

TORC newsletter Third edition



Photo by Chris Seger

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PURPOSE

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WELCOME

Welcome to the third edition of the Tortolita Radio Club newsletter. We sincerely hope you enjoy the new club and all that it will offer. For a quick overview of what we're all about, click on PURPOSE above. You can also view it under About on the club website <https://tortolita-rc.com>

56 members and growing.

I see that there are some members who have not subscribed to our email reflector on groups.io. It's free and you can set it to forward all email to you one at a time or as a group once per day (that's what I do and it's perfect). There have been some lively discussions on the reflector already and lots more to come.

Scott K7ADX set it up and advises: To join, simply click the address ToRC+subscribe@groups.io or copy and paste that address on an email. If you don't already have a groups.io account, you will do so. Just takes a minute, doesn't cost anything. Once you ask to join, Scott will accept you and you will be up and running. Ron W7HD is also an administrator so if Scott gets bogged down at work, ask Ron to accept you. (w7hd.torc@gmail.com)

73 de W8TK

TORC CALLSIGN

Amanda Grimaldi at ARRL has managed to get us a callsign already! Took only about an hour.

ToRC is now **KJ7RCX**. She is now shepherding our application for KT7RC through the FCC computers. She says it will take about 18 days for the vanity call to happen. Back in 1959, at age 13, I took my Novice test on somebody's kitchen table and waited next to the mailbox for 8 weeks before my ticket arrived. Seemed like an eternity. This whole process was amazing.

de W8TK

I got a message from FCC today that our application for callsign **KT7RC has been approved!** I am grateful to the staff at ARRL who guided me through the process, getting us a club callsign and a vanity callsign, all within 2 weeks of our application being filed.

I will now get KT7RC registered on Logbook of the World. I don't plan to send paper QSLs. We may offer certificates that contacts can print as we have done in the past for operating events.

I am club callsign trustee. Any member wishing to use the callsign may do so. Just notify me when you want to do that: (tkravec@pobox.com). You may use the callsign according to privileges granted by your own license.

73 de W8TK Tom Kravec

The **club Constitution and By-Laws** are now posted on the website under “Governance”:

<https://tortolita-rc.com/governance>

For those of you with inquiring minds:

Notice that the Constitution refers to the club as the “Tortolita Radio Club Of Tucson, Arizona”. This is the official name of the club according to the Constitution, however in every day parlance, we refer to it as the “Tortolita Radio Club”. On the website, I use the full name in headlines but the short name in text. There is a reason for this. If a ham is new to the area, looking for a radio club to visit or join and they do a web search of “Tucson radio clubs”, “Tortolita Radio Club” would never show up in the search results. By including “Tucson” in the Level 1 headers we will eventually show up in the Google (and other) search results for such an inquiry. This is done for spreading our fame and fortune and recruitment purposes. Just in case you were wondering.

By the way, if anyone has personal web pages and can include links to other sites, make sure you add ours to your page. External links help our site show better in search engine results.

Cheers,

Frank N1UW

Since it's election season, we should consider a club election.

We have volunteers for

President (K7AZT Paul Seger),

Vice President (W8TK TOM Kravek),

Secretary (W7HD Ron Herring) and

Treasurer (AE9Q Dave Dostie).

The offices are mostly ceremonial since we have no money, no hard assets, no regular meetings. But in order to be ARRL-affiliated, we need those 4 officers. And unless anyone else is interested, the constitution states " In the case of an unopposed slate the President may entertain a motion for the Secretary to cast a single ballot."

IT IS SO PROCLAIMED BY SECRETARY Ron Herring W7HD effective November 1st, 2020.

GROUPS.IO

Scott K7ADX has set up a groups.io board for TORC.

They click the address ToRC+subscribe@groups.io or copy and paste that address and send an email. They have to get an account – really simple. It only takes a minute.

Once they ask to join I will accept them and off we go.

Send members here: <https://groups.io/g/ToRC>

Once folks get in we can start communicating that way along with email, set up some topics where folks can interact, etc.

I vote to eliminate bureaucracy. We have no dues, no repeaters, no regular meetings. Our Board consists of the four officers. We have four officers only because ARRL requires it in order to earn ARRL club affiliations. We will have no Board meetings and the only meetings of the membership will be on-the-air HF operating events somewhere. I'm not looking for a full-service club. I want a group of hams who want to learn how to get on the air, and to learn that by doing. If you want repeaters, join EAARS because it's what they do. I don't want to acquire assets, recruit a large membership, obligate members to meetings unless they find them fun. If Joe Ham wants to meet at Oracle State Park for an event next Saturday (assuming the virus will allow), he can put the info out on the groups.io reflector. Anyone interested will show up with a chair and his lunch. If the park requires a fee, we will pass the hat at the event. Simplify.

I have been deeply involved in volunteer organizations and their politics and it almost killed me. I had a coronary bypass at age 51. Not doing that again.

