

RAINBOW CANYONS AMATEUR RADIO CLUB NEWSLETTER

CEDAR CITY, UTAH



Club Websites: www.rcarc.info OR www.rainbowcanyons.com Number 4 – Vol. 2 – February 2022

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.

2022 Club Officer's

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CQ, CQ, Happy Valentine's Day



Presidents Message

Dear Fellow Amateur
Radio Operators,

Hope everyone had a great start to the year and that you are looking forward to another fun year of HAM radio! Winter Field Day should be fun, but cold this year. Next month we will have a presentation from AL7BX on some different modes for HAM radio. We will try to have more 'Elmer' nights/classes and online activities that will help new and old Hams connect with our Hobby over the next few months.

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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.

Local Repeaters:

Iron Mountain

146.760 MHz – Tone 123.0 Hz

146.980 MHz – Tone 100.0 Hz

448.800 MHz – Tone 100.0 Hz

449.500 MHz – Tone 100.0 Hz

448.400 MHz – Tone 100.0/FM & DMR

Intermountain Intertie:

146.940 MHz – Tone 100.0 Frisco.

146.800 MHz – Tone 100.0 Blow Hard

147.200 MHz + Tone 100.0 Tod's/Hatch

146.820 MHz – Tone 100.0 Utah Hill

Bumblebee/New Harmony:

146.680 MHz – Tone 100.0 Hz

Rowberry:

449.925 MHz – Tone 100.0 VHF Remote

Dutton:

147.160 MHz + Tone 100.0 Hz.

Save The Date

February 8, 2022

RCARC Club Meeting.

7:00 pm. Cedar City Senior Center,
489 E. 200 South. **Program:**
Different Modes for Ham Radio.
George, (AL7BX)

March 8, 2022

RCARC Club Meeting.

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

April 12, 2022

RCARC Club Meeting.

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

May10, 2022

RCARC Club Meeting.

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

President's Message

Continued from page 1.

I encourage you all to play, share, and have fun on the radio! We all have strengths and weaknesses but we are all interested in radio communications and can benefit from each other. If you are interested in any aspect of HAM radio please explore the topic, experiment, and share what you have done with the group! That is what makes this such a fun hobby! Don't be shy, we are all friends here!

In service,
Fred Govedich (KI7TPD)

RCARC Club Breakfast

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

Note

George (AL7BX) will be the program presenter at our February 8, 2022 RCARC Club Meeting.

George will present and talk about the different modes of Ham Radio.

This meeting will be at the Cedar City Senior Center at 489 E. 200 South, Cedar City.

Meeting starts at 7:00 pm.

See you there.



**Happy Birthday and
Anniversary to those
celebrating in February**



Happy Valentine's Day



Breakfast & Friendship Net Awards February 2022

Breakfast Net		Friendship Net	
First Place	Third Place	First Place	N7TCE - Merlin
KI7TPD - Fred	N7SIY - Sylvia	K7HDX - Ron	KK7BNZ - Craig
KI7WEX - Bonnie		N7WWB - Darlene	Second Place
K7ZI - Dick		W6DLW - Dennis	KA7J - Lance
KE6ZIM - Johnny		K7NKH - Lee	KG7VEJ - Jack
N7SND - Larry		KI7TPD - Fred	KJ7LTQ - Grant
		KI7WEX - Bonnie	N7SIY - Sylvia
Second Place		K7WEP - Paul	Third Place
KC6WFI - Tony		K7ZI - Dick	KI7SXJ - Isaiah
KK7BNZ - Craig		Bruce - KI7LUM	N7SND - Larry

Rainbow Canyons Amateur Radio Club Treasurer Report as of Jan 11, 2022

Bank Statement has not been received yet so this report has not been reconciled but agrees with bank balance

Checks/expenses

Ck #106 - Xmas Antenna give away	- 70.00
Ck #108 - Ken Richter - cost of meat for Xmas	- 141.67
Rocky Mountain Power	- 18.43

Income

Donations and Book sales	+ \$194.00
Memberships (see list of current on reverse)	+ 300.00

Bank balance (not reconciled) January 11, 2021	\$ 2,030.40
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To Be paid - Flowers for Terry Lee	- 74.34
Available bank balance	\$1,956.06

Submitted by

Linda Shokrian KG7PBX

2022 RCARC Treasurer

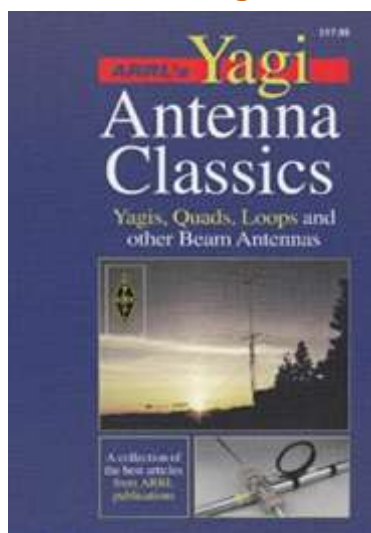
435-867-5914

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

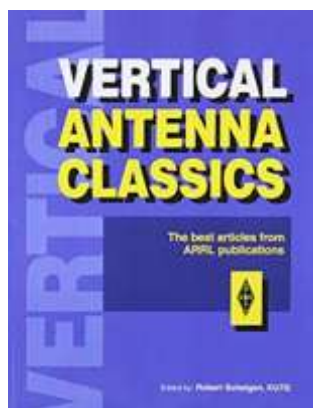
Shown below is the book that will be given away at the February 8, 2022 meeting.



RCARC Book Giveaway Winner.

