

RAINBOW CANYONS AMATEUR RADIO CLUB NEWSLETTER

CEDAR CITY, UTAH



Club Websites: www.rcarc.info OR www.rainbowcanyons.com Number 3 – Vol. 6 – June 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 Father's Day



Presidents Message

Greetings fellow HAMs!

Dear Fellow Amateur Radio Operators,

Hope everyone is having wonderful spring! Field Day is coming up fast (June 26-27) so start making plans to come out to Three Peaks again this year. We are planning on a BBQ potluck for Field Day, we will supply Hamburgers and Hot Dogs, so think about a side dish to bring. In July we will also have a swap-meet so think about what radio gear you can sell (so you can buy some more radio gear!). For our June meeting George (AL7BX) will be giving a presentation on antennas. This should be a fun talk. We will also start taking orders for RCARC shirts. These will cost \$20 and will have the RCARC logo.

Continued on page 2

RCARC Club Nets:

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

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

7:00 p.m. Tuesday's Southwestern Utah Digital Net. Using FLDIGI, FLMSG AND FLAMP – 146.680, 1500/MT63-2KL

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. Wednesday – Morse Code Net- 146.980. - offset. PL 100

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

June 8, 2021

RCARC Club Meeting.

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

George Gallis (AL7BX) will do a
presentation on antennas.

July 13, 2021

RCARC Club Meeting.

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

August 10, 2021

RCARC Club Meeting.

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

September 14, 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.

As it warms up, I hope you can get outside and play on the radio! If you are interested in giving a talk or presentation, please let me know! 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. Check out their website at:

www.cedarcitypastrypub.com

Think Fire Safety



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



Happy Father's Day

Breakfast & Friendship Net Awards

Breakfast Net		Friendship Net	
First Place	Second Place	First Place	Second Place
N7SND - Larry	KI7LUN - Scott	KI7WEX - Bonnie	K7HDX - Ron
KK7ZL - Ed	KB7UMU - Sylvia	KI7TPD - Fred	N7WWB - Darlene
KI7WEX - Bonnie	KF7CIN - Clare	KJ7OZI - Paul	KI7SXJ - Isaiah
KI7TPD - Fred	Third Place	KJ7LTQ - Brant	K7ZI - Dick
	K7DVP - Vernile	W6DLW - Dennis	N7SND - Larry
	K7ZI - Dick	KI7LUM - Bruce	Third Place
	KC6WFI - Tony	KA7J - Lance	K7NKH - Lee
	KG7PBX - Linda	KB7UMU - Sylvia	
	KI7LUO - Melody		

ARRL Bulletin 15 ARLB015
 From ARRL Headquarters
 Newington CT May 7, 2021
 To all radio amateurs

SB QST ARL ARLB015

First-Time Exam Applicants Must Obtain FCC Registration Number before Taking Exam

Beginning May 20, 2021, all amateur examination applicants will be required to provide an FCC Registration Number (FRN) to the Volunteer Examiners (VEs) before taking an amateur exam. This is necessary due to changes the FCC has made to its licensing system.

Amateur candidates who already have an FCC license, whether for amateur radio or in another service, already have an FRN and can use the same number. All prospective new FCC licensees, however, will be required to obtain an FRN before the examination and provide that number to the volunteer examiners on the Form 605 license application. An FCC instructional video provides step-by-step instructions on how to obtain an FRN through the FCC's Commission Registration System (CORES).

The video is available at, <https://www.fcc.gov/rofrn> .

The FRN is required for all new applicants to take an amateur exam and is used afterward by the applicant to download the license document from the FCC Universal Licensing System (ULS), upgrade the license, apply for a vanity call sign, and to submit administrative updates (such as address and email changes) and renewal applications.

In addition, after June 29, all applications will be required to contain an email address for FCC correspondence. Applicants will receive an email direct from the FCC with a link to the official electronic copy of their license whenever a license is issued or changed. ARRL VEC suggests that those without access to email to use the email address of a family member or friend. Licensees will be able to log in to the ULS using their FRN and password to download the latest version of their license at any time. The FCC no longer provides paper license documents.

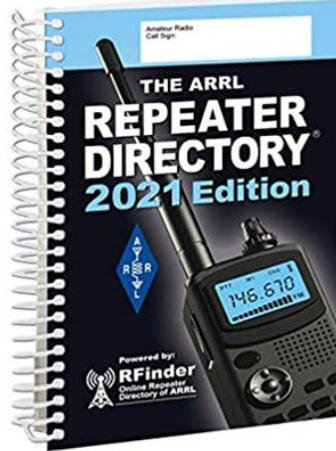
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RCARC June Meeting Book Giveaway

The book shown below will be awarded to one of our RCARC members at our club meeting on June 8, 2021.

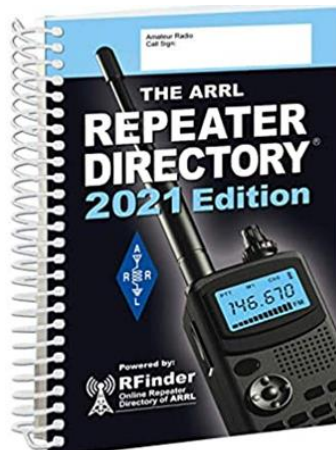
This book is being donated by Linda Shokrian (KG7PBX).



RCARC Book Giveaway Winner.

The winner of the May 11, 2021 book giveaway. The ARRL Repeater Directory, 2021 Edition is Brant (KJ7LTQ).

See picture page 11.



**Congratulations
Brant**

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

Save the Date

**RCARC Swap
Meet coming
July 10, 2021
@ 9:00 A.M.**

**Main Street
Park in the
Pavilion**



Buzz's June Safety Tip(s)

See related article on page 9



Wildfire Safety & Preparedness Tips

Every year, wildfires burn across the U.S., and more and more people are living where wildfires are a real risk. Nearly 45 million homes abut or intermingle with wildlands and more than 72,000 U.S. communities are now at risk. But by working together residents can make their own property - and their neighborhood - much safer from wildfire.

Protect
Your
Home

7 Ways Residents Can Reduce the Risk that their Homes & Property Will Become Fuel for a Wildfire

#1

Clear

Clear off pine needles, dead leaves & anything that can burn from your rooflines, gutters, decks, porches, patios & along fence lines. Falling embers will have nothing to burn.

#3

Screen & Seal

Wind-borne embers can get into homes easily through vents & other openings and burn the home from the inside out. Walk around your house to see what openings you can screen or temporarily seal up.

#5

Trim

Trim back any shrubs or tree branches that come closer than 5 feet to the house and attachments, and any overhanging branches.

#7

Close

If ordered to evacuate, make sure all windows & doors are closed tightly, and seal up any pet doors. Many homes are destroyed by embers entering these openings and burning the house from the inside out.

