time to buy a radio set is now*. There is more free entertainment and better broadcasting in the air right now than at any time in the history of the art.

Furthermore, the popular impression that radio reception during the summer, on account of static, is poor, is, of course, erroneous. There is static aplenty in the winter time, in the spring, as well as during the fall. It is also true that there are many fine summer days during which there is less static than on a wintry, snowy day. Rain or snow in the air gives rise to static, no matter what the season.

As for danger from lightning during the summer time, there is nothing in this argument either, because there is no authenticated case where lightning ever struck an antenna in this country and caused any damage. Quite the contrary. A radio outfit that is well installed with its lightning arrester becomes a protection to the building, because, in case of lightning, the latter will be carried away harmlessly to the ground, whereas if no antenna existed, great damage might be done to the building.

We repeat, therefore, there is no time like the present to acquire a radio outfit. On account of the unsettled condition in the trade, outfits can be bought more cheaply at this very minute than they probably can be for years to come. A word to the wise is sufficient.

RCARC Annual Swap Meet and Pancake Breakfast

On Saturday May 3, 2025 RCARC club members descended on the pavilion at Christ the King Catholic Church, for the annual Ham Radio Gear Swap Meet along with a pancake and sausage breakfast. A great big thank you to Terry West, Sonja (KD6HYH), Tony (KC6WFI) and Brody (K7HDX) for staffing the grills and making sure no one went hungry.

And a great big thank you to Dick Parker (K7ZI) for bringing is famous Dutch Oven Potatoes.

See pictures below:



Sonja (KD6HYH) cooking the sausage links.



Tony (KC6WFI) cooking the sausage patties.



Brody (K7VXV) staffing the pancake grill. Great job Brody.



Here's Dick (K7ZI) with is famous Dutch Oven Potatoes.



Swap meet attendees are moving through the line as chow is now served.

Continued next column

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RCARC 2025 Summer Field June 28/29, 2025

Saturday morning June 28, 2025 RCARC members will make their way to the Iron County Three Peaks Recreational Area Campground and Pavilion for Summer Field Day 2025.

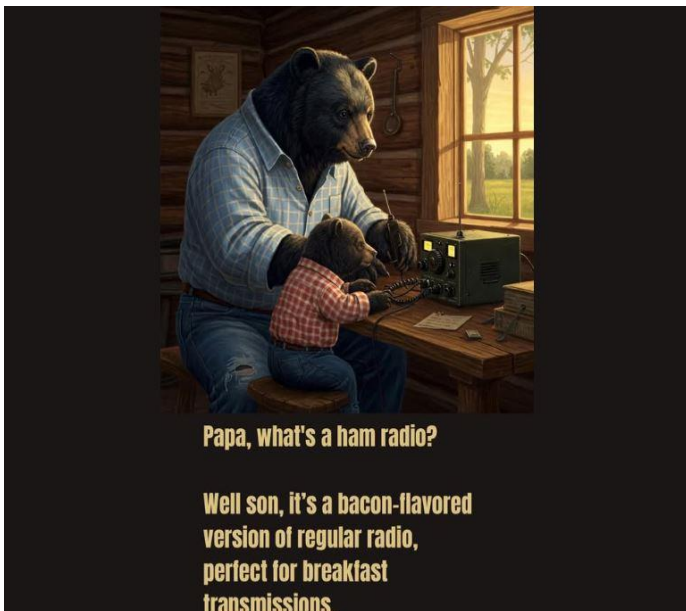
Set up will begin at 9:00 AM. with on the air operations starting at 12:00 PM.

2025 Field Day is ham radio's open house. Every June, hams throughout North America set up temporary transmitting stations in public places to demonstrate ham radio's science, skill and service to communities and the nation. It combines public service, emergency preparedness, community outreach, and technical skills all in a single event.

Some participants may also choose to operate from home, using the exercise to develop and practice their personal radio communications capability. Field Day has been an annual event since 1933 and remains the most popular event in ham radio.

See event flyer on page 25.

A little Ham Humor



Ham Radio Safety

Continued from page 5

Antenna Placement

Avoid placing antennas where they can be touched or where the RF field could be too high for someone to be exposed to.

Feedline Safety

Ensure good-quality coax is used and connectors are installed properly to prevent signals from radiating from the feedline.