The winner of the January 11, 2022 book giveaway (pictured below) is:

Ken Wells



**Congratulations Ken
See Pic on page 21**

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

www.rainbowcanyons.com

Face Book Page:

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

To Join RCARC or Pay Dues:

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

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

Thank You





Buzz's February Safety Tip(s)



Slips, Trips and Falls Safety Tips

Prevention

- Wear Proper Foot Gear
- Take smaller steps when walking
- Walk slowly and never run on icy ground
- Keep both hands free for balance rather than in your pockets
- Use handrails from start to finish
- Avoid carrying loads
- Keep your eyes on where you are going
- Test potentially slick areas by tapping your foot on them
- Step-don't jump from vehicles or equipment
- Keep walkways clear of debris, water, ice and slippery materials



Safe Winter Walking

- Plan ahead; give yourself sufficient time and plan your route
- Wear shoes that provide traction on snow or ice: rubber and neoprene composite. Avoid plastic or leather soles
- Walk in designated walkways as much as possible
- If a walkway is completely covered with ice; try to travel along its grassy edge for traction

When given no choice but to walk on ice, consider the following:

- Take short steps or shuffle for stability
- Bend slightly, walk flat-footed with your center of gravity directly over the feet as much as possible
- Be prepared to fall
- If you fall, fall with sequential contacts at your thigh, hip and shoulder to avoid using your arms to protect against breakage
- Roll with the fall. Try to twist and roll backwards, rather than falling forward
- Relax as much as possible when you begin to fall
- Bend your back and head forward so you won't slam your head on the pavement as your feet shoot out from under you.
- Toss the load you are carrying. Protect yourself instead of the objects being carried.

When entering buildings, remove snow and water from footwear to prevent wet slippery conditions indoors.

Ham Radio Winter Field Day 2022



On Saturday, January 29, 2022 at 9:00 am. RCARC club members assembled at the Iron County Emergency Operations Center (EOC)/Public Works Facility on Kitty Hawk Drive between Bulldog and Airport Roads.

The set-up process of getting all antenna's, radios, computers and off grid power was placed in motion for Winter Field Day 2022

Winter Field Day commenced at 1200 pm. and continued until 12:00 pm on Sunday, January 30, 2022.

Field Day demonstrates ham radio's ability to work reliably under any conditions from almost any location and create an independent communications network.

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

This year RCARC's Winter Field Day was a 4-Oscar set up which means four outdoor stations with a call sign of "N7U".

See picture's next column

Continued next column



The Club is up and running for 2022 Winter Field Day.



Beam Element being attached to the tower.



Tower being cranked in to position.

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Ham Radio Winter Field Day Pics

Continued from Page 6



Fred (KI7TPD) and Dave (W6FJN) setting up the 40-meter station.



Fred (KI7ATPD) setting up his Ventenna Vertical HF Antenna.



Brody (K7VXV) working 40 meters with Linda (KG7PBX) and George (AL7BX) working 2-Meter Single Sideband in rear.

Continued next column



Fred (KI7TPD) and Vernile (K7DVP) going over Field Day calling procedures.



Dave (W6FJN) and Brody (K7VXV) Monitoring 40 Meters.



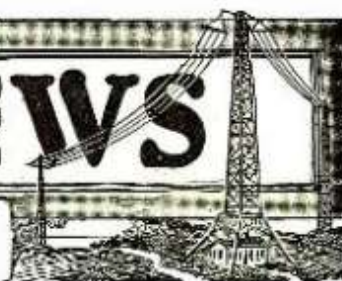
Bonnie (KI7WEX) and Terry West kicking back and enjoying the sun.

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RADIO NEWS

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



Vol. 3

FEBRUARY, 1922

No. 8

Announcement

THE publishers beg to announce that beginning with the March issue the price of this publication will be increased to 25c. per copy, by subscription \$2.50 per year in United States, and \$2.75 a year in Canada and foreign countries.

We have long hesitated to make this important change, but we plan, not only to keep up the high standard of the publication, but to keep adding to the exclusive features of RADIO NEWS during the next year, and we promise you a radio magazine such as you have never before dreamed possible.

The price of RADIO NEWS since the February, 1920, issue has been 20c. At that time the publication had but 64 pages. Since then, we have increased the page numbers to 104, and beginning with this issue, the number of pages will be 112.

In January of this year we added a Rotogravure section, which has greatly improved the appearance of the magazine, and this change, of course, is costly. In this issue you will notice the Rotogravure section has been increased to twice the size of the January Roto. It is true that we are buying our paper cheaper to-day than we did formerly, but our printing costs, our art work, our engraving, our administration expenses, have not decreased. Rather they have increased in many instances.

The price of the publication should have been increased to 25c. early in 1921, but it was decided at that time to let the advertiser absorb most of our burden. This the advertiser did very reluctantly, and in fairness to him, we cannot tax him any further.

We have made this publication the best in the world to-day, a magazine such as the Radio Fraternity never hoped to own. In point of advertis-

class, and now that the public is becoming interested in it, it has become necessary for the publishers of this magazine to keep up with all of the latest developments; there was only one way to accomplish this and that was to increase the number of pages, which we have done time and again. We are now giving exactly 75 per cent. more reading matter than we gave two years ago, when the price of the publication was 20c., and we believe that we are not taking an unfair advantage of the reader when we ask him to pay 25 per cent. more for this service.

We have always pursued the policy of giving more for your money than you expected, and we will continue to do so in the future. If it is found necessary to still further increase the number of pages of the magazine, the publishers will do so cheerfully, if it helps the good cause along.

RADIO NEWS is paying the highest prices for all contributions, and it is well known that we have always been liberal with illustrations and expensive engravings in order to bring out a difficult point or to make an important article more readable. That policy has made RADIO NEWS the great publication it is today, and we will of course continue this policy now that we will be enabled to expend still more money upon our work.

With the March issue, the cover of the magazine will also be varnished, greatly enhancing the beauty of the magazine, and that and subsequent issues will be bound with the square back, instead of being saddle-stitched as the magazine is now.

The circulation of RADIO NEWS has increased tremendously, our press run of this issue being 75,000 copies—a circulation unprecedented for a radio magazine, and undreamed of even by the publishers, when the magazine was founded. The increase in circulation will make it possible to

supply copies to many readers who have been disappointed in the past.

The publishers desire to express their thanks to the readers for their coöperation, and assure them that they will not be disappointed in the future. RADIO NEWS is the first publication in its class, and will always remain so, if it depends upon the publishers.

THE PUBLISHERS.

