

RAINBOW CANYONS AMATEUR RADIO CLUB NEWSLETTER



Club Website: www.rcarc.info Number 6 – Vol. 10 October 2024

Club Meeting Information

The RCARC meets at 7:00 p.m. on the 2nd Tuesday of each month at the Cedar City Senior Center, 489 E. 200 South. Down Stairs.

2024 Club Officer's

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KI7TPD

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CQ, CQ, Halloween
Welcome to Fall



Presidents Message

Dear Fellow Amateur Radio Operators,

Fall is finally here with the promise of cooler temperatures! Before long we will be watching the first snows so get out and play on the radio before the first snows hit. The Cedar City ½ marathon was a great success again this year! This event shows how we can work together to help out our local community and the organizers were really happy to have our help. Everything went very well so thank you to all of our members and keep up the good work everyone!

Our September presentation from N7KM Ken was a lot of fun and a great learning opportunity for new and experienced Ham's alike. For October we will have a Q&A round table for tips on radio operations for new and old HAMs.

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.

Linked to Iron Mountain

Save The Date

October 8, 2024

RCARC Club Meeting.

7:00 pm. Cedar City Senior Center,
489 E. 200 South. [Ham Radio
Roundtable Discussion.](#)

November 12, 2024

RCARC Club Meeting.

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

December 10, 2024

RCARC Club Meeting.

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

January 14, 2024

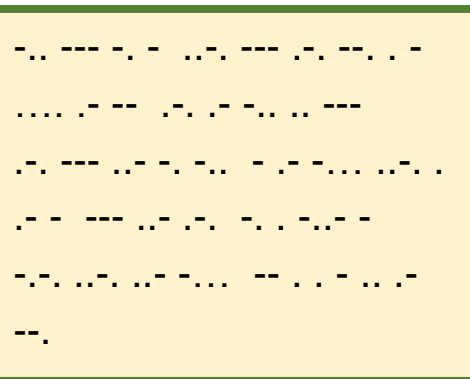
RCARC Club Meeting.

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

President's Message Continued from page 1.

Remember if you need help with setting up your radio, software, or other equipment please ask your fellow HAMS for help. Part of the fun is helping others! As always, I would like to thank everyone who makes our meetings great by asking questions. I would also like to thank all of our net controls for the nets and everyone who participates!

Cheers!
Fred (K17TPD)



Here is a Great Tip

**The Utah VHF Society's
Tips for new Hams**
Please access URL below

https://utahvhfs.org/tips_for_new_hams.html

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 October**

Welcome to Fall Happy Halloween

Breakfast & Friendship Net Awards

September 2024

Breakfast Net		Friendship Net		
First Place	N7SND - Larry	First Place	Second Place	Third Place
K2MFK - Kevin	WA7GVI - Paul	K7NKH - Lee	KA7J - Lance	KI7LVB – Tammy
K7ZI - Dick	Second Place	K7ZI - Dick	KI7LUM - Bruce	W6DLW - Dennis
KC6WFI - Anthony	KI7SCX - John	KE8OYI Caleb	KI7LVC - Tim	
KE8OYI - Caleb	N7SIY - Sylvia	KI7TPD - Fred	KJ7LTQ - Brant	
KG7PBX - Linda	Third Place	KI7WEX - Bonnie	W0KLH - Kevin	
KI7TPD - Fred	W0KLH - Kevin	KK7UBC - Tommy	WA7GVL - Paul	
KI7WEX - Bonnie		N7SIY - Sylvia		
KK6FLO - Dave		W9YNK - Bejamin		
KK7UBC - Tommy				

Rainbow Canyons Amateur Radio Club Treasurer Report Sept 10, 2024

Bank balance Aug 1, 2024 (reconciled)	\$3,158.50
Expenses	
Rocky mountain Power (98 repeater elec exp)	- 22.36
Check # 133 Field day Exp	- 156.34
 Bank Balance Aug 31, 2024 (Reconciled)	 \$3,979.80
 Sept Expenses	
Rocky Mountain Power (due 9/16/2024)	- 22.05
 Funds Available afer 9/16/2024	 \$2,957.75

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

RCARC Upcoming Events

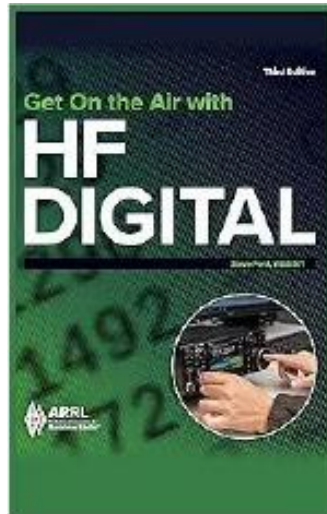
- October 5, 2024. Club Monthly Breakfast** at the Golden Corral, 1379 S. Main Street, Cedar City – 435 263-0222
- October 8, 2024. RCARC Monthly Membership Meeting** at the Cedar City Senior Center, 489 E. 200 S. Northside of building, lower level. Time 7:00 pm.
- October 10, 2024. RCARC EComm Membership Meeting** at the Cedar City Heritage Center, 105 N. 100 E. Time 5:30 pm.

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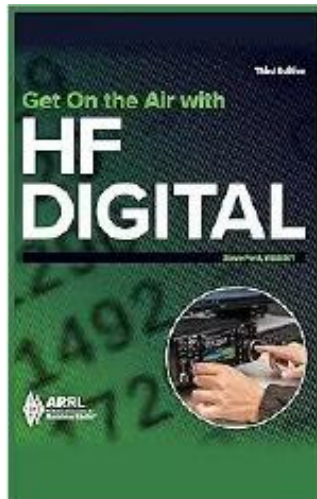
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RCARC Book Giveaway. Books are donated by Linda Shokrian (KG7PBX)

Shown below is the book that will be given away at the October 8, 2024 meeting.



The Book below was given away to Anthony Karbowski (KC6WFI) at the September 10, 2024 meeting



**Congratulations Anthony
Picture on page 8**

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

Did you know

If interested check out the URL below. It shows all the earthquakes happening in Utah in real time.

<https://quake.utah.edu/earthquake-center/quake-map>

When map opens it can be made larger using the - / + icons. Locate Utah on the Map. Use you left click button and hold down and move to the map location you want. Left click on the yellow dot and it will provide basic information. Click on view event page for details.



Buzz's October Safety Tip(s)



October is Fire Prevention Month Electrical Fire Safety Tips

All electrical systems gradually deteriorate over time and it's recommended that a licensed electrician inspect your electrical system every 3-5 years. That can vary depending on how old your home is how many appliances you have.

Ask yourself these Questions

- Is your home more than 15 years old?
- Do your lights flicker frequently?
- Do you have aluminum wiring in your house?
- Do you have fuses or breakers that have tripped in the last year?
- Do your outlets have loose fitting plugs?
- Do your circuit breakers frequently trip?
- Are your outlets and switches not working normally or discolored?
- Are outlets only 2 pronged instead of 3 pronged?
- Do the lights begin to dim when you turn on other appliances?
- Are extension cords or adapters used frequently to create additional outlets in your home?