73 de W8TK

Tom Kravec

In addition to our email reflector and website, many services from "the other club" have migrated to ToRC:

- Mentoring (Elmers)
- Library (at W8TK, with a hundred books on antennas)
- HF radio loans (free)
- Contests
- Field Day

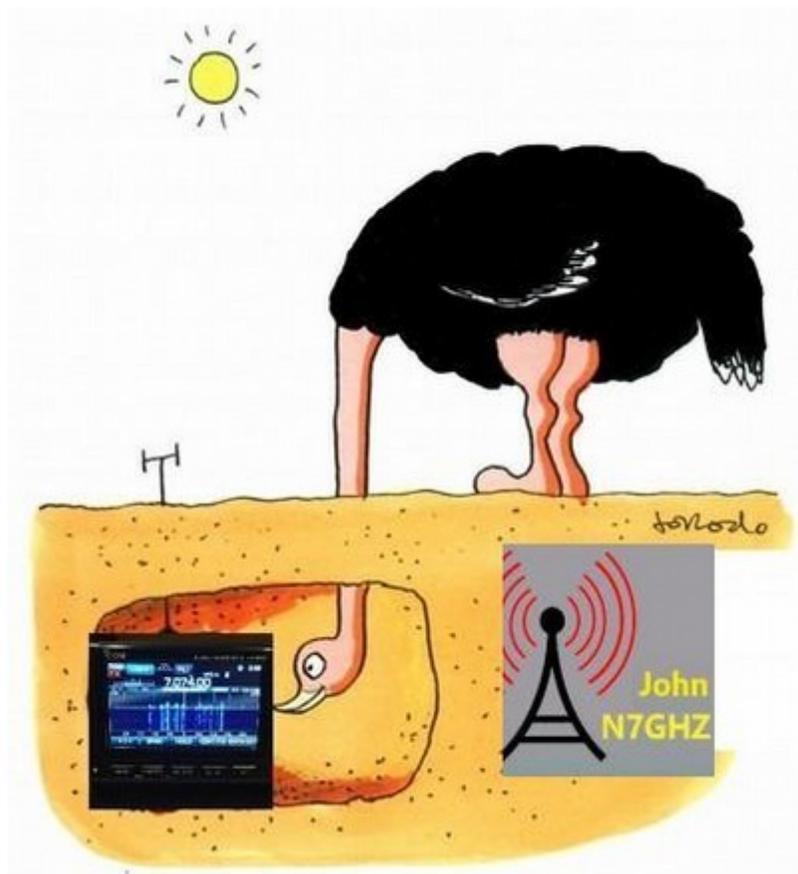
These may or may not be provided by "the other club". Feel free to take advantage at ToRC.

73 de W8TK
Tom Kravec

Also the newsletter! They don't have one any more...

Ron W7HD

"Ever wonder WHY they do this?"



Makes perfect sense now!

TORTOLITA RADIO CLUB

Serving the Greater Tucson Area



The ToRC website is running and can be viewed at

<https://tortolita-rc.com>

It has the essentials on it for now. We can improve on it as things settle down.

When an email is sent to contact@tortolita-rc.com I receive it and forward it on to the appropriate person.

Comments and suggestions are welcome.

73

Frank N1UW

Contest Calendar December 2020

by Tom Kravec W8TK

December is usually not busy with contests due to holidays. December falls between CQ and ARRL DX contests but there are plenty of smaller contests to keep you busy.

ARRL 160 meter contest December 4-6. Not as busy as the CQ 160 contest and requires lots of real estate for antennas. When propagation is lousy on the high bands, it's usually pretty good on 160 during darkness. www.arrl.org/160-meter

FT Roundup December 5-6. This was new last year and FT8/FT4 have come a longway in a year. Popularity of the modes is problematic for contesting because a couple kHz is just not enough to accommodate a horde of operators. Lots of discussion on FT reflectors. Details on the contest: www.rttycontesting.com/ft8-roundup/rules/

ARRL 10 meter contest December 12-13, phone and CW at the same time. Operate one mode or both. Chances of seeing an opening on 10 are slim and none. I operated this one from PJ2T about 20 years ago and made a couple thousand contacts but these days you're likely to wonder if your antenna is connected. Bring a book to read.

Details: www.arrl.org/10-meter

ARRL Rookie Roundup CW edition December 20. This is for newbies, not old timers. If you have been licensed for just a few years and have managed to learn Morse, you will enjoy this one as you dip your toe into the contest waters. It's only 6 hours on a Sunday afternoon. NFL is a bust anyway.

Details: www.arrl.org/rookie-roundup

Straight Key Night New Year's Eve/Day. Another opportunity to practice your Morse skills. This is not really a contest but CW ops like to dust off their antique keys and bugs and even legacy radios from years past. Vacuum tubes will be part of rag chews. There is no score, but ops with good "fists" get mention in QST. Beats being on the road with DUI suspects. Details: www.arrl.org/straight-key-night

Who's up for a white Christmas?

Keith Schlottman KR7RK, one of our members, has activated over 400 summits. I worked him this afternoon on 10, 15, and 20 meter CW from a peak in northern Arizona. In case you missed his excellent presentation at the virtual hamfest in August, you can find it here: https://www.youtube.com/watch?v=S4Il_T8DR9I

Several of our members are active in SOTA (<https://www.sota.org.uk>)

I will ask Keith to keep us posted on upcoming expeditions. Keep in mind that SOTA activators have to carry all their gear to the summit and deploy some kind of antenna to get on the air. Sometimes their signals are ESP level but they appreciate operators digging them out and making the QSO. Give it a try. It's addictive!

73 de W8TK

One of the cool things about portable operating is that you often get to experience new or unusual things. However, today I had an unusual thing happen that I really hope never ever happens again!

It was super windy on W7A/CS-022, Little Squaw Mountain this morning, and during the few hours I was up there, the wind gusts were steadily picking up. About 1820 UTC, I was working stations on 40 meters when there was a sudden loud cracking noise, just like thunder...and a 40-50 foot pine tree that was about 10 feet away from me fell. The wind blew the ENTIRE TREE down! Ripping it up by its roots. Fortunately it did not fall toward me or I wouldn't be here to tell the story.