PRINTERS' INK Jan. 12, 1922

RECAPITULATION OF ADVERTISING IN MONTHLY CLASSIFICATIONS

	Columns	Lines
1. Motor	969	162,792
2. Ladies' Home Journal	239	40,185
3. Vogue (2 issues)	248	49,138
4. MacLean's (2 Dec. issues)	213	37,017
5. Popular Mechanics (pg. 119)		35,700
6. Motor Life	173	27,314
7. Physical Culture	184	26,257
8. Radio News	123	20,544
9. Arts & Recreation	112	25,141
10. Country Life	142	24,903
11. System	71	31,554
12. Vanity Fair	152	24,271
13. House & Garden	132	24,139
14. Harper's Bazar	138	23,257
15. Good Housekeeping	167	23,241
16. Review of Reviews (pg. 95)		20,000
17. West's Home Mo. (Dec.)	118	21,406
18. Woman's Home Comp.	120	20,400
19. Personal Review	101	30,300
20. National Instructor	119	18,806
21. Red Book	139	19,672
22. American	124	48,104
23. World's Work (pg. 3)	76	27,214
24. Science & Invention	118	17,161
25. Popular Science Mo.	131	16,930

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Beaufort Wind Scale

A few weeks ago, I overheard a conversation where one gentleman was telling another that overnight, he experienced 45 to 50 mph breezes at his residence. To me wind at that speed is not a breeze, or is it? I really didn't know. So, I did some research. And this is what I found. Therefore, I thought I'd share it with you. See chart and additional information below: Editor

The scale was devised in 1805 by the Irish hydrographer [Francis Beaufort](#) (later [Rear Admiral Sir Francis Beaufort](#)), a [Royal Navy](#) officer, while serving on [HMS Woolwich](#). The scale that carries Beaufort's name had a long and complex evolution from the previous work of others (including [Daniel Defoe](#) the century before) to when Beaufort was Hydrographer of the Navy in the 1830s when it was adopted officially and first used during the voyage of [HMS Beagle](#) under Captain [Robert FitzRoy](#), later to set up the first [Meteorological Office](#) (Met Office) in Britain giving regular weather forecasts.

Force	Wind (Knots)	WMO Classification	Appearance of Wind Effects	
			On the Water	On Land
0	Less than 1	Calm	Sea surface smooth and mirror-like	Calm, smoke rises vertically
1	1-3	Light Air	Scaly ripples, no foam crests	Smoke drift indicates wind direction, still wind vanes
2	4-6	Light Breeze	Small wavelets, crests glassy, no breaking	Wind felt on face, leaves rustle, vanes begin to move
3	7-10	Gentle Breeze	Large wavelets, crests begin to break, scattered whitecaps	Leaves and small twigs constantly moving, light flags extended
4	11-16	Moderate Breeze	Small waves 1-4 ft. becoming longer, numerous whitecaps	Dust, leaves, and loose paper lifted, small tree branches move
5	17-21	Fresh Breeze	Moderate waves 4-8 ft taking longer form, many whitecaps, some spray	Small trees in leaf begin to sway
6	22-27	Strong Breeze	Larger waves 8-13 ft, whitecaps common, more spray	Larger tree branches moving, whistling in wires
7	28-33	Near Gale	Sea heaps up, waves 13-19 ft, white foam streaks off breakers	Whole trees moving, resistance felt walking against wind
8	34-40	Gale	Moderately high (18-25 ft) waves of greater length, edges of crests begin to break into spindrift, foam blown in streaks	Twigs breaking off trees, generally impedes progress
9	41-47	Strong Gale	High waves (23-32 ft), sea begins to roll, dense streaks of foam, spray may reduce visibility	Slight structural damage occurs, slate blows off roofs
10	48-55	Storm	Very high waves (29-41 ft) with overhanging crests, sea white with densely blown foam, heavy rolling, lowered visibility	Seldom experienced on land, trees broken or uprooted, "considerable structural damage"
11	56-63	Violent Storm	Exceptionally high (37-52 ft) waves, foam patches cover sea, visibility more reduced	
12	64+	Hurricane	Air filled with foam, waves over 45 ft, sea completely white with driving spray, visibility greatly reduced	

New Technician Question Pool Released, Effective July 1, 2022

The National Conference of Volunteer Examiner Coordinators (NCVEC) Question Pool Committee (QPC) has released the 2022 - 2026 Technician Class FCC Element 2 NCVEC Question Pool Syllabus & Question Pool into the public domain. It's available as a Word document or PDF. The three graphics required for the new Technician question pool is available within the documents, or separately as PDF or JPG files.

The new pool incorporates some significant changes compared to the 2018 - 2022 pool. Its 257 questions were modified slightly to improve wording or to replace distractors; 51 new questions were generated, and 62 questions were eliminated. This resulted in a reduction of 11 questions, bringing the total number of questions in the pool from 423 to 412. The difficulty level of the questions is now more balanced, and the techniques and practices addressed have been updated.

The new 2022 - 2026 question pool is effective July 1, 2022 – June 30, 2026, and must be used for Technician-class license exams administered on or after July 1, 2022. End.

The Volunteer Monitor Program Report for December 2021

The Volunteer Monitor (VM) Program is a joint initiative between ARRL and the FCC to enhance compliance in the Amateur Radio Service. This is the December 2021 activity report of the VM Program.

Operators in Center Hill and Coconut Creek, Florida, were issued notices for excessive signal bandwidth on 40 and 75 meters, in violation of Section 97.307(a) of FCC rules. General-class operators in Hudson, Florida; Winterville, Georgia; Provo, Utah,

Continued next column

and Bloomfield Hills, Jackson, and Howell, Michigan, received notices for out-of-band SSB operation on frequencies not permitted by their General-class licenses, in violation of Section 97.301 of FCC rules.



Technician-class operators in Baltimore, Maryland; Divernon, Illinois; Moore, Oklahoma; Bradenton, Florida, and Roseville and Rancho Cordova, California, received notices for FT8 operation on unauthorized 20- and 40-meter frequencies, in violation of Section 97.301 of FCC rules.

