

RAINBOW CANYONS AMATEUR RADIO CLUB NEWSLETTER



Club Website: www.rcarc.info Number 7 – Vol. 12 December 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

President:

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CQ, CQ, Merry Christmas and
Happy New Year



Presidents Message

Dear Fellow Amateur Radio Operators,
Hope you had a great November and a wonderful Thanksgiving! It is starting to feel like winter outside! December 6th will be our next club breakfast. This time it will be held as a potluck at Linda's (KG7PBX) house so I hope you can make it. Our Christmas party will be held at 6:00 PM on our next scheduled meeting day, December 9th and we will be giving away a range of Ham Radio prizes! Should be fun! We will also have our officer elections (current nominations are for the existing leadership team). The dinner will be a potluck so please bring a dish to share!
Winter Field Day is just around the corner and will be held on January 24-25, 2026. We will be setting up at the Iron County EOC located on Kittyhawk just like last year. For those who are interested in participating please let me know! Be prepared for cold weather!

Continued on Page 2

RCARC Club Nets:

7 a.m. Breakfast Net - Monday – Saturday – 146.760.
12:30 p.m. Daily – Utah Beehive Net On 7.272.
8 pm. Wednesday – Panguitch Net – 147.160.
8 pm. Thursday– Morse Code Net- This is a Zoom Meeting.
8:00 p.m. Thursday's (Mtn Time) – Western Digital Net. Using FLDIGI, FLMSG AND FLAMP – 3.581 +, 1500/MFSK32.
9:00 p.m. Daily – Friendship Net – 146.760.
11 am. Saturdays (Mtn. Time) QCWA – 160 Net, Utah Chapter, 12 pm. Freq. 7.272.
8 pm. Sunday's – New Harmony NetNet – Bumblebee Repeater. – 146.680.
7 pm Sunday's Southern Utah 2 Meter SSB Roundtable at 7 pm on 144.250 MHz

Local Repeaters:

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

Iron Mountain

146.760 MHz – Tone 123.0 Hz
146.980 MHz – Tone 100.0 Hz
448.800 MHz – Tone 100.0 Hz
connected to Dutton.
449.500 MHz – Tone 100.0 Hz – Off Air
448.400 MHz -- Tone 100.0/FM & DMR

Bumblebee/New Harmony:

146.680 MHz – Tone 100.0 Hz

Continued page 2

Save The Date

December 16, 2025

RCARC Club Meeting.

6:00 pm. Cedar City Senior Center,
489 E. 200 South. Presentation:

**Club Annual Christmas Party &
Prize Giveaway**

January 13, 2026

RCARC Club Meeting.

7:00 pm. Cedar City Senior Center,
489 E. 200 South. Presentation:

**Salt Lake National Weather
Service/Skywarn.**

February 10, 2026

RCARC Club Meeting.

7:00 pm. Cedar City Senior Center,
489 E. 200 South. Presentation:

**Amateur Radio Television. Russ
(N7BO) and Brant (KJ7LTQ).**

March 10, 2025

RCARC Club Meeting.

7:00 pm. Cedar City Senior Center,
489 E. 200 South.

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

As always, I would like to thank everyone who makes our meetings great by participating and asking questions. I would also like to thank all of our net controls for the nets and everyone who participates! I hope everyone has an opportunity to get out and play on the radio! We have our local nets as well as opportunities to participate on HF contests so get out there, have fun, and play on your radio.

Stay safe and healthy this
Holiday Season!

Cheers!

Fred (KI7TPD)

Local Repeaters continued. **From page 1**

Rowberry:

449.925 MHz – Tone 100.0 VHF
Remote

Dutton:

147.160 MHz + Tone 100.0 Hz.

Winlink- Gateways

Local VHF – K7HDX-10 – 145.030
Portable VHF – K7HDX –11-- 145.050
Local VHF – KG7VEI -- 145.070

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 December**

Merry Christmas and Happy New Year

Breakfast & Friendship Net Awards

April 2025

Breakfast Net		Friendship Net		
First Place	Second Place	First Place		Third Place
K2MFK - Kevin	KA7K - Art	K7HDX - Ron	W6DLW - Dennis	W0KLH - Kevin
K7ZI - Dick	KB7QXB - Shirleen	K7NKH - Lee	KB7QXB - Shirleen	
KI7TPD - Fred	N7BZO - Russ	KA7J - Lance	Second Place	
KI7WEX - Bonie	N7SIY - Sylvia	KI7LUM - Bruce	K7ZI - Dick	
KG7PBX - Linda	Third Place	KI7LVC - Tim	KI7LVB - Tammy	
W0KLH - Kevin	KI7LVB - Tammy	KI7TPD - Fred	KJ7LTQ - Brant	
KE6ZIM - Johnny	WA7GVL - Paul	KI7WEX - Bonnie	N7WWB - Darlene	
N7SND - Larry		N7BO- Russ	WA7GVL - Paul	
		N7SND - Larry		

Rainbow Canyons Amateur Radio Club Treasurer Report Nov 11, 2025

Bank balance Oct 1, 2025	\$2,655.34
Deposits	
Donation	+ 5.00
Membership	
KM7AES, K7DLD, K7BDP, KM7AGH	+ 210.00
KA7QJN, KK7BNZ(family), WA7GVL KK7SDR	
KK7WNN, KD6SFS, KI7LUU, KK7FLP (family)	
Expenses	
Rocky mountain Power (98 repeater elec exp)	- 11.93
 Bank Balance Oct 31, 2025	 \$2,708.31
Nov Outstanding	
Expenses -	
Rocky Mountain Power (due 11/14/25)	- 11.64
Funds Available after 11/14/2025	\$2,696.67
Waiting for - Check order credit	+ 36.21
Submitted by	
Linda Shokrian KG7PBX	
2025 RCARC Treasurer	
435-867-5914	

RCARC Upcoming Events

December 9, 2025 RCARC Club Meeting. 6:00 pm. Cedar City Senior Center, 489 E. 200 S. Northside of building, Lower level. **Club Annual Christmas Party/Prize Giveaway.**

January 13, 2025 RCARC Club Meeting. 7:00 pm Cedar City Senior Center, 489 E. 200 S. Northside of building, Lower level. **Presentation: Salt Lake City, National Weather Service – Skywarn.**

Winter Field Day, January 24th and 25th, 2026. More information to follow.