#2

Store Away

Store away furniture cushions, rattan mats, potted plants & other decorations from decks, porches & patios. These items catch embers and help ignite your home if you leave them outside.

#4

Rake

Embers landing in mulch that touches your house, deck or fence is a big fire hazard. Rake out any landscaping mulch to at least five feet away.

#6

Remove

Walk around your house and remove anything within 30 feet that could burn, such as woodpiles, spare lumber, vehicles and boats - anything that can act as a large fuel source.



NFPA has many more tips and safety recommendations on its websites, including www.firewise.org.

7QP Article

By Richard Parker K7ZI

7 May 2021

“7QP” sounds like a “personal problem” when, in actuality, it is a ham radio activity.

Because the state of Utah does not have an annual “QSO Party”, as most other states do, we join another radio activity titled, 7QP. The 8 States within the 7th call district of the United States, gather on the same weekend (first weekend in May) to set up HF radio stations, “Field day” style, or mobile. The main thrust of the effort is to activate hard to obtain counties within that state (see 7QP website for detailed information).

They call it a “Contest” when, in actuality, it is pretty lay-back radio activity. You make as many or as few contacts as you wish. Many “Big Gun” stations do contest style contacting from home. Others move from county to county, making mobile contacts as they go. Still others set up “Portable” stations and hand out contacts from counties that have few or no active hams living within its borders. (County Hunters love 7QP!) Another “set up” involves finding a site straddling a county-line. This automatically doubling your score while handing out contacts from 2 (or more) counties, at once. This is the type of station I enjoy traveling to and setting up.

“County-line expedition” is not as easy as you might initially think. Because many county-lines follow mountain ridges, and the early spring date make them inaccessible because of snow. It takes much time researching maps to find roads (and sites) that are accessible by vehicle. I work out of my motor home so it has to be “accessible”.

My first 7QP endeavor was activating Piute and Garfield county. A couple years later I moved to a place on Cedar Mountain where I activated Kane and Garfield. Last year we were on the Utah Nevada boarder activating Iron and Lincoln county. This year I ferreted out a site on the Beaver/Millard county line. I was fearful of late snow and mud on the first of May, when, in actuality, it was the hottest day of the year, dry and dusty!

Continued next column

I'm not much of a “Contester” (holding a radio frequency, logging them on a computer and rapidly moving on to the next contact) I am relegated to the “hunt and pounce” style of contesting. Competing with every other high and low power station on the band makes for a lot of “listening” and occasionally, “contacting”. Looking for a copyable station, within the din, results in a low total number of contacts. The activity lasts for 18 hours. Out of the 13 hours I spent, almost not-stop “pouncing” I managed 74 contacts.

Was it worth it? All the research time, visiting the site beforehand, expense and preparation, gathering stuff into one spot, set up and tear down, it was a lot of work for 74 contacts! However, if the number of signals, all jumbled together on the bands was any indication—there was a lot of “Joy” out there, this first weekend in May.

Each outing teaches an operator something. I have learned that I need a much simpler set up procedure. 3 hours to set up and 2 hours to tear down is far too long and strenuous for an old man!

I hope other “ops” become interested in an early Spring radio activity. 7QP might be just what you are looking for. Anyone interested in doing a tri-county, tri-state operation? I know the spot!

Richard Parker, K7ZI. **END**

RCARC Club Calendar

For those of you who may not know that RCARC offers a calendar of Club information and other Ham related functions that you may not be aware of.

To access the Calendar, go to www.rcarc.info. From the menu select Club Info and then Calendar. Once the Calendar has loaded it will show you the main topic and time. If you wish additional information place your cursor on the time and left click. This will open a new sub window that will give you more detailed information on the topic if available.

If you have something you would like placed in the Calendar, send an e-mail to rcarcnewsletter@gmail.com

Rainbow Canyons Amateur Radio Club
Treasurer Report as of May 6th, 2021

Bank statement balance - April 1, 2021	\$1,988.14
*Dues received	+ 140.00
Donation received	+ 5.00
Rocky Mountain Power	<u>- 15.47</u>
Bank statement balance - April 30, 2021	\$2,117.67

*Dues received \$140.00

Family payments of \$20 - received from
KG7VEI & KI7LYN

Individual payments of \$15 - received from
KG7HZZ, K7NJ, W6FJN, KF6LIM, KK7ZL KI7DRE, KJ7WBH, KG7TGC

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



Cedar City Fire Road 100K

July 31, 2021

Starting in Cedar City, Utah, you'll climb over 7500' to vistas overlooking Zion National Park with giant aspen groves and Kolob Reservoir. About 85% dirt and 15% pavement. 100K and 60K options.

RCARC Club members that would like to volunteer in assisting with the Race this year please contact Ron Shelley (K7HDX)

ARRL Summer Field Day June 26 & 27

Planning Your ARRL Field Day 2021 Operation

For most of us, ARRL [Field Day](#) 2021 is going to look quite different than it did last year. Considering the impact of social distancing due to the COVID-19 pandemic, many radio clubs and large groups did not gather in their usual Field Day locations.

Even though the restrictions from last year have relaxed here are some tips and suggestions to help participate in amateur radio's largest annual on-air event under these unusual circumstances.

Don't Forget 6 Meters

Field Day is a non-adjudicated operating event and not "full speed ahead" contest. It is also not just an HF event. All amateur radio bands above 50 MHz may be used during the event too.

This includes 6 meters, which often offers significant propagation enhancements around the time of Field Day weekend.



The band is available to amateurs holding a Technician-class license or higher. If you have an HF/VHF/UHF multi-mode transceiver, try making SSB, CW, or digital contacts on 6 meters. Even a simple vertical or dipole will allow you to experience the "magic band."

Continued next column

Planning Your ARRL Field Day 2021 Operation

Activities for Techs

One suggestion for clubs to consider in order to increase participation among their Technician-class members is to schedule specific times when these club members will monitor designated VHF and UHF simplex frequencies for Field Day activity. (Avoid published national FM simplex calling frequencies; repeaters are prohibited for Field Day contacts.) This way, members having equipment capable of VHF/UHF-only operation may be able to participate from home or a vehicle. Clubs can choose a list of frequencies and schedule times in advance.

On HF, Technician-class licensees have CW privileges on 80, 40, and 15 meters, as well as RTTY/data and SSB phone privileges on 10 meters. If you aren't a CW operator, try calling CQ on 10-meter SSB in the late afternoon and early evening on Saturday to see if conditions are favorable for long-distance communications. Try experimenting with a simple wire antenna for 10 meters. You might discover that the band can offer plenty of unexpected propagation.

Set Up for Digital Modes

You might want to explore using FT4/FT8 (or other) digital modes on 10 meters, 6 meters, or even on VHF/UHF. These modes offer an opportunity to make weak-signal contacts when band conditions often do not support voice communication. There have been reports of some great 6-meter openings in recent weeks, and these are likely to occur more frequently as summer approaches.