Commendations for exemplary amateur radio operation were issued to licensees in these cities: Dahlonaga, Georgia (for managing medical and technical issues during the Six Gap Century bicycle race in October); Riverside, California (for operation during the October Earthquake Situational Emergency Test); Swansea, South Carolina (for operation on the SC HF ARES Net); Springfield, Indiana (for assistance to new operators in message handling); Mims, Florida (for exceptional efforts in correcting wideband issues), and Raymond, Mississippi (for exemplary operation during ARRL Field Day, statewide HF and VHF nets, and assistance to new operators). End

ARRL - Utah Section

QUARTERLY NEWSLETTER



Please check out the below URL to see the first copy of the ARRL – Utah – Section Newsletter.

<http://arrluta.org/wp-content/uploads/2022/01/ARRL-Utah-Section-Newsletter-Q1-2022.pdf>

RCARC EComm Members Continue to Provide Maintenance and Repairs to the Iron County Community Emergency Response Team (CERT) Trailer.

On January 7th, 8th, 14th, and 15th 2022, members of the RCARC EComm group met at the County Emergency Operations Center (EOC) and continued the process of providing necessary maintenance to the Iron County CERT Trailer by finishing the sealing of the roof water leaks and making repairs to the small radio room due to water damage. Which included the complete removal of all paneling on walls and then adding new insulation and new paneling.

Refer to the December 2021 RCARC Newsletter (page 20) for the projects beginning along with pictures. This ongoing project started on November 11th, 2021.

To date the following EComm members have participated in the maintenance and repair of the CERT Trailer.

Brad Biedermann (WA7HHE), Bruno DeBacker (KG7VVN), Dennis West (W6DLW), Dick Parker (K7ZI), Fred Govedich (KI7TPD), Lance Jackson (KA7J) and Anthony Karbowski (KC6WFI), Sonia Karbowski (KD6HYN), Jack Coulter (KG7VVJ), Brant (KJ7LTQ) and Bill Stenger (K6QOG)

The project will continue later this month. Work dates to be determined.

See Pictures below:



Bruno (KG7VVN) and Jack (KG7VEJ) completing the insulation installation. **Photo by Bill Stenger (K6QOG)**
Continued next column



Bruno (KG7VVN), Tony (KC6WFI) and Bill (K6QOG) drilling screw holes for the first piece of paneling to go on ceiling.



Bruno (KG7VVN), Tony (KC6WFI) and Bill (K6QOG) fitting the first panel in place.



Bruno (KG7VVN), Tony (KC6WFI) and Bill (K6QOG) Installing the first panel in place. Not in picture is Sonia (KD6HYN) handing screws up to Bruno.

Interesting Radio Facts

Amateur radio's history goes back more than a century

Ham radio can be anything you want it to be. You can communicate over the airwaves much like amateurs did decades ago. You also can take advantage of the latest digital modes and be on the cutting edge of technology all from the comfort of your own home or vehicle. How did we get to where we are with ham radio today?

Marconi was the first “amateur” radio operator

It's easy to find the stories about how Guglielmo Marconi invented radio and is considered to be the first “amateur” to get on the air — way back in 1901 with transatlantic communications. Before that experiment, Marconi adapted Heinrich Rudolf Hertz's theory that radio waves existed and constructed a communication system in the 1890s. Amateurs took to the airwaves in the early 1900s and the first “wireless” club was formed at Columbia University in 1908.

Marconi was hailed early on. Just days after the Titanic sank in 1912, a crowd assembled in New York City to cheer the man responsible for creating the technology that ensured there were survivors of that famous shipwreck. While Marconi and his family chose not to sail on the famed ship, two of his Marconi Co. wireless operators sent out telegraph signals for assistance as the vessel sank into the ocean.

Ham radio is shut down during World War I

By 1910, there were thousands of amateurs on the air across the world. In 1917, however, the advent of World War I brought an end to what had become amateur radio until after the war, when operators could resume on-air activities.

Continued next column

Ham radio operators given worthless frequencies

In the early days of radio, commercial, government and amateur stations all shared the same radio spectrum, using spectrum-hogging spark-gap transmissions to send Morse code. Essentially, amateurs were those who were not professional operators staffing commercial and government stations. There was so much interference in those early days that the government stepped in to assign specific bands to each type of radio user in 1912. At the time, amateurs were pushed to frequencies higher than 1.5 MHz, which was considered worthless for long-distance use.

While the start of the regulation of amateurs, who began using [government-issued call signs](#) in 1913, there was a slight decline in activity, however, it picked up again and there were as many as 6,000 licensed hams by 1917. However, World War I kept hams off the air well after the war's end until late 1919 because the Navy refused to relinquish control of radio operations in the United States. The ban was only lifted after amateurs put pressure on Congress to allow them back on the air.

Long-distance ham radio communications began in the 1920s

In 1923, the first transatlantic contact between amateurs in England and Connecticut occurred, opening up the world to long-distance communications. These long-haul contacts led to 1927-1928 international conferences that resulted in the designation of what essentially are today's 80-/75-, 40-, 20- and 10-meter bands and the creation of call signs by country. Previously, hams typically used their initials as their identifiers on the air. By the end of the 1920s, hams were given bands from 160 through 5 meters, as well as some additional bandwidth on UHF at 400 MHz.

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Interesting Radio Facts

Continued from page 12

Hams migrated from spark gap to Morse code in the 1930s

The 1930s saw the end of those wideband spark-gap transmitters as tubes allowed hams to operate Morse code over CW on specific allocated frequencies. Some hams started experimenting with transmitting voice over the airwaves, too, during the decade. While single sideband operation was generating minor interest in the 1930s, it wasn't until 1947 when SSB experiments were carried out on ham HF frequencies.

The advent of World War II saw amateur activities halted in Europe, as well as Canada. In 1940, the U.S. government issued an order prohibiting U.S. hams from communicating with any foreign stations and they were banished to operations above 56 MHz.

During World War II, hams were restricted to VHF frequencies

Wartime amateur activity in the United States was halted after the Pearl Harbor attack in 1941, although VHF operations on 112 MHz was allowed by those hams operating under the auspices of the War Emergency Radio Service. While there were 60,000 hams at the time of WWII, an estimated 25,000 of those operators were serving in the armed forces.