Additional Safety Tips:

Consult with Experts:

If you are unsure about any aspect of your ham radio installation, consult with an experienced ham radio operator or a professional electrician.

Follow FCC Rules

Familiarize yourself with FCC rules and regulations regarding amateur radio operations and RF safety.

Take a Safety Assessment

Consider taking a safety assessment of your station to identify potential hazards and take steps to mitigate them.

Stay Informed

Keep up-to-date on the latest safety guidelines and recommendations from the [ARRL](https://www.arrl.org/) and other organizations.

SAFETY FIRST

Ham Radio and Emergency Communication

Word Search

J	S	L	O	C	O	T	O	R	P	J	M	Y	Y	K
Y	E	M	O	P	E	R	A	T	I	O	N	L	X	X
E	I	B	N	P	N	P	M	E	T	Y	Y	K	E	V
Q	C	H	O	O	D	P	K	E	C	Y	A	Y	M	N
U	N	D	I	I	G	U	A	M	A	P	C	R	M	Y
I	E	L	T	F	F	X	F	E	L	N	W	D	X	H
P	U	T	A	D	U	E	N	R	E	F	J	U	U	A
M	Q	E	C	N	J	M	W	G	L	N	L	E	I	M
E	E	S	I	S	D	T	R	E	I	L	T	G	K	R
N	R	N	N	B	I	E	G	N	J	Z	G	V	D	A
T	F	O	U	T	M	J	I	C	D	S	P	Q	G	D
U	Z	P	M	E	H	L	O	Y	T	S	L	A	C	I
E	Z	S	M	D	K	R	N	E	T	W	O	R	K	O
B	X	E	O	D	D	B	N	L	N	D	R	T	S	D
D	A	R	C	P	D	N	N	N	M	L	U	V	H	Q

Emergency Equipment	Communication Protocols	Ham Radio Network	Response Operation	Frequencies
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RCARC Annual Swap Meet and Pancake Breakfast

Continued from 8



Some of the items for sale.



Flagpole mast and receiver hitch for sale.



Miscellaneous electrical items for sale

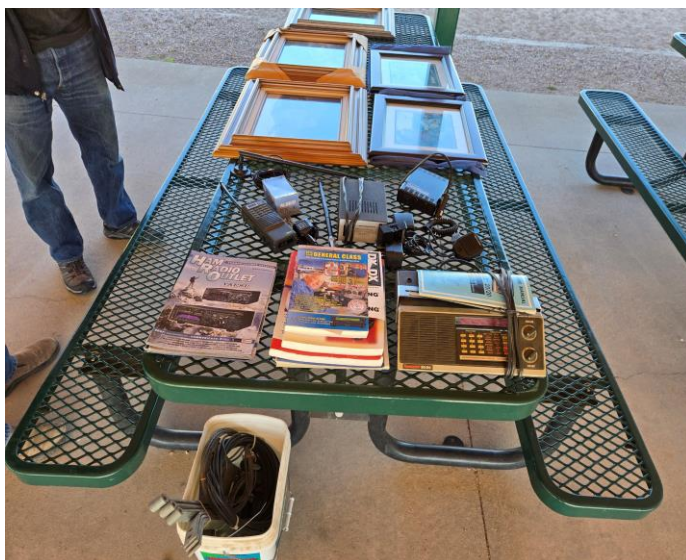
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Additional items on display.



A table loaded with treasures for the ham enthusiast.



Scanner and other items for sale.

First Ham Radio Club



THE FIRST HAM RADIO CLUB:

The first amateur radio club was The Junior Wireless Club, which was organized in New York City, USA, in 1909. It later changed its name to the Radio Club of America.

While specific details about the initial operators and their exact equipment from 1909 are limited, we can infer some general information about early amateur radio setups:

Operators: These early "hams" were pioneers and experimenters, often with a background in telegraphy. They were fascinated by the new technology of wireless communication and were typically young enthusiasts or technically minded individuals.

Equipment: In the early days of amateur radio (around the turn of the 20th century up to the 1910s), equipment was rudimentary and often homemade. Key components would have included:

Spark-gap transmitters: These were the earliest form of radio transmitters, producing broad, noisy signals. They typically consisted of a high-voltage power source (like an induction coil), a capacitor (Leyden jar), and a spark gap. When the key was pressed, sparks jumped across the gap, creating electromagnetic waves.