February 10, 2025 RCARC Club Meeting. 7:00 pm. Cedar City Senior Center, 489 E. 200 S. Northside of building, Lower level. **Presentation: Amateur Radio Television – Russ (N7BO) and Brant (KJ7LTQ).**

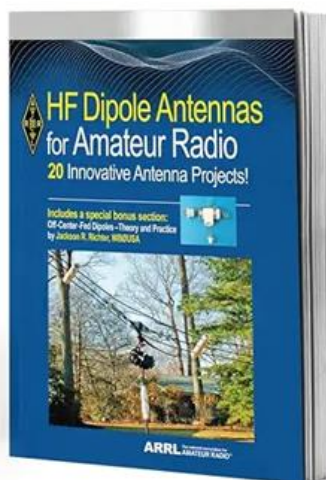
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RCARC Book Giveaway. Books are donated by Linda Shokrian (KG7PBX)

There will be no book giveaway in the month of December

The Book below was given away to Lance (KA7J) at the November 11, 2025 meeting



Congratulations Lance
See Picture on page 6

Contact Us.

Mailing Address:

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Cedar City, Utah 84721

Club E-mail:

cedarcity.rcarc@gmail.com

Newsletter E-mail:

rcarcnewsletter@gmail.com

Website

www.rcarc.info

Face Book Page:

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

To Join RCARC or Pay Dues:

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

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

Thank You

Notice

The December 6th RCARC Monthly Breakfast will not be at the Golden Corral as stated on page 1. It will be a Christmas Potluck Breakfast at Linda Shokrian's (KG7PBX) Residence. Please bring a breakfast dish to share. See Flyer page 16



Buzz's December Safety Tip(s)



Editor's Note:

This safety message is a repeat from last year but is still so relevant for today's world.

10 Ways to Stay Safe as You Deck the Halls this Holiday Season

The holiday season is here, and we want everyone to stay safe from home fires as they decorate their homes for the upcoming festivities.

Decorations like trees, lights and candles increase the risk of home fires during the holidays—with Christmas, New Year's Eve and New Year's Day being the top three days for home candle fires, according to the National Fire Protection Association.

Please stay safe from home fires—the nation's most frequent disaster—by testing their smoke alarms and practicing their home fire escape plan with free resources at [redcross.org/homefires](https://www.redcross.org/homefires). In addition, you can follow these 10 simple safety tips as you put up lights and ornaments:

1. Check all holiday light cords to make sure they aren't frayed or broken. Don't string too many strands of lights together—no more than three per extension cord.
2. If are buying an artificial tree, look for the fire-resistant label. When putting it up, keep it away from fireplaces, radiators and other sources of heat.

3. If getting a live tree, make sure it's fresh and water it to keep it fresh. Bend the needles up and4. If using older decorations, check their labels. Some older tinsel is lead-based. If using angel hair, wear gloves to avoid irritation. Avoid breathing in artificial snow.

5. When decorating outside, make sure decorations are for outdoor use and fasten lights securely to your home or trees. If using hooks or nails outside, make sure they are insulated to avoid an electrocution or fire hazard.

6. If using a ladder, be extra careful. Make sure to have good, stable placement and wear shoes that allow for good traction.

7. Don't use electric lights on metallic trees.

8. Don't forget to turn off all holiday lights when going to bed or leaving the house.

9. Keep children, pets and decorations away from candles.

10. If hanging stockings on the fireplace mantel, don't light the fireplace.



RCARC November Membership Club Meeting Pictures



Ron (K7HDX) bringin the meeting to order

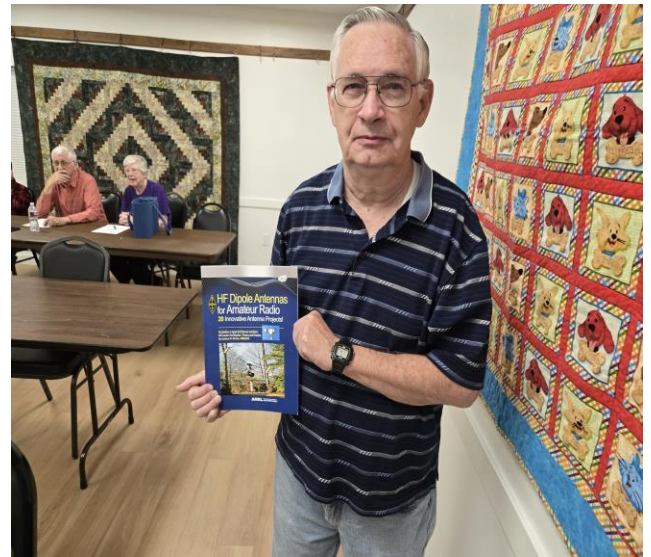


Club Members reciting the Pledge of Allegiance

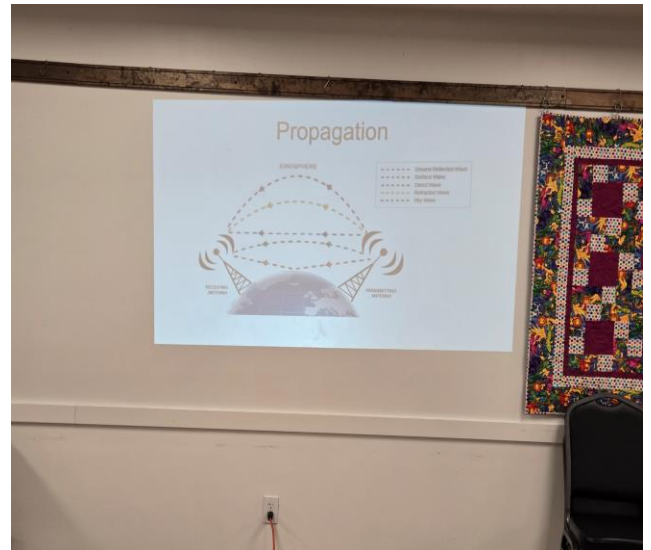


Ron (K7HDX) conducting meeting business

Continued next column



Lance (KA7J) was the November Book Winner.
HF Dipoles for Amateur Radio



Ken (KR7KR) Introduction to Propagation Power
Point Presentation



Ken (KR7KR) conducting the propagation
presentation



RADIO NEWS

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

EDITORIAL AND GENERAL OFFICES, 53 PARK PLACE, NEW YORK

Vol. 7

DECEMBER, 1925

No. 6

POWER BY RADIO By HUGO GERNSBACK

WHENEVER the subject of power by radio is mentioned to the average scientist or radio man, you will see him lift his eyebrows and look at you with a sort of pitying expression. The reason is simple. Take an ordinary broadcast station operating on 500 watts, then take the most sensitive measuring apparatus a mile away from the station, and you will find that the energy received at that distance is at the rate of about 1/100,000th of a fly-power or thereabouts; in other words, not enough to lift the smallest snowflake. At 100 miles, the power delivered from a broadcast station to a receiving set becomes so incredibly small that it is almost impossible to express it in figures.

Therefore, we should not be surprised, when we talk of power by radio, to find the radio scientist become extremely annoyed. Nevertheless, there are many things in the heavens that are not even dreamed of by our scientists of today, and power by radio is one of these. What seems impossible today is a reality tomorrow. Had you mentioned to any great scientist thirty years ago that it would be possible to speak in New York into an electrical instrument and, without any intervening wires, hear the voice in Europe, the scientist would, of course, have laughed aloud and have chided you for your nonsense. He would have told you that it is not possible to do it even over a transatlantic cable, because if you put only a little power on the cable you burn it out—so why attempt to speak across the ocean without any wires at all, and with no conducting medium to guide the electrical impulses?

Now from speculation to facts: Not so long ago, at the seashore, I had occasion to talk with an eminent radio man on the subject of radio power. He looked at me sharply, as if he doubted my sanity. Then he made several jocular remarks on the subject and refused to treat it seriously. So I finally told him that the thing had already been done, that power by radio was an accomplished fact, and that thousands of horsepower were being transmitted every day for thousands of miles.

This statement caused my friend to laugh uproariously, as he naturally assumed it to be a good joke. We were walking along the beach, and I told him that on the spot on which he was standing, right in front of his very nose, there was being transmitted a power of almost $\frac{1}{2}$ horse power per hour to the square foot. My friend still looking bewildered, I continued:

"The sun, 93 million miles distant from you, is shooting energy down to us by means of electromagnetic waves, which you probably will not deny. All wave motions, whether light, heat, or radio, being the same, and varying only as to their length, I believe that I have a perfect right to call light waves radio waves, because all of them are electromagnetic waves, according to Clerk Maxwell, Heinrich Herz, and many other undisputed authorities. The energy which we receive from our luminary is radiant energy, the same as Marconi's directed radio beam. Both are exactly

the same, except that the wave-length varies, radio waves being rather long, while light waves are short. You will also note that the energy which comes to us from the sun comes through space without any conductor whatsoever."

In Egypt and out west we now have sun power motors, which deliver quite a good deal of energy per square foot.—0.67 horsepower per hour, to be exact. Under these circumstances and in the face of these facts, why not be serious about the problem and look at it from a practical standpoint? Two or three years ago it was demonstrated by the well known American research scientists, Dr. E. F. Nichols and J. D. Tear, that radio waves can be made so short that they lapse into the heat wave band. The wave-length used was astoundingly low—only 1/100 of an inch. In other words, radio waves have become heat waves. What does all of this mean? Simply this—at some future date it will be possible to transform electrical energy into an electromagnetic wave which can then be radiated from an aerial or other tower into space, to be received at the receiving end with hardly any loss of power. As a matter of fact, I believe that sending power through space will be very much more economical than sending it through conductors, because conductors have resistance, whereas free space has none.

Naturally the question will immediately arise: Suppose we do accomplish broadcasting of power by radio by means such as just explained, what safeguard has the future power company? For, if power is broadcast, naturally every one within a certain radius will be able to tap the power by means of the future apparatus which will then be in vogue. The answer, too, is simple. If you have a power line running near your property today it is an easy matter to tap this power line and use the power. However, if you have a conscience and a proper fear for the law, you will do nothing of the sort, because you know that you would get yourself into trouble with the authorities. You cannot steal power any more than you can steal any other commodity. So finally, when power is radiated by radio or by other electromagnetic means, laws will be enacted quickly enough to protect the power interests that radiate the power. Meters will be installed just as meters are installed now, and there will be no more stealing of power than there is today.

My friend, while agreeing with me in the main, then had some doubts as to what would happen to radio broadcasting, should radio power transmission come into vogue. What would happen to the two? Would they not interfere with each other, making one or the other impossible?

"I don't believe that this will be the case," I said, "for the following and very good reasons: I have an idea that the power transmission, for reasons I mentioned a little while ago, will be done on exceedingly short wave-lengths—on the order of a centimeter or less. Broadcasting may come down to perhaps one or two meters, which will still leave a tremendous gap between the two, so that I do not think there will be any possibility of interference, any more than sound waves today interfere with radio waves."

RCARC Club Monthly Breakfast at the Golden Corral



Members enjoying their breakfasts



Additional view of the breakfast attendees

Continued next column



Wow, looks like Fred (K17TPD) is finished. It must have been good. Just look at that smile.



It must be contagious. Look at smile on Ron's (K7HDX's) face.

Continued on page 10



Hello everyone, Buzz here with a reminder that RCARC members will be voting for the coming year's 2026 club officers at the December 9, 2025 meeting.

I'm encouraging each and every one of you to attend and be part of the election process.

See the position nominees running for office on page 11. Please attend this month's meeting and vote for the person of your choice.



Etymology of Ham Radio

Have you ever wondered where the term Ham Radio came from?

Ham Radio is a popular term for amateur radio derived from "ham" as an informal name for an amateur radio operator.

The use first appeared in the United States during the opening decade of the 20th century.

Checkout the following URL for the rest of the story. I'm sure you will be amazed.

https://grokipedia.com/page/Etymology_of_ham_radio#etymology



Iron County EComm Group Participates in 2025 Winlink Emergency Communications Exercise

On Saturday November 1st the RCARC Iron County EComm Group participated in the 2025 Emergency Communications Exercise.

The objective of this exercise was to test our ability to:

1. Respond to a request to deploy into the field to assess damage from a natural disaster.
2. Submit a written, digital damage report using Winlink to the County Emergency Manager.
3. Provide a written activity log to properly document the event.

The scenario is that a major earthquake occurred in Iron County. The local emergency responders are overwhelmed, and the County Emergency Manager has requested our help to understand the scope of damage throughout the county.

The challenge was for the participants to monitor a designated local frequency to receive assignments from the County Emergency Manager to assess damage in specific locations within the county. Where damage is found, the participant was asked to send via Winlink utilizing the Community Emergency Response Team (CERT Windshield Survey Form (CWF) a real time assessment of the damage.

Each participant was given 3 locations in the scenario to report damage back to the Emergency Operations Center (EOC) for the Emergency Manager.

The CWS assessment information is then mapped and allows the Emergency Manager to click on the small balloon icons on the map and read the actual report sent via the Winlink CWS software.

See pictures of the exercise event control on page 13.

Continued on page 13

LITTLE OR NO SECURITY FOR SATELLITES' SENSITIVE TRANSMISSIONS

Meanwhile, teams at two major US universities have released a report revealing dangerous security issues with some sensitive satellite transmissions.

Using a commercially available satellite dish, a team of researchers at two US universities confirmed the lack of security protecting the at-times sensitive content being broadcast from satellites. The teams at the University of Maryland and UC San Diego said that they easily tapped into geostationary satellite transponders sending private consumer data, internal corporate communications, voice and SMS transmissions from mobile phones and - perhaps most disturbing - military transmissions that were particularly sensitive.

The research teams released their findings on the 13th of October and the contents were carried by the website Wired. They said that the satellites' extreme vulnerability was discovered with the use of nothing more than off-the-shelf radio equipment that is widely available on the market.

The teams concluded that at least half of the geostationary satellites carrying such data do not have effective encryption in place, leaving the contents of the transmissions accessible to hackers and others with the ability to monitor them.

According to the report, the researchers alerted many of the satellite operators after the discoveries were made. "In several cases, the responsible party told us that they had deployed a remedy." They included Walmart, T-Mobile and KPU. They note that remediation was still going on for other affected parties and, as such, the team did not identify them in the report. In the meantime, they said, end users are able to encrypt their network traffic via a Virtual Private Network and, on mobile devices.

RCARC Club Monthly Breakfast at the Golden Corral

Continued from page 8



Sylvia (N7SIY) arriving for breakfast.



Brian (KG7OOW) standing with Linda (KG7PBX) and George (AL7BX) in the back corner

RCARC 2026 Board Member Nominees

At the November 2025 RCARC General Membership Meeting the following Members were nominated for the 2026 Club Board Officers:

Position	Name	Call Sign
President	Fred Govedich	KI7TPD
Vice President	Ron Shelley	K7HDX
Secretary	Bonnie Bain	KI7WEZ
Treasurer	Linda Shokrian	KG7PBX
Newsletter Editor/Historian	Dennis L. West	W6DLW

Nominations for RCARC Board positions will remain open until December 9, 2025 at which time elections will be held. If you or someone you know would like to be nominated, please let one of the current Board members know.

INTREPID-DX LAUNCHES 'AMATEUR RADIO FOR THE GREATER GOOD'

Although many remember this annual competition as the Intrepid-DX Group's Youth "Dream Rig" Essay Contest, there have been some changes - some very big changes -- as the sixth annual challenge begins.

For the past five years, licensed hams 25 and younger were challenged to write an essay on a topic relevant to ham radio's place in the world. It's part of the Intrepid-DX Group's mission to encourage the growth of amateur radio in all nations around the world, especially in areas that are still developing.

This year's challenge focuses not just on words but action - the contest is being called "Amateur Radio for the Greater Good." In a departure from previous contests, this one asks the young hams to submit proposals to establish a public-access radio station somewhere in the US. The station can be intended for any public building - a school, a house of worship, a fire station, a hospital or a community center.

The winner will receive a complete HF, VHF/UHF station, including coax and antennas, to make their proposal a reality where it can be used for club use, mentoring, training and emergency communication. The winner will also receive their own HF radio for personal use.

The deadline for submission of proposals is the 10th of December, with the awardee's name announced on the 15th. They will be required to provide written permission from the facility that they have chosen, authorizing the installation of the station and antenna. The awardee may become the station's trustee. End



Reminder RCARC Dues are coming Due

Hello everyone, Buzz here with a reminder that the club dues are coming due at the end of this month

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	<input type="checkbox"/> \$ 15.00 Individual <input type="checkbox"/> \$ 20.00 Family	
Family	Name: Name: Name: Name: Name:	Call Sign: 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.

**Merry
Christmas**

Iron County EComm Group Participates in 2025 Winlink Emergency Communications Exercise

Continued from page 9

Photos by Terry West



Dennis (W6DLW) and Kevin (K2MFK) at event control.



Dennis (W6DLW) on radio while Kevin (K2MFK) logs incoming radio traffic.



Ham Radio Terms Word Scramble

	WORD	HINT
1.	TWERKNO	Connection of 2 or more PC's
2.	DIELNANI	Wired Services
3.	TELAISTLE	Orbits the Earth
4.	CAENSNR	Receiver
5.	NRADOBDAB	High Speed Data
6.	PYNELEHOT	Science of Transmitting Voice
7.	WDNTAIDHB	Capacity to Carry Signals
8.	XPITMXEUL	Combination of Several Signals
9.	CRPOLTOOL	A Set of Rules

Answers to Ham Radio Terms Word Scramble on page 20.



Some Morse Code Fun

---

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

See if you can decode the message

Using SDR (Software Defined Radio)

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

Software	Defined	Technology	Signals	Modulation
Processing	Reception	Flexibility	Performance	



PROPOSED SATELLITE WOULD PROVIDE 'SUNLIGHT ON DEMAND'

Our top story sheds some light on a satellite company's plan to shed some light - some real reflected light from the sun - back to the earth after twilight to benefit solar power users.

The FCC's Space Bureau has been asked to approve a proposed launch next April for a satellite in non-geostationary orbit that will deploy mirrors to provide "sunlight on demand," according to the company's website.

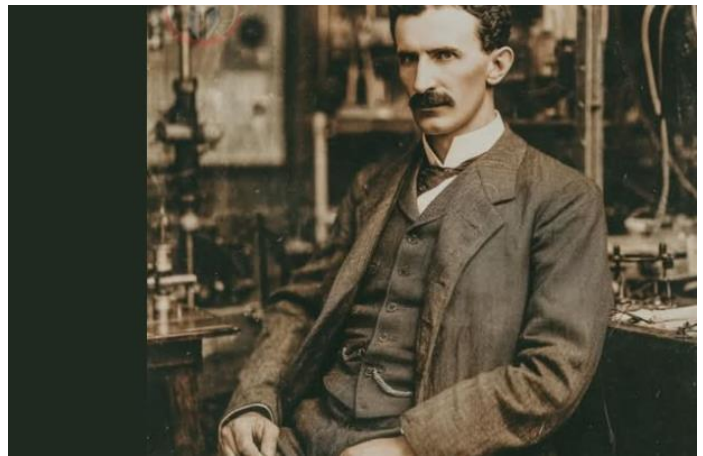
Reflect Orbital, a startup company based in California, filed its application this past summer for a license for what it hopes will be the first of 4,000 mirrored satellites that it wants to place in low-Earth orbit by 2030. The April launch is being eyed for a demonstration satellite which will carry a mirror that measures 18-by-18 meters, or 60-by-60 feet. Sunlight's reflection by that envisioned constellation would extend daylight beyond twilight by as much as four hours, increasing solar-power production to locations where Reflect Global has customers.

The company says that its technology supports clean-energy generation - but astronomers, biologists and other scientists have raised questions about the prospect of light pollution on human and animal health and the ability to study the skies effectively.

Astronomers in particular have said that lighting up dark skies would impede their work, which uses sensitive cameras. According to published reports, Reflect Orbital recently began working with astronomers to minimize the mirrors' impact on them. Meanwhile, scientists have observed how nocturnal species' lives can be disrupted and perhaps imperiled by artificial light during the night.

This past May, the US Air Force awarded the project a \$1.25 million Small Business Innovation Research contract to support its progress. End

Nikola Tesla's Vision



Long before the Internet, satellites, or smartphones, Nikola Tesla imagined them all.

In an interview with Collier's Magazine in 1926, he declared that one day, "the Earth will be converted into a huge brain," its parts connected by wireless technology.

He predicted instant global communication, face-to-face video conversations, and handheld devices so simple "a man could carry one in his vest pocket."

To a world still lit by gas lamps and driven by steam, Tesla's words sounded like science fiction. Yet nearly a century later, his vision became reality — the smartphone, the Internet, and a world linked by invisible networks.

Tesla saw technology not as a tool of power, but as an extension of consciousness — a global mind where distance no longer separated thought or emotion. He foresaw not just invention, but connection — the merging of humanity through waves of light. End



RCARC Christmas Breakfast Potluck

Saturday December 6, 2025 at 9:00 AM.
Linda Shokrian's Residence. (KG7PBX).
2438 W. Carmel Canyon Drive. Cedar City, Utah.
Off Cove Drive Just South of the Temple.

Please come join fellow RCARC Club Members at our December 6th Christmas Breakfast Potluck. Bring a breakfast dish to share with other attendees.

Note: There will not be a breakfast at the Golden Corral in December
If your dish needs a serving utensil please bring one.

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 not 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
3. The **preferred** way to pay is via the [Hamclubonline web site](#) - **link**: If you haven't been to this site and created an account, see the sidebar to the right.
 1. To minimize the fees associated with online payment, we requires that you renew for at least **two years** at a time.

4. Select **"Purchase"** and select either **"Goods"** or **"Services"**. *Please do not select anything under the "Personal" tab.*
5. Hit the **"Continue"** button. This will take you to a new screen.
6. Select your method of payment and hit the **"Send Money"** button
7. **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.

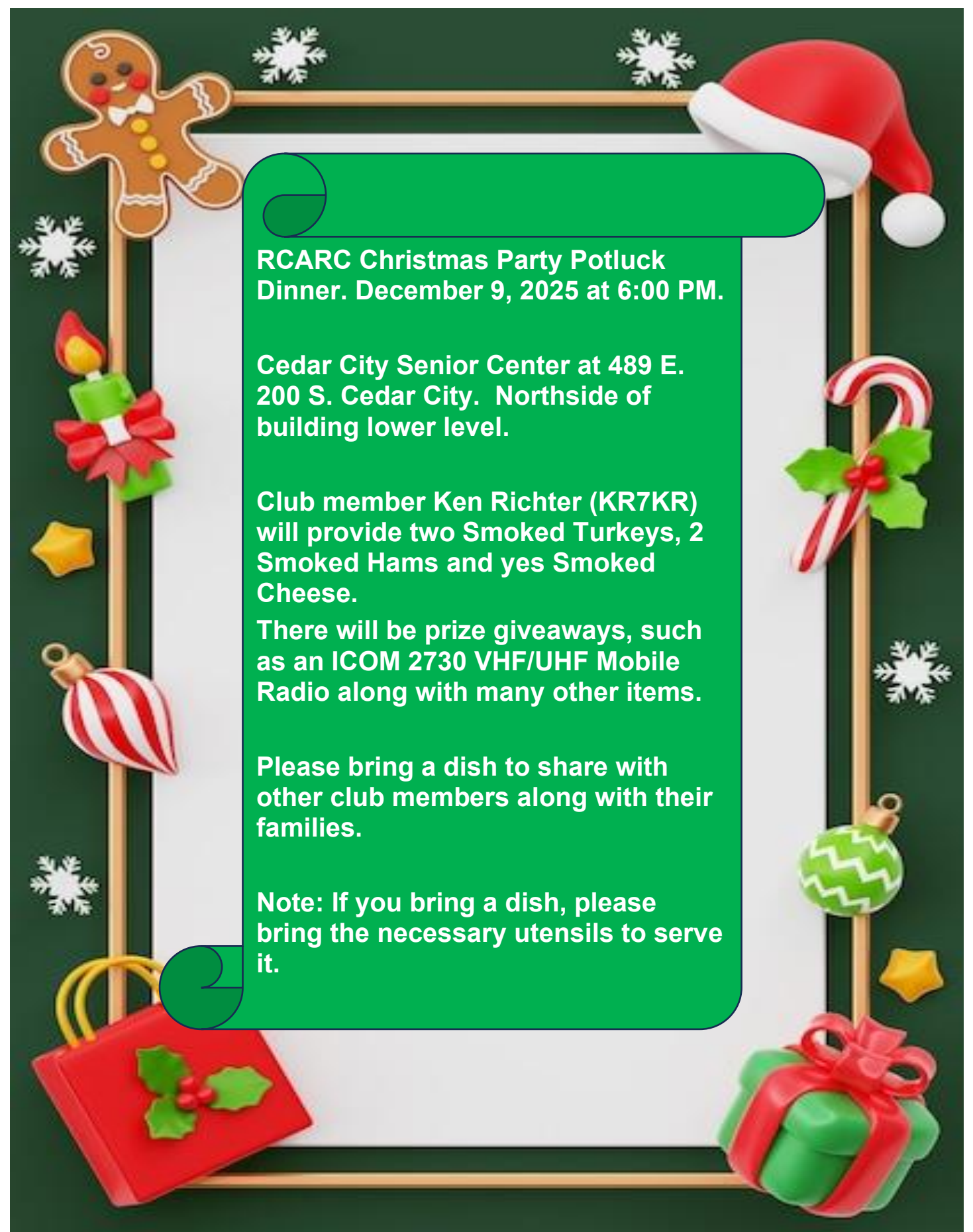
When you pay via PayPal, please include the following:

- 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.



Continued next column



**RCARC Christmas Party Potluck
Dinner. December 9, 2025 at 6:00 PM.**

**Cedar City Senior Center at 489 E.
200 S. Cedar City. Northside of
building lower level.**

**Club member Ken Richter (KR7KR)
will provide two Smoked Turkeys, 2
Smoked Hams and yes Smoked
Cheese.**

**There will be prize giveaways, such
as an ICOM 2730 VHF/UHF Mobile
Radio along with many other items.**

**Please bring a dish to share with
other club members along with their
families.**

**Note: If you bring a dish, please
bring the necessary utensils to serve
it.**

Some Ham Humor



Christmas Poem

Ham Radio Operators

James Fowler ·

'Twas the night before Christmas, when all through the town,
 The snowstorm was raging; the phone lines were down;
 The wind it did howl, the tree limbs did crack,
 I hope that St. Nick isn't forced to turn back.
 The wife making cookies, the kids making noise,
 While away in the shack, by my rig I was poised.
 The finals were glowing, the mike gain was set,
 I was chasing DX to see what I could get.
 The bands were all empty, the frequencies clear,
 Except one lone station that sounded quite nearby.
 He was calling CQ and my interest did pique,
 When he ended transmission with the words, "Old St. Nick".
 I answered back quickly, I used great dispatch,
 If this were St. Nicholas, good God, what a catch!
 We exchanged information, it was really quite graphic,
 Then he came back and said, "I've emergency traffic!"
 His reindeer were tired, his elves in a grump,
 If he didn't land soon, then his sleigh he would dump.
 I thought very carefully, I thought very hard,
 Then I gave him directions to my snow-covered yard.
 As he flew past my window, his hair like a mane,
 He reined in his chargers and called them by name:
 "Whoa, Anode! Whoa, Cathode! Whoa, Zener!
 Whoa, Diode!
 Stop, Heater! Stop, Grid leak! Stop, Bias! Stop, Triode!
 You're flying too low! you're flying too fast!"

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Heinrich Hertz and his invisible waves



Physicist Heinrich Hertz, after confirming the existence of radio waves, remarked, "It's of no use whatsoever." When questioned about potential applications of his discovery, he replied: "Nothing, I guess."

If Heinrich Hertz could witness today's world, where billions of people carry mobile phones that rely on radio waves, he'd likely be astonished.

His 19th-century experiments proved the existence of electromagnetic waves, but he saw no practical use for them. Now, those same waves power everything from smartphones and Wi-Fi to GPS and satellite communications.

In 1886, Hertz was focused purely on validating James Clerk Maxwell's theory of electromagnetism.

He built devices to generate and detect radio waves, showing they could reflect, refract, and travel through space. When asked about the utility of his discovery, he famously replied, "Nothing, I guess."

His work was groundbreaking, but he didn't foresee its technological revolution.

Ironically, Hertz's name now lives on in every frequency we measure, megahertz, gigahertz, and beyond.

His experiments laid the foundation for radio, television, radar, and mobile networks.

Though he died young at 36, his legacy pulses through every wireless signal we use today. The man who saw "no use" would be surrounded by a world built on his invisible waves.

[#wireless](#) [#thehistoriansden](#)



Ham Radio Terms Word Scramble Answers

From page 13

1	Network
2	Landline
3	Satellite
4	Scanner
5	Broadband
6	Telephone
7	Bandwidth
8	Multiplex
9	Protocol



Continued next column

Christmas Poem Ham Radio Operators

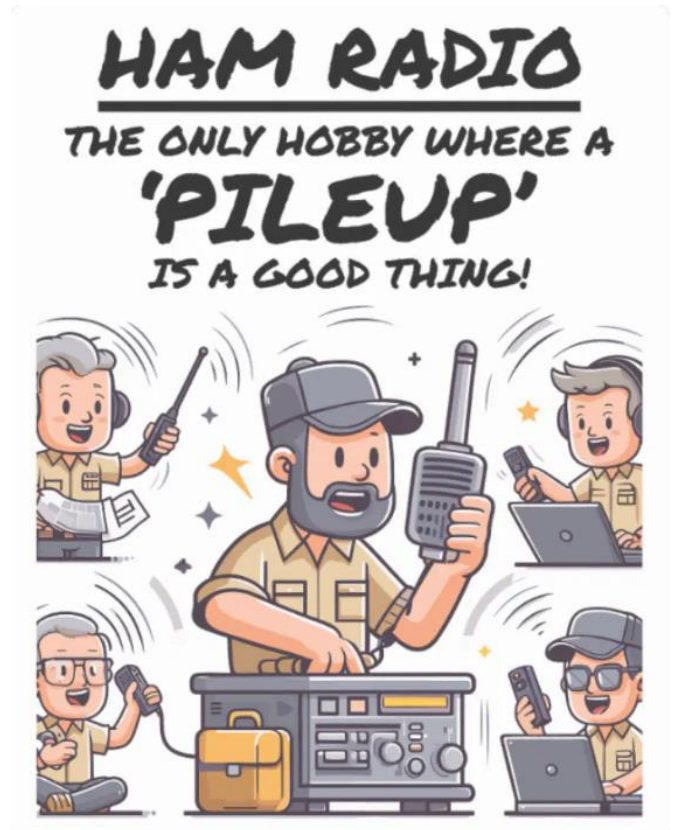
Continued from page 19

Look out, you dumb reindeer, his antenna mast!"
So, into the backyard the reindeer did drop,
St. Nick, the elves, and the sleigh went kerplop!
Then at the back door, I heard this loud knocking,
"Open up in there, or I won't fill your stocking!"
As I turned off the light and was leaving the
shack,
Into the house Saint Nicholas came from the
back--
His two-meter rig held to his hip with a strap,
"Hams do it in the shack" on the front of his cap.
The sack that he carried made his aged brow
frown,
And he handed me a card that read,
"QSL Via Bureau".
His clothes were all sooty, from his shoes to his
vest;
I felt like a novice taking his test.
His fingers were calloused and from what I could
tell,
This came from a straight key that I'll bet he used
well.
I offered him coffee, I offered him smokes,
I tried easing the tension by telling ham jokes.
Then he nodded his head and raised up his
thumb,
He smiled like an Elmer, did I ever feel dumb.
He grabbed up his sack and went straight for the
tree,
And placed in it a large present for me.
When he finished his work, he stood up, took a
bow,
Then out the back door to his team he did plow.
But I heard him exclaim as he flew o'er the land,
"Beware the FCC, friend, we were both out of
band!"
Merry Christmas from my house to yours!



Some Ham Humor

Continued from page 21

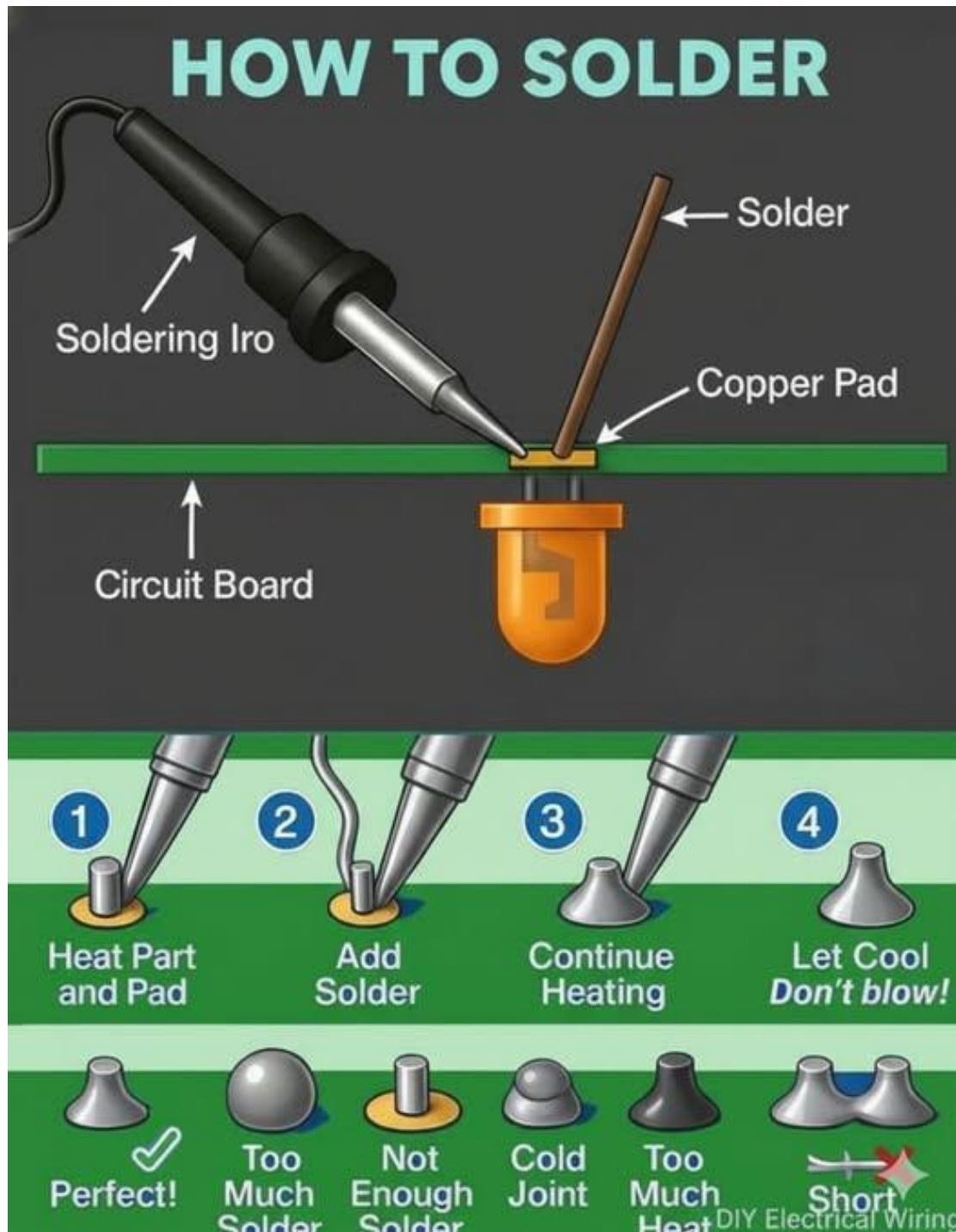


AMATEURS BY LICENSE,



PROFESSIONALS BY PASSION

Do It Yourself Soldering



The Golden Rule of Soldering: The top diagram shows the most important principle: Heat the parts, not the solder! Notice how the hot tip of the soldering iron is touching both the metal leg of the component (the LED) and the copper pad on the circuit board at the same time. You then apply the solder to this heated junction, not directly to the iron.

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Do It Yourself Soldering

Continued from page 22

The 4-Step Process:

Heat Part and Pad: Begin by touching the tip of your hot soldering iron to the point where the component lead and the copper pad meet. Hold it for a few seconds to get them both hot.

Add Solder: Continue heating the parts and touch the tip of your solder to the other side of the joint. The heat from the parts should instantly melt the solder, causing it to flow smoothly and evenly around the lead and onto the pad.

Continue Heating: Keep the iron on the joint for just another second to ensure the solder has fully "wetted" all the metal surfaces, creating a strong bond.

Let Cool: Remove the soldering iron and allow the joint to cool and solidify on its own. It's important not to blow on it, as cooling it too quickly can create a weak, brittle "cold joint."

The Results: Good vs. Bad Joints The bottom of the image is a fantastic cheat sheet for checking your work:

Perfect! ☒ You're aiming for a joint that is shiny and forms a concave "volcano" or "tent" shape around the lead. This shows the solder has flowed correctly.

Too Much/Not Enough Solder: These are easy to spot. You want enough to cover the pad and secure the lead, but not a giant blob.

Cold Joint: If your joint looks dull, lumpy, or frosty, the parts weren't hot enough. This is a very unreliable connection and should be redone.

Too Much Heat: This can burn the flux in the solder or even damage the circuit board itself.

Short: A critical error where solder accidentally connects two separate points, which will cause the circuit to fail.

Safety First! Always work in a well-ventilated area to avoid breathing in fumes, use a proper stand for your hot iron, and wear safety glasses.

[#Soldering](#) [#Electronics](#) [#DIY](#) [#HowTo](#) [#Maker](#) [#CircuitBoard](#) [#DIYElectronics](#) [#TechTips](#) [#Engineering](#) [#DIYRepair](#) [#LearnSomethingNew](#) [#fblifestyle](#)





Kenneth Bauer (KG7YIC) Obituary

Kenneth LeRoy Bauer passed away on November 18, 2025 due to the effects of cancer. He was 78 years old. Kenneth was born on September 22, 1947 in Cedar City, Utah, to Clyne Perkins Bauer and Pamela Clark. He was the only boy of their four children.

Ken was raised in Cedar City until 12 years old. His family then moved to Nevada.

Ken received his GED. He worked a variety of jobs, including repairing slot machines and pool tables, selling life and health insurance, grave digging, and truck driving (20 years).

His military service was in the army in Vietnam. He received the purple heart medal.

He married Carolyn Henneman on May 5, 2000 in Sparks, Nevada. They were later sealed in the St. George Temple on July 2, 2004. They have lived in Enoch for the past years.

Ken had a variety of hobbies that he enjoyed: chess, photography, reading, ham radio club, learning to sing church songs, motorcycle club, working on cars with his friend, Ron Ronci, and yard work, and caring for his vehicles.

He was a lifelong member of The Church of Jesus Christ of Latter-day Saints. He served as a counselor in a priesthood quorum, a secretary in a priesthood quorum, home teacher, and minister. He often volunteered to help when people were moving. He sang with his wife in the ward choir for several years. His last calling was with his wife. They served as the building cleaning coordinators.

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Kenneth Bauer (KG7YIC) Obituary

Silent Key

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He and Carolyn enjoyed attending the temple. He initiated a Bauer family reunion. For 10 years, he and Carolyn hosted a New Year's Day open house party for friends.

He was preceded in death by his daughter Anna Marie Bauer.

Kenneth is survived by his wife, Carolyn, and his two sons, Jason and Justin Bauer.

Funeral services will be held on Monday, December 1, 2025 at The Church of Jesus Christ of Latter-day Saints at 1390 E. Midvalley Road, Enoch, Utah. A viewing will be held from

10:00-10:45 a.m. with the funeral following at 11:00 a.m. Graveside services, with military honors, will be held at the Southern Utah National Cemetery at 1:00 p.m. located at 2181 1600 S. Cedar City, Utah.

Services are under the direction of Cedar Valley Funeral & Cremation.