If your experience any of these signs or have concerns about your electrical system, you should have your electrical system inspected now. This can help you avoid dangerous electrical fires and expensive repairs in the future.

Understand what can lead to an electrical fire.

Top 3 reason for Electrical Fires

Continued next column

#1 Degradation

- Natural consequence of long-time usage
- Old knob & tube equipment
- Lots of loose connections
- Vermin & water damage
- Frayed insulation
- Installed under outdated codes
- Still have fuses
- Aluminum wiring

#2 Increased Power Load

- The load today is much heavier than many older electrical systems were designed to handle.
- There are more electronics available to us today, than ever before. All of which use more power!

#3 Incomplete work

- Homeowners or unskilled handymen complete work that is not up to code!

Do-it-Yourselfer's, mostly do this to save money...

Be Prepared.

It is always important to be prepared for the possibility of an electrical fire. You should always have smoke detectors installed in their recommended locations and tested every 6 months. Check out this great video on smoke detectors safety. NEVER try to extinguish an electrical fire with water alone. Instead, use a Class C fire extinguisher, which can effectively put out fires that originate around wiring, outlets, appliances and circuit breakers. Then turn off the power at the electrical panel to prevent the fire from growing. Even if you think you can fight the fire, remember that your safety is most important. If the fire is beyond your control, evacuate your home immediately and call 9-1-1.

100 + THINGS TO DO IN HAM RADIO

Action or Activity	Comments	Action or Activity	Comments
2M SSB or CW	Working the "weak signals" bands can be fun	Boat anchors	Collect and operate old radios. Restore old radios. Cheap fun?
6M – What a great band!	Operate the Magic band on SSB or FM	Book – read one – wire one	Hundreds of books – new – old – used - collecting
10M -This band can really jump	Join 10-10 International and keep the band open	CW - Learn it	You only know half the fun of Ham Radio w/o it.
75 Meter Roundtables	Sometimes called the groan and moan nets!	CW – get your speed to 20 wpm	Get your speed up using RUFZ – see the CW SIG page
160M – Get on the band	The Gentleman's Band, may need a different antenna.	Christian Amateur Radio Fellowship (CARF)	Join your friends on the air
AM – Operate this "old time mode"	Join the AM net each Wednesday	Civil Air Patrol	Do the radio work for CAP
AMSAT – Join and work the universe	Operate one of the amateur satellites like AO-51	Class – teaches a Ham cram	Teach a Ham Class and help others enjoy the fun
APRS – Find Yourself	And let other know where you are	Club meetings	Don't even get on the air, just attend club meetings – FYN!!
ARES – Help your NF ARES Group	Find your local AREA Group and start having fun with them. Pass the IS Courses	Club – Join/renew NFARL	A more general term – join a ham club! Or join 2 or 3 clubs. More clubs, more fun
ARES Nets	Check into NF ARES and surrounding counties.	Computer Control	Computer control one or more rigs in your shack – Ham radio deluxe
ARRL	Join! Support you hobby with lobbying in Washington. Who else is?	Contesting	Make a lot of contacts and work on your operating skills at the same time
Air Mobile	Work from an airborne station	County Hunting	Work 500, 1000 ... and all 3077 of them
Antenna Party	Friends don't let friends build and install HF antennas by themselves	Crystal Radio, build one	Show how simple a radio can be
Antennas – Build' em and use' em	Wire antennas, Yagi's, quads, hex beams, then argue about them.	DSTAR	Get on the digital bandwagon! It's everywhere, it's everywhere! Use a Dongle from your computer
Astronomy – Radio version	Looking for signals in all the wrong places	DX – Work other countries	DX – the ultimate contact sport – There are 337 country entities so this should keep you busy
Audio – make it better	Hiel, Berringer, audio filters, all things audio	DX-pedition	Pick it up and hit the road to that small island
Badge – Tell everyone your callsign	Order your club badge today on the NFARL website/MART	Dayton Hamvention	Attend this once in your life time. Bet you can't "eat just one"!
Balloonatics	Hams who put expensive transmitters in balloons and watch them fly away.	Digital Modes	Work one or many of these various free digital modes available for download such as FLDIGI.
Bicycle Mobile	Talk while riding, look ma no hands, look ma no teeth	Echolink Computer and Ham Radio	Work repeaters/other hams via your computer

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RADIO NEWS

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

EDITORIAL AND GENERAL OFFICES, 53 PARK PLACE, NEW YORK

Vol. 6

OCTOBER, 1924

No. 4

What Outfit Shall I Buy?

By HUGO GERNSBACK

THIS editorial is addressed to those who are thinking of acquiring a radio outfit for their entertainment. The editor is continually in receipt of letters from readers in every part of the country who wish to know what outfits they should buy. As a rule the correspondents fail to give some of the most important information, namely: First—for what service the outfit is intended; second—what range it should cover; and third—what price can be expended upon the set in question.

In the first place it should be understood that a radio outfit is not very different, as a utility, than an automobile, a phonograph, a suit of clothes or a pair of shoes. Individual taste, usually, is a predominant factor in the choice. Before an adequate reply can be made to anyone, the price, which probably plays the most important part, should be considered.

You can get good radio outfits at costs ranging from \$10 to \$500. If you are located in or near a city and wish to receive local stations only, and if you do not care to spend more than \$10, there is a large number of good crystal sets to choose from; and these sets are not as mediocre as many think. The crystal outfits are famed for their clearness in reproducing sound, and, while they do not give very loud sounds, the tone is usually sweet and clear with a good pair of phones. Loud speakers—in the overwhelming majority of cases—cannot be used with them. With a crystal set, as a rule, radio concerts are not heard clearly further than 15 miles from a broadcast station. While some have received from stations as far as 1,000 miles, no honest manufacturer will claim a great percentage of his sets will actually cover such a range.

We next have the single tube set. If this set is of the regenerative variety—and there is a number of good ones to choose from—the volume from local stations will be very much greater than with the crystal outfit. Good one-tube sets bring in broadcast reception with sufficient loudness to be heard all over the room, in many cases, when the telephone receivers are placed on the table. Such sets usually are just as good for long distance as the multiple tube sets. By that we do not mean to imply that a one-tube set will bring in a 1,000 mile station as loudly as a multiple tube set, but you will be able to hear it well in your telephones and that, after all, suits many people. With such a set, an aerial and ground are, of course, required. The set cannot operate a loud speaker except under very unusual circumstances or in the near vicinity of a broadcast station. Single tube sets, unless they are of the radio frequency-crystal combination, or reflex-crystal combination, are never recommended for loud talker purposes by conscientious manufacturers or honest dealers. A single tube set generally gives very clear reception and good volume, is cheap to operate and fills every want for the man who does not care to expend more than \$25 or \$30 for the complete outfit, which figure includes the outfit, aerial equipment, two sets of dry batteries (both "A" and "B") and phones.

From the one-tube set upwards it becomes largely a matter of how much the purchaser is willing to pay. The crystal and one tube sets may be compared to the Ford car, whereas all the other larger and multiple tube sets can be compared to the higher priced cars. The Ford car does the service and takes its owner where he wishes to go, just as well as a \$10,000 car does. It all comes down to the question of price and utility. As a matter of fact, sometimes the crystal or one-tube set is preferable to the large multiple tube sets, mostly for reasons of portability. A good one- or two-tube set is ideal where there is not much room to be spared at home or when the set is to be carried around for camping purposes, or by salesmen, and for the general traveler who wishes to take his outfit wherever he goes.