Simple receivers:

Early receivers were often crystal sets or used a coherer. **Crystal sets:** These used a crystal (like galena) and a cat's whisker to detect radio signals. They were passive, requiring no external power source other than the received radio waves, and typically used headphones for listening.

Continued on page 14

RCARC May Membership Meeting Picture's



Sylvia (N7SIY) and Ann (KJ78OGZ) waiting for the meeting to start as other members arrive.



Fred (KI7TPD) starting the meeting.



Fred (KI7TPD) conducting the Pledge of Allegiance.

Continued next column



Fred (KI7TPD) conducting meeting business.



Linda (KG7PBX) cutting George Gallis's (AL7BX) Birthday Cake. Happy Birthday George.



Dave (K7DLD) Book give away winner.

Continued on page 15

First Ham Radio Club

Continued from page 12

Coherers: These devices, filled with metal filings, would become conductive when a radio signal was received, allowing a circuit to be completed and a bell or other indicator to be activated. They needed to be "decohered" (tapped) to reset them after each signal.

Antennas: Early antennas were often simple wire antennas, sometimes strung between buildings or supports. The length and configuration would have been experimental.

Morse code keys: As voice transmission was not yet practical for most amateurs, communication was primarily through Morse code. A telegraph key was used to send the coded signals.

Headphones: Used to listen to the faint signals received by the early detectors.

It's important to note that early amateur radio operators often caused interference to commercial and military radio systems due to their broad signals.

This eventually led to government regulation, such as the Radio Act of 1912 in the US, which required licensing and restricted amateurs to shorter wavelengths (higher frequencies) to reduce interference.

The American Radio Relay League (ARRL), a significant organization in the history of amateur radio, was founded later on April 6, 1914, by Hiram Percy Maxim. Its initial purpose was to facilitate the relaying of messages over long distances by amateur radio operators.

Sources and related content

1910 – 1911 – The Junior Wireless Club Limited becomes the Radio Club of America

radioclubofamerica.org

CB Radio & WWII



CB Radio & WWII: How 11 Meters Helped Beat the Desert Fox 🐅☀️

Here's a wild slice of radio history that *every CB operator* should know. Back in WWII, the 11-meter band—yep, the same one we ride on today—played a **key role in stopping one of the greatest generals of the war: Erwin Rommel**, aka the **Desert Fox**.

🌐 The Setup

Rommel was tearing across North Africa with his Afrika Korps, giving the Allies a serious headache. But here's where radio comes in...

On **that same 11m band we love today**, Axis forces sent out a transmission. The encryption was weak. British intelligence intercepted it—and boom—**Rommel's whole plan was exposed**.

Continued on page 16

RCARC May Membership Meeting Picture's

Continued from page 13

Presentation

Austin (W1EPR) and Jordon (KK7MPM) were on hand to present an overview of the Cedar City Fire Department.



Jordon (K7MPM) talking with the members, while Austin (W1EPR) looks on.



One of the items they shared was a Thermal Imaging Camera.



Austin (W1EPR) showing the Pro Bar Halligan-Type Forcible Entry Tool



Jordon (KK7MPM) shows the "Strongarm" Tool. It can be used for forcible entry or vehicle extraction.

Thank You



For Your Service

Continued next column

CB Radio & WWII

Continued from page 14

The intercepted message gave away critical details: fuel shortages, troop positions, and more. Armed with this intel, British forces under General Montgomery struck hard at **El Alamein** in 1942. Rommel couldn't recover. It was the beginning of the end for the Axis in Africa.

🔧 CB Roots Run Deep

So next time you key up on 27 MHz, remember: this band isn't just for skip and rag chewing—it helped change the course of WWII.

🔧 Same waves. Different war.

RCARC Calendar

Did you know that the RCARC has a calendar of all upcoming events, nets, meeting and other? If you are looking to see when the next meeting might be using your computers browser type in the following URL www.rcarc.info when the web page loads select "**Club Info**" from the menu. When the next page loads select "**Calendar**" for access to the information. As you scroll through the items listed each day place your cursor over the time of the event and left click your mouse button. This will bring up detailed information on that event if available. Have fun.