Continued on page 10

Utah's wildfire season surpasses five-year average with 126 blazes

Utah's current fire season has far passed the five-year average for this time of year in the number of fires and acres burned, according to Utah Fire Info.

Already this year, Utah has seen 126 wildfires and more than 6,200 acres burned, Utah Fire Info says in a Facebook post. The five-year average for this time of year is 46 starts and 189 burned acres.

The majority of those fires have been [caused by humans](#). The post warns that conditions are dry across the state.

According to the [Utah Wildfire Dashboard's](#) Season Summary, Uintah County is the county in the state that has seen the most wildfires so far this season. Uintah County is closely followed by Duchesne County in number of wildfires.

Notable fires that has occurred this season include the [Little Pass fire](#) in Tooele County, which was discovered on April 4, according to the dashboard. The fire was human-caused. Another was the [East Myton Fire](#) in Duchesne County, which was discovered on March 29, and was also human-caused. The blaze threatened 17 buildings, including homes, and required evacuation orders for eight homes.

Continued next column

In addition, the [Choke Cherry wildfire](#) in Iron County has been mapped at [660 acres](#) and charred the landscape.

Investigators say the fire was caused by a legally permitted burn that was not properly extinguished. The fire was reignited by wind and spread to dry, nearby vegetation.

To prevent human-made wildfires, [exploding targets](#) are currently prohibited in Utah and Tooele Counties.

What should I do if I start a fire?

"Immediately report it," Kaitlyn Webb, Statewide Prevention and Fire Communications Coordinator for the [Utah Division of Forestry, Fire and State Lands](#), says. "The quicker that fire resources are of aware of a start, the quicker they can respond, hopefully, the smaller they can keep the wildfire and the less risk there is."

Staying on the scene to answer questions as firefighters arrive can also be very helpful, Webb states.

To get more information on Wildfire preparedness check out these websites:

www.utahfireinfo.gov
www.smokeybear.com
www.readyforwildfire.org
www.nfpa.org
www.fema.gov



Planning Your ARRL Field Day 2021 Operation

Setup is relatively straightforward. You'll need a computer and a digital interface to connect the radio to the computer, and you'll need to download one of the digital mode software packages,

such as the free [WSJT-X](#) suite, which incorporates FT8 and FT4. Software should support the ARRL Field Day exchange (*WSJT-X* version 2.0 or later, for example).

ARRL Field Day rules place a premium on "developing skills to meet the challenges of emergency preparedness as well as to acquaint the general public with the capabilities of amateur radio." Field Day 2021 is June 26-27.

For the RCARC we will operate Field Day from Three Peaks Recreation Area Pavilion.

See tips on page 20

Stay tuned for additional information from the RCARC Summer Field Day committee. End.

Rainbow Canyons Amateur Radio Club (RCARC) E-Comm. Volunteers return to Cedar City Hospital.

During the month of May Cedar City Hospital started inviting volunteers back to the hospital.

On Saturday May 8th, E-Comm. Members Jack Coulter KG7VEJ, Ken Richter KR7KR, Bruno DeBacker and Brad Biedermann (WA7HHE) met at the hospital radio room to set up the radio equipment and verify that the radios are operational and functioning as programmed.

In addition, all antennas and connections including those on the roof were checked, tested and found to be operational.

On June 2nd E-Comm. Members will participate in the Five County quarterly Hospital Radio Exercise. More on this in the July Newsletter. End



ARRL Learning Network Webinars

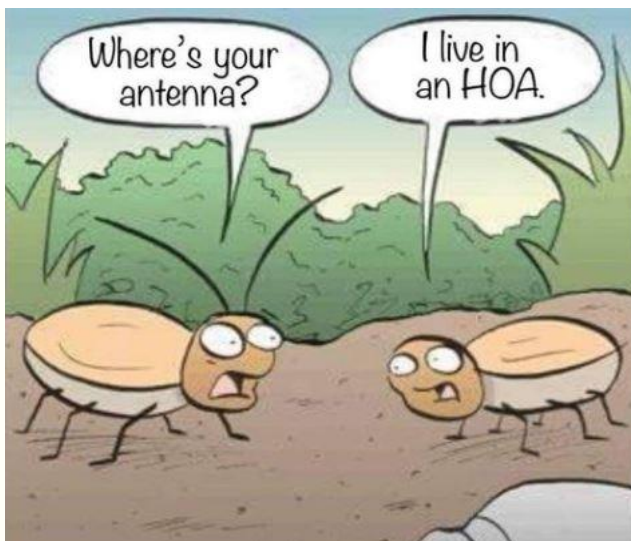
Ask the Lab: How ARRL's Technical Information Service Can Help You -- ARRL Laboratory Manager Ed Hare, W1RFI / Tuesday, June 8, at 1 PM EDT (1700 UTC)

Learn all about the ARRL Technical Information Service (TIS) and the expert ARRL Laboratory staff who answer thousands of questions each year from members. Get tips about projects, suggestions to address various station installations, and help for some of your most pressing ham radio questions. You'll discover how to search ARRL's extensive Periodicals Archive, find helpful articles, read test reports, access technical forums, and find answers to technical questions.

This Learning Network presentation is sponsored by PreppComm.

ARRL members may register for upcoming presentations and view previously recorded [Learning Network](#) webinars. ARRL-affiliated radio clubs may also use the recordings as presentations for club meetings, mentoring new and current hams, and discussing amateur radio topics.

The ARRL Learning Network schedule is subject to change. End.



Save the Date's Upcoming Activities this Summer

**Cedar City
Fire Road
Race**

July 31, 2021

**Beaver
Canyon
Marathon**

**August 14,
2021**

**Cedar City
Half
Marathon**

**September 11,
2021**



Brant
(KJ7LTQ)
Showing
the book
he won in
the
monthly
book
giveaway
drawing.

Pictures of the First Technician Class session on May 6, 2021.



Linda (KG7PBX) welcoming the attendees.

Pictures of the second Technician Class session on May 20, 2021.



Gavin Hollinger (KC7IHE) introducing electrical components to the class.



Dick (K7ZI) introducing himself to the attendees.



Here Gavin is explaining how the component works.



Bill (N6QOG) presenting the introduction to the class.



Additional photo of the class. There were several students on Zoom as well

RCARC May General Membership Meeting Pictures



Attendees networking before the meeting.



More membership networking.



Ron (K7HDX) leading pledge of allegiance.

Continued next column



Ron (K7HDX) addressing the members.



Ron (K7HDX) conducting business with the group.



Bruno (KG7VVN) presenting his Comm. Go Box.