Coming now to multiple tube sets it should be understood that, as a rule, it takes a three-tube set, to operate a loud speaker. While certain two-tube sets will bring in local stations with fair volume they cannot be relied upon to do so under all circumstances. It should be understood—and the writer has already mentioned this above—that the multiple tube set does not necessarily bring in any more distant stations than the single tube set. What it does, however, is to bring them in much louder. It might be said that the more tubes are used, the louder will be the broadcast reception; but unless the set is a very unusual one, it is not actually more sensitive than a well designed single tube set. The exceptions to this are some of the well designed tuned radio frequency sets and the Super-Heterodyne class. Most of these sets cover greater distances than the single tube variety.

Up to and including a four-tube outfit, speaking generally, it is necessary to use either an outdoor or a good indoor aerial. So-called loop sets, unless they are exceptional, require at least four or more tubes. It is true that there are some three-tube reflex sets that work on a loop, but we doubt if such sets can receive from great distances. They will probably serve well enough for local stations.

So much for the technical side of the question. The next thing most people ask is, why outfits have such a wide variety of prices. Again the answer is that the make and style govern the price. You can buy a good pair of shoes for \$3 and you can buy a good pair of shoes for \$20, according to the material. Generally speaking, the higher priced sets come in better finished cabinets, the tendency now being towards "furniture" sets. Such apparatus ranges from \$150 upwards, and may not work better, speaking of the radio end, than a set costing \$60. The difference in price is made up in the cabinet. If your tastes run along expensive "period" cabinet designs made of rare woods, elaborately finished, you are naturally expected to pay more money for it than for those finished in cheaper cases.

When it comes to a choice when buying an outfit, the foregoing paragraphs will probably be a fair guide, but now comes the important question of how to select from the different makes. There may be 50 different five-tube sets on the market ranging in price from \$60 up to \$500. As a guide, we would say to the prospective buyer—buy only a well advertised set. As a rule, the advertised sets are made by reliable manufacturers who are known for their stability and their integrity. Unknown sets or obscure makes should be shunned, just as you would shun an unknown automobile or an unknown phonograph. If something goes wrong with a widely known and advertised radio set you will find little difficulty in having the trouble rectified. This, as a rule, is not the case with the unbranded and unknown sets.

As for the best time to buy a radio outfit, that time is *now*. All the latest models are on the market this very minute. Do not let the argument that radio outfits will be greatly improved *in the future* deter you from buying a set. Of course radio outfits *WILL* be improved in the future. So will automobiles, houses, shoes and everything else. You know full well that five years from now the automobile will be vastly improved over your 1924 model. That does not deter you from buying your 1925 car. The same logic should be used when contemplating the purchase of a radio set. Even with *all* improvements coming in radio, your set will be good for several years, just as an automobile or a phonograph.

This does not hold true only of radio sets, but of every other merchandise as well. If you stop to reflect about it for a minute you will see the truth of it.

RCARC September 10, 2024 Membership Meeting Pic's.



Members arriving and getting ready for the meeting to start.

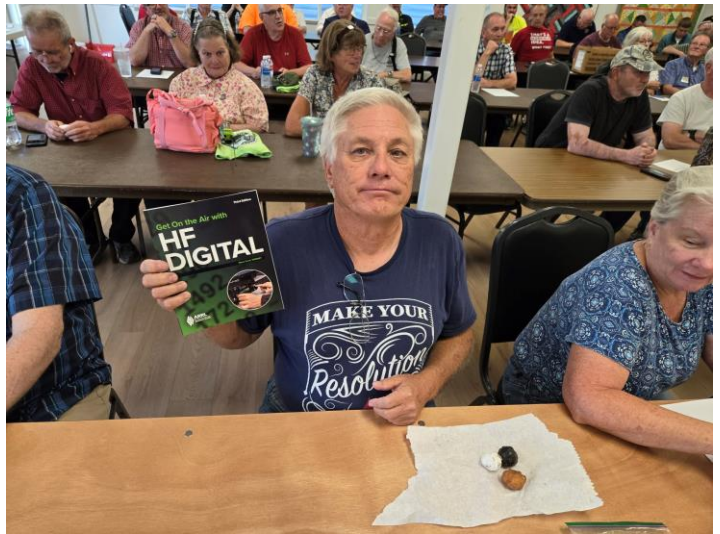


Members citing the pledge of allegiance.



Fred (KI7TPD) conducting meeting business

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Anthony (KC6WFI) Holding the book he just won in the book give away drawing. HF Digital.



Ken Munford (K7KM) presenting to the group a presentation on antennas.

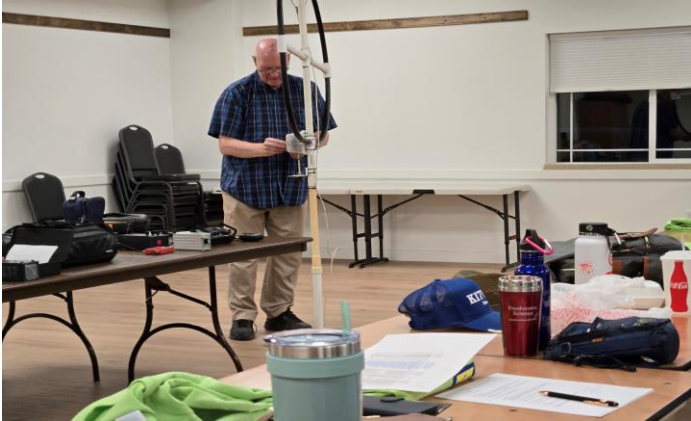


Ken (K7KM) using visual aid drawings to show how antennas work in ref. to RF Power, Magnetic Waves etc.

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RCARC September 10, 2024 Membership Meeting Pic's.

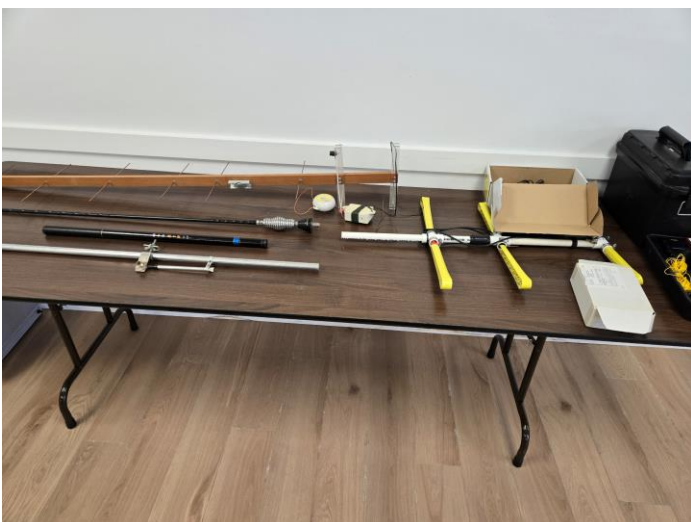
Continued from page 8



Here Ken (K7KM) is demonstrating a loop antenna,



Equipment Ken brought to share in regards to antennas and radios.