I was instantly rushed with adrenaline and went QRT. In fact I had to go QRT because the tree fell across my dipole wire, which caused the mast to bend over 90 degrees (amazingly the mast didn't break, but the antenna did).

So I lived to activate again another day. But I learned a very valuable lesson. I've read news several times of people being killed by falling trees in forests, and I always had a hard time imagining how this could happen. Well let me tell you, it happened so unexpectedly and so fast that there's no way I could have escaped it. And just because a tall tree is standing does NOT mean it has a strong living root system to keep it anchored. With the many fires we currently have, as well as drought conditions, there are probably a zillion trees out there just one breeze away from taking their final sway before crashing to the ground. From now on, I intend to be on high alert for such trees while I'm hiking and activating, and I'll be careful to choose setup sites that are out of the danger zone in the event one does fall. This is especially true on windy days.

73 es thank you Chasers de KR7RK

John,

There are a few sota summits in Chirachua national monument, but Massi point is not. If you follow Tom's link you can find more information. Look under the Join In tab for more info about chasing and activating.

Ryan KI7RS and I activated Mt. Bigelow this past Wednesday. Using 3W and an inverted L I worked 65 stations and a guy in France.

To find activators go to this link <https://sotawatch.sota.org.uk/en/>

The alert tab shows when a station intends to activate along with mode and freq info. The spot tab is when the station is actually on the air.

73, Quinton NU7Y

Many of you are familiar with our monthly **HF operating events**. We started on January 1, 2016 with the ARRL's wildly successful National Parks On The Air (NPOTA) and since then we have done about 50 outings around the state. Some of my favorites are Oracle and Picacho Peak State Parks, Chiricahua National Monument, Tombstone, Titan Missile Museum and many more that I can't remember. I use the mafia method of record keeping. I keep none.

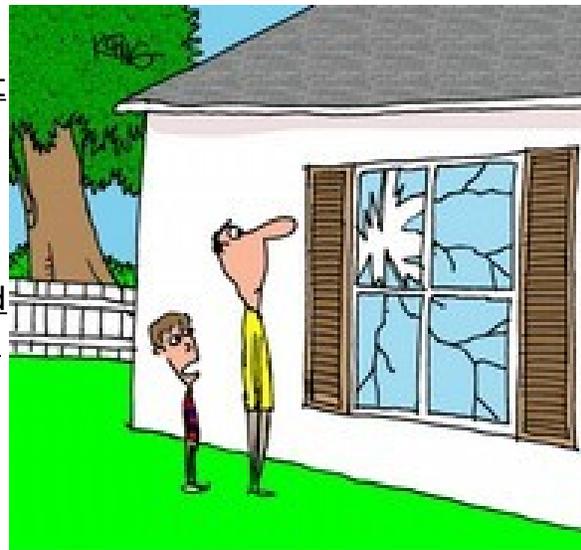
Where would you like to go when the virus allows? We prefer venues less than 2 hours drive from Tucson. Parks are always good, especially if they have rest rooms (the YL's won't come otherwise), picnic ramadas, BBQ grill, at least one tall tree for antenna support, and AC power. None of those are deal breakers, however. We have batteries for power and Easy-up shelters for shade. Some of our venues require a fee to reserve a group area, usually in the range of \$30 and we will pass the hat to cover that. But many are free and since we have no dues or fees, that would be a plus.

These outings are great for newbies who want to learn how to operate, and they provide opportunity for testing antennas and radios on the air. Reply on the reflector with your ideas (<mailto:ToRC@groups.io>)

73 de W8TK Tom Kravec

2020 is broadcast pioneer KDKA's 100th anniversary. Multiple Western PA radio clubs will hold a month-long special event operation using special call signs K3A, K3D and K3K. Also, look for special call sign W8XK - KDKA's call sign before it was KDKA! Portable operations will take place from Saxonburg, where it all started as well as right next to one of the original tower piers! Special QSL cards and a certificate will be available for those who work all four call signs.

73 de George NG7A



"When you said your windows were broke, I was ready to get on your computer. I forgot windows means something else to people your age."

Illustration 1: This really hits home.

What's in my HF go-box?

Tom Kravec W8TK

If you have been to one of our monthly outings, you have seen the rolling black box full of stuff and companion orange tool box. I keep them packed at all times, ready to go. In addition, immediately before heading out to operate, I set up the entire station at home and put it on the air so I am certain I have everything I need. And I learned the hard way that redundancy is the best insurance against Murphy's Law, so I pack 2 of most things.

HF transceiver

- DC power cable

- Compatible headset/mic

- Compatible foot switch

- Hand mic, just in case

- Spare headphones

- Manual

Spare transceiver with manual if different from primary

Laptop, charged, tested, with USB hub, USB cables

- Loaded with N1MM, fldigi, WSJT-X

- Keyboard, mouse, mouse pad

Coax, RG8X, various lengths (20 ft, 50 ft, 3 ft), PL259 each end

For on-site AC power or generator:

- Extension cords, power strips

- DC 25 amp power supply with AC cord

- RigRunner with PowerPole cable

- Laptop AC supply

For DC power:

- Bioenno battery, charged

- or SLA battery and booster

PowerPole cable with RigRunner

Laptop battery, charged, with spares

WinKeyer with USB, radio and paddle cables

Spare keyer, paddle, all cables

Bandpass filters if more than one transmitter is planned, coax jumpers

Antenna (EFHW, OCFD, dipole)

Spiderbeam pole if no trees anticipated

Base for pole

Cinder blocks

Nylon twine

Fishing rod/reel/weight for treetop antenna

Camera

Spare batteries (AA, AAA, 9v)

Pencils, paper in case of computer malfunction.