RADIO NEWS

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

Vol. 2

JUNE, 1921

No. 12

MONEY FROM RADIO

WE have often heard it said that radio is used by the amateur only as a sort of diversion or sport. Unfortunately in most cases this is true. The amateur buys an outfit and being a selfish sort of person, immediately begins to use it for his own personal benefit and instruction, and as a rule that is all that the country at large ever gets out of this particular outfit. It is true that once in a while the amateur condescends to do a little relay work and to give out weather or market reports for someone who might happen to ask for them. But how many amateurs are using radio as a money-maker either directly or indirectly?

Perhaps few realize that there is money in radio at all and for that reason they hardly ever bother their heads about it. For those unenlightened ones, this article has been written. There is indeed quite a good bit of money to be made out of radio. Particularly is this true during vacation time when the average young man or college man has plenty of time on his hands to commercialize his art.

In this country there are thousands of islands located in various lakes, as well as in our oceans, and these islands have not always direct communication with the mainland, either by telephone or telegraf. It should be simple for an intelligent amateur to visit such islands and try to find out what the commercial possibilities are to connect such islands with the mainland, either by radio telegraf, or better, by radio telephone. We lay particular stress on the latter because few hotels or camps can afford to pay a regular telegraf operator. It is, then, up to the amateur to sell not only his temporary services, but to sell the outfit and the installation as well.

As a rule he can make good money in doing so. We know of a few cases where amateurs have made a tidy little sum from such installations. Radio telephone outfits are becoming simplified now and the amateur who knows all the firms manufacturing either complete outfits or the supplies to make an outfit, should have no trouble in disposing of several installations this summer.

Then we have the large excursion autos and excursion boats, such as yachts, motor-boats, river and lake boats, houseboats, etc. If the proprietor of such can be made to see the advantage of carrying a radiofone outfit that does not cost a huge sum, an order will often follow. The trouble with the average layman is that he does not realize how cheaply a low range radiofone outfit can be bought. Most of them have an idea that such an outfit in order to talk over a mile would cost a thousand dollars, or perhaps more. Consequently they never take the trouble to investigate and find out that a two-station radiofone outfit can be bought for a fraction of that sum. It will save its cost many times over, because it usually makes a hit with the public.

Then we have our friend the jeweler. Perhaps he has not a complete radio outfit to give him the exact time by radio. It should be a simple matter for the bright amateur to sell his local jeweler a complete outfit at a very good profit. Of course it means solicitation and a little

talk with the jeweler, because not every jeweler is up-to-date and will see the advantages. An invitation to the amateurs' radio station will perhaps clinch the sale in most cases. If once the jeweler sees how simple it is to work a time receiving radio outfit, he will soon become enthusiastic, and as many of his tribe have done, will even go so far as to put the outfit in a show window in order to attract trade. We know a jeweler in the South who uses a loud talker outside of his window where everyone for half a block around can hear when NAA sends out the time at noon.

Then we have the country factory and the manager's or owner's home usually separated for quite a distance. There is not always a wire connection between them. It should be simple to connect the two by radiofone, because as a rule the distance is not very great, and the innovation would be welcomed by the up-to-date business official.

Here is another wrinkle that may prove a steady income to the amateur. We refer to giving regular weather reports by mail or by fone to a number of subscribers. This idea was recently tried by a young amateur in the southwest, and we understand that he makes quite a little money out of it. He has about 40 subscribers to whom he furnishes daily weather reports either by mail or by telephone. Not only does he give weather reports, but he gives them market news as well, and also press news, if it is of sufficient importance. It works as follows:

The young man in question has a subscription card charging a low rate for mail service and a higher rate for telephone service. The fone service takes more time, is more expensive and as it is prompter for the subscriber, it is worth more money. The mail service is simple: as soon as the weather report is received by the amateur, he typewrites it and makes hectograf copies, which he sends out at once under a one cent postage stamp. It takes him but a few minutes to do this. To those subscribers wishing telephone service, he must of course call up each one separately which necessitates more time and expense. The beauty of the scheme is that it provides a steady income to the amateur and his expenses are very low. It costs him nothing to receive the radio messages and only the stationery and postage is an item to be considered. Usually a yearly contract is made—bills payable monthly. The amateur can make the rates to suit himself and of course the subscriptions should be low enough, otherwise he will not have many. As is the case with any kind of subscription, it is the quantity that counts. If an amateur can get anywhere from 50 to 100 subscribers, he can make a pretty little penny, besides rendering valuable services to the community. The thing of vital necessity is, however, that the service be prompt, because only then will it be beneficial to the subscribers. It need not be mentioned that it is a simple matter these days to obtain such a subscription from farmers or others interested in weather reports where there are no daily papers within reach and where advance weather and crop reports are often of vital importance.

H. GERNSBACK.

RCARC Club T-Shirt Fund Raiser

To help build club unity and as a fund raiser, RCARC will be selling T-Shirts.

Fred (KI7TPD) and Bonnie (KI7WEX) have a family member that can custom silk-screen the shirts.

We have the club logo that can go on the front or the back of the shirt with your call-sign on the other side. A few people that I've talked to like the one on the left with the call sign on the front and the logo on the back. The shirts have a front pocket.

You can choose your color of T-shirt, but it is recommended that you pick a dark shade of T-shirt since we will be using white for the call sign.

Bonnie and Fred will be taking orders for the t-shirts as well as hats and other items at the June 8, 2021 club meeting.

The color selection is found at the listed website below:

<http://shirtchamp.com/gildan-adult-softstyle-4-5-oz-t-shirt-g640>

Samples of Logo Placement



Communications Go Box Presentation

By Bruno DeBacker (KG7VVN)

At the May RCARC monthly membership meeting member Bruno DeBacker presented to the attendees his newly created Ham Radio Go Box.

Bruno stated that before he started this project, he asked himself the following question:

Why do I need this box?

- **Primarily to use for:** Emergency Communication.
- **Quick Dispatch:** Compact & Portable.
- **Integrated Communication Suite:** All modes, all bands, voice and digital, cross band repeater capable.
- **Singular Set Up:** Regular use builds familiarity, ease of use under duress.

Then came Points to Consider:

- **Dispatchability:** Weight, size, set up ease and power options.
- **Usefulness:** Does it provide for all E-Comm needs? Redundancy & single point of failure?
- **Ease of use:** Can the selected equipment be easily manipulated in this configuration? Access to controls, connection ports. Is the equipment familiar to you?

Then came Design Consideration's.

- **Overall weight/size and design:** Can one person deploy equipment? Does it fit in transportation mode? Is the enclosure sturdy enough for rough handling? Accommodates all connections needs, power, ground, serial cables and coax.
- **Equipment cooling:** Electrical equipment generates heat, allow for proper heat dissipation.

Continued next column

Emergency use is often a very high duty cycle (more use and more power = more heat).

How big of a box do you need?