The patron saint of ham radio -- Maximilian Kolbe

When Germany occupied Poland during WWII, a priest, Father Maximilian Kolbe, SP3RN, was arrested by the Germans because they believed he was involved with espionage in the use of his ham station. He was taken to Auschwitz in 1941 and when 10 prisoners escaped from there, the Germans ordered that 10 prisoners be killed in retribution. Kolbe volunteered to take the place of one of the men condemned by the Germans.

Continued next column

In 1982, Pope John Paul II canonized him as a saint, an apostle of consecration to Mary, and he was declared a martyr of charity. Today, Saint Maximilian Kolbe is considered the patron saint of hams worldwide.

When wartime operations ended in 1945, hams resumed VHF operations until all HF bands were restored for use in 1946. The 2.5- and 5-meter bands became the 6- and 2-meter bands, and the availability of war surplus VHF gear saw a rise in new activity above the HF bands. The late 1940s also saw the development of amateur RTTY, or radioteletype, again because of war surplus availability.

The history of the classes of ham radio licenses issued by the FCC

In the 1950s, the old Class A, B and C amateur licenses were renamed Advanced, General and Conditional, while the Federal Communications Commission created even more new classes: Novice, Technician and Extra. Novice licenses were issued for one year and could not be renewed, and offered operation on two HF band segments as well as voice on 2 meters. Those early Technician licensees were restricted above 220 MHz. Novices and techs were required to take a Morse code test of 5 words per minute, while the other classes required a code proficiency of 13 words per minute.

Ham radio operators send signals into space

More than 15 years before man was to walk on the moon, Ross Bateman, W4AO, and Bill Smith, W3GKP, bounced 2-meter signals off the moon from a station in Virginia in 1953 — and moonbounce was born.

The 1960s were significant in amateur radio history because of the development of the use of OSCAR (Orbiting Satellite Carrying Amateur Radio) satellites for space communications,

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Date: Fri, 14 Jan 2022 15:50:24 MST
Subj: [UtahVHFS] Special Utah VHF
Society Announcement - ARDC
Grant

Special Announcement

For many years we have wanted to update and improve some of the Intertie sites with new equipment. Your dues and donations are the only way we have to support this concept. We have considered raising the dues but we have made a commitment to keep the Society Membership dues as low as possible.

Recently we were made aware of the possibility of obtaining a grant from the Amateur Radio Digital Communications (ARDC) organization. So, we prepared a grant request to support our desire to upgrade four of our key intertie nodes, Farnsworth Peak, Snowbird, Frisco Peak and Blowhard. Our request included new commercial grade repeaters and other equipment to improve these sites.

We are pleased to announce that our grant request was approved for the amount of \$160,555.00, we are very gratefully to ARDC for supporting our request and we have now received the funds and have made some purchases. Every penny of this grant and some of the Society funds are committed to this project upgrade.

One of the key factors in this request being approved was our membership and the fact that we support such a wide area with RF linked repeater communications. I want to thank all of you as members for supporting the Society and helping with your membership.

We now will have some major projects to accomplish this spring and summer once we receive the new equipment. If any of you would like to help and support our projects, please let us know.

Thank you for your support.

Utah VHF Society Officers:
Mel Parkes, NM7P, President
Les Blades, W1UT, Acting Vice President
Mike Groves, KD7MG, Secretary
Dan Fullerton, KC7RUF, Treasurer
John Lloyd, K7JL, Frequency Coordinator

Rainbow Canyons Amateur Radio Club (RCARC) January Monthly Meeting Pictures and FLDigi Digital Mode Presentation.

On January 11, 2022 club members met at the Cedar City, Senior Center for the first club meeting of the new year.

Over 40 members were welcomed by our club president Fred) (KI7TPD). After club business and announcements were made Fred segued to the Program for tonight's meeting.

Club members Brad (WA7HHE), Fred (KI7TPD), Ron (K7HDX) and Bruno (KG7VVN) brought their radios, antennas and other needed equipment to demonstrate using the FLDigi Software. FLDigi (short for **Fast light digital**) is a free and open-source program which allows an ordinary computer's sound card to be used as a simple two-way data modem.

Increasingly, the software is also being used for data on [VHF](#) and [UHF](#) frequencies using faster modes such as [8-PSK](#).

Using this software, it is possible for [amateur radio operators](#) to communicate worldwide while using only a few watts of RF power.

Fldigi software is also used for [amateur radio emergency communications](#) when other communication systems fail due to natural disaster or power outage. Transfer of files, emails, and [FEMA ICS forms](#) are possible using inexpensive radio hardware.

The presentation began when several club members were given a sheet of paper and a pen.

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Interesting Radio Facts

Continued from page 13

as well as a beginning interest in FM repeaters.

Ham radio repeaters become popular in the 1970s

However, repeaters weren't cemented into amateur operations until their expansion in the 1970s, primarily on 2 meters and some on 440 MHz. When the FCC told commercial licensees that their bandwidth for operations was being tightened up, the market opened up for hams to acquire outdated commercial repeaters for retooling on the 2-meter and 440-MHz bands. In addition, hams gained new privileges in 1979 when the 10-, 18- and 24-MHz bands opened up for use.

The early 1980s not only saw the rise in personal computing, but what it brought to amateur radio. The FCC approved the use of ASCII signals on ham bands, and that gave way to packet communications, or basically keyboard-to-keyboard communications over amateur frequencies.

Ham radio operators in space and volunteer testing begins

In 1983, astronaut Owen Garriott, W5LFL, communicated with hundreds of hams while aboard the Space Shuttle high above the earth. Since then, almost every shuttle crew has included licensed amateurs who have spent time on the air in space. In 1984, the Volunteer Examiner Coordinator program was initiated to allow hams to take exams in their own communities, rather than driving to FCC offices for anything other than a Novice license.

Morse code is removed as a requirement for ham radio licensing

1991 saw one of the biggest changes in amateur radio when the FCC agreed with the American Radio Relay League and decided to create a new no-code Technician class license that eliminated the need to demonstrate Morse code proficiency.