♥️ HAPPY ♥️
FATHER'S
♥️ DAY ♥️

RCARC Assists Iron County Public Works

Monday morning May 12, 2025 Ron Shelley (K7HDX) assisted Iron County Public Works by programming GMRS/FRS frequencies in their new Baofeng UV-5R Hand Held Radios.

In addition, gave a quick demonstration on how the radio works to the facility director.



Ron (K7HDX) programming one of the radios



Ron (K7HDX) briefing the facility director on the use of the radio.

US UNPREPARED TO HANDLE MAJOR SOLAR STORM

We begin this week with word that a US task force, by its own admission, is ill prepared to cope with the wide-ranging impact of a solar storm. This news comes on the anniversary of the Gannon Storm - the most powerful geomagnetic storm to hit the earth in two decades.

A US government task force established 11 years ago to handle space weather emergencies has demonstrated that it is incapable of successfully managing such a crisis, according to a recent report task force members released earlier this month. Several critical failures came to light at the conclusion of a two-day drill conducted in early May to assess US agencies' readiness in such a crisis. The drill staged a simulated crisis of several CMEs hurtling toward earth, creating widespread power and communications outages, radio blackouts and radiation hazards for NASA astronauts on a lunar mission.

This was the first exercise of its kind for the task force, which is known by the acronym SWORM, which stands for Space Weather Operations Research and Mitigation. Member agencies include the US Department of Homeland Security and the National Oceanic and Atmospheric Administration. According to the report, government agency protocols were shown to be weak and without effective interoffice coordination. Those challenges were called especially critical because warning for the impact of an incoming coronal mass ejection can be as long as a few days or as short as half an hour.

The report praised the exercise for identifying these issues and called for, among other things, development of an advanced warning system and sophisticated space-weather satellite systems.

Randy Sly W4XJ.



Amateur Spectrum Addressed in Reconciliation Bill

ARRL reports that early this morning, May 22, 2025, the US House of Representatives passed a massive Reconciliation bill with the below spectrum provisions relevant to Amateur Radio.

- Within two years not less than 600 megahertz must be identified **from between 1.3 and 10 GHz** for reallocation to commercial use for broadband services.
- The identified spectrum must be auctioned by the FCC for such services on an exclusive, licensed basis as follows: not less than 200 megahertz within three years (mid-2028) and the remaining spectrum (at least 400 megahertz) within six years (mid-2031).
- **Excluded** from spectrum that could be reallocated for these purposes is **3.1 – 3.45 GHz (which includes the temporary secondary Amateur band at 3.300 – 3.450 GHz)** and 5.925 – 7.125 GHz.

With regard to Amateur spectrum, the bands that potentially could be subject to consideration for reallocation under this legislation are 13 cm (2300 – 2310 & 2390 – 2450 MHz) and 5 cm (5650 – 5925 MHz). At this time a number of bands have been mentioned informally for consideration, none of which include Amateur spectrum. But the bands under consideration could change and ARRL will closely monitor the evolving situation.

Additionally, some government operations may be required to consolidate in current Amateur secondary spectrum that is already shared with those government uses. In select instances this might constrain Amateur operations if such consolidation occurs.

It is to be emphasized that these provisions have been passed by the House, but key US Senators have not agreed to some aspects and have stated their intention to modify these provisions as the bill moves through Senate consideration. The stated goal for final enactment is by July 4, 2025.

Crosley Radio Corporation's 1936 "WLW Model Super-Power Radio



Crosley Radio Corporation's 1936 "WLW Model Super-Power Radio Receiver" Surpassing the Zenith Stratosphere turned into a bigger project than anyone had expected!!

The 1936 CROSLEY "COLOSSUS" WLW Model Super Power Radio receiver. The most expensive and advanced vacuum tube shortwave radio ever made. Features included. Auto volume control Auto gain control (AGC) 5 Preset graphic EQ settings 37 Vacuum tubes 4 Chassis stages Had 6 speakers in total x3 High range tweeters x2 12" Med range drivers One 18" Super Bass low end auditorium driver Total output of 75 watts Weighed 475 lbs. Cost \$1500 in 1936 (\$88,000 2024)

STUDENTS GET FREE ONLINE LESSONS ABOUT WEATHER SATELLITES

A free online course is teaching students that weather satellites remain an important resource to preserve our quality of life. Sel Embree KB3TZD tells us about those lessons.