Adapters for audio cables (1/4" and 1/8" phone plug, RCA, mic plug) and coax (PL259, BNC, SMA, RCA). Can't have too many. My bag has more than Radio Shack ever did.

Tool kit

DVM

AC outlet tester

Nut drivers for pole

Multi-tool

BF Hammer

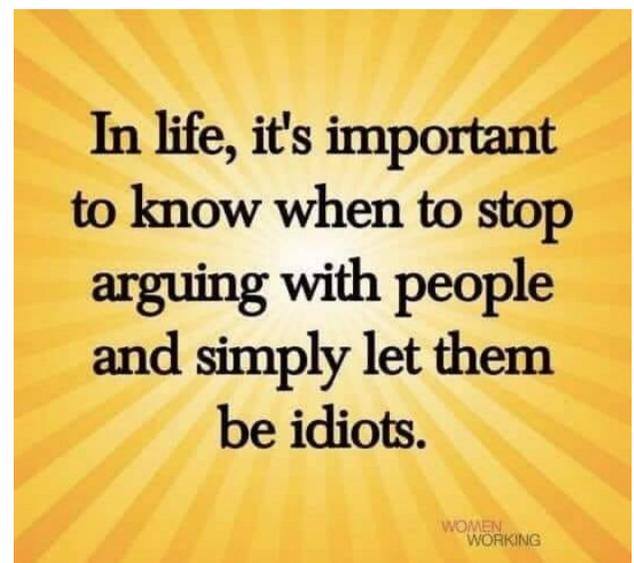
Vice-Grip, Channellock, pliers, strippers, dikes

Butane solder iron, solder

Gaffer's tape, masking tape

More twine

Caution tape



Laura Hackenbrock

Zip ties

Bungees, assorted sizes

Hose clamps

Tarp

EZ-up shelter, tables, chairs if none available on site.

On 10/28/20 2:52 PM, Thomas Kravec wrote:

Today I operated CW Ops weekly one-hour contest signing KT7RC. I made 139 contacts on 20m CW and uploaded the log to LoTW. Everything works!

Feel free to use KT7RC, especially in contests or special events.

73 de W8TK

Paul and I were operating AZQP Field Day style at Columbus Park on Saturday. We were running a TS590 powered by a deep cycle lead acid battery and a West Mountain Radio battery booster set to deliver 13.8 volts. Calling CQ on CW, I noticed that transmitter output was only 50 watts though the radio was set to deliver 100 watts. I glanced at the booster and found that WE HADN'T TURNED IT ON! One flip of a toggle switch solved the problem. We did learn that the difference between 12.6 vdc and 13.8 vdc is enough to cut transmitter power in half.

BTW, the operation was welcome relief from the Kung Flu lockdown. We brought the wives and a picnic lunch, set up on a card table next to a tall tree into which we tossed an EFHW antenna Paul had made. Signing K7T, we made 100 CW QSOs on 20 meters between 0900 and 1200 and we quit when it got too hot for comfort. I don't think we should be getting together as a large group yet, but our small outing was a pleasure. Use this reflector to set up similar outings if it feels comfortable.

73 de W8TK (and K7AZT)

WSJT-X Developer Expresses Puzzlement over FT8 Contest Use

WSJT-X co-developer Joe Taylor, K1JT, recently expressed puzzlement over the use of FT8 in contests -- rather than FT4, which was designed for contesting.

"I fail to understand why anyone who uses FT8 in a contest would fail to use FT4 for much of the time," Taylor said. "FT4 is about 3 dB less sensitive than FT8, but it's twice as fast."

Taylor offered the comment in the Mt. Airy VHF Society's [October 2020 Cheese Bits](#), regarding the September ARRL VHF Contest. Taylor said a large fraction of stations that are worked with FT8 are much more than 3 dB above the FT4 decoding threshold.



"With FT4, you can still work anyone that can be worked with CW, and near the CW threshold, you'll do it faster using FT4," he said. "And with FT4, you can work stations that are far weaker (by ~20 dB) than what's necessary for SSB. When I did work other stations with FT4, I did it by transmitting the FT8 message 'K1JT FT4 318.'" Taylor said he'd then move to 50.318 MHz FT4, and several contesters followed him there. "Many more

would have made it much more fruitful," he said.

"For speed, flexibility, and ease of running the bands, yes, you should use SSB and CW when there are stations to work," Taylor said in summary. "When you run out of those, use FT8 and *especially* FT4."

Taylor also remarked, "In my 80th year, I can no longer call on my past stamina for contesting."

TORC TIPS , TRICKS, AND LINKS

[Linux-based Windows makes perfect sense](#)

- Eric S. Raymond, one of open-source's founding fathers, thinks Windows' future is a layer about the Linux kernel. He's got a point.

[Linux graphical apps coming to Windows SubSystem for Linux](#)

[2020 will be the year of Linux on the Windows desktop](#)

[How to Unsubscribe From Automated Text Messages](#)

- If you have a smartphone, you're probably getting text message alerts. Security codes from your bank, coupons from restaurants, messages from political campaigns—the list goes on and on. Here's how to stop getting unwanted automated texts from an organization.

[How to Customize the Bash Shell With shopt](#)

- If you fine-tune the behavior of your Bash shell with shopt, you can control over 50 settings. We'll show you how to tailor your Linux system just the way you like it.

[What Is Google Workspace, and Does It Fully Replace G Suite?](#)

- For over a decade, G Suite was Google's collection of professional productivity tools. As the way people work has evolved, so has G Suite. To signify this transformation, Google rebranded the service as "Google Workspace." Let's take a look.

[How to Install Linux](#)

- Want to install Linux? It's an easier process than you might think! You can even try Linux on your PC before you install it. If you don't like it, just reboot and you'll be back to Windows. Here's how to get started with Linux.

[How to Disable Bing in the Windows 10 Start Menu](#)

- Windows 10, by default, sends everything you search for in the Start Menu to their servers to give you results from Bing search—so you better make sure that you don't type anything private into your own PC's Start Menu. Or, you could just disable the Bing integration in the Start Menu.

[Linux graphical apps coming to Windows Subsystem for Linux | ZDNet](#)

- At the [Microsoft Build 2020](#) virtual developers' conference, CEO Satya Nadella announced that [Windows Subsystem for Linux \(WSL\) 2.0](#) would [soon support Linux GUIs and applications](#). That day is closer now than ever before. At the recent [X.Org Developers Conference \(XDC\)](#), Microsoft partner developer lead Steve Pronovost revealed that Microsoft has made it possible to run graphical Linux applications within WSL.

How to Use the seq Command on Linux

The Linux seq command generates lists of numbers in the blink of an eye. But how can this functionality be put to practical use? We'll show you how seq might come in handy for you.

How to Uninstall Windows 10's October 2020 Update

- As usual, Microsoft is slowly rolling out Windows 10's October 2020 Update (20H2) to check for bugs. If your PC experiences a problem after installing the update, here's how to roll back to your previous version of Windows 10.

Tracking-food-supplies-off-grid-with-ham-radio-and-js8call/

- This article just showed up on Google News featuring the Xiegu G90.

5 Ways to Quickly Open the System Window on Windows 10

- Starting with the Windows 10 October 2020 update, Microsoft has removed the System window from the Control Panel. However, the information isn't gone forever; it now lives in Settings as an About page. Below are five ways to quickly open the System window on your PC

What Is LiDAR, and How Will It Work on the iPhone?

- The iPhone 12 Pro is Apple's first smartphone with a Light Detection and Ranging (LiDAR) scanner on the back. But what does LiDAR do, and what is Apple planning to use it for in the future?

How To Prepare For and Fight a Ransomware Attack

- Ransomware is devastating, expensive, and on the rise. Protect yourself from infection with our guide, but plan for the worst too. Make sure you can recovery cleanly and quickly if ransomware strikes

Microsoft Edge for Linux: Pros and cons

- Jack Wallen gives the developer edition of Microsoft Edge for Linux a try. His conclusion might surprise Linux fans everywhere.

Microsoft Edge for Linux arrives in preview for Ubuntu, Debian, Fedora, and openSUSE

Ubuntu 20.10 releases with full desktop support for Raspberry Pi

What Linux needs to make it a better mobile desktop

1Password for Linux desktop app now available in beta

How to create a new user with admin privileges on Linux

<https://www.radioworld.com/tech-and-gear/digital-radio/fcc-approves-all-digital-option-for-am>

Use dd command to copy and clone a usb stick on Linux

The syntax is as follows:

```
dd if=/dev/sdX of=/path/to/file.img bs=SIZE
```

To clone a usb stick named /dev/sdb to ~/usb-opensuse-current.img, run:

```
$ sudo dd if=/dev/sdb of=~/usb-opensuse-current.img bs=4M
```

You can [show progress copy bar with status option for the dd command](#):

```
$ sudo dd if=/dev/sdb of=~/usb-opensuse-current.img bs=4M  
status=progress
```

Say hello to ddrescue

First, you need to install [ddrescue](#) using the dnf command/[yum command](#)/[apt command](#)/[apt-get command](#) as per your Linux distro:

```
sudo dnf install ddrescue ## fedora ##
```

```
sudo yum install ddrescue ## centos/rhel from EPEL repo ##
```

```
sudo apt install gddrescue ## debian/ubuntu and friends ##
```

Now you can clone the disk easily:

```
ddrescue /dev/INPUT /dev/OUTPUT
```

```
sudo ddrescue /dev/sdb ~/my-usb.img
```

See “[Linux: Save and Recover Data From Crashed Disks With ddrescue](#)”

CQ NEWSROOM

2021 Orlando Hamcation and ARRL National Convention Cancelled - Ongoing pandemic prompts decision. ARRL will hold its 2022 national convention in Orlando

Hara Arena Being Demolished - The former home of the Dayton Hamvention® is being torn down

MF/LF Bands Now Have Their Own WSJT-X Protocols - Modes designed specifically for 630 and 2200 meters are included in the latest "candidate release" of the digital software suite

Over-the-Horizon Radar Systems are Back on HF - Chinese "foghorn" and Russian "contayner" systems are causing interference on ham radio bands

IARU Official Warns of QRM from Wireless Power Chargers for Electric Cars - Region 1 President G3BJ says powerful chargers may generate harmonics causing interference on a wide range of frequencies

Lucky Numbers 20 + 7 in Space? - The Amateur Radio on the International Space Station program is celebrating its 20th anniversary, AMSAT-OSCAR 7 should be accessible through Christmas, and AMRAD-OSCAR 27 celebrated its 27th anniversary in orbit on September 27

NOSSC Named IARU Region 2 Youth Liaison - Sterling Mann will work with young hams and their national societies throughout North, Central and South America

FCC Allows MURS/Satellite Mix - Garmin gets OK to build a Multi-Use Radio Service (MURS) handheld that also includes an emergency satellite beacon transmitter

Hams Monitor FRS to Help Find Missing Kids - Ham-licensed police detective in Idaho enlists net members to listen for lost kids who were using Family Radio Service handhelds (and they found them!)

Details on these stories and more are online in the CQ Newsroom at:
<<http://cqnewsroom.blogspot.com/>>.

Please read the full story before making comments. **Thank you!**

And with a Baofeng, no less!

<http://k0lwc.com/baofeng-saves-the-life-of-ham-radio-operator/>

From George NG7A

Excerpt from the Marine Radio Historical Society (MHRS) -

Retired Morse Code Telegrapher Raymond (Ray) C. Smith, 88, died peacefully at home in his sleep in Petaluma, CA on Tuesday morning September 8, 2020, with Lena, his loving wife of 54 years, by his side.

After serving ten years as a telegrapher on a spy plane in the US Air Force, Ray found a perfect calling as a Marine telegrapher at KPH Maritime Radio Receiving Station in Point Reyes. The long winding daily trip from Petaluma to KPH, was at times challenged by heavy fog and other critters/obstacles along the narrow path to the seashore. Ray was a professional commercial operator, "one of the best there is." He became known as the senior Marine telegrapher.

After it was closed for commercial operations, KPH was preserved by the Maritime Radio Historical Society (MRHS) and is now part of the National Park Service in the Point Reyes national seashore. Ray had the honor of sending the farewell message for KPH's station shut down on June 30, 1997. He sent the very last message, part of which read, "We wish you fare winds and following seas," in Morse code.

Kids Korner food for thought...

Don Fork KA2IYU

[Finding and Maintaining Younger Ham Radio Operators](#)

Posted: 01 Oct 2020 01:59 PM PDT

A long-heralded cry in the world of Ham radio is the call for younger Hams.

“We need more youth! Our ranks are dying off, and there’s nobody coming up to replace them!

What will happen to Ham radio?”

It’s not a new phenomenon. Jazz music, king of the airwaves from the 1930s through the mid-1950s, took a real hit when rock ‘n’ roll came along. By the late 1960s, most younger musicians were plugging in electric guitars and trying to play like Jimi Hendrix and Sly and the Family Stone; they didn’t want to play jazz in small nightclubs. By the mid-1970s, jazz disappeared for a while.

Trying to recruit younger folks into our hobby has been a topic of discussion for decades.

Many well-intentioned clubs try to recruit into their ranks, only to be disappointed with the overall results. I was one of 12 students in a licensing class at my local library in the early 1980s; I was the only one who actually got a license.

Yet, there are a significant amount of “younger” Hams out there. To find out what they’re up to and how to reach them, I contacted Sterling Mann, N0SSC. He’s a longtime youth advocate in Ham radio and the newly-appointed IARU Region 2 Youth Liaison, as well as president of the Young Amateurs Radio Club (YARC).

Sterling graduated from Missouri University of Science and Technology in 2014, majoring in electrical engineering with an emphasis in electromagnetics.

He’s the co-founder of **Youth on the Air** and a former ARRL Youth Editor. And if that wasn’t

enough, he also runs a [YouTube channel](#) and blog (n0ssc.com) to bring younger perspectives to the hobby.



Sterling Mann, N0SSC, running a pileup during the 2020 ARRL DX CW Contest as part of the N0AX team.

He's helping lead the charge for more youth organization in Ham radio in the U.S. and throughout IARU Region 2. [Sean Kutzko, KX9X, photo]

OAB: Sterling, from your experience, what are the main ways younger people get introduced to Ham radio?

SM: I think the most common ways youth get interested is through their family or scouting.

Most young Hams I've met have that in common.

It's not a perfectly clear picture, but in many of my writings I mention that young Hams tend to have the "knack" in one way or another. Many of the youth in YARC are like this, having other interests like programming, radio control, and circuit building. Ham radio comes up frequently on sites like Hack-a-day,

Hacker News, many forums on the online social platform Reddit, and occasionally in mainstream media. There's a lot more exposure out there, which is what it takes to get someone who already has a technical mind to look into it a little further.

OAB: There's a perception that younger Hams want to do all the "newer/internet-based" Ham radio and aren't interested in doing "traditional" Ham radio. In your experience, how accurate is that?

SM: I don't think it is very accurate. Adoption of new tech and internet-based integrations is done across the age demographic. EchoLink is used extensively by young Hams, not because it's internet-based but because it's free and easy to use. The same can be said for remotely-operated stations, either ones hosted privately or through services like **RemoteHamRadio**.

On the other hand, many young people also participate in more traditional operating aspects like contesting, DXing, **satellite operating**, and **fox hunting**.

I think everyone has their own unique niche within the hobby, so it's hard to say that any certain

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FROM OUR MEMBERS

My TS5-90SG power output indicator showed about 75 watts although the power was set to 100W. It indicated 75W for all bands, all antennas, changed coax, added antenna tuner, even into a dummy load.

The power decline was not obvious. It occurred over a period of months. Furthermore it is not clear exactly where full power is on the meter because the ticks are only at 10, 25, 50, and 100 watts.

I determined that the rig was power limiting by increasing the power setting while watching the power indicator. Power output matched power setting until 75W after which the output indicator stayed at 75 watts as the set power increased. This suggested a power supply problem.

I reseated the Anderson Power Pole connectors for both the main supply and the TS-590SG at the Rig Runner power distribution board. Power immediately went to 100W.

If your rig shows low power output, before fearing the worst, check that all connections between the power supply and the rig are tight, solid, clean. Contacts get dirty or corrode over time.

73, Paul K7AZT

Good point and thanks for pointing it out. The difference between the various current ratings of the standard Andersons that we hams use seems to be only in the size of the wire that you can use. The lower amp Andersons have a smaller wire cup, but the actual contact area is the same. Since the contacts themselves are tin plated and not made of any sort of spring metal material, I am really surprised at how well they work. It is an absolute unnecessary overkill to double up on them, but for powering my 100W rigs, I just feel more comfortable about it, even though a lot of modern 100 watt class rigs now come with a single Anderson pair. I'm willing to invest a couple of bucks on the odd high current cable I need as an insurance policy.

Thanks again, John, You bring up a great point.

73 Ron k7RJ

The Anderson power poles on my K2 deteriorated over time (and lots of cycles in contests). It actually melted beyond repair and had to be replaced.

Paul also points out an important consideration on digital displays: the number of sample points, or in other words the amount of coarsness, is not always obvious and depends on the algorithm that it was programmed with. Fortunately many instruments allow for adjustment of the sampling points, usually by selecting the scale (for example the Rig Expert antenna analyzer).

73 de George NG7A

From: ToRC@groups.io <ToRC@groups.io> On Behalf Of Richard Schmidt

Sent: Tuesday, October 20, 2020 5:22 PM

To: ToRC@groups.io

Subject: [ToRc] SWITCHER OR CAST IRON?

I am mentoring a new ham. He wants to operate hf on ssb. He wants to know which kind of power supply he should buy. He has a new Icom IC-718 and will operate at 100 watts or less - pretty standard set-up for a new guy. Antenna is a G5RV up 30 feet in the clear. Should I tell him to get a switching power supply or a larger traditional power supply with a heavy steel transformer in it - such as Astron? What say you?

The SS30DV is very low noise and highly reliable. I have two of them running for 2 years now. Ron W7HD

On 10/20/20 5:27 PM, Bob AF9W wrote:

There are several switching power supplies out there now that can provide 20amps without 20db of noise. Check out the PowerWerx SS30DV. Elecraft sells them instead of building their own power supply. With the 718 and SS30DV he could take the radio and power supply on vacations, etc without needing a class 8 truck. Later on when he wants to power a lot of stuff in his shack he can upgrade to a heavy duty Astron type supply that will power a couple of HF rigs, a couple of VHF/UHF rigs, and whatever else he needs and he'll have the switcher as a backup. That's what I do.

Bob AF9W

PERIODIC TABLE OF MAJOR AMATEUR RADIO CONTESTS

2021

Legend: Multimode (Green), CW (Purple), Digital (Yellow), off-the-air (Grey), SSB (Blue), VHF/UHF (Red)

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2 ARRL RTTY Roundup	3 NA Sprint CW	7 ARRL DX SSB	13 SP Polish DX	14 TOPIN/DE New England QSO Parties	18 SEANET Contest	24 Marconi Memorial HF	25 NAQP CW	30 CWops CW Open	31 California QSO Party	1 ARRL SS CW	2 ARRL 160
9 NAQP CW	10 WPX RTTY	14 NA Sprint RTTY	15 JIDX CW	16 CQ-M DX	21 ARRL June VHF	22 IARU HF	23 WAE CW	24 WAE SSB	25 Oceania CW	26 WAE RTTY	27 ARRL 10
16 NAQP SSB	17 ARRL DX CW	20 Russian DX	21 CQMM DX	22 King of Spain	23 All Asian CW	24 CQ VHF	25 NAQP SSB	26 WAN/JNH QSO Parties	27 Worked All Germany	28 ARRL SS SSB	29 RAC Winter
16 ARRL January VHF	18 CQ 160 SSB	26 WPX SSB	27 Florida QSO Party	28 Contest University Dayton Hamvention	29 ARRL Field Day	30 RSGB IOTA	31 WW Digi	1 CQWW RTTY	2 CQWW SSB	3 CQWW CW	4 HAPPY HOLIDAYS
29 CQ 160 CW	30 WPX CW										

On Fri, Oct 23, 2020 at 6:09 AM Richard Schmidt <k7nsw@ispud.net> wrote:

I have a full-sized G5RV I built: 102 feet overall length with the usual window line stub. I have read a great deal about this antenna. Universally, the writers say use a current choke at the transition point between the window-line stub and coax line to my radio room. MFJ sells a lot of this antenna and that is the instruction they give. However, there is one lone voice taking a strong contrary position. It is no less than DX ENGINEERING. On their web page they have a very specific statement saying they researched the history of the antenna and the guy who developed it. He intended the window-line stub to continue unabated with a 75 foot length of coax as part of the antenna system. OK - only one voice in dissent - but it is DX ENGINEERING. They have talented qualified people offering good reliable products for many years. I am reluctant to ignore them. Before I go further with the antenna I hope to hear from any of you who have installed it per the recommendation of DX ENGINEERING. If you are aware of this issue and have rejected DXE's recommendation and used a choke I will be pleased if you will share your thinking with me. Please do not send me a simple one line statement advising me to do "this or that". I am interested in your thinking behind your recommendation. Thank you.

P.S. in my set-up the 75 foot length of coax will lay on my tile roof 20 feet up along the peak of the roof and end right outside the window of my radio room. If the length of the coax radiates it will do so far above the ground. I am not anxious to have it radiating inside my room attached to my gear. To prevent that I will install a current choke outside my window at the end of that 75 foot length of coax and then continue inside to my gear. I have tried a radiating antenna transmission inside my shack before and I am NOT a fan of stray RF. RF burns really hurt!