Continued next column

The change swelled the amateur ranks, resulting in more than 700,000 licensed hams in the United States before the start of the new millennium. Because the only difference between Techs and Generals was that Generals had Morse proficiency at 13 words per minute, Technician-class licensees who took a 5-words-per-minute Morse code test could obtain Novice HF privileges, giving rise to yet another class of ham called "Technician Plus." Those Tech Plus licensees later were eligible to obtain General class licenses in the 2000s. Tech Plus licensees eventually outnumbered Novices.

In 2000, however, the FCC reduced the classes of ham licenses from six to three: Technician, General and Extra, where it remains today. Those with Advanced, Tech Plus and Novice licenses are allowed to renew their licenses even to today, however, no new such licenses have been issued since then. Also, the Morse requirement was streamlined, reducing the code speed for Extra licensees from 20 words per minute to 5 words per minute, and from 13 words to 5 words for the General license.

International regulations adopted in 2003 allowed nations to determine individually whether or not amateurs should demonstrate Morse code capability for HF operations. As a result, the FCC announced in 2006 that it was eliminating the code requirement for new licensees and made the action effective in 2007. As a result, all Tech licensees were granted Tech Plus privileges for HF operation and the two Tech classes were combined into one. The change resulted in many newly licensed hams who had been stymied in the past because of the Morse barrier.

Ham radio assists with Hurricanes Katrina in Louisiana and Maria in Puerto Rico

In more recent times, hams were used for disaster relief help after the September 11 terrorist attacks in 2001 and Hurricane Katrina in Louisiana in 2005.

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**The Rainbow Canyons Amateur Radio Club (RCARC)
is Sponsoring an Amateur Radio**

Technician Class

Beginner Level for Ham Radio

**Dates: Thursdays - March 10, 17, 24, 31 and April 7th, 2022
with the test, Thursday April 14, 2022
Time: 6:00 pm - 9:00 pm**

**Where: Cedar City Senior Center
489 E 200 South, Cedar City, UT 84720**

Class Cost: Free

**Study Manual: Free Download
Please bring to class**

<http://www.ad7fo.com/media/TechLic2018.pdf>

This class will be presented live, in person at Cedar City Senior Center, live on Zoom (connect info will be sent out before first class - please be sure I have your email address) and a recording will be available on rcarc.info. You may attend however fits your schedule but must be present in person for testing on April 14th. If you cannot make the 14th, other arrangements can be made.



Contact to register:

**Linda Shokrian KG7PBX
435-867-5914 or
email: Lgshokrian@gmail.com**

There is a \$15 ARRL Test Fee

Interesting Radio Facts

Continued from page 15

In 2017, the American National Red Cross assembled a team of 50 hams who traveled to Puerto Rico after the island territory was devastated by Hurricane Maria in an effort to reestablish communications networks.

In an effort to [get more hams licensed](#) and on the air, Ham Radio Prep started operations in 2018 with a new concept. The unique online study system established by HRP allows persons to use videos to learn the tenets of amateur operation in an easier-to-follow system.

Ham radio technology goes to transmitting TV and digital signals

Today, amateurs keep on the cutting edge of technology by transmitting signals that can be seen on televisions or by using the extensive worldwide network of Digital Mobile Radio, allowing hams to communicate with one another anywhere in the world with simply a handheld digital transceiver. The one thing that remains, however, is that the amateur radio service remains as much of an experimental service as it did in its formative years. End.



Figure 4: Inexpensive fishing reels make excellent holders for solder.

HACK

Fishing Reel Solder Holders

I have been using solder and solder-removal "wicks" for years, and it has always been a pain to keep track of the spools. A while back I was thinking about making one with a crank to rewind the solder, and that's when it hit me: use fishing reels instead! I bought several off the internet and mounted them to the underside of the shelf on my work bench. Now I pull the solder out, use it or cut off what I need, and then wind it back on the spool (see Figure 4).

Ben Fisher, K9BF

Rainbow Canyons Amateur Radio Club (RCARC) January Monthly Meeting. Continued from Page 14.

Additionally, they were each provided with a Handheld Radio. Brad (WA7HHE) then explained to them that club member Paul (K7WEP) was going to read a message over the radio (normal traffic passing speed) and that they were to write it down in its entirety.

The message consisted of ordering drugs through a pharmacy. The process took about 15 minutes to verbally pass the traffic for the 6 drugs that were being requested.

Brad then using the FLDigi software connected to his HF radio and displaying the program on the wall (so members could see) made the same request. The request took 15 seconds to complete. Fred (KI7TPD) also had his radio set up and displayed on the wall allowing other members to see the message being received. This was truly an eye opener to a number of our members. Thanks to Brad, Fred, Ron and Bruno for a great presentation.

See meeting pictures below:



Member's waiting for the meeting to start

Continued on page 20

The following comments have nothing to do with Ham radio. But I thought maybe some of you would like to reminisce about this time in history as it may bring a smile to your face. Enjoy.

Comments made in the year 1957

"I'll tell you one thing. If things keep going the way they are. It's going to be impossible to buy a week's groceries for \$20.00"	"Kids today are impossible. Those duck tailed haircuts make it impossible to stay groomed. Next thing you know, boys will be wearing theirs as long as the girls."	"It won't be long before young couples are going to have to hire someone to watch their kids so they can both work."
"I'm afraid to send my kids to the movies any more. Ever since Clarke Gable got by with saying "dam" in "Gone with The Wind" it seems every new movie has either "hell" or "dam" it."	"If they think I'll pay 50 cents for a haircut, forget it."	"Marriage doesn't mean a thing any more, those Hollywood stars seem to be getting divorced at the drop of a hat."
"Have you seen the new cars coming out next year? It won't be long before \$5000.00 will only buy a used one."	"I read the other day where some scientist thinks it will be possible to put a man on the moon by the end of the century. They even have some fellows they call astronauts preparing for it down in Texas."	"I'm just afraid the Volkswagen car is going to open the door to a whole lot of foreign business."
"If cigarettes keep going up in price. I'm going to have to quit. A quarter a pack is ridiculous."	"Did you see where some baseball player just signed a contract for \$75.000 dollars a year just to play ball? It wouldn't surprise me if some day they will be making more than the president."	Thank goodness I won't see the day when the government takes half our income in taxes. I sometimes wonder if we are electing the best people to congress.
"Did you hear the post office is thinking about charging a dime to mail a letter?"	"The drive through restaurant is convenient in nice weather, but I seriously doubt they will ever catch on."	"I never thought I'd see the day all our kitchen appliances would be electric. They are even making electric typewriters now"
"If they raise the minimum wage to \$1, nobody will be able to hire outside help at the store."	"There is no sense going to Lincoln or Omaha any more for a weekend. It costs nearly \$15.00 a night to stay in a hotel."	"When I first started driving who would have thought that gas someday would cost 29 cents a gallon. Guess we'd be better off leaving the car in the garage."
"Its too bad things are so tough nowadays. I see where a few married women are having to work to make ends meet."	"No one can afford to be sick any more. \$35.00 a day in the hospital is too rich for my blood."	

Utah Vanity Call Sign Update

Do You have an I or an O in your call-sign? A local female HAM radio operator was on her way to work, when the Salt Lake City Police car behind her turned on their flashing lights.

Two police officers, hands on their guns, approached her car, one on each side... needless to say, she was terrified, but not surprised, as this was the second such incident within the month.

The officer at the driver's side window stated, "your license plate number does not exist!" The officer was emphatic that her Utah Amateur Radio plate did not exist. A month earlier this HAM had been pulled over, and when the officer came to the window, simply stated he was sorry to have pulled her over, he had inadvertently misread her plate.

This time the officers neither apologized nor admitted any mistake on their part. Luckily, this YL was smart enough to keep her hands on her steering wheel and remain both calm and very still. The plate in question was a 2x3 call sign with in the KI7 series.

Our section government liaison (SGL), reached out to the Salt Lake Police Department for an explanation. A senior SLCPD officer explained the issue...Utah license plates do not have the letters I or O, as they are easily confused with the numbers 1 and 0. In both cases, and in his initial look at our enquiry, he had entered the plate as K17 not KI7.

After explaining that Utah Amateur Radio plates are required to be issued with the official FCC call-sign and the format of such call-signs including the KI7 series, the officer said in 25 years he can't recall encountering any Utah plate with either and an I or an O; and said this issue may continue to arise with any such plate.

Further discussion and pointing out that both the letters I and O appear on various vanity plates and frequently on Utah Amateur Radio plates, the officer stated that he would ask that information be shared with patrol officers at upcoming briefings,

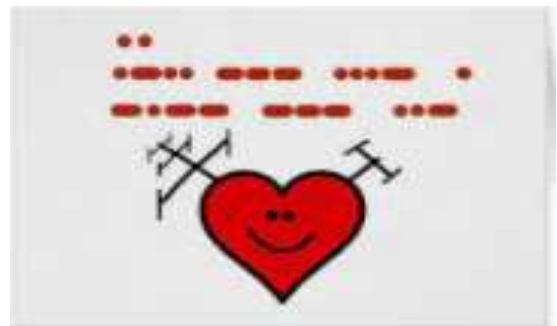
but honestly pointed out that unless an officer actually makes the mistake when encountering plates with the letters I or O, they may not remember the information. After all, officers are bombarded with lots of information at each briefing and over-time some information is simply not retained.

The section's governmental liaisons (SGL and LGLs) have discussed the issue and are planning the following course of action: We will request and hold a meeting with UT DMV officials with the intent of jointly developing an information card that explains the nature of Utah Amateur Radio plates and the critical role HAMS play in emergencies. In the meantime, please be aware of the potential to be pulled over and ensure that your paperwork is in order. Finally contact Jeri, WJ3RI if you have been or are stopped over your call sign. End.



Here are a few General Interest Links: Use Control & Left Click to open.

- [Call Sign Lookup \(QRZ\)](#)
- [Ham Radio Classified Ads](#)
- [American Radio Relay League \(ARRL\)](#)
- [US FCC Licensing System Portal](#)
- [US Ham Data](#)
- [Signal Report System RST](#)
- [DX Code of Conduct](#)
- [Coordinated Universal Time \(UTC\)/Zulu Time](#)



Continued next column

Rainbow Canyons Amateur Radio Club (RCARC) January Monthly Meeting. Continued from Page 17.



Bruno (KG7VVN) checking out his equipment setup.



Ron (K7HDX) setup.



Brad (WA7HHE) setup

Continued next column



Fred (KI7TPD) s



Fred (KI7TPD) calls the meeting to order.



Pledge of Allegiance.

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Rainbow Canyons Amateur Radio Club (RCARC) January Monthly Meeting.

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Brad explains the presentation scenario to the members.



Terry West getting ready to copy message during the digital mode presentation.



Brody (KG7VXV) copying the verbal traffic.

Continued next column



Paul (K7WEP) reading the verbal traffic to the transcribers.



Brad sending the message via the FLDigi Software.



Member Ken Wells shows the book that he won during the book give away drawing.

ARRL Foundation to Create Club Grants Program

A new [ARRL Foundation](#) Club Grants program, funded by a grant from Amateur Radio Digital Communications ([ARDC](#)), will make \$500,000 available to radio clubs. The program will provide up to \$25,000 for worthy club projects. Requests for more than that will be referred back to ARDC.



[ARRL](#) has long recognized that it is in the best interests of amateur radio to encourage and support amateur radio clubs. Clubs historically have recruited, licensed, and trained new radio amateurs and have provided the community setting for radio amateurs to continue their education and training. The new Club Grants program will help clubs to more easily provide and expand their important services.

Beginning in April 2022, amateur radio clubs will be able to apply for these grants by filling out a simple form on the ARRL website. The ARRL Foundation will evaluate the grant proposals. The Foundation was established in 1973 to advance the art, science, and societal benefits of the amateur radio service by awarding financial grants and scholarships to individuals and organizations in support of their charitable, educational, and scientific efforts.

A key criterion for determining awards will be how the project will advance amateur radio in the grantee's community. In most cases, this process should take no longer than 90 days.

ARRL Foundation President David Woolweaver, K5RAV, shared his enthusiasm about this new program.

"This program will substantially contribute to the growth of amateur radio clubs and their efforts to expand and support the amateur radio community," he said.



ARDC is a California-based foundation that awards grants to projects and organizations that follow amateur radio's practice and tradition of technical experimentation in both amateur radio and digital communication science. ARDC Executive Director Rosy Schechter, KJ7RYV, noted that this program will streamline the process for getting club projects funded, so that clubs can get started on these projects more quickly.

"We're very excited about working with the ARRL Foundation on this program," said Schechter. "We can't wait to see what kinds of creative things clubs will do with these grants." -- *Thanks to ARDC End.*



Continued next column

ARRL to Oppose Forest Service Administrative Fees for Amateur Facilities

12/24/2021

The US Forest Service is proposing to implement a statutorily required annual fee for new and existing communications use authorizations to cover the costs of administering its authorization program. ARRL plans to vigorously oppose the imposition of the proposed fees on Amateur Radio.

The Forest Service proposal results from requirements set forth in the Agriculture Improvement Act of 2018 (aka "the Farm Bill"). Specifically, section 8705(c)(3)(b) of the Farm Bill directs the Forest Service to issue regulations that require fees for issuing communications use authorizations based on the cost to the Agency for maintenance or other activities to be performed by the Agency "as a result of the location or modification of a communications facility."

The Forest Service is responsible for managing Federal lands and authorizes the use and occupancy of National Forest System (NFS) lands for communications facilities that provide communications services for adjacent rural and urban communities. The Agency said in its proposal that it administers more than 3,700 special use authorizations on NFS lands for infrastructure that supports more than 10,000 wireless communications uses at 1,367 communications sites.

According to the Forest Service **Notice** published in the December 22, 2021 issue of the *Federal Register*, revenues from the proposed fee, "would provide the funds necessary to support a more modernized, efficient, and enhanced communications use program," and will "cover the costs of administering the Agency's communications use program."

Costs, as laid out in section 8705(f)(4) of the Farm Bill, may include expenditures for such things as "on-site reviews of communications sites, developing communications site management plans, hiring and training personnel for the communications use program, conducting internal and external outreach for and national oversight of the communications use program,

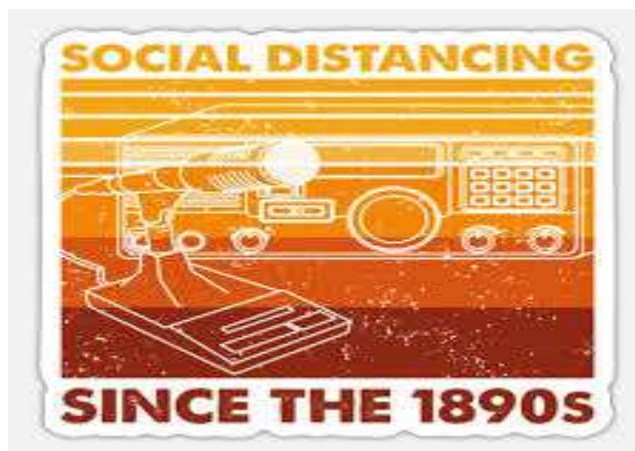
Continued next column

and obtaining or improving access to communications sites on NFS lands."

ARRL encourages Amateur Radio licensees to file comments opposing the imposition of the proposed administrative fee on Amateur Radio users. Comments must be received in writing by no later than February 22, 2022. Comments may be **submitted online** at the Federal Rulemaking Portal or via USPS mail to Director, Lands & Realty Management Staff, 201 14th Street SW, Washington, DC 20250-1124, and must include the identifier "RIN 0596-AD44."

Use the URL below for a more direct access to expressing your concerns if you wish to do so.

https://www.regulations.gov/document/FS_FRDO_C_0001-3605 **End.**



Yuma Hamfest

& Southwestern Division Convention

Yuma, Arizona

Feb. 18 & 19, 2022

Yuma County Fairgrounds
2520 East 32nd Street, Yuma, Arizona



www.yumahamfest.org

Check the Website for Additional Information

Gates Open for Camping Thursday, 2 pm Vendor Setup Friday, 7 am - Noon	Event Hours Friday, Noon - 5 pm Saturday, 8 am - 5 pm	Hamfest Dinner & Grand Prize Drawing Saturday Night 6:00 - 8:00 pm
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Vendors and Exhibitors

Hourly Door Prizes

Consignment Sales

License Testing

On-site RV Camping

Buzzard BBQ

ARRL Speakers

Transmitter Hunt

Near Space Balloon Launch

Tailgating (Swap Meet)

\$10 Admission

DXCC Card Checks

Full Seminar Schedule

\$25,000 + Grand Prizes

Admission Prizes

Hospitality Area

Antenna Clinic & T-hunt

On-site Food Concessions

W1AW/7 Special Event Station

Email: info@yumahamfest.org

Be Ready Utah
2022 Expo
Presents

Navigating Your Path to **PREPAREDNESS**



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Friday 2:00 PM - 8:00 PM

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Mountain America Expo Center

9575 S. State St., Sandy, Utah

\$5.00 per day

\$4.00 Online Early Bird Special until February 1, 2022

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BeReadyUtahExpo.org

#BeReadyUtahExpo



American Red Cross



**EXTENSION
Utah State University**



**HEALTH
UNIVERSITY OF UTAH**

Ham Radio Winter Field Day Pics

Continued from Page 7



Fred (KI7TPD) and Vernile (K7DVP) working 40 Meters.



Ron Shelley (K7HDX) working 40 Meters.



Fred (KI7TPD) setting up his portable Gazebo and will be working 80 Meters.

Continued next column



George (AL7BX) and Linda (KG7PBX) in conversation about something on the PC Screen.



The Tower is down and being secured for storage.



Brad (WA7HHE) and Brody (K7HDX) getting ready to connect the EComm Trailer for Storage.

Side Note: Bruno (KG7VVN) was in the trailer working 20 Meter Digital. In addition, Dick (K7ZI) was in his Motorhome working CW. Some how I missed getting their pictures.

Winter Field Day was a great success. Happy Trails Everyone.