The specifications of Bruno's Box are as follows:

Dimension's:

- 18 1/2 "(W) X 9" (H) X 13" (D).

Weight:

- 30 pounds.

Equipment:

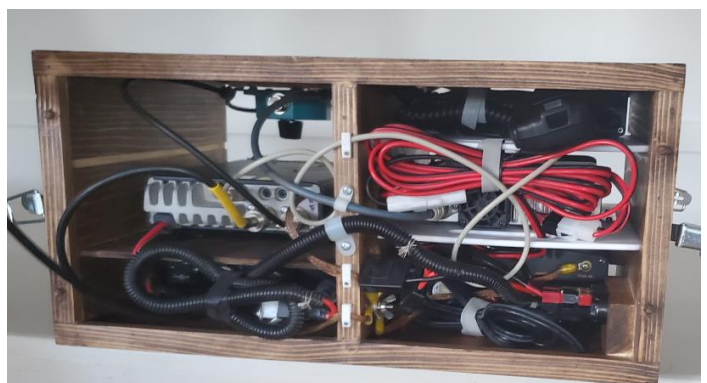
- FT 857 D all bands, all modes and digital
- Mobile Antenna Tuner, Signal link (Digital Sound Card).
- Icom 2370 A Dual Band VHF/UHF, Crossband Repeater Capable.
- VHF/UHF A-B Antenna Switch
- DC Switching Power Supply.
- Digital Clock Zulu Time.

In addition, microphones, power cables etc. have to be stored in the box as well.

Please see pictures below:



Front view of box.



Rear view of box.

Contact Bruno (KG7VVN) for additional information

April 2021 Volunteer Monitor Program Report Released

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

A General-class renewal applicant withdrew his application after FCC notice that the renewal application would be held up pending review of Volunteer Monitor complaints. As a consequence, the Quakertown, Pennsylvania, applicant has no operating privileges.



Twenty-one operators in 14 states received *Advisories* because of their operation in the March CQ World Wide DX Contest. While making contacts with VC3T and VC2W, their LSB signals extended below 7.125 MHz, which is the lower limit of the 40-meter amateur phone band.

Volunteer Monitors participated in a nationwide training program on April 7 that was conducted by ARRL and the FCC.

Volunteer Monitors had two meetings in April with FCC Enforcement Bureau personnel.

The totals for VM monitoring in March were 1,394 hours on HF frequencies and 2,515 hours on VHF and above frequencies.



Perspective: Keys to Success with Emergency Management and the EOC

The question comes up frequently: *how to get your radio operators in the door of the emergency management department and the EOC?* The answer lies in the big things, like understanding and embracing our true role - we are there to serve and support the professionals in the agency and EOC in the way *they* see fit, not the other way around. We are there to respond to *their* orders, even if sometimes we may be assigned non-amateur radio tasks. We are there to do all we can to help them with their profound and often complicated mission of public safety during an incident. We've all heard horror stories about amateur group leaders who didn't like the way the county emergency manager was using operators; they didn't like how the emergency manager ran the department and EOC, so they publicly complained to the county commissioners. That's a nonstarter, of course. Or, when hams spontaneously show up at the door, flood the EOC, and tell the paid, professional trained staff how to do their jobs. This is also a nonstarter.

Success lies in the small things, too, which are really big things. The inspiration for this editorial comes from a local county group that I work with from time to time, on exercises, conferences, nets, and training, that truly understands how the relationship works and why they have garnered the respect and appreciation of the emergency manager and his department. Here are a few things they do:

1. **We did whatever they asked.** When they asked that we move our entire radio room, we did it within a week of being asked, with no questions asked. The emergency management director specifically pointed that out later on, as a key moment that made him conclude we were a group to involve.

Continued on page 19

Perspective: Keys to Success with Emergency Management and the EOC. Continued from page 18.

2. **We bought and installed our own shelving in the room** -- a cost of a few hundred dollars, without asking them for money.
3. **We held license course after license course** until most of our members were Extra class, representing a highly knowledgeable group that were experts in radio communications.
4. **We gradually gained Incident Command System (ICS) and Homeland Security Exercise and Evaluation Program (HSEEP) expertise** by holding conferences and HSEEP exercises of professional-level quality -- with bound, published training materials, full after-action reports, and improvement plans; and we *tracked* the progress on the improvement plan action items.
5. **We recruited the emergency management staff to be the evaluators** for our exercises so they could see everything for themselves. We were able to get them to observe and review our exercises and suggest improvements: everything they asked to be changed we changed, improving what we did going forward.
6. **We looked into outside systems** that would improve our communications options and capability. For example, we were able to get the Shared Resources (SHARES) HF Radio program into our county for interoperability.
7. **We offered to help with ANYTHING they had problems with.**

Continued next column.

8. **We studied the interminable HF received noise problem at our county EOC**, purchasing expensive equipment (a spectrum analyzer), and professionally characterized the reception challenges -- and then proposed, tested, and implemented successful solutions. Our antennas are now so good, we placed acceptably well in ARRL Field Day!
9. **Our license classes netted an influential member of the local law enforcement** community who was impressed with our professionalism. That connection opened new doors for us.
10. **We tried never to be the tail that wagged the dog.** We are a backup, and merely a tiny part of their overall mission to protect the county. **We try to stay out of their way.**
11. **We didn't cost the county a dime**, and yet we built a group that grew in professionalism and capabilities -- and as a result, the county began to allocate funding for the equipment that would allow our volunteers to be even more successful in the jobs the county wanted done.
12. **We brought in our own equipment** and made "long term loans" to the county after they indicated that was the cleanest way for us to improve their radio systems. Later, they bought (on their dime) far better equipment -- but we still have provided them with EMP-proof gear that you just can't buy off the shelf.
13. **We implemented the full Incident Command System** for managing our Field Day, and that was noticed.
14. **All of our exercises are published in bound form** and we gave copies to the emergency management department. The response was, "Your write-ups look better than ours!"
15. **We have members joining all kinds of outside groups** to gain more and more outside expert knowledge that would benefit our county.

Continued on page 21



Six Tips for Enhancing Your Training During ARRL Field Day

Every year on the last full weekend in June, thousands of radio amateurs erect portable stations that run without commercial power. This event, ARRL Field Day, is the largest on-air event of the year, and it's a lot of fun. There's no one right way to "do" Field Day, and many clubs and groups use it as a training opportunity — some of them even simulate an emergency, to help operators hone their communication skills. Here are some tips for making Field Day 2021, June 26-27, fun and productive.

Help Set Up Antennas

Watch carefully and ask questions during the process. Hams have used fishing rods, air cannons, and drone aircraft to get ropes in trees and wires in the air. Often in emergencies, the usual antenna supports may not be available, so you will need to improvise. Field Day often presents similar scenarios, and is a great time to practice.



Use Proper Phonetics

Passing traffic and *message handling* are ham radio terms for relaying information in an accurate and timely manner. To be effective at passing traffic, you should be brief and precise. To be an effective voice operator, speak clearly and use proper phonetics, which helps differentiate between letters that sound alike — it can be hard to tell the difference between "S" and "F," but nobody will mistake "Sierra" for "Foxtrot." See the sidebar, "The Phonetic Alphabet," for a complete list of phonetics.



The Phonetic Alphabet

A Alpha	N November
B Bravo	O Oscar
C Charlie	P Papa
D Delta	Q Quebec
E Echo	R Romeo
F Foxtrot	S Sierra
G Golf	T Tango
H Hotel	U Uniform
I India	V Victor
J Juliett	W Whiskey
K Kilo	X X-ray
L Lima	Y Yankee
M Mike	Z Zulu

Continued on page 22

Perspective: Keys to Success with Emergency Management and the EOC. Continued from page 19.

Conclusions

Naturally, we want to promote our own programs. Our programs are excellent sources of fraternity, training, service, and advancement. However, sometimes when it comes to serving the EOC, we have to recognize that an outside group such as ours comes with risk and potential liability. The emergency manager doesn't have the time or the resources to deal with that.

Things *you* can do: Replace your group's badges, logo hats, and polo shirts with the EOC-provided "Communications Volunteer" or "RADO" shirts, for example. Play up your role in, and knowledge of, the Incident Command System model. You are part of the Communications Unit, under the Logistics Section; you report to the COML, the Communications Unit Leader (COML), or *whoever is designated by the emergency manager*. (The COM Unit or COMU is not always activated. We have to recognize that the ICS structure is expandable to include those elements that are needed and may have variations in structure; for example, several logistics functions might fall under planning because there is no logistics section chief).

There are many other radio operator/communicators involved at the EOC -- professional Sheriff's department dispatchers, and other ESF radio operators, for examples. All operators need to be prepared to report to the COML or *designee* for tasking and coordination. We cannot bring our own group's organization, rules, and ways of doing things and try to force the staff to deal with them. That would be a subversion of the ICS and leave us outside of the EOC looking in.

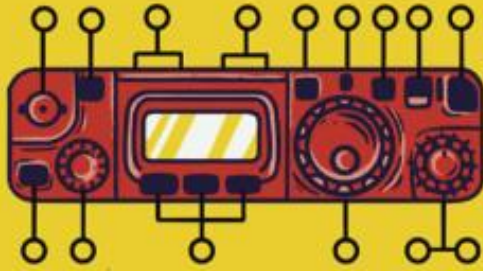
Continued net column

Our groups' roles involve training our members to serve within the Incident Command System, no matter what that looks like at any given disaster. We write everything up with ICS-approved forms, send messages with the ICS message form, and otherwise use ICS for everything we do. The Red Cross has followed the ICS model, too: to wit, their ARC-213 message form, patterned after the ICS version.

Getting back to the local county's ARES program and operators here, the emergency manager is convinced that the operators will work well within her emergency management department and EOC under the incident command system, and she is now open to engaging with others who will present themselves as volunteers for the emergency manager, not as a particular group coming to run their show.

The emergency management staff is so comfortable with the county's ARES group that they ended up listing ARES as a component of the Emergency Support Function for Communications -- ESF2. That might be what ARRL Field Organization leaders want to see -- the promotion of their ARES programs -- but it is because of their emergency manager's choice, not due to our request. The EM staff looks at the group here and does not see risk, but rather opportunity for real service and support.

So, we end up with what ARRL and ARES would like, but we get there by solving the EOC's problems and meeting their needs: how we can serve them by responding to their orders and tasks for us. We are not trying to sell them on ARES. We are trying to sell them on our individual volunteers who have completed the training requested and will serve confidently, competently, and appropriately.
- Rick Palm, K1CE, with Gordon Gibby, KX4Z.



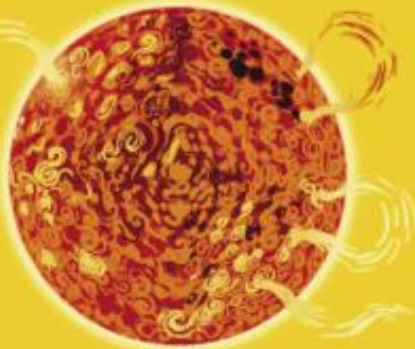
Know Your Controls

When you are in an actual emergency, being familiar with your equipment is essential. The Field Day exercise is a great time to get familiar with your radio, and having a labeled diagram of your transceiver's controls can help with that. This is often found in your radio's operating manual. Photocopy the page and keep it in a sheet protector with the radio — this way, you won't lose or damage the manual.



Explore Power Options

Public service and emergency communications often means operating without commercial power. Your Field Day operation can earn bonus points for using non-commercial power (see arrl.org/field-day for more information). Besides the ubiquitous gasoline generator, other options include solar, wind, and batteries. Some lessons to learn are the different types of batteries available and the technology used to keep them charged, or how a solar charging system works. This can be helpful the next time you experience a power failure in your neighborhood.



Watch the Propagation

The Field Day weekend is a good time to practice observing changes in propagation, because it's likely that you'll be operating at different times of day over the course of the event — and different bands are better for communicating to different parts of the country at different times of the day. This knowledge is particularly valuable in an urgent situation, when you may need to relay information to places outside your local area — and, subsequently, you'll need to know which bands are open to that area at that time.



Put Your Headphones On

Field Day is a noisy environment, so operators almost always use headphones to help block out the sounds around them and increase their concentration on listening for call sign from a coveted Section. If you're new to Field Day, it's good idea to bring a Y connector and an extra set of headphones so you can plug in to an experienced operator's headphones. You can learn a lot by listening to the way a seasoned amateur conducts their contacts — even if they have difficulty hearing a potential contact, or if they make a mistake, you'll learn from their example how to quickly and efficiently correct the situation.

Multiple Time Zone Clocks on Your Windows Computer

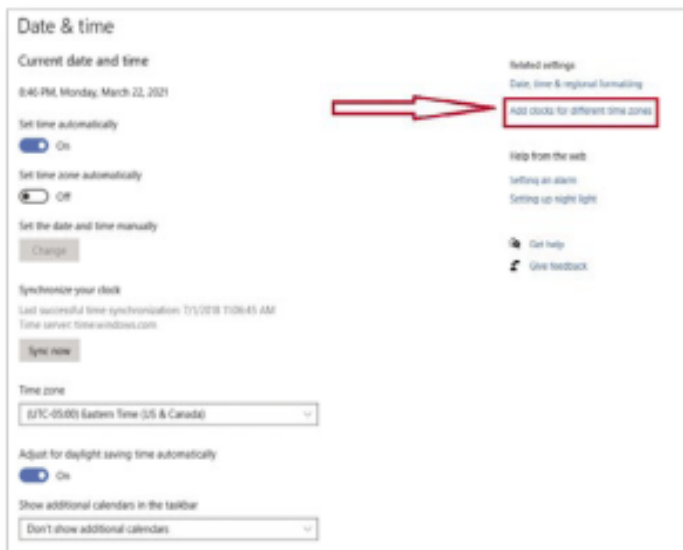


Figure 5: Click on the **Add clocks for different time zones** link at the bottom of this window.

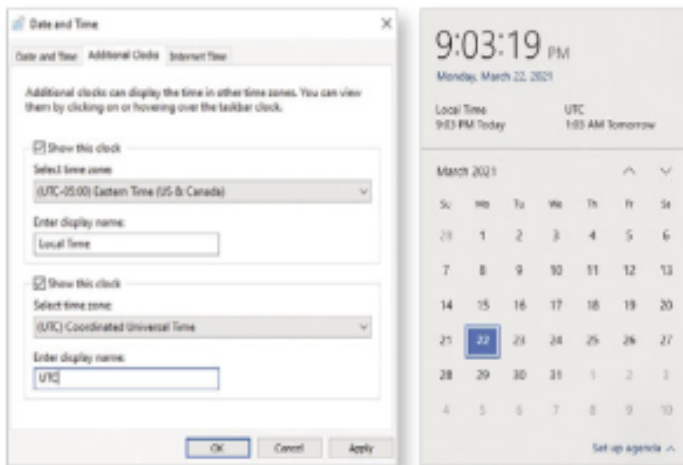


Figure 6: Under the **Additional Clocks** tab, check **Show this Clock** to enable Clock 1.

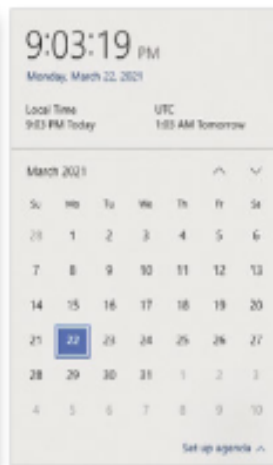


Figure 7: When you double click on the date and time area of your Windows desktop (in the lower right corner), both clocks will be visible, along with the calendar page.

HINT

Multiple Time Zone Clocks on your Windows Computer

Amateurs use Universal Coordinated Time (UTC) to keep track of contacts. In fact, most logging software uses UTC. But it can be confusing to navigate the differences between UTC and your local time zone. Here's how to make your station computer display both times simultaneously.

Step 1: Open **Settings** in the Windows Start menu

Step 2: Click on **Time & Language**.

Step 3: Click the **Add clocks for different time zones** link (see Figure 5). In the **Date and Time** window (see Figure 6), under the **Additional Clocks** tab, check **Show this Clock** to enable **Clock 1**.

Step 4: Select the time zone from the drop-down menu and type a descriptive name for the clock.

Step 5: Repeat steps 3 and 4 to enable **Clock 2**.

Step 6: Click **Apply** and then click **OK** to complete the task. When you double click on the date and time area of your Windows desktop (in the lower right corner), both clocks will be visible, along with the calendar page (see Figure 7).

Matthias Zapatka, AJ4BB/DL6ZM/DU3ZM



US Amateur Radio Bands

Operator license classes: **E** = Amateur Extra **A** = Advanced **G** = General **T** = Technician **N** = Novice
 CW operation is permitted throughout all amateur bands. Except as noted, all frequencies are in megahertz (MHz).

■ = RTTY, data, phone, image
 ■ = USB phone, RTTY, data and CW
 ■ = RTTY and data
 ■ = phone and image
■ = SSB phone
 = CW only

LF – Low Frequency band

MF – Medium Frequency bands

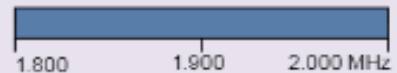
2200 Meters (135 kHz) E,A,G
 1 W EIRP maximum



630 Meters (472 kHz) E,A,G
 5 W EIRP max, except in Alaska within 496 miles of Russia where the limit is 1 W EIRP



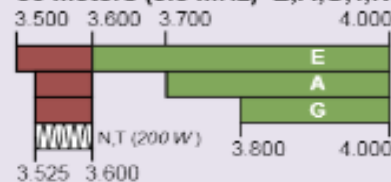
160 Meters (1.8 MHz) E,A,G



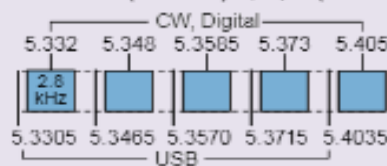
Amateurs wishing to operate on **2200 or 630 meters** must first register with the Utilities Technology Council online at <https://utc.org/plc-database-amateur-notification-process/>. You need only register once for each band.

HF – High Frequency bands

80 Meters (3.5 MHz) E,A,G,T,N

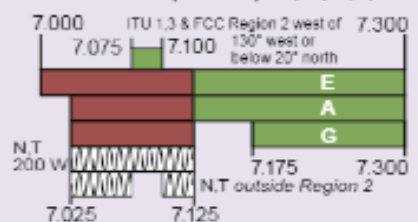


60 Meters (5.3 MHz) E, A, G (100 W)

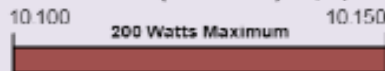


Gen. Adv. and Extra licensees may operate on a secondary basis with a maximum ERP of 100 W maximum.

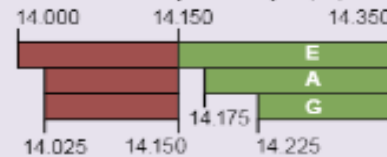
40 Meters (7 MHz) E,A,G,T,N



30 Meters (10.1 MHz) E,A,G



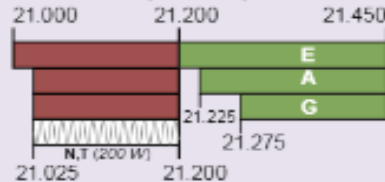
20 Meters (14 MHz) E,A,G



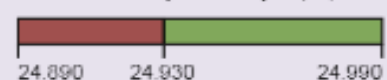
17 Meters (18 MHz) E,A,G



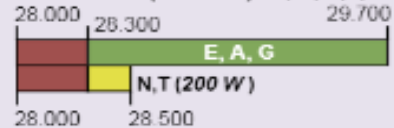
15 Meters (21 MHz) E,A,G,T,N



12 Meters (24 MHz) E,A,G



10 Meters (28 MHz) E,A,G,T,N



VHF – Very High Frequency bands

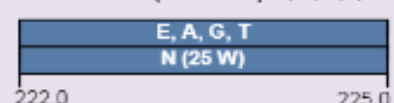
6 Meters (50 MHz) E,A,G,T



2 Meters (144 MHz) E,A,G,T

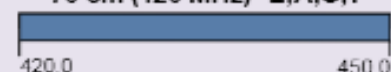


1.25 Meters (222 MHz) E,A,G,T,N

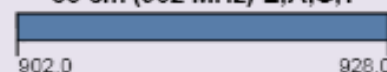


UHF – Ultra High Frequency bands

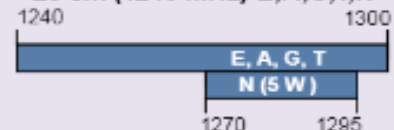
70 cm (420 MHz) E,A,G,T



33 cm (902 MHz) E,A,G,T



23 cm (1240 MHz) E,A,G,T,N



SHF&EHF – Super and Extremely High Frequency bands

All licensees except Novices are authorized all modes on the following frequencies:

2300-2310 MHz 3300-3500 MHz 10.0-10.5 GHz 47.0-47.2 GHz 122.25-123.0 GHz 241-250 GHz
 2390-2450 MHz 5650-5925 MHz 24.0-24.25 GHz 76.0-81.0 GHz 134-141 GHz All above 275 GHz

See www.arrl.org/band-plan for detailed band plans

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 OTAbands rev. 1-22-20

ARRL, Welcome's new Utah Section Manager

A new Section Manager has been elected for the Utah Section. Pat Malan, N7PAT will begin a 2-year term effective July 1st. Pat resides in South Jordan and has been involved with the Utah Amateur Radio community for many years. Please extend your congratulations to Pat as he begins his new role and I look forward to serving the membership of the Rocky Mountain division with him. I'd like to thank outgoing Utah SM Mel Parkes, NM7P who has served the Utah Section for the past 22 years. I'm grateful for his advice and counsel during my past tenure as Colorado's SM as well as my division roles. We wish both gentlemen success as we transition to a new section administration.



Amateurs' Email Addresses Will Continue to Be Kept Private, FCC Says

Starting on June 29, all applications filed with the FCC must include an email address for FCC correspondence. After receipt of the initial announcement that all future applications would require an email address, ARRL was concerned for the privacy of its members and requested that amateurs' email addresses not be made public.

Continued next column

This week, the FCC agreed, stating in an email to ARRL counsel that it will continue to "mask" amateurs' email addresses from public view in the Universal Licensing System (ULS). The FCC will use the email address supplied by amateurs to correspond with applicants, including to send a link to the official electronic copy of the license when an application is granted.

The FCC is transitioning to fully electronic correspondence and no longer mails hard-copy licenses. Amateurs are able to view, download, and print their official license grant, using the ULS. When a license is first granted, each applicant will receive an email with a direct link to the license. Although the link expires in 30 days, the license itself will remain available in the ULS and may be downloaded at any time by signing into the licensee's account using their FCC Registration Number (FRN) and password.

On or after June 29, a valid email address must be provided with each application, and must be kept current by filing a modification application as necessary. Under the amended Section 97.23, "The email address must be an address where the grantee can receive electronic correspondence. Revocation of the station license or suspension of the operator license may result when correspondence from the FCC is returned as undeliverable because the grantee failed to provide the correct email address."

Continued on page 26

Amateurs' Email Addresses Will Continue to Be Kept Private, FCC Says
Continued from page 25

Applicants lacking an email address should consider using the email address of a friend or family member on their FCC applications.

Reminder: Due to changes the FCC has made to its licensing system, starting Thursday, May 20, all amateur exam applicants must provide their FRN to the Volunteer Examiners (VEs) before taking an amateur exam. Prospective new FCC licenses will be required to obtain an FRN before the examination and provide that number to the VEs on the Form 605 license application. An FCC instructional video provides step-by-step instructions on how to obtain an FRN through the FCC's Commission Registration System (CORES) can be found at, <https://www.fcc.gov/rofrn> .

The FRN is used afterward by the applicant to download the official license document from the FCC's Universal Licensing System (ULS), to upgrade a license, apply for a vanity call sign, and to submit administrative updates (such as address and email changes) and renewal applications.



Radio Amateur's Vintage Film Footage Sheds Light on Hindenburg Disaster

Vintage film footage provided by New Jersey radio amateur Bob Schenck, N200, was the highlight of a PBS documentary about the *Hindenburg* disaster. The film, shot by his uncle, Harold Schenck, may provide clues as to what initiated the disastrous 1937 fire that destroyed the airship *Hindenburg* and claimed 35 lives as the German zeppelin was landing at Lakehurst, New Jersey.



Harold Schenck tried to interest government investigators in his film, shot from a different angle than newsreel footage that begins only after the fire was well under way, but it was largely overlooked. "Nobody ever asked for it," Bob Schenck explains in the documentary.

The Schenck film is the highlight of a PBS NOVA documentary, [Hindenburg: The New Evidence](#), that investigates the issue in considerable depth in an effort to unlock the secrets of the cold case. The program aired on May 19 and remains available for streaming.

"My dad had bought this nifty Kodak camera -- a wind-up movie camera, 8 millimeters -- and he couldn't come [to the *Hindenburg* landing] because he worked," Bob Schenck recounted during the documentary. "So, he asked my uncle and my mom if they would take some shots and see the *Hindenburg* land."

Continued on page 27

Radio Amateur's Vintage Film Footage Sheds Light on *Hindenburg* Disaster.

Continued from Page 26

Bob Schenck approached Dan Grossman, an expert on airships, including *Hindenburg*, in 2012 during a commemoration of the disaster that forever memorialized radio reporter Herbert Morrison's plaintive on-air reaction, "Oh, the humanity!" The NOVA documentary not only shares Schenck's footage, which provided new clues to re-examine the cause of the explosion, it also reviews scientific experiments that helped investigators come to a fresh understanding of what set off the fire.



The original investigation only concluded that the fire resulted from leaking hydrogen ignited by a spark, but it was never determined what caused the spark. Witness accounts suggested the fire started near the airship's tail, but supporting evidence was hard to find until the Schenck footage was examined.

"The *Hindenburg* remains vivid in our collective memories all these years later because of the searing images and film of the explosion," said NOVA co-executive producer Chris Schmidt in a *Manchester Patch* [article](#). "We feel honored to share this new footage with the world and to bring the NOVA audience behind the scenes of this pivotal new investigation into the crash." -- *Some information from Manchester Patch; thanks to Pete Varounis, NL7XM. End*

Pictures of the Third Technician Class session on May 27, 2021.



Fred (KI7TPD) discussing AM, FM, CW, Single Sideband and Phase Modulation.



Fred (KI7TPD) explaining Single Sideband in depth.



Linda (KG7PBX) and Ken Munford (N7KM) conversing prior to Ken's presentation during the 2nd half of class.