Additional antennas for the attendees to look at.

HamCon Zion Program Presentations now available on YouTube or HamCon Zion Website

Please access 1 of the following
URLs to access the presentation
videos.

<https://www.youtube.com/@HamConZion>

https://www.hamconzion.com/?utm_campaign=6934ae35-bf6b-47fd-be25-ecb0e73f913f&utm_source=so&utm_medium=mail&cid=2fa77a84-633a-40dd-a50b-8de54081ff06



Happy Halloween

ARES® Briefs, Links

ARRL's [Simulated Emergency Test \(SET\)](#) is [October 5 - 6, 2024](#). This nationwide exercise is the chance to test your personal emergency-operating skills and the readiness of your communications equipment and accessories in a simulated emergency-like deployment.

New Emergency Communication Courses from ARRL -- ARRL Director of Emergency Management Josh Johnston, KE5MHV, joins the *On the Air* podcast to share details about [ARRL's updated Emergency Communication courses](#), which have been broken into three successive levels – Basic, Intermediate, and Advanced. The courses are available free of charge at the [ARRL Learning Center](#). The *On the Air* podcast is available on blubrry, iTunes, and Apple Podcasts. It is a monthly companion to *On the Air* magazine, a publication for beginner to intermediate ham radio operators, produced by ARRL.



Get Ready for JOTA/JOTI

[Jamboree On - The - Air \(JOTA\)](#) and [Jamboree On - The - Internet \(JOTI\)](#) is the world's largest digital Scout event using amateur radio and the internet. The event, to be held October 18 - 20, 2024, connects scouts worldwide for a full weekend of online activities that promote friendship and global citizenship.



Millions of scouts participate and during the 2014 event, worldwide Scouting participation included 1.1 million Boy Scouts and 200,000 [Girl Guides/Girl Scouts](#), for a total participation of over 1.3 million--the largest Scouting event in the world.

Amateur radio operators use their stations to allow the scouts to make contracts. While many scouts are licensed radio operators, the majority participate in JOTA/JOTI through stations operated by local radio clubs and individual radio amateurs. Some operators use television or computer-linked communications.

Throughout the years, JOTA/JOTI amateur radio stations have been set up in unusual locations including the top of a mountain or on a boat. The event also features a variety of informal education activities, including webinars, global campfires, talent shows, live shows, fun challenges and more through an interactive 3D campsite.

More information about JOTA/JOTI, including rules, regulations, callsigns and worldwide frequencies can be found at [Jamboree on the Air \(JOTA\) \(arrl.org\)](#). Additional information is available in the [JOTA-JOTI Ham Radio Handbook](#).

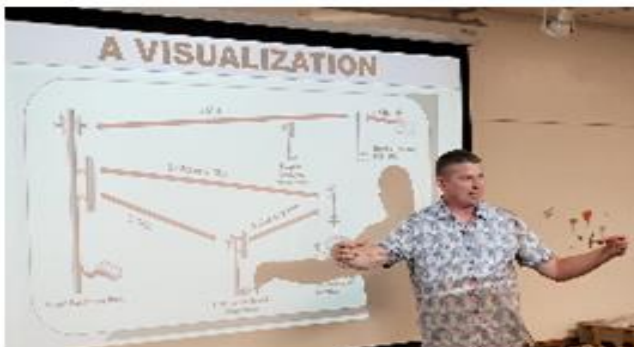
ARRL Utah Section Expanding Emergency Communication Capabilities

A new and faster way to communicate during emergencies is being planned by the Utah Section of the ARRL ARES® group, which serves Salt Lake County, the most populous area in Utah.



ARRL Utah Section Public Information Coordinator Scott Rosenbush, K7HSR, said that discussion and planning for mesh networks using [AREDN](#) (Amateur Radio Emergency Data Network) technology is on the drawing board.

A recent meeting and presentation by Brett Pruitt, K7BDP, Utah Section Emergency Coordinator, was attended by a large group of ARES amateur radio operators. More than a dozen Salt Lake County hams have already invested in AREDN technology with an interest in helping to create and support an emergency mesh network in the county. Southern Utah ARES groups have already created a five-county mesh network that can be used for emergency communications.



Brett Pruitt, K7BDP, Utah Section Emergency Coordinator

Continued next column

“We hope to ultimately connect to [STARLINK](#) and run the mesh network over that,” said Pruitt. “On November 2, we will have an exercise with hospitals in the northern and southern Utah ARES groups using the regular internet. After that, if STARLINK is more readily available, we will run the drill again without the internet to fully test the new technology.” Pruitt said the goal is to have everything working by early 2025.

“The needs of participating agencies have evolved to require more than analog voice and low-speed data modes,” said Rosenbush. High-speed mesh networks using AREDN software will allow amateur radio to play a larger role in supporting these agencies in emergencies.”

The Utah Section is working to extend this technology, said Rosenbush. “Our hope is to bring this technology to other parts of the state to increase the communications capability and value of amateur radio to partner agencies.” End.

RCARC VE Testing



Shown above is Bryan Crapo who on September 10, 2024 not only aced his Technician Class test but also aced the General exam.

His call sign is KK7JVI.

Congratulations Bryan

2024 Cedar City Half Marathon



The 15th annual running of the Cedar City Half Marathon down Cedar Canyon is one of the most spectacular downhill closed-canyon runs ever. Whether it's the sound of Coal Creek, breathtaking views, enthusiastic aid station volunteers, or energy-pumping music with crowds urging you to finish strong—the focus of the "Cedar Half" has always been on a quality runner experience over quantity.

This year's event involved 25 RCARC Club members as they entered Cedar Canyon in the early morning hours of Saturday September 7th. Members arrived at the pre-assigned Aid Station locations and started the process of setting up their portable Ham Radio Stations.

A roll call of all stations was conducted at 6:30 am. After correcting a few communications issues the event was underway at 7:00 am as the runners entered SR14 and started downbound toward Cedar City. RCARC members advised Event Communications (Control) of the first runners as they passed their location. In addition, club members if needed would be able to communicate with Control in the event of Medical or other types of emergencies, or if runners needed other types of assistance along the event course.

This year's event went very smoothly and all runners made it to the finish line. **See Pictures below.**



Dennis (W6DLW) on radio and Paul (WA7GVL) logging traffic at event Control.



Marathon runners arriving at the start line



Dennis (W6DLW) and Paul (WA7GVL) at Event Communications (Control) just before Marathon start time



Runners in line taking care of business before race start

Continued on page 15

Continued next column

National Preparedness Month: Have a Go Kit

September is National Preparedness Month, and ARRL is working to help radio amateurs have a plan for family resilience. Many hams enjoy public service as part of their operating. Being ready to activate for a served agency through the ARRL Amateur Radio Emergency Service® (ARES®) involves not only being licensed and trained, but also prepared and equipped.

ARRL Director of Emergency Management Josh Johnston, KE5MHV, suggests that hams and their families have a “go-bag”. He says there are a few things to consider: “You need to be able to function while activated, so that means you need a kit for your needs and a kit for your radio needs. If your family is impacted by the situation, they also need to have some gear at the ready.”

On the ARRL website, there’s an [Emergency Prep Kit Checklist](#). It lists the common items such as food and water for several days, a first aid kit, medications, chargers for your devices and other useful items.

Emergency Prep Kit Checklist

It’s hard to think clearly during an emergency, and the last thing you want to do is leave something important behind. Use this checklist to gather essential items and prepare today for what might happen tomorrow.

IN CASE OF EMERGENCY, HAVE THESE ITEMS READY

- Food and Water**
A 3-day supply of water and food. Include 1 gallon of water per person per day and non-perishable food items like energy bars, cereal, dried fruit, nuts, peanut butter, and canned meats.
- Utensils**
Eating utensils, plates, cups, bowls, a can opener, and paper towels.
- Clothing**
A change of clothes for each person, rain gear, extra shoes, and waterproof boots.
- Day-to-Day Living Items**
Garbage bags, toilet paper, matches in a waterproof container, a multipurpose tool, dust masks, duct tape, plastic sheeting, Mylar® blankets, a whistle, local maps, and bleach.
- Personal Items**
Toiletries, an extra pair of glasses/contact lenses, tweezers, and nail clippers.
- First Aid Kit**
Sterile gloves and dressings, bandages, soap, antibacterial towels, hand sanitizer, burn ointment, antibiotic ointment, eye wash, and a thermometer.
- Medications**
A 3-day supply of prescription medications, pain relievers, cold and sinus relief, anti-diarrhea medicine, antacids, and laxatives.
- Devices**
A cell phone, a charging cord, a portable charger or battery pack, a hand-crank radio, an LED flashlight with extra batteries, and a headlamp.
- Important Documents**
Copies of birth certificates, driver’s licenses, insurance cards, medication lists, medical records, proofs of address, passports, wills, bank records, marriage licenses, adoption papers, and emergency contact lists.
- Cash**
Small denominations and change.

ADDITIONAL ITEMS

- For Babies**
Diapers, baby wipes, baby powder, diaper rash cream, baby wash and lotion, formula, baby food, bottles, bibs, burp rags, pacifiers, teething tablets or gel, and blankets.
- For Seniors**
Medications, hearing aids and batteries, extra eyeglasses, syringes, portable oxygen, mobility supplies, and contact information for doctors and caregivers.
- For Children**
Books, toys, puzzles, crayons, and comfort items.
- Ham Radio Gear**
A handheld, a mobile radio, chargers, extra batteries, antennas, power cords, and a laptop.



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National Preparedness Month: Have a Go Kit

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Having a kit for your radio is useful as well. "Go kits will vary based on function and need for the field," said Johnston. "Most kits should include a dual band HT and/or mobile radio with antenna, a power supply and all necessary cables and connectors. Every kit should include note pad or paper of some type as well as pens or pencils. You should have a power source and power cables. If you are working HF then you will need an HF radio and antenna, and if you want digital capabilities, then a computer with software preloaded will be desired."

Other things you may want will include tape and tools, spare batteries, headphones, flashlights of some sort, cell phone chargers, and a multimeter. Other items that won't fit in a bag but may be needed include a generator, a working surface like a small folding table, a chair, and some type of shelter.

Need a bag for your go kit? Consider the [ARRL Gray Canvas Backpack](#). \$30.00 in the ARRL Store End.

Pacificon, hosting the 2024 ARRL Pacific Division Convention, will be held on October 18 – 20 at the San Ramon Marriott in San Ramon, California. The three-day event, sponsored by the Mt. Diablo Amateur Radio Club, features a full slate of [forum](#) presentations on a wide range of amateur radio topics. ARRL National Instructor Gordon West, WB6NOA, will be on hand. There will also be an opportunity to hear about and discuss important national amateur radio issues with ARRL officials and staff.

For more information, visit the Pacificon website at [Pacificon 2024](#).



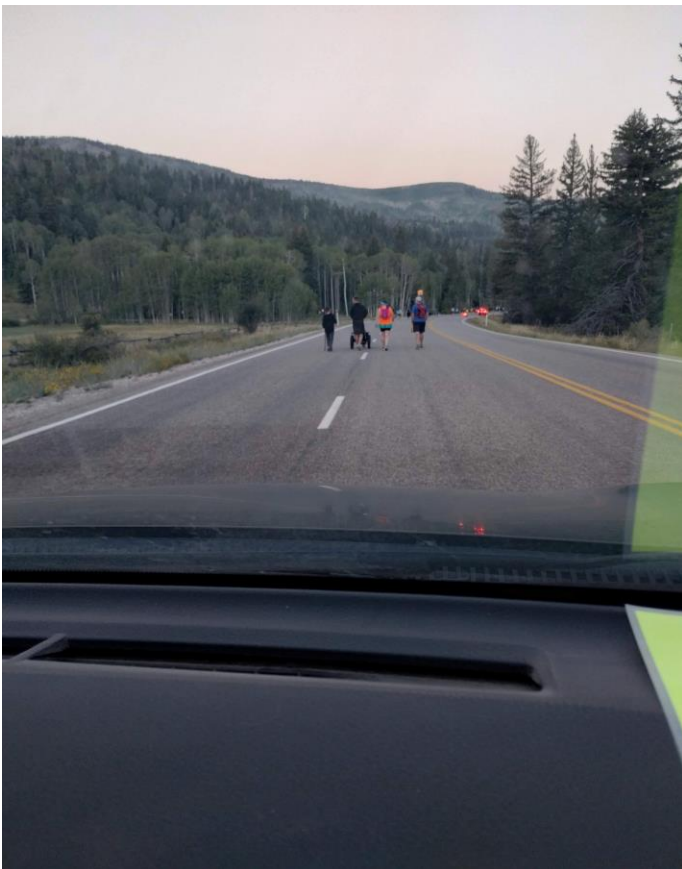
One can only dream. Is this cool or what?

2024 Cedar City Half Marathon

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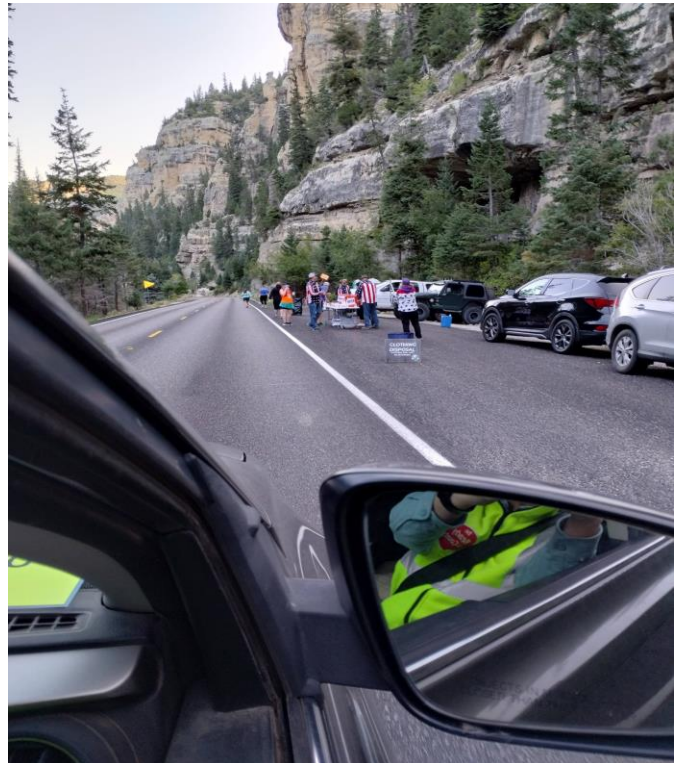


Runner getting ready at the Marathon start line.

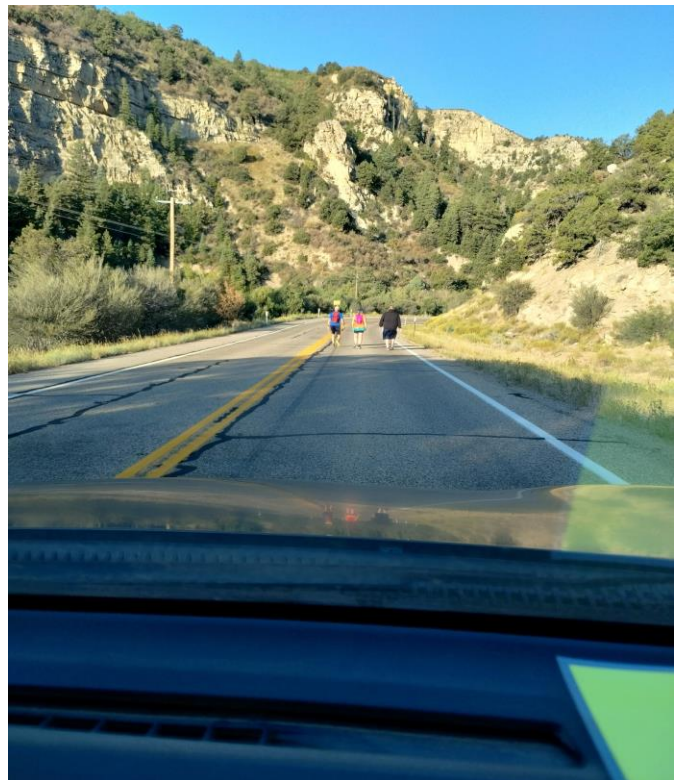


The last Marathon participants are making their way down the event course from the start line. Looking through the sweep vehicle windshield.

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Sweep Vehicle, Fred (KI7TPD) and Bonnie (KI7WEX) coming up on Aid Station 1.



Sweep Vehicle, Fred (KI7TPD) and Bonnie (KI7WEX) continue to follow the last participants as they make their way down the canyon.

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MORSE CODE ALPHABET

A	• -	N	- •	0	- - - - -
B	- • • •	O	- - -	1	• - - - -
C	- • - •	P	• - - •	2	• • - - -
D	- • •	Q	- - • -	3	• • • - -
E	•	R	• - •	4	• • • • -
F	• • - •	S	• • •	5	• • • • •
G	- - •	T	-	6	- • • • •
H	• • • •	U	• • -	7	- - • • •
I	• •	V	• • • -	8	- - - • •
J	• - - -	W	• - -	9	- - - - •
K	- • -	X	- • • -	.	• - • - • -
L	• - • •	Y	- • - -	,	- - • • - -
M	- -	Z	- - • •	?	• • - - • •

PHONETIC ALPHABET

CIVILIAN

A ADAM	N NORA
B BOY	O OCEAN
C CHARLES	P PAUL
D DAVID	Q QUEEN
E EDWARD	R ROBERT
F FRANK	S SAM
G GEORGE	T TOM
H HENRY	U UNION
I IDA	V VICTOR
J JOHN	W WILLIAM
K KING	X X-RAY
L LINCOLN	Y YELLOW
M MARY	Z ZEBRA

MILITARY

A ALPHA	N NOVEMBER
B BRAVO	O OSCAR
C CHARLIE	P PAPA
D DELTA	Q QUEBEC
E ECHO	R ROMEO
F FOXTROT	S SIERRA
G GOLF	T TANGO
H HOTEL	U UNIFORM
I INDIA	V VICTOR
J JULIETT	W WHISKEY
K KILO	X X-RAY
L LIMA	Y YANKEE
M MIKE	Z ZULU

Q CODES

QRL	Is the frequency busy? The frequency is busy. Please do not interfere.	QRV	Are you ready? I am ready.
QRM	Abbreviation for interference from other signals.	QRX	Standby.
QRN	Abbreviation for interference from natural or man-made static.	QRZ	Who is calling me?
QRO	Shall I increase power? Increase power.	QSB	Abbreviation for signal fading.
QRP	Shall I decrease power? Decrease power.	QSL	Received and understood.
QRQ	Shall I send faster? Send faster (WPM).	QSO	Abbreviation for a contact.
QRS	Shall I send more slowly? Send more slowly (_WPM).	QST	General call preceding a message addressed to all amateurs.
QRT	Shall I stop sending? Stop sending.	QSX	I'm listening on ___ kHz.
QRU	Have you anything more for me? I have nothing more for you.	QSY	Change to transmission on another frequency (or to ___ kHz).
		QTH	What is your location? My location is ___.

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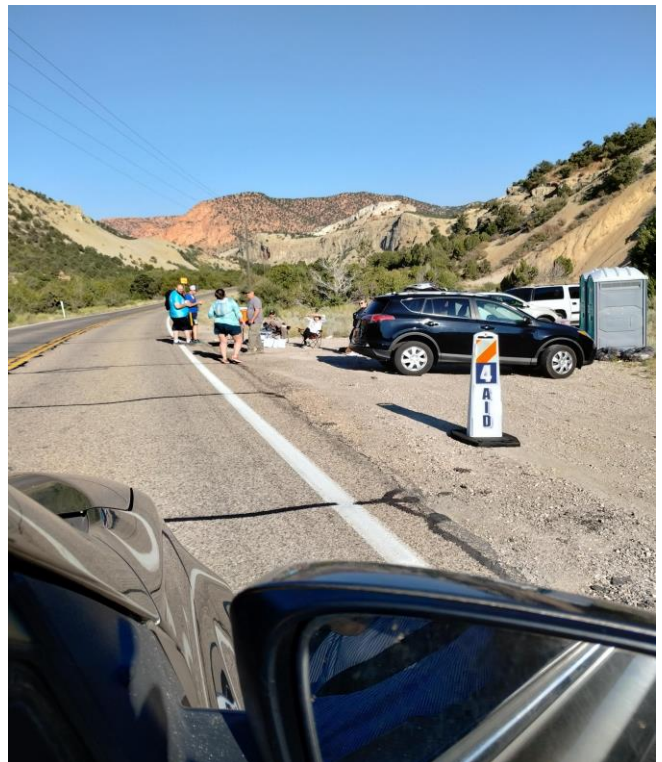
Fred (KI7TPD) moving down the canyon in the sweep vehicle



Aid Station 3 assignee Lance (KA7J).



Sweep Vehicle, Fred (KI7TPD) and Bonnie (KI7WEX) coming up on Aid Station 3.



Sweep Vehicle, Fred (KI7TPD) and Bonnie (KI7WEX) arriving at Aid Station 4.

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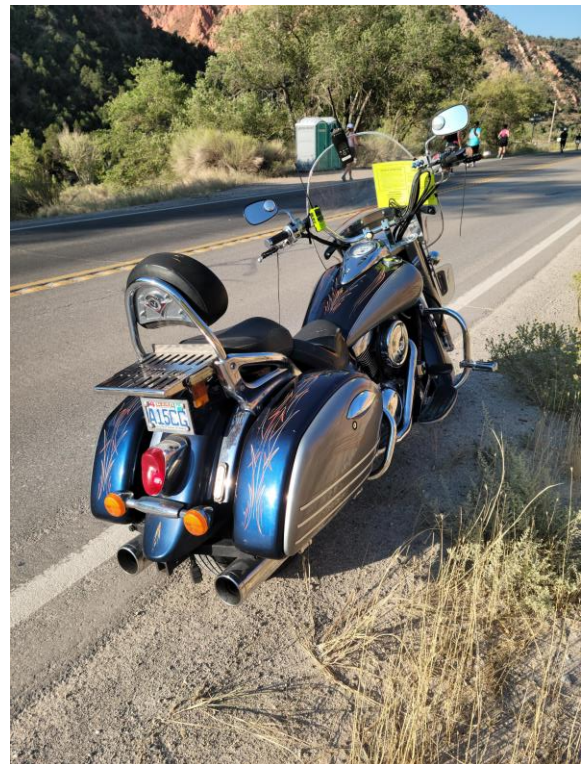
Pictured is Kevin (K2MFK) assigned to Aid Station 4 with David (KK6FLO).



Fred (KI7TPD) with Sonia (KD6HYH) and Anthony (KC6WFI) at Aid Station 6 just before the finish line.



Here is Bonnie (KI7WEX) taking a selfie with Fred (KI7TPD) in the sweep vehicle.



Brant (KJ7LTQ) and Maddie (KK7FLL) were riding this beauty up and down the Marathon Course. Brant was our liaison with the Iron County Sheriff.

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Public Service

The Age of Winlink

During two Saturdays in June, the Oregon Disaster Airlift Response Team conducted its third annual Whale Run exercise involving general aviation aircraft supported by Winlink Global Radio Email®, a network of amateur radio and government stations that provides email via radio. It's engineered, operated, and administered by radio amateurs and supports email with attachments, GPS position reporting, and bulletins, among other assets. Winlink can automatically operate without any internet and uses smart-network radio relays called Radio Mail Servers, among other features.

The mode and supporting network have grown at a tremendous rate in the last decade and are now the standard for emergency communications among Amateur Radio Emergency Service® (ARES®) operators and emergency operations center (EOC) stations in many regions of the country.

During Whale Run, radio amateurs using Winlink sent landing area weather reports to pilots who were delivering nutritional and medical supplies to remote coastal communities. They tracked takeoffs and landings via Winlink on HF. The full-scale exercise involved 20 general aviation pilots who were supported by more than 40 radio amateurs from 10 different counties.

Also in June, the Angel Fall Complex exercise scenario in California was a cyberattack targeting the southern portion of the state's healthcare infrastructure. The goal of the Los Angeles County ARES was to ensure that mission-critical communications could still be maintained despite the disruption.

The exercise plan required use of VARA Chat, Winlink, and PinPoint APRS on the 2-meter and 1.25-meter bands. Operators needed to complete, rename, and transmit standard Los Angeles County forms as spreadsheets and documents. The VARA protocol introduced digipeater capability and enhanced weak-signal performance, among other improvements. VARA Chat was particularly effective for peer-to-peer transmitting of exercise documents on the internal network, offering high speeds and no size restrictions. In contrast, Winlink provided a bridge to the internet for external messages. As Winlink Express uploaded messages in the background and displayed them on the Winlink Message Viewer for registered Winlink

members, the exercise planners could monitor Winlink traffic and observe this part of the exercise in real time using the internet.

Winlink Forms

Winlink offers a comprehensive library of forms (or templates) that are valuable for training ARES operators. These forms, such as those from the Incident Command System (ICS) and Hospital Incident Command System (HICS), are based on official agency templates and provide practical insights into the Federal Emergency Management Agency (FEMA) and hospital emergency communications.

Additionally, FEMA provides a free Independent Study course called IS-201A: Forms Used for the Development of the Incident Action Plan and Incident Management, which helps contextualize the use of ICS forms. Some ARES organizations utilize Winlink to train operators on these forms before transitioning them to spreadsheets and documents used by agencies.

Winlink in International Communications

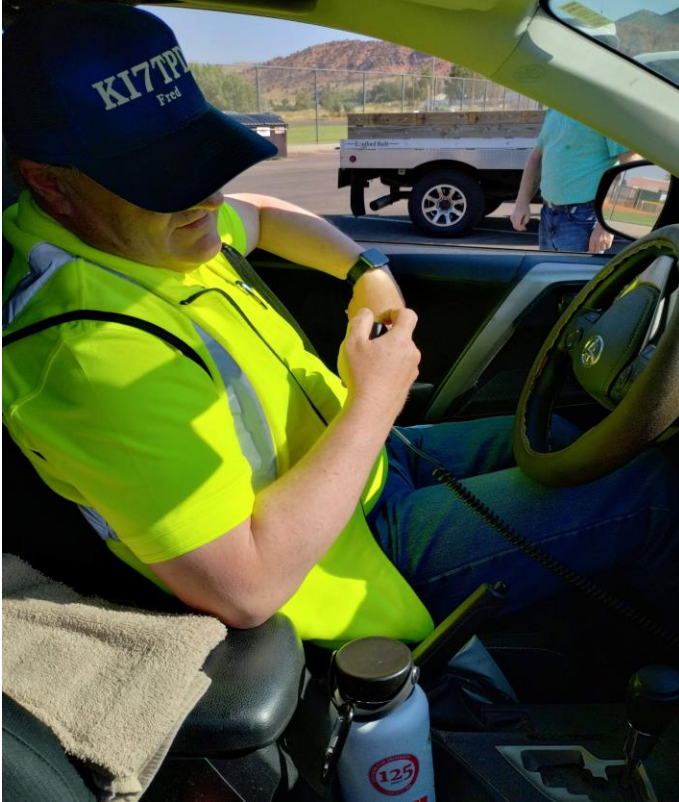
The International Health Service sends volunteer medical teams into remote areas of Honduras. There are no telephone or internet services there, so each team has a radio operator who sets up and operates an HF Winlink station. Dr. Steve Posner, KX5SP, a retired officer for the Commissioned Corps of the US Public Health Service and the Emergency Response Coordinator/Communications Director for the National Disaster Medical System, was deployed this year as an engineer and radio operator. He said the Winlink system was invaluable to operations. "We had an unexpected event that required the evacuation of one of our doctors from the middle of nowhere back to the US, which required a lot of communication and coordination."

Excellence in Training

The EmComm Training Organization™ (ETO; www.emcomm-training.org) is a 501(c)(3) nonprofit organization created to provide emergency communications training to amateur radio operators and others interested in emergency communications. It's been instrumental in the development of amateur radio's use of Winlink, and in training radio amateurs to use it.

2024 Cedar City Half Marathon

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Fred (KI7TPD) arriving at the finish line.



Fred (KI7TPD) talking with other volunteers at the finish line.

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Additional volunteers at the finish line.



Last couple of Marathon participants arriving at the finish line.

I would like to thank Bonnie (KI7WEX), Tim (KI7LVC), Brant (KJ7LTQ) and Terry West for submitting their pictures of the Marathon for the newsletter.

Hints & Hacks

HINT

Space Blanket Counterpoise

Hams often must set up and operate in remote areas with limited resources. A practical antenna is a necessity during such operations. A skilled operator can design a vertical antenna for VHF or UHF on the spot, but a counterpoise is needed, and creating one can be a challenge.

This is where the space blanket comes in. A space blanket is composed of a metal surface on a flexible Mylar base. It is easy to fold up and store, and can fit into a shirt pocket or go-bag. It unfolds quickly and can be ready to use as an antenna counterpoise in a couple of minutes. It can be used anywhere a vertical antenna is desired.

Just lay the space blanket on a flat surface such as a table, the ground, or a sidewalk, and it's operational in minutes. You may need to add a support for the antenna, in order for it to stand upright on the blanket.

How well does the space blanket work? Without the space blanket, the small mobile antenna shown in the photo has an SWR above 2.0

to 1. By simply adding the space blanket beneath the antenna, the SWR is reduced to 1.2 to 1, because the space blanket provides the necessary counterpoise for the vertical antenna very effectively.

When the space blanket is laid out on top of a surface, it would be wise to tack it down using thumbtacks or some kind of tape. When I initial-

ly tested the space blanket setup, the SWR would vary as the breeze moved the edges of the space blanket. I found that small rocks placed along the edges of the blanket stabilized it, prevented the breeze from moving the edges, and stabilized the SWR.

Vernon Harris, W7GGM



A VHF/UHF vertical antenna can be set up quickly and easily just about anywhere, using an inexpensive space blanket as a counterpoise.

The Colors are Changing, welcome to Fall




100 + THINGS TO DO IN HAM RADIO

Action or Activity	Comments	Action or Activity	Comments
Power Poles	Convert all rigs to Power Pole connectors	Mobile Radio – in motion	Set up a mobile station UHF/VHF
EComm - ANTENNA	You will never know when you'll need to go Portable so build a portable antenna. J-pole is a good one	Moonbounce	Okay, maybe a bit ambitious
EComm ARRL Courses	Consider the EC001 and possibly the EC002 & EC003 courses. They're fun and you learn a bunch.	Motorcycle Mobile	Shoot the bull while riding the HOG! See bicycle mobile
Field Day	Operate this fun event with your friends	Nets	Check in before you check out
Fox Hunting	Tie amateur radio into physical exercise	Oscilloscope – Learn to use	Oscilloscopes are a blast. Watch that green trace go
Friends	Meet interesting people and make new friends	PSK-31 – Digital mode for all	An easy digital mode
Grounding	Build an uber ground, find a water pipe, install a ground rod, lay some radials	Pedestrian Mobile	Got an HT? Have a QSO walking around
Hamfest	Attend a Hamfest, sell that old junk, buy more! Work at NFARL table for at least one hour	Public Service	Work a public service event.
Handi - Hams	Help a challenged person get their license	QRP – try it	Start trying QRP by turning down power to 5 watts (10 watts SSB)
IOTA	Islands on the air. Every group of Islands has an ID. Work them all	QSL Cards	Collect 'em, get some printed, mail out some
Keys – Collect them	What a great way to enjoy ham radio, telegraph keys	RACES	As in ... Radio Amateur Civil Emergency Services
Kit – build some	At least an \$8.00 crystal oscillator or an SW-40 transceiver	RTTY	An ancient form of digital communications
Linear Amps	Build 'em, tune 'em, don't get shocked	Radio Controlled Planes	Fly away to your hearts content
Linux – another computer world	Download a Linux system for a computer and start playing with all the free software out there	Rag chew	Be much more active on the NFARL repeater; regular check into nets. Rag Chewer's club
Logging Software	Get some, I like N3FJP. N1MM is free. Using this rekindled my fire for ham radio	Remote Control your station	Operate your station over the internet
MARS	Military Affiliate Radio – Join up, serve your armed services	Repair Radio Equipment	Help other hams fix their radios and yours too
Magazines Subscribe	Read, collect, give 'em away – copy to CD's	Repeaters	Build 'em, use 'em, fix 'em, control 'em
Marine Mobile	Work from a marine station, boating, waterways, nets	SHF – Work you neighbor	Work a contact on CW, SSB, digital above 440 MHz
Meteor Scatter	Worlds longest and shortest QSO's at the same time	SSTV	Operate Slow Scan TV, several nets meet daily

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100 + THINGS TO DO IN HAM RADIO

Action or Activity	Comments	Action or Activity	Comments
Satellite Antennas	Build a couple of antennas and put radio gear together so you can work the ham satellites.	Website Amateur Radio	Set up your own URL and tell everyone what you do
Scanning	Ok, it's only half radio but hams do it so it must be fun	Work – Bench – Set yours up	A place to do all that "fiddling around"
School – do a demo	Get to your kids' school and tell 'em all about this stuff	Work all states – W.A.S.	Obtain this and a thousand other awards
Scouting (and ham radio)	Go hand in hand. Jamboree on the air	Write articles about ham radio	Submit to magazines, become famous
Shack Simplification	See if you can get every rig in your shack to one microphone and one PTT switch	YLS – Young ladies (YLRL)	Promote YL activity, encourage YLS.
Shack Setup	Set up a shack (might need some help with an antenna raising party)	Youth – be one – help one	Help your neighbors become a ham. Loan him/her a radio
Short Wave Radio	Listen to SW Radio from your favorite country. Follow New Year's Eve around the globe for 24 hours?	Volunteer Examiner VE	Help grow the hobby by qualifying more hams!
Simulated Emergency Test	The old S.E.T. - readiness – be prepared – see ARES	Vanity Call Sign – Get one	Are you a General or Extra lass? Well maybe you should look into a 1X3 or 2X3 Call Sign
Skywarn	Watch the weather. Tell the National Weather Service (NWS)	 <p>Save the date Fall Back Sunday November 3, 2024 At 2:00 AM.</p>	
Software Ham Radio	There are thousands of programs out there and they are fun to play with.		
Software – Program a chip	Write software to control a micro chip		
Software Defined Receiver	Build or set up a software defined Receiver or Transceiver		
Space Station	Talk to ISS – Chat up an Astronaut		
Tech FEST attend	Not a Hamfest but a Tech fest		
Television - FSTV	Fast Scan TV – on 440 MHz – setup your station and show off.		
Test Equipment	Make a list buy or make yours		
Traffic Nets	Try handling messages via SSB (75M) or CW (80M)		
Upgrade your license. General ticket	Or upgrade from whatever class you are, even to Extra		
VUCC Award	Get this award for Working 100 grid squares on 6M and above		