Even as the National Oceanic and Atmospheric Administration is halting support for a number of its weather satellites, the importance of these collectors of data and imagery from space remains key to understanding our changing climate. Students in grades 8 through 12 here in the US are getting an opportunity to learn more about these satellites and their contributions to the study of long-term climate behavior through a free online series offered by the AMSAT Youth Initiative.

The coursework is designed to let students progress through the material independently. The first installment is called "An Introduction to Satellite Meteorology," and will be followed by the next release in June. Future topics include Wildlife and Natural Resources, Navigation, Climate Change and Pollution Control.

Visit buzzsat-dot-com, that is b-u-z-z-s-a-t-dot-com (buzzsat.com), to see more details about the course.

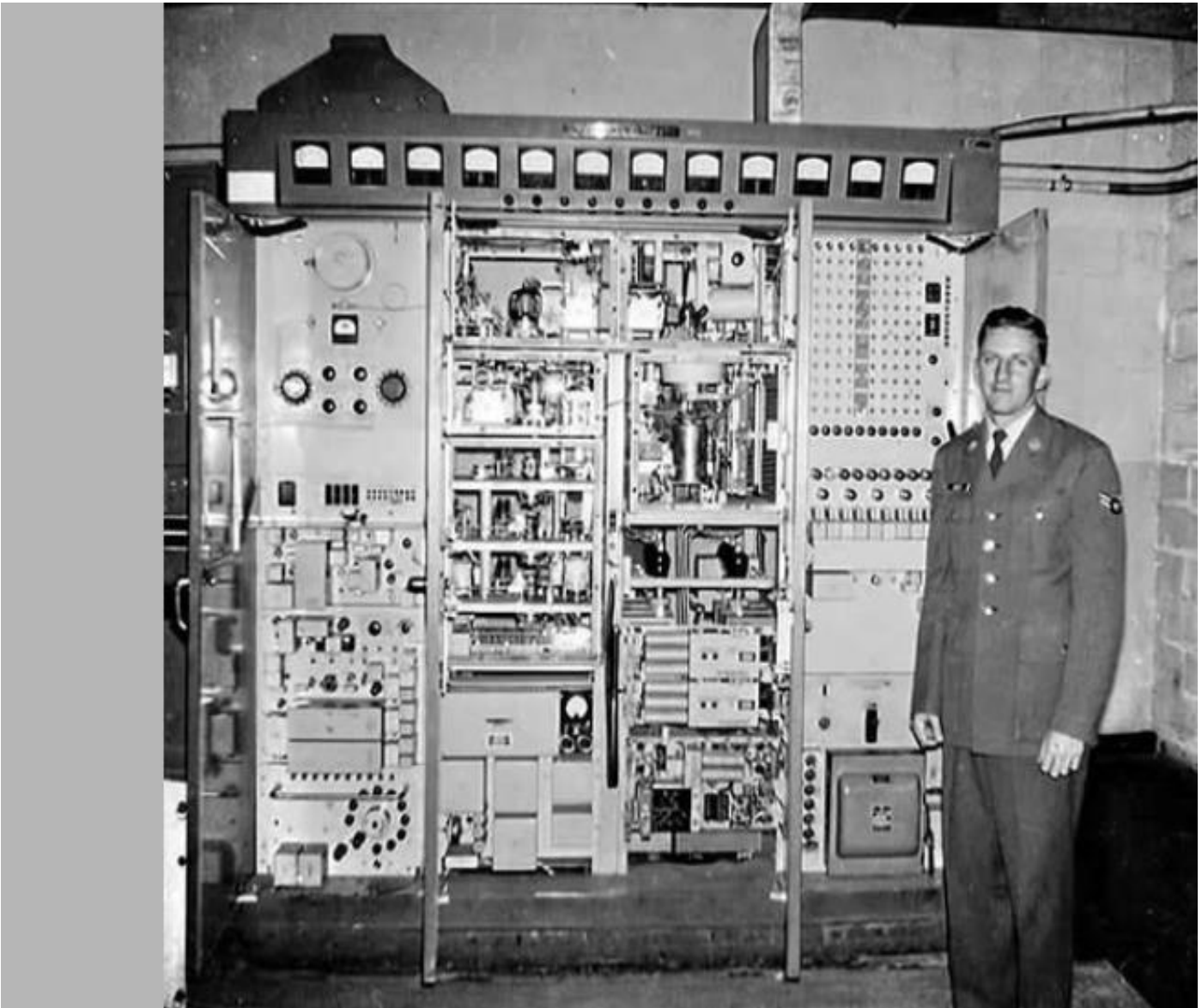


UPCOMING SPECIAL EVENT TRAIL OF 19TH CENTURY EXPLORERS

Just as the American explorers Meriwether Lewis and William Clark tied the landscape of the early North American West together via their travels in the early 19th century, more than 30 ham radio clubs in 16 states are carving out a trail of communications along that same route. Radio operators are calling CQ from May 31st through to June 15th in the Dakotas, Idaho, Indiana, Kentucky and other states that were eventually established within the explored territory.

The special event, Lewis & Clark Trail on the Air, has expanded since its launch in 2022 with the Clark County Amateur Radio Club in Vancouver, Washington state. Now it encourages chasers to try for contacts of one club in each of the 16 states - or one of two bonus stations who are representing the Jefferson Indian Peace Medal. The explorers handed these medals out to the chiefs of tribes they encountered during their expedition. For information about certificates or participating clubs, visit the website LCTOTA.org for details (LCTOTA.org)

Old Vintage Radios



Most people think of radio receivers when thinking about radio, but transmitters are the other half. This is the AN T-409: 2000-watt, twin sideband, multiplex, multi-channel HF (2-30 MHz) transmitter. It can be configured to have 10 channels preset for fast channel switching, with 4 voice channels (2 on each sideband, 3 kHz each) or can be configured to 16 RTTY (teletype) channels in place of voice (up to 64 RTTY channels total). It was powered by 230V, 3-phase AC, and used mercury filled rectifier tubes. Often, the output would be feed to a 6,000-watt linear amplifier, about the same size as this. It was normally used for long distance communications such as California to Hawaii, Hawaii to Philippines, etc. In the Air Force (1961 - 1965), I taught the operation, maintenance and repair of this one, along with the AN R390A receiver, and some other equipment.

RENEWED CALLS TO FCC INCLUDE PLEA FOR TECHNICIANS' HF PRIVILEGES

The FCC's recent request for suggestions about eliminating or modifying any and all regulations has become an opportunity for the ARRL to renew some of its recent proposals to the regulator

The ARRL has renewed an earlier plea that the FCC grant HF privileges to Technician class radio amateurs. The revival of this proposed change is prominent on a long list the league has drawn up for the commission, responding to the federal government's goal to eliminate certain FCC regulations or guidelines. The league is asking that Technicians gain phone privileges on 80 meters, 40 meters and 15 meters along with RTTY and digital privileges. This is not the only previous petition the league is pressing for as part of the commission's announced changes. It is also asking that sub-band boundaries be adjusted on 80 and 75 meters to correct what it calls an "imbalance" that doesn't reflect the increased presence of digital operations. The ARRL is also underscoring its belief that baud rate and bandwidth limitations should be eliminated on certain amateur LF and VHF/UHF bands. This FCC initiative was announced in its Further Notice of Proposed Rulemaking in 2023.

The FCC initiative was contained in its Docket Number 25-133 which has been referred to as the "Delete, Delete, Delete" docket.

Andy Morrison K9AWM.



HAMS EXEMPT FROM SOUTH CAROLINA LAW BANNING HANDHELDS

There's good news for hams in South Carolina, where a new law will ban most handheld devices from use behind the wheel of a moving vehicle.

South Carolina is about to become the 32nd state in the US to exempt amateur radio operators from a law that bans drivers of motor vehicles from using hand-held devices.

After it is signed into law by Gov. Henry McMaster, the measure is to take effect on September 1st. Although it prohibits drivers from using portable computers, GPS receivers, mobile phones, electronic games or other communication devices, the bill exempts operators of amateur, citizens band, commercial and emergency radios.

Members of the state Senate and House of Representatives passed different versions of the Hands-Free and Distracted Driving Act earlier this year - overwhelmingly. They recently agreed to resolve the differences in both versions and send it in its final form, to the governor.

A similar law in Iowa - also with a ham radio exemption - is set to take effect on the 1st of July, joining a growing number of states around the US.

Kevin Trotman N5PRE.

SPECIAL EVENT OPERATORS RECALL HISTORIC JOHNSTOWN FLOOD OF 1889

A devastating flood in the late 19th century left its mark on western Pennsylvania. Amateur radio operators are on the air as a reminder of this painful history of the Johnstown Flood. Here's Travis Lisk N3ILS with details.

In a community 60 miles east of Pittsburgh, Pennsylvania, the disaster has come to be known as the Great Flood of 1889. What began on May 31st of that year ultimately claimed more than 2,200 lives in the western part of the state. The deadliest dam burst in US history followed several days of heavy rainfall, as more than 20 million tons of water rushed uncontrollably into the heavily populated valley. Johnstown, in Cambria County, had the misfortune to be just 14 miles downstream from the dam.

It had 30,000 residents, many of whom were crushed by the sudden, unexpected rush of flood waters.

This is history that is personal to many in the region and amateur radio operators are no exception. They will be on the air starting on Saturday the 24th of May through to the 6th of June, operating from the Johnstown Pennsylvania Flood Museum calling CQ. They are using the callsign N3N and will be on HF and 2 meters. The special event is taking place in cooperation with the Cambria County Pennsylvania Emergency Services and Skywarn Storm Spotters of Western Pennsylvania. Emergency responders know well: Tragic flooding revisited the region again in 1936 and 1977 but neither of those floods compared to this one, which is considered the kind of storm that happens once every 1,000 years.

Travis Lisk N3ILS.

HIGH-FLYING ANTENNA TO HELP STUDY WORLD'S FORESTS

Our top story takes us once again to space. If you want to have as many quality QSOs as possible, you want to deploy the best antenna possible. That's why a 40-foot extendable antenna was launched into space aboard a European Space Agency satellite on Tuesday, April 29th from French Guiana. Its goal is communication - with more than 1.5 trillion trees around the world. Graham Kemp VK4BB has that story.

The Biomass probe that has been put into space by ESA is looking to log trees - but it's not the kind of logging commonly associated with forests. During the next five years, this antenna will be using P-band radar transmissions to collect data on how much carbon is stored in trees on a number of continents -- and thus gauge climate change as a result of deforestation. According to a report by the BBC, this kind of satellite, with an antenna that is 12m in diameter, is the first of its kind for such a mission. The band's relatively long wavelength is an asset because it permits the signals to see deeply inside forests in a manner scientists have compared to how a CT-scan operates.

The idea was proposed by the National Centre for Earth Observation whose director, John Remedios, told the BBC that the goal is to [quote] "interrogate these forests."

Graham Kemp VK4BB.

Radio Procedure (Continued from page 6)

2. The term "THIS IS" is used to separate the FROM and TO callsigns. If, and only if, confusion will not result, omitting the "THIS IS" phrase is permissible.
3. If you are the calling station and you omit your own radio callsign, you can create confusion. In certain situations, such as quick replies between operators, it can be accomplished without confusion. You must NOT use this simplification where messages can be interpreted incorrectly.
4. Elimination of the words "OVER" and "OUT" is possible where it doesn't introduce problems. Unkeying after your message implies "OVER". To comply with FCC regulations, you must give your radio call sign when you first start to talk and when you finish your communication. Giving your radio callsign can imply an "OUT" ending. Should giving your callsign cause any confusion, do not hesitate to add the word "CLEAR".

RADIO PROCEDURES DURING EMERGENCIES

1. Identify yourself at the beginning of each transmission especially where confusion may result if omitted.
2. Identification is a requirement of the FCC. According to the FCC, radio users must give their callsign when they first start to talk and when they finish their communication.
3. Listen before transmitting. Be sure you are not on the air with someone else.
4. Know what you are going to say before you push the mike button; in other words, engage your brain before you put your mouth in gear.
5. Hold the transmit button down for at least a second before beginning your message to insure that the first part of your message is not cut off.
6. **TALK ACROSS THE FACE OF YOUR MICROPHONE.** This technique makes the communications more understandable. In other words, hold the face of the microphone almost at a right angle to your face.
7. Speak slowly, distinctly, clearly, and do not let your voice trail off at the end of words or sentences. Give each and every word equal force. For some this takes a lot of practice and conscious effort but do it.
8. Never acknowledge calls or instructions unless you understand the call or instructions perfectly. If you do not understand, recontact and "say again" the missed traffic.
9. When you have understood the message, acknowledge the receipt with the words "copy", "received" or "acknowledged." The word "copy" is preferred.
10. The word "break" is never used UNLESS there is an emergency. Give you callsign to gain access to a net.
11. Always acknowledge calls and instructions. Nothing is more disruptive to the smooth flow of communications than dead silence in response to a message. If you cannot copy or respond to the call immediately, then tell the caller to "repeat" or "stand by." Otherwise, acknowledge each call immediately.
12. Under stress, many operators have a tendency to talk too fast. **ACCURACY FIRST, SPEED SECOND.**

Continued on page 24

Radio Procedure (Continued from page 23)

location at any time. This is particularly important if you with a search team or other mobile units.

27. When you are on the fringes of communications, (such as in a building or at end communications boundaries edge) look for a receiving "hot spot" site and use it. Don't walk around talking while in a communications fringe area. Repeaters have much more power than your handheld. Even if you have a good signal from a repeater, it does not mean you are good going into the repeater.

28. If you check into an emergency net, you must monitor on the net talkgroup. If you must leave the talkgroup, ask permission from the NCS (Net Control Station). Report to the NCS when you return to the net. It is vital that the NCS know the availability of each station on the net and it is up to YOU to keep the NCS advised. However, if the NCS is very busy and you must leave the net, do so without interrupting the net.

29. Net Control Stations frequently are very busy with work that is not on the air. If you call the NCS or dispatcher and do not get a reply, be patient and call again in a minute or two. If you have an emergency, say you have "Emergency traffic" after you identify yourself when you call the NCS. Be patient with the NCS and other stations.

30. A mobile radio (that is one that is mobile, portable, or airborne) has priority over any other type of radio station AND other forms of telecommunications. This is true in all radio services. Fixed station operators must recognize that a call from a mobile station takes precedence over telephone calls, personal conversations, and other activities. Respond promptly to any call from a mobile station -- even if it is to advise the caller to standby.

In conclusion, these few rules and suggestions are intended to help you become a better radio operator. Analyze your present operating methods and try to polish each element so your participation in radio communications is professional and worthwhile.

Public Fire Information Website

InciWeb

<http://inciweb.nwcg.gov>

InciWeb is an interagency all-risk incident information management system. The web-based program provides information for wildland fire emergencies and prescribed fires, but can also be used for other natural disasters and emergency incidents such as earthquakes, floods, hurricanes, tornadoes, etc.

The system was developed with two primary missions:

- Provide the public a single source of incident related information; and
- Provide a standardized reporting tool for the Public Affairs community.

Official announcements include evacuations, road closures, news releases, maps, photographs, and basic information and current situation about the incident.



Rainbow Canyons Amateur Radio Club (RCARC)

Summer Field Day Event 2025

When

June 28th & 29th RCARC members will be broadcasting from the Iron County, Three Peaks Recreational area in the Pavilion starting at 12 noon Saturday and continuing until 12 noon on Sunday.

Where

Iron County, Three Peaks Recreational Area. The Park is located on Mid-Valley Road, approximately 3 to 4 miles West of Lund Highway. **See Google Maps for directions.**

Field Day is Ham Radio's open house.

Every June, more than 40,000 hams throughout North America set up temporary transmitting stations in public places to demonstrate ham radio's science, skill and service to our communities and our nation. It combines public service, emergency preparedness, community outreach, and technical skills all in a single event. Field Day has been an annual event since 1933, and remains the most popular event in ham radio.

ARRL FIELD DAY



www.arrl.org



Annual RCARC Summer Field Day Potluck - Barbeque

The annual Summer Field Day Potluck - Barbeque will commence at 6:00PM. on Saturday June 28, 2025.

Everyone is welcome but those attending are asked to bring a side dish to share with other attendees.