Richard,

Yes, you should put a choke balun at the transition from the twin-lead to the coax to kill any common mode currents on the coax.

DX Engineering usually gets it right, but unfortunately they sometimes rely on this particular "expert" that mainly gets it wrong. He's the same guy that claimed end feds would not work, currents on antenna loading coils are the same on both ends as well as a whole litany of items that just fly in the face of basic electromagnetic theory and proven results.

First of all: why would you want the coax 30 feet away from your radiating elements to also radiate? That's just nuts. And if you have a 100 foot tall support (30 feet for the twin lead and 70 feet for the coax), there are a whole bunch of better antennas that you could and should put up instead of a G5RV!!

The G5RV operates from 80 Meters to 10 Meters as follows:

80 Meters - the two elements almost form a half wave.

40 Meters - the two elements almost form two half waves, which are end-fed (high impedance at the feedpoint) by each section of the twin-lead

30 Meters - like the 40, two half-waves currents add constructively in a co-linear fashion.

20 Meters - three half wavelengths, the two current crests on the ends cancel and the one in the middle radiates see my ARRL antenna webinar for more details on why this is.

17 Meters - 2 wavelength antenna

15 and 12 meters - 5/2 wavelengths - like the 20M the middle part radiates and the crest on each end cancel.

10 Meters - 3 wavelengths.

You'll get a lot of scalloping in the 17 and 10M patterns. 30 meters and below, it will radiate pretty much straight up if you have it less than 40 feet high good NVIS antenna. In AZ, with the apparent height above ground higher than actual ground level during dry soil conditions, it might get some low angle of radiation for DX.

73,

George NG7A

Richard - I have a G5RV Jr.. I do not have enough room for the 100 Plus feet on. This G5RV Jr. has been on my roof for 5 years.. I actually got it at the OVARC raffle desk.. And a couple club members help put it on my roof.

I live in a HOA and got permit from the HOA to do it as long as i painted it to match my house... I live on the east side of my development and nothing is behind me. If you go to my QRZ page there is a picture.(K7EAZ)

To explain the picture - a JR has 17ft of 300 twin lead... They wanted it to be straight 90 degrees from dipole wire. since I did not have 17 feet straight down.. we made a "V" that is 2 ft off the roof and 2 ft from my chimney.. then the end of the twin lead has a something that matches my RG-213. The coax goes down to my Polyphaser (attached to a 8ft ground rod) then at the polyPhaser i have 100ft off RG-213 going inside my attic and runs to the front of my house into my shack.. I do have a LDG autotuner.

Because the antenna is over the house - peak on North end and peak on the South end - It does have some noise from the house.

Over the 5 years have work WAS - and during 2016 NPOTA I worked 349 parks out of 450. 20M and 40M and maybe some 15M .

Since then I have hid a EFD 66 Ft out into the desert behind me (using DX engineering stealth wire and a UJM-150 -) and went almost 100% WSJT-x and have worked 160 countries on DXCC. With 60Watts. But I still use the G5RV also, I have worked both the North pole and South pole and 15 to 20 South Africa contacts and 35 Austraila contacts... Fun things

Ken K7EAZ

Bill Clark K6WSC manager and horsepower behind the AZQP tells me this years event was a great success - a record number of logs submitted, all available award plaque slots were purchased, and so forth. It was held this month - October.

I am thinking about another one six months from now, around April. DURING THE WEEK. Call it the Arizona Senior QSO Party. I wonder if there is an argument to be made in support of this proposal. Here is what has occurred to me:

(1) - most (maybe all?) State QSO parties are on weekends when the bands seem to be quite busy with high numbers of ops on the air and many competing activities are in progress. Less of all of this would be better.

(2) - I think it is fair to say that the ham population in the United States is aging. Implied in that is the number of retired hams is increasing and might be attracted to a less hectic weekday operating event. Arizona attracts retirees - lots of them are here and I bet a lot of them are hams.

(3) schedule it during March, April, or May. A six meter opening could really jazz it up. Call it the AZSQP - Arizona Senior QSO Party. Change the exchange a bit - AZ ops send their age and three letter county abbreviation. Non- AZ ops send their age and s/p/c. Then add incentives like Bill does with the primary AZQP: bonus points, multipliers, award category, whatever seems to fit. Make it clear all ages are invited to participate.

(4) I think Bill's shortening the AZPQ to 14 hours was a great idea. Apparently so also did a lot of other people if the apparent turn-out this year is an indicator.

Basically, keep it very close to Bill's model - his is a winner. Focus on Seniors and run it during the week when the band circumstances might not be so hectic.

Who else has a state seniors qso party?

So, what say you?

K7nsw Richard Schmidt

Wow! I just found & ordered this.

Hello fellow hams,
This is a game changer!

A 36 Amp-Hour, 12.8 Volt, LiFePo4 - lithium-iron-phosphate battery - - -
For \$99.99 !!! Wow !

Compared to the (only) 30 Amp-Hour Bioenno lifepo4 @ \$279.99, that's a hugh savings & for more available energy.

Miady 12V 36Ah Lithium Phosphate Battery, Over 2000 Cycles Lightweight LiFePO4 Battery, Replacement Battery for Solar Power, RV, EV and Marine Applications

... https://www.amazon.com/dp/B089SDC497/ref=cm_sw_r_em_apai_6ygMFb5NZYT70?_encoding=UTF8&pvc=1

Jason - KM4ACK reviewed the 8 AH version (only \$30) & liked it so much, he bought the 16 AH (\$50) version also.

His review is at:
<https://youtu.be/MH4NqoyLGