

RAINBOW CANYONS AMATEUR RADIO CLUB NEWSLETTER

CEDAR CITY, UTAH



Club Websites: www.rcarc.info OR www.rainbowcanyons.com Number 3 – Vol. 8 – August 2021

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.

2021 Club Officer's

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CQ, CQ, Happy August Everyone.



Presidents Message

Greetings fellow HAMs!

It has been an eventful July! Our July Ham Swap Meet turned out to be a wonderful gathering and it looked like everyone had a good time and many were able to sell surplus equipment and acquire some new gear. I know I am enjoying my new CW paddle! We had several of our new HAMs out and is great to see everyone helping out our new members. A big Thank you to everyone who participated by helping with set up and clean up, and by bringing gear to sell (and buy). I hope you can share your radio enthusiasm with others and I hope you will play on the radio more!

With all of the rain and flooding in Cedar City it has really brought home how important emergency preparedness is, and that includes HAM radio communications. I enjoyed presenting on HAM radio power options at this month's meeting and it was great to see the different ways people have come up with to power their radios and equipment if we need to work an emergency.

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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:

146.980 MHz – Tone 100.0 Hz

146.940 MHz – Tone 100.0 Hz

146.760 MHz – Tone 123.0 Hz

147.160 MHz + Tone 100.0 Hz.

448.800 MHz – Tone 100.0 Hz

146.680 MHz – Tone 100.0 Hz

Remote Bases:

449.500 MHz – Tone 100.0 Hz

449.925 MHz – Tone 100.0 Hz

ILRP/Echolink

449.900 MHz – Tone 100.0 Hz

Save The Date

August 10, 2021

RCARC Club Meeting.

7:00 pm. Cedar City Senior Center,
489 E. 200 South. **Annual Barbecue
at Main Street Park in the Large
Pavilion at the South East corner of
park.**

September 14, 2021

RCARC Club Meeting.

7:00 pm. Cedar City Senior Center,
489 E. 200 South. **This will be an
Elmer Night. More info. to follow.**

October 12, 2021

RCARC Club Meeting.

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

November 9, 2021

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.

Also, I am confident that you are all helping in any way that you can with those who have experienced flooding.

I hope everyone has been getting out on the radio! We have our local nets as well as opportunities to participate on HF contests and 6 meters has been opening up so get out there, have fun, and play on your radio. 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! Remember you can always pick up the mic and see who is listening! As always, I would like to thank everyone who makes our meetings great by asking questions. I would also like to thank all of our net controls for the nets and everyone who participates!

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RCARC Club Breakfast

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

www.cedarcitypastrypub.com

A Play on Words

**They say
REVENGE is best
served cold.**

**They also say
REVENGE is
sweet.**

**So basically.....
REVENGE is:**

ICE CREAM



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

**Elmer Night Coming to our September Club Meeting.
Tuesday September 14, 2021
Save the date.**



Breakfast & Friendship Net Awards July 2021

Breakfast Net		Friendship Net	
First Place	Second Place	First Place	Second Place
KC6WFI - Tony	KG7PBX - Linda	K7WEP - Paul	N7SND - Larry
KI7TPD - Fred	N7SND - Larry	W6DLW - Dennis	K7NKH - Lee
KI7WEX - Bonnie		KG7VEJ - Jack	N7SIY - Sylvia
	Third Place	KI7TPD - Fred	
	N7SIY - Sylvia	KI7WEX - Bonnie	Third Place
	KF7CIN - Clare		K7ZI - Dick
			KI7LUM - Bruce

Rainbow Canyons Amateur Radio Club Treasurer Report as of July 10th, 2021

Bank statement balance - June 1, 2021	\$1,902.31
Field Day - Food & Misc Expenses	- 81.13
Field Day donation to defray Food Expenses	+ 100.00
Deposit - Memberships & T-Shirts (see reverse)	+ 445.00
Rocky Mountain Power	<u>- 15.60</u>
Bank statement balance - June 30, 2021	\$2,350.58
- Outstanding check # 102	
Field Day Food & misc exp	- \$192.29
- Rocky Mountain Power	- 20.90
+ Outstanding deposit	
Donation defray Field Day Food Exp	<u>+ 20.25</u>
July 13, 2021 Cash available	\$2,157.64

Submitted by
Linda Shokrian KG7PBX
2021 RCARC Treasurer
435-867-5914

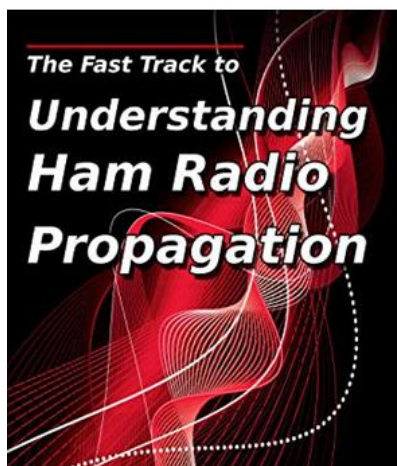
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RCARC August Meeting Book Giveaway

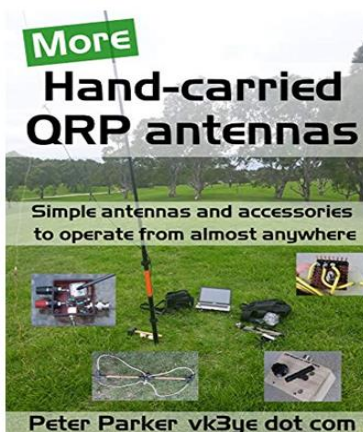
The book shown below will be awarded to one of our RCARC members at our club meeting on August 10, 2021.

This book is being donated by Linda Shokrian (KG7PBX).



RCARC Book Giveaway Winner.

The winner of the July 13, 2021 book giveaway is Lee (K7NKH)



**Congratulations
Lee**

Contact Us.

Mailing Address:

195 E. Fiddler's Canyon Road #3.
Cedar City, Utah 84721

Club E-mail:

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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

President Message

Continued from page 2.

We will have our annual club BBQ August 10th starting around 6:00pm at the Cedar City Main Street Park in the square gazebo on the east side of the park. If you didn't get a chance to sign up to bring something we can always use any side dishes!! Hope you can all make it!

Cheers!

Fred (K17TPD)



Buzz's August Safety Tip(s)



Beat the Heat Safely

Heat waves occur every summer in many parts of the country. An extreme heat event happens when the temperature is more than 90 degrees and there is high humidity for at least two or three days.

That kind of heat can be dangerous, particularly for older adults and children. In fact, extreme heat is responsible for the highest number of annual deaths among all weather-related hazards.

So, how do you stay cool when the heat is on? Try these tips:

- **Do not use electric fans when the temperature outside is more than 95 degrees.** You could increase the risk of heat-related illness. Fans create air flow and a false sense of comfort, but do not reduce body temperature.
- **Find an air-conditioned location**, like a library or shopping mall, to cool off if you don't have air conditioning at home. Make sure you follow all local guidance on wearing a mask and social distancing when entering a public building.
- **Keep your home cooler** by weatherstripping doors and windows and closing drapes and blinds.
- **Check on yourself, family members, and neighbors** for signs of heat-related illness.

Continued next column

- **Never leave a child, adult, or animal alone** inside a vehicle on a warm day
- **Wear loose, lightweight, light-colored clothing.**
- **Drink plenty of fluids** to stay hydrated.
- **Avoid high-energy activities.**

Extreme heat exposure can cause severe illnesses. Here's what you need to know:

Heat cramps. Signs of heat cramps include muscle pains or spasms in the stomach, arms, or legs. If you see signs of heat cramps, go to a cooler location. Remove excess clothing. Take sips of cool sports drinks with salt and sugar. Get medical help if cramps last more than an hour.

Heat exhaustion. Symptoms include heavy sweating, paleness, muscle cramps, tiredness, weakness, dizziness, headache, fainting, nausea, and vomiting. If you have signs of heat exhaustion, go to an air-conditioned place and lie down. Loosen or remove clothing. Take a cool bath. Take sips of cool sports drinks with salt and sugar. Call your health care provider if symptoms get worse or last more than an hour.

Heat stroke. This condition is more severe than heat exhaustion and is life threatening. Call 911 or get the person to the hospital immediately if they show these signs: body temperature over 103 degrees, red, hot, and dry skin with no sweat, rapid pulse, dizziness, confusion, or unconsciousness.

Visit [ready.gov/heat](https://www.ready.gov/heat) for more information on keeping cool during hot summer months. End.

RCARC July 13 Monthly Meeting Pictures



Conversations underway while waiting for meeting to start.



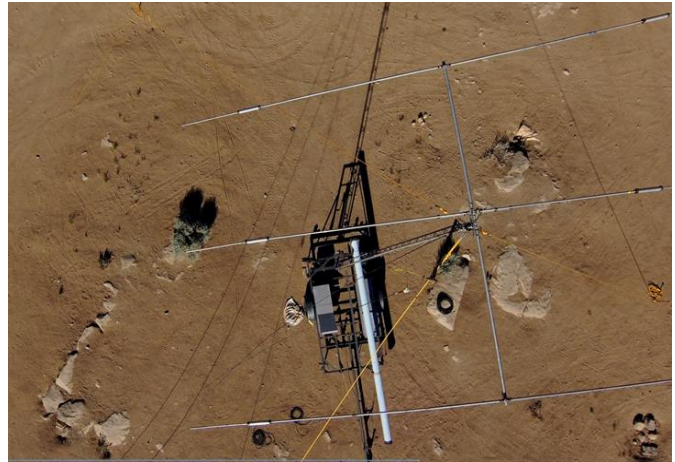
George (AL7BX) giving a repeater update.



Ron (K7HDX) addressing the group in regards to the upcoming Cedar City Fire Road Race.

Continued on page 18

Additional RCARC 2021 Field Day Pic's



Ariel View looking down on Antenna & Tower.



Ariel View looking down on the Antenna/Tower and Field Day Operations at 3 Peaks Recreational Area.

How A Group of Dedicated Volunteers Are Keeping California's Wildfires at Bay

Please access the URL below to listen to a National Public Radio (NPR) story on how Ham's work with the Los Angeles Fire Department during Wildfire Disasters.

Check out the below URL: There is a short commercial before the story starts to play.

<https://www.npr.org/2021/07/16/1016747577/how-a-group-of-dedicated-volunteers-are-keeping-californias-wildfires-at-bay>



September 11, 2021

The 12th annual running of the Cedar City Half Marathon down Cedar Canyon will feature plenty of pleasant surprises and is one of the most spectacular descending 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. It's rare to run a half marathon or a canyon without worrying about traffic. You'll have the roads and trails to yourself in the Cedar Half. On race day, Cedar Canyon is closed to all vehicles, and at the mouth of Cedar Canyon all runners will transition onto Cedar's magnificent trail system all the way to the finish line.

RCARC has been asked to assist in this event. Please come join us and help provide race communication.

If you are interested in joining other club members please contact:

Ron Shelley (K7HDX) at ronald.shelley@gmail.com



RCARC July Breakfast at the Pastry Pub Pics.



Waiting for the food to arrive.



Good conversation over breakfast.



Looking good guys.

What is Winlink

Winlink Global Radio Email...

...is a network of amateur radio and authorized government-licensed stations that provides worldwide radio email using radio pathways where the internet is not present.

The system is built, operated and administered entirely by licensed "Ham" volunteers. It supports email with attachments, position reporting, weather and information bulletins, and is well-known for its role in interoperable emergency and disaster relief communications. It is capable of operating completely without the internet--automatically--using smart-network radio relays. Licensed Winlink operators/stations use both amateur radio and government radio frequencies worldwide. Support for the system is provided by the [Amateur Radio Safety Foundation, Inc.](#), a US 501(c)(3) non-profit, public-benefit entity. Winlink Global Radio Email® is a US registered trademark of the Amateur Radio Safety Foundation, Inc. End



ARRL Headquarters Holds Rededication Ceremony

On Thursday, July 15, at 10 AM EDT, ARRL Headquarters in Newington, Connecticut, hosted a rededication ceremony, recognizing ARRL's commitment to all radio amateurs who enhance the communications capability and security of the nation.

The event coincided with the attendance of ARRL's all-volunteer Board of Directors, who had traveled in from across the country for in-person committee and Board meetings this week.

"Associations advance America," ARRL President Rick Roderick, K5UR, said in his remarks. "Associations bring people together around a common purpose. For ARRL and our members, that purpose is amateur radio... Over the last year, I have witnessed the extraordinary dedication of ARRL members, our staff, and our Board of Directors.

Without skipping a beat, we have worked together to equip our members with the opportunities they need to serve an active and vibrant Amateur Radio Service for our country." Roderick also recognized members of ARRL's Amateur Radio Emergency Service® (ARES®) for serving their communities with essential communications When All Else Fails®.

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RCARC Annual Barbecue

Location: Cedar City Main Street Park at the Large Pavilion in the South East corner of the park.

Time: 6:00 P.M. **Date:** Tuesday - August 10, 2021 (Bring a side dish)



FCC Reaffirms Nearly \$3 Million Fine for Marketing Unauthorized Drone Transmitters.

In a *Memorandum Opinion and Order* ([MO&O](#)) released June 17, the FCC denied a *Petition for Reconsideration* filed by Hobby King of a \$2,861,128 fine for marketing noncompliant RF equipment and for failing to respond to FCC orders in its investigation of the company's practices. In the same step, the FCC enforced its equipment marketing rules. The fine resulted from an FCC investigation initiated by ARRL's January [2017 complaint](#) that the Hobby King equipment was "blatantly illegal at multiple levels."

A representative of the ARRL Electromagnetic Compatibility Committee (ECC) stated, "The *Forfeiture Order* is the final chapter of a story that started with a report to the ARRL Board by the EMC Committee in 2017, as a result of the discovery that aerial drone TV transmitting equipment was being imported and marketed without proper FCC authorization under FCC Part 15 rules."



The Electromagnetic Compatibility Committee was credited in the complaint with calling attention to the issue and prompting ARRL's action.

As spelled out in ARRL's 2017 complaint, the ARRL Laboratory had documented that the operating frequencies of these drone TV transmitters near the 1.3 GHz amateur band were dip-switch selectable for frequencies internationally assigned for use by Aeronautical Navigation, GPS, GLONASS L1, ATC Mode "S," as well as to both the interrogation and reply frequencies used for Air Traffic Control Air-Route Surveillance "transponder" radar systems.

Continued next column

ARRL's complaint noted that given the channel configuration, these units would not have a legitimate amateur radio use, and that the marketing was directed at drone enthusiasts and not to licensed radio amateurs. "ARRL Laboratory tests did prove that only one of the seven available channels was within the 1.3 GHz amateur band," the ECC representative said.

"This is another example of ARRL not only affirmatively acting to protect our members' interests, but also acting to protect the safety and security of vital services and the general public," the ECC representative said.

Hobby King had denied that it was marketing its drone transmitters to US customers, but as the ARRL January 2017 complaint pointed out, ARRL Laboratory Manager Ed Hare, W1RFI, was able to purchase two drone transmitters from Hobby King for testing in the ARRL Lab. "The FCC noted that amateur radio equipment used to telecommand model craft are limited to 1 W (1,000 mW), but three transmitters included in the FCC investigation operated at significantly higher power levels of 1,500 mW and 2,000 mW," ARRL said.

Hobby King had told the FCC that it had no notice of the Commission's authorization requirements; that the Fifth Amendment relieved Hobby King of its duty to respond; that the forfeiture amount was inappropriate because its parent company, Indubitably, Inc., lacked the ability to pay to the *Forfeiture Order*; and that the Commission was time-barred from taking action against ABC Fulfillment Services LLC because it was not part of Hobby King's business.

"Upon review of Hobby King's *Petition for Reconsideration* and the entire record, we find no basis for reconsideration because the petition fails to present new information warranting reconsideration," the FCC said in the *MO&O*.

Hobby King is the trade name of two US-based companies that include ABC Fulfillment Services LLC and Indubitably, Inc. Read [an expanded version](#)

RCARC Club Members Out in The Community.

Monday July 5, 2021 Terry and I stopped at Cedar City Park at 200 North and Main Street to check out the 4th of July weekend activities.

While taking in the scope of activities we came across a booth called the Crafty Sister's. To our surprise club member Ann (KJ7OGZ) and her sister were selling homemade crafts. See pictures below.



Left to right Ann's Sister Jean. Ann in the middle and Linda Johnson...a family friend on right.



Terry West purchasing some of the craft items with Ann (KJ7OGZ) looking on.

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Who Knew?

Something new hams need to be aware of is a less-than-obvious bit of old-timey ham-speak still in use.

You may hear a ham say, "hi or "hihi" over the air or in person or in writing, and, curiously, their particular use of the term, "hi" is not in context of a greeting.

In ham-speak the term "hi" means laughter. Often doubled (hihi), it's a ham's way of expressing a humorous response. So, when a ham says, "hi" (s)he is laughing at something. Kind of like saying LOL in a text message or web post.

Where did this come from? In the early days of amateur radio, CW was the only mode so all communications were in Morse code. The word HI in Morse is dit-dit-dit-dit - dit-dit, (•••• ••) which sounds like an electronic chuckle. Quickly adopted, hams have been using "hi" for laughter decades after voice and other modes were added to our radio amateur repertoire.



Black Mountain Repeater Site Vault
Picture take by Paul Wolden (K7WEP)



RADIO NEWS

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



Vol. 3

AUGUST, 1921

No. 2

A COLD-CATHODE VACUUM TUBE

WE have often stated in these columns that present vacuum tubes have not reached their ultimate state of perfection, nor do we think that they will ever reach that state.

While the present audion type is a marvelous piece of apparatus that has done more than anything else to revolutionize radio, still even the most enthusiastic user has often felt that in many respects the audion is a nuisance. In the first place, the filament has a habit of burning out at a most unpropitious time. Then again, in order to light up this very troublesome filament, we require the use of a heating battery as well as a rheostat. All of this tends to cut down the general usefulness of the tube, particularly when it is desired to use it for portable sets where weight and space are at a premium.

Suppose we had a vacuum tube without any heating element or filament. It would certainly be welcomed as one of the greatest boons to radio, and this is exactly what is being developed now.

For several years past, Dr. Julius E. Lilienfeld, Professor of Physics of the University of Leipzig, has made certain researches that bid well to revolutionize not only our vacuum tubes but our preconceived ideas as to ionic bombardments that take place inside of vacuum tubes.

Dr. Lilienfeld who at present is in New York has already given a public demonstration of his new tube before the Department of Physics of Columbia University as well as before the New York Roentgen Society. For be it known that the new principle of this tube does not only confine itself to audions. The principle was primarily evolved, and is now practically used in a new X-ray tube by Dr. Lilienfeld. There is no secret and no hokus-pokus about the new invention. As a matter of fact every radio man and every electrician will ask himself at once why it has not been realized before. It is the old story of Columbus and the egg.

In a few words, the new tube as used for radio work consists of a plate which may be of Tungsten, or any other metal to which is opposed a somewhat pointed electrode, and

that is all. These two electrodes are enclosed in the ordinary type of bulb, but it should be stated here that the vacuum in these bulbs must be of an extraordinarily high degree. An ordinary form of evacuation will not do.

Under these conditions a pure electronic flow will take place between the metallic point and the metallic plate even at potentials of an order of magnitude as low as only 100 volts.

In an interview with Dr. Lilienfeld, the writer asked him many interesting questions, but due to the patent situation, it is impossible at the present time to disclose further information of the tube. The writer may say, however, that Dr. Lilienfeld stated that any metals can be used either for anode or cathode or both, and that the metals themselves do not seem to make any material difference. It is not possible at the present time to disclose the circuits that are used with this tube, as far as radio work is concerned, but Dr. Lilienfeld has promised to write an article for RADIO NEWS in the near future regarding his new invention. Dr. Lilienfeld recently demonstrated at Columbia University his new X-ray tube which consists of a target of Tungsten opposed to which is a metallic point. The distance between the two electrodes is about 1/5 of an inch.

This tube worked remarkably well on a 5 K.W. Transformer and its glass wall remained cold for over one-half hour under steady load where some of the known tubes become fearfully hot in less than two minutes. In connection with the pointed electrode, it may be mentioned as interesting, that this point does not wear away whatsoever as might be thought. It retains its shape indefinitely. We have here to do with a pure, *natural* electronic stream given off by the cathode which remains cool and which does not heat up. This is a phenomenon which a year ago would have been thought impossible. We predict great things for this new tube as far as radio is concerned, for, not only can it be used as an audion but as an amplifier and a generator of C. W. as well.

H. GERNSBACK.

IMPORTANT TO NEWSSTAND READERS:

In order to eliminate all waste and unsold copies, it has become necessary to supply newsdealers only with a sufficient amount of copies for which they have actual orders. Please note that your newsdealer will be glad to reserve a copy for you every month. This costs you nothing and you

will be assured of your copies. Hand your newsdealer a slip of paper on which write your name and address with a request to reserve a monthly copy of RADIO NEWS for you. This will be the only way to assure you of your copy hereafter.

THE PUBLISHERS.

RCARC Yearly Swap Meet Pic's

On Saturday July 10, 2021 RCARC sponsored its yearly Ham Radio Gear Swap Meet. Members, friends and family met at the Main Street Park under the shade of the Octagonal Gazebo to sell, buy or exchange their excess radio gear. See pic's below



Terry West staffing the goodies as yours truly (W6DLW) is taking pictures.



Sylvia (K17SIY) and Ann (KJ7OGZ) at Sylvia's table



Steve (K17YCE) to right, Fred's (K17TPD) Dad looking at some of the items displayed for sale.



Fred (K17TPD) arm in air and Jack (KJ7VEJ) with the big smile in middle of picture discussing antennas or the one that got away. I'm not sure.



Larry (N7SND) items for sale. **Continued page 15**

ARRL Headquarters Holds Rededication Ceremony

Continued from page 8.

In his remarks, ARRL CEO David Minster, NA2AA, reflected on the commitment made to maintain the organization's operations for the benefit of its members during the pandemic. "That we were able to continue proudly and passionately serving our members and our nation through these challenges speaks to the resilience of our organization, and the commitment of our volunteers and staff."

The event also included remarks by Connecticut District 1 US Congressman John B. Larson; Connecticut State Senator Matt Lesser, and Glenn A. Field, KB1GHX, Warning Coordination Meteorologist for the National Weather Service Boston/Norton office in Massachusetts. Also in attendance were representatives of the American Red Cross; the Connecticut Department of Emergency Services and Public Protection; the International Amateur Radio Union (IARU); Radio Amateurs of Canada; Connecticut General Assembly; the Town of Newington, and ARRL Officers, Board members, and staff.

A [video](#) of the rededication ceremony is posted on ARRL's YouTube channel.

Massachusetts Court Okays Amateur Radio Tower, Citing Board of Appeals' Error

A judge in the Massachusetts Land Court has ruled that the Zoning Board of Appeals in the City of Framingham "erred" in revoking a building permit for an 80-foot ham radio tower as an accessory use. The Building Commissioner in Framingham had granted ARRL member Mikhail "Misha" Filippov, KD1MF, a building permit for the tower, and Filippov had begun pouring concrete for the tower footings. Neighbors complained, however, and the Zoning Board of Appeals revoked the permit, citing the setback requirements of the city's wireless communications facilities (WCF) special permit bylaw.

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Most 2021 Field Day Participants Entered in Class D

In the second ARRL Field Day (FD) with rule waivers in place, some 4,815 entries were received at ARRL Headquarters by July 13 -- the majority in Class D (Home Stations).



Last year saw more than 10,213 entries and 18,886 participants. Before the pandemic, in 2019, 3,113 entries were submitted, with 36,420 total participants

"It appears that larger groups were more the norm in pre-pandemic times, as expected," ARRL Contest Program Manager Paul Bourque, N1SFE, observed. "From the discussions I've been having with participants, even though some groups gathered in larger numbers this year, many participants chose either to gather in smaller groups or to operate solo from home as Class D or Class E stations. Although I don't think we'll see the number of entries that we did last year, we're close in terms of the number of participants."

With about 2 weeks to go until the entry submission deadline, the tally of participants reported is 16,166. They made just north of 1 million total contacts.

"FD was already a success on Saturday, with the stations working smoothly, and lots of local visitors dropping by," said Andy Goss, AA5JF, at Augusta University Amateur Radio Club's WA4AUG.

Continued on page 14

Most 2021 Field Day Participants Entered in Class D

Continued from page 13

"An hour after sunrise on Sunday, we were counting our points, when Darby, KK4PEQ, announced he had just worked a station on 6-meter phone -- just playing around on 50 MHz using the 20/15/10 tribander," Goss said. "He stayed on 6 [meters] for five QSOs, but we quickly [moved] to 10 and 15, finding those bands were open to just about everywhere, and we doubled our score in just 3 hours. What a rush!"

FD Entries are Due Soon

There's still time to submit your 2021 Field Day entry. Most of this year's Field Day entries have been submitted [via the online web app](#) (worth 50 bonus points!), although some 50 paper logs have been mailed in. Participants can check the [Entries Received](#) page to make sure their entries were received and complete. If the entry status indicates "Pending documents," either the required dupe sheet (or in lieu of that, a Cabrillo log file), or supporting documentation of claimed bonus points is missing. Bourque said some 250 entries fall into that category right now. Participants can add documentation or edit their entries by following the link provided in the confirmation email sent to the email address provided upon entry, up until the entry submission deadline. Field Day entries must be submitted online or postmarked no later than 2059 UTC on July 27, 2021.

The breakdown of Field Day entries by class, as of July 13, showed 4,815 total entries, with 613 in Class A, 582 in Class B, 57 in Class C (Mobile), 2,619 in Class D, 858 in Class E, and 86 in Class F.

For his 2021 Field Day, Scott Hanley, WA9STI, took to the woods -- the Los Padres National Forest -- at a site some 7,400 feet elevation in the mountains overlooking California's Central Valley.

Continued next column

He operated as WA6LE in Class 1B. He put 358 contacts in the log on CW and phone -- short of his 400-contact goal. "Almost all activity was on 20, 40, and 75/80 meters to a G5RV or end-fed 20-meter dipole," Hanley said. "Six meters did not open, so I only had two local SSB contacts and only three contacts on 2-meter FM." End

Hints & Hacks

HINT

Easier PL-259 Mounting

When installing PL-259 connectors on coaxial cable, it's often difficult to screw the shell on. Next time, try a couple of wraps of Teflon tape (see Figure 1) on the coax before screwing the connector on. Not only does this make it easier to put the connector on, it also seals the connector. I generally find that it takes less than half the effort to install the connectors this way.

Michael Melnyk Jr., KD4KWP

Figure 1: Teflon tape is available at any hardware store.



Figure 6: A typical corner post electric fence insulator.

HACK

Low-Cost Insulators

If you set up a wire antenna outdoors, you might be tempted to use plastic insulators. These are okay as far as they go, but over time they will deteriorate in the sunlight and weather. Ceramic insulators are much better, but can be expensive.

Ceramic electric fence insulators are low-cost alternatives. They work just as well as those specifically designed for antennas, but are much less expensive. You'll find these at stores such as Home Depot and Tractor Supply, and on Amazon. Look for "corner post ceramic fence insulators" (see Figure 6). At the time this was written, you could purchase a bag of 10 insulators for \$16, and sometimes much less.

Ron Wagner, WD8SBB

RCARC Yearly Swap Meet Pic's

Continued from page 12



Bill (K6QOG) at his table setup talking with attendees.



Brody (K7VXV) with his son Kolby looking at the RCARC banner that was just hung up.



The gangs all here.

For Sale

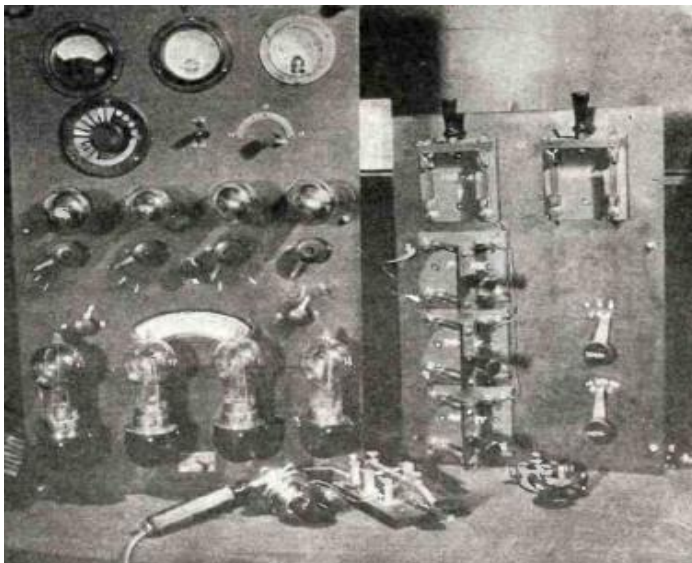
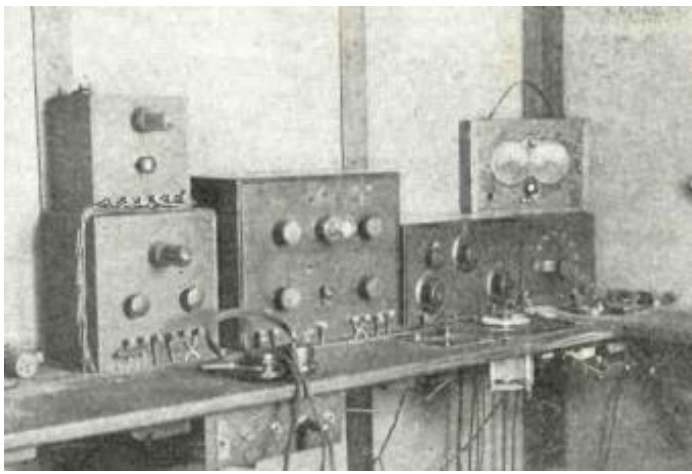
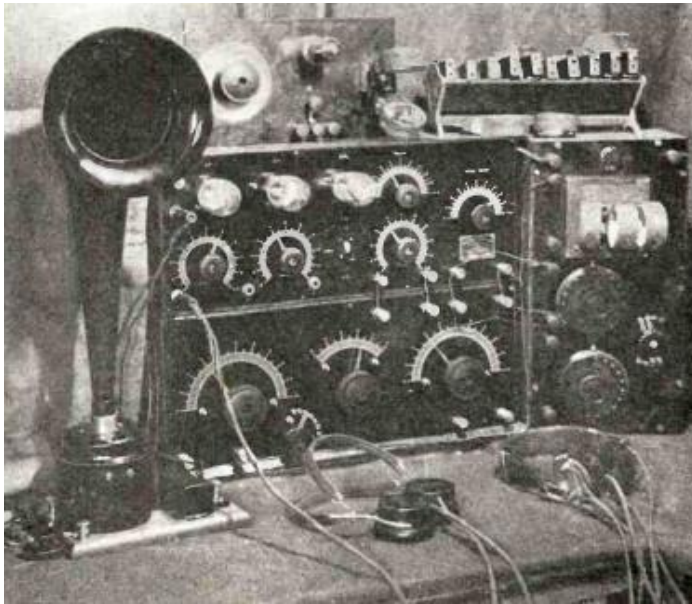
**Kenwood TS520 HF Radio
Single Sideband Transceiver**

If interested, please call Sylvia (N7SIY) at 435 867 0641.

Thank you



Pictures of Radios from a time gone by.



A great big thanks goes to:

**Fred Govedich
KI7TPD**

**Fred thank you for the
informative presentation on:**

**Power choices for amateur radio
from base to portable options at
last month's RCARC club
meeting.**

Great Presentation

RCARC Club Members Out in The Community.

Continued from page 10

On July 17, 2021 Terry and I stopped at Main Street Park to check out the Renaissance Faire. While walking around we came across Fred (KI7TPD), Bonnie (KI7WEX) and Steve (KI7YCE) Fred's Father. They were busy making crafts of the Renaissance time period. See pics below.



Steve (KI7YCE) discussing his jewelry making with Terry.



Fred (KI7TPD) explaining the making of a leather pouch. See pic below.



Bonnie (KI7WEX) and her Sister Mary working on their crafts.



Fred (KI7TPD) working on a leather pouch.

Continued next column



RCARC July 13 Monthly Meeting Pictures

Continued from page 6



George (AL7BX) briefing the group on his 2-meter Single Sideband activities.



Fred (KI7TPD) starting his presentation on "Power Options for Ham Radio"

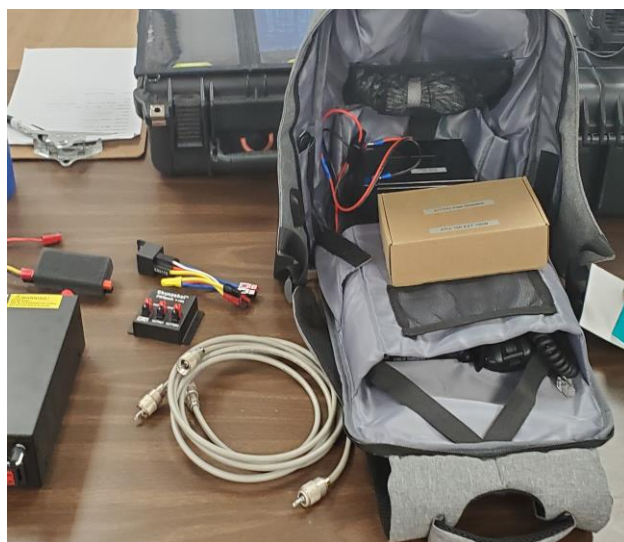


Dick (K7ZI) sharing his homemade Portable Power Unit.

Continued next column



Several off-grid power units and Brant's (KJ7LTQ) homemade portable radio in upper left-hand corner.



Fred (KI7TPD) Backpack Portable Radio Set up.



Brant (KJ7LTQ) sharing how he made his hand-held portable radio.

A Different Slant on Winlink Wednesday

The ARRL Southern New Jersey Section has been running its *Winlink Wednesday* (WW) Net for just over six months now. The net emphasizes real world, practical training. It offers operators a chance to work with as many Winlink form templates as possible and keeps things fun and interesting in the process.

Operators are free to send a standard check-in, using the message body of a regular Winlink email, but if they want more of a challenge, we post an exercise each week using different Winlink form templates.

Some differences from the standard WW: Telnet is encouraged, if RF is not available. This has opened the net up to operators that are new to Winlink, or digital modes in general. It has given them a chance to get familiar with the Winlink software before taking the plunge into digital interfaces, sound card modems, etc. Over 95% of those operators switch to RF in short order once they've learned the software.

Stats are secondary. Net Control posts the number of check-ins and where they were from (by County or State), but that's it. The focus is on each week's practical exercise.

We pass real world traffic, using a wide array of Winlink templates. Each week's exercise information is posted online on Tuesday evening. Pre-filled PDF forms are usually converted to PNG images. That way the information cannot be "cut and pasted" into the Winlink template and must be typed in manually - just like if a served agency handed you a paper form.

Each week is different or builds on a previously posted exercise. An example of a typical net: During Week #28, Net Control posted a one-minute video of an actual earthquake, and requested the net to send in USGS DYFI reports based on what they saw to SNJNWS. This is preferable to having operators "just make up" a report.

Continued next column

Net Control uses applicable tactical call signs: SNJOEM for EOC oriented traffic; SNJNWS for weather related forms; SNJARC for simulated Red Cross traffic; and SNJWW for regular check-ins and after-action reports. All net messages are sent to those tactical call signs as directed by the net control station. This keeps operators on their toes from week to week.

We discuss what worked and what didn't. The Net's operators remain anonymous to each other most of the time. This makes discussing errors and corrections much easier and productive, as no call sign is attached to a mistake. We've had very positive reactions to our net, with regular check-ins from Alabama all the way up to Maine. Please feel free to go through our archive for ideas. You can also use our postings for your own Winlink Wednesday Net.

Our postings from Week #7 through the current net can be found here: [Southern New Jersey Section EmComm » Winlink Wednesday](#) For additional information or questions, send an email: [Tim Tonnesen, NJ2N, SNJWW NCS End.](#)

ARRL Board of Directors Creates Emergency Communications and Field Services Committee

At its July 2021 meeting just concluded, the ARRL Board of Directors approved By-Law changes creating a third Standing Committee that joins the existing Administration & Finance Committee and Programs & Services Committee. The new Emergency Communications and Field Services Committee (EC-FSC) has as its charter developing and recommending new or modified Board policy and programs for emergency communications through its ARES and NTS organizations; enhanced support for its Field Organization leadership volunteers, including Section Managers, SECs, STMs, ACCs, SGLs, SYCs, PICs, and TCs; and an increased focus on its Affiliated Clubs.

Continued on page 24

Radio Helps Fight Forest Fires

By S. R. WINTERS



On the left, the photograph shows the complete radio set used in detecting and reporting fires occurring in the forests. Thanks to these apparatus the fire-fighting squads may promptly be notified and directed right to the fire.

FIRES originating in the National forests exact a toll ranging from \$25,000,000 to \$40,000,000 annually. Detection and suppression of these conflagrations, altho largely preventable by organized forces, are the available means for arresting their ravaging effects. Statistics in possession of the United States Forest Service indicate a direct relationship between the dispatch of a fire-fighting crew to the scene of the blaze and its resultant levy on woodland resources. Differently expressed, any system of detection is well-nigh valueless, unless information of discovery is speedily communicated to active suppression forces.

The airplane is a prompt detection agency, while radio equipment affords a hurry-up method of conveying the news of an outbreak to the fire-fighting crew. Aerial patrol of the vast woodlands of Uncle Sam is ineffectual in the absence of a wireless outfit as a companion instrument. Consequently, a cooperative agreement has been negotiated between the Forest Service and the Air Service of the United States Army whereby air-going machines and wireless communication become standard fire-suppression agencies. Congress has appropriated \$50,000 in projection of the service during the current year, and 12 wireless outfits have been borrowed from the Navy Department.

Montana, California and Idaho will constitute the base of operations, experimental efforts having heretofore been conducted in Montana and California. Thunder Mountain, a vast area in excess of 1,000,000 acres in southern Idaho, recently acquired by the Federal government, has been selected by reason of the rigid requirements involved in the successful operation of the airplane and wireless telephone. This territory is rugged and inaccessible, and in the execution of aerial patrol its efficiency as a fire-combatting agency can be scientifically determined. Forest conflagrations are not partial to location with respect to their origin—not unlikely the outbreak occurring in remote places, rarely invaded by man. Soaring above the topographical difficulties the air-exploring vehicle, fitted with radio equipment, will be enabled to patrol the vast wilderness, detect potential blazes, and promptly report their locations by harnessed electric waves to forest-ranger stations. The dispatch of an organized crew to the desig-



The upper photograph shows a portable station installed in a tent. On the right is a view of one of the fixt stations installed by the U. S. Forest Service. Note the aerial fixt to the pole.

(Photos by courtesy of the U. S. Forest Service.)



nated outbreaks will result in quelling the conflagration a-borning.

The original cooperative plan of the Forest Air Service contemplates a comprehensive system of radio communication, the fruition of which is of future realization. Every airplane would be equip with a wireless outfit, with a liberal distribution of ground stations capable of the transmission of messages irrespective of the location of the machine. The planes are to be supplied with SCR 68 and 67 radio sets, the ground equipment being SCR 74. The umbrella type of antenna is suggested. The standard requirements as outlined are: For each wireless station to be installed in conjunction with fire-patrol service there shall be maintained one small hut 8' x 10' in dimensions, or a room of equal size in a house. Ample clearance around the hut or house is to be provided to permit the erection of a radio mast, with an unobstructed space of 100' radius from the base of the mast. Provisions are specific in including facilities for charging batteries, and for board and lodging of two wireless operators.

Responsibility for the equipment and maintenance of the service is jointly shared by the Forest Service, Air Service, and Signal Corps. The latter is to furnish equipment and personnel for ground stations, supplied with one-way sets. The Forest Service is to provide the housing facilities, while the Air Service is responsible for wireless fixtures installed on airplanes. The communication of discoveries of fires to the local telephone exchange from landing fields and radio stations, is a duty devolving on the guardian of the National forests, namely, the Forest Service. From July 1 to September 30, 1920, the airplane, as fire-detection vehicle, revealed the presence of 772 blazes, radio communication being the connecting link between the revealing agent and the active fire-fighting crew. Here is a concrete example taken from a report transmitted from a forest ranger in California to the Washington office of the Forest Service:

"On Mill Creek fire of the Lassen the most intensive use of the airplane in conjunction with fire suppression was developed. This fire, which covered about 3,000 acres in a very inaccessible territory, created a very severe problem in patrol due to the rugged topography and length of the fire line. A radio-receiving set, with an operator, was dispatched to the central fire camp and an airplane was assigned for daily patrol on this fire. The observations were received at the ground station and were immediately available to the fire chief who dispatched his patrol forces as well as sup-

(Continued on page 144)

Continued on page 24

Mic Technique

Being heard clearly over the air is important, especially in the context of emergency communications. These techniques can help you be heard loud and clear.

Depend on Distance

Position the microphone two to four inches away from your mouth, and speak normally. If you have a quiet speaking voice, bring the mic closer. If you are a loud talker, move the mic away.

Microphones operate under the inverse-square rule: every doubling of the distance reduces the sound level by a power of two. So, a person who is four inches from the microphone will only be $\frac{1}{4}$ as loud on the radio as the same person who is two inches from the microphone.



No Need to Shout

Resist the urge to shout when you think the other person is having difficulty receiving you. Shouting into the mic introduces distortion and makes your signal even worse.

Shouting is also unhelpful in a noisy environment. The microphone doesn't necessarily hear the same sounds you do, and certainly not at the same volume. A well-designed communications microphone deliberately limits its effective range to an area about four inches in front of the microphone element. As a result, what may seem like a savagely noisy environment to you may not seem all that bad to your microphone.



Push, Then Talk

Finally, take care with the push-to-talk button. Starting to talk while pushing the button, or too soon after pushing it, can cause the person on the other end to miss entire syllables or words. Instead, squeeze the button, hesitate briefly, then speak. Hesitate again, and then release.

By adding those split-second hesitations at the beginning and end of transmissions, you can be certain that everything you say will be heard. This may seem awkward at first, but the technique will soon become a habit.

If you're new to your radio or microphone, ask a friend to help you do a quick test on the air. Engage in an actual conversation; the idea is to simulate your normal speech patterns and push-to-talk technique as closely as possible. Ask your friend to give you an honest evaluation of your technique, and make changes accordingly.

Notable Amateurs I have known

By Lee Hone (K7NKH)

My name is Lee K7NKH. I have held an amateur license since 1961. I just received my 60-year award as a Radio Amateur from QCWA. I have belonged to the Utah chapter 160 since 1994 and served as chapter President for 8 years and as Saturday net control for about 8 years, this is how I became acquainted with the following notable hams,

Greef Richard (Dick) Beckham W7FVM 3/6/1915 to 4/15/2016:

Dick became a SK on April 15 2016 at age 101. Dick had 1 son by his first wife which ended in divorce, lost his second wife Dolly and later re-married at age 90 to Vera. Dick was active in the LDS church.

Dick served as a radio operator on the battle ship USS Colorado and on July 2nd 1937, while stationed in the Pacific, was part of the US Navy Team that flew missions in the search for Amelia Earheart. Dick sent the first CW message that Earhart was missing. While flying these missions in a seaplane as an observer Dick had his new 8 mm camera and filmed the only footage of the historical event. Visiting with Dick I asked how they got the planes on and off the ship? He said they had a cage with the plane in it and it would be lowered into the water and float the plane out, and would do the reverse when they returned. Dick is believed to have been the last living member of the Earheart search team to pass a way.

Dick was a pilot for the CAP, a Boy Scout, a science teacher, worked for the FAA and was an amateur radio operator his call W7FVM.

The Utah State House of Representatives honored Dick on his 100th birthday.

Dick and I had many things in common, we both did electronics and teletype work.



QCWA Utah Chapter 160 president Dave Raab W7DKR presenting Dick W7FVM 75 years as an Amateur award in 2011.

Continued on page 23

Notable Amateurs I have known

By Lee Hone (K7NKH)

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Andrew (Woody) Woodward W7KOP 10/14/1911 to 12/25/2010

Woody became a SK on December 25 th at age 99. Woody was a Boy Scout for 87 years, and a Radio Amateur. At age 8 in 1919 he built from scratch his own amateur radio station. Woody was a Master Mechanic and Electrical Engineer. When he retired, he was a physics and chemistry lab supervisor at BYU.

As a boy he scrounged and built from scratch his own amateur radio station. A mechanic at a Ford dealership donated him a Model T spark coil and he used batteries for his station and built a spark gap transmitter. In later years he pioneered and built VHF radios as none were available commercially. His call W7KOP he said was Kind Old Pappy.

Woody and Scouting:

At the time of his death Woody had been nominated for the Silver Buffalo, the highest scouting award. Woody received the Silver Antelope award in 2003 which was among many awards he wore on his uniform. Woody always wore his uniform when doing scouting activities, he always wanted to look like a scout. Woody and another boy, Ralph Fulsom, have been recognized as instrumental in bringing Cub Scouting to America. According to BSA Woody was the longest continuously registered scouter and was still involved for more than 87 years.

Stories about and by Woodie:

At a court of honor, a lady asked if she could say a few words before Woody spoke. She said that she had been at many courts of honors where Woody spoke and he never told the same story twice. A story told to me by Woody: at one of his scout camps Woody was sitting on a log by the lake and four boys came by and asked to be told a story which Woody did. A little later the same four boys came by his cabin and asked for another story and he said I just told you one and one scout said we would like another one because you might die. My son in law who has been in scouting has a neckerchief slide carved by Woody.

Non-Ham or Scouting awards:

Lions Club Service Award for work with handicapped youth, lifetime member Kiwanis Club, and Utah County Volunteer of the year 1975 and 1976. He was honored as Grand Marshal of the Freedom Festival on July 5th 2010. He was also recognized for a life-saving events including saving a ham operator in Canada.



Woody W7KOP at QCWA Utah Chapter 160 Chapter Misquete Frolic in 1997.

Massachusetts Court Okays Amateur Radio Tower, Citing Board of Appeals' Error. Continued from page 13

Land Court Judge Howard Speicher reversed the Zoning Board of Appeals' decision and ordered the town building commissioner to reinstate the permit.

"The City of Framingham has provided, for the benefit of amateur radio operators, exemptions from its zoning requirements from the construction of radio antenna towers for amateur radio operators," the court noted. This case was not settled on the basis of PRB-1 considerations, but strictly on which setback requirements should apply. PRB-1 requires local governments to reasonably accommodate amateur radio installations.

The Zoning Board of Appeals had argued that Filippov's project plans failed to meet setback zoning requirements, but the Land Court determined that the board could not enforce this, because of an exception that exempts structures, including amateur radio towers, from these requirements as long as a building permit is issued.

The court ruled the Zoning Board of Appeals "erred in overturning the decision of the Building Commissioner to issue a building permit for the erection of the proposed radio antenna tower." End.



A Littler Humor

Two elderly hams had been friends for many decades. Over the years they had shared all kinds of activities and adventures on the ham bands.

Lately, their activities have been limited to meeting a few times a week to play cards.

One day they were playing cards when one looked at the other and said, "Now don't get mad at me, I know we've been friends for a long time, but I just can't think of your name and your call! I've thought and thought, but I can't remember them. Please tell me what they are"

His friend glared at him. For at least three minutes he just stared and glared at the gray haired old man. Finally he said, How soon do you need to know?

A ham is driving up a steep, narrow mountain road, his antennas flopping in the breeze and flopping into the other lane. A YL is driving down the same road.

As they pass each other, the YL narrowly missed the antennas and leans out of the window and yells...PIG! The ham immediately leans out of his window and replies, "! #*%#!!"

They each continue on their way, and as the man rounds the next corner, he crashes into a pig in the middle of the road.

If hams would only listen!

Radio Helps Fight Forest Fires

Continued from Page 20

pression forces accordingly. One hour aerial observation was equal to one day's work for two mounted patrolmen."

The efficiency of the service, however, involves the location and prompt correction of every failure attributable to the functioning of wireless equipment. Likewise, a recommendation has been issued to this effect: The minimum requirements in radio equipment demand that at least one ground station be established in each National forest in addition to the stations at bases and sub-bases.

Wireless communication as an agency in combatting forest conflagrations, however, antedates its application as a companion agent of the flying machine. The wireless telephone was for the first time commissioned for this particular service in Montana in the summer of 1919. And, altho in the retrospect, the developments of the preliminary experiments form an integral part of this story. For, had not radio communication proved its worth in the wilderness, its subsequent expansion, as indicated in the preceding paragraphs, would have been discouraged. The gruelling experience of establishing effective radio transmission in mountain fastnesses, the failures and triumphs attending initial efforts should be of interest to amateur operators. The telling of these details will be the burden of the yet unfolded portion of this story. The graphic and frequently thrilling events to be recorded are based on first-hand observations of R. B. Adams, telephone engineer of the Forest Service, who has the distinction of having installed the first wireless outfit as a fire-fighting equipment.

The use of grounds in mountainous areas of the National forests in conjunction with radio telephony proved a failure. The use

of counterpoise yielded a higher radiation. In one instance, where there was an apparently excellent ground, the yield of ampere radiation on the antenna was only .2 compared with .5 of an ampere radiation by the use of counterpoise at the identical location. The combined use of ground and counterpoise connections likewise proved a failure. Installations of wireless telephone equipment in densely-clustered timber, over a range of six miles with the SCR 67A sets, was productive of eminently satisfactory results. Heavy timber seemed powerless to interfere with continuous operation. Still another interesting experiment conducted, involved the placing of two wireless sets on either side of a high ridge, the distance between the two units of equipment being four miles; the distance over the top of the ridge was eight miles, and conversations were carried on without interference and in distinct tones.

What might be described as an inherent weakness of wireless telephony in the vast woodlands is the inability to signal. This obstacle, however, was surmounted by use of a loud speaking receiver, together with a proper amplifier. The objectionable feature of this method of signalling is its power-consuming capacity, a surplus of power being necessary continuously for the lighting of the filament of the vacuum tubes. Of course, the life of the latter is curtailed, humanly speaking, less than the span of three-score-and-ten. Manufacturing companies are now conducting experiments in an effort to improve signalling under adverse conditions, as illustrated by evidence of wireless communication in the National forests. The power problem is a vexatious

one in remote areas. Temporarily, the Forest Service solved the problem by using 270 No. 2 Burgess dry cells, connecting these in series and using them on the plate circuits. By this makeshift arrangement, the motor generator was eliminated and the storage battery employed in heating filaments only. The discharge from the storage batteries was decreased from 12 to 3.6 amperes. Likewise by the use of dry batteries the transmission values on the wireless equipment were enhanced 25 per cent. The No. 2 dry batteries were in use for four weeks, or until the radio equipment was dismantled for the summer, at which time they evidenced a slight deterioration. Storage-battery "deaths" at Beaver Ridge were averted by providing a bank of 48 super-six Burgess dry batteries. These were connected in series, parallel, in six different banks of eight, which were to be used as an auxiliary to heat the filaments or drive the motor generator, in the event of accident, to the storage or high-voltage battery. This plan afforded service without interruptions as static was a negligible quantity in the operation of the sets.

Prophetic of the possibilities of radio communication as an instrumentality in arresting the progress of fires on Uncle Sam's reservations, is this commentary of R. B. Adams, telephone engineer of the Forest Service: "After my experience this summer, my conclusions are that the wireless telephone will, in the future, play a very important part in our communication problems. They will not, however, be a substitute for permanent line construction except in certain instances. As a forerunner into outlying points of a permanent telephone line, they can be most successfully used. In many instances this remote territory can be continuously handled by wireless without the construction of a telephone line. To look-out points where the telephone lines are expensive to maintain, wireless (if the distance is great enough) will prove more satisfactory than a telephone line, both in cost and operation. Further experience in the use of wireless sets will demonstrate at a later date which of the Forest Service's 27,000 miles of telephone lines can be substituted with wireless."

ARRL Creates Emergency Communications and Field Services Committee. **Cont. from page 19**

The EC-FSC is further tasked with providing guidance to the CEO in the translation of Board policy into prioritized tasking, funding, and staffing of programs, services, and training in support of Amateur Radio emergency communications, Field Organization volunteers, and recruitment and retention of new and existing Members through assistance to Affiliated and Special Service Clubs. The EC-FSC also has responsibility for monitoring and assessing trends in emergency communications technology and participant skills worldwide, and for identifying "best practices" for voluntary emergency communications provided by ARES and NTS, coordinating and cooperating with other Amateur Radio national societies as appropriate. End.

Monsoon Rain Hits Cedar City with a Vengeance
Southern Utah University (SUU) Student Housing
Flooding on College Way West of the I15 Freeway.
Monday July 26, 2021



Check out this URL (Facebook) for video on SUU Football Field Flooding
<https://www.facebook.com/1289075656/posts/10220432786111578/?sfnsn=mo>

Continued on page 27

Monsoon Rain Hits Cedar City with a Vengeance

Continued from page 26

SUU Football Field Flooding Pictures.

Bottom Pictures are Fred (KI7TPD) and Bonnie (KI7WEX) filling Sandbags for the next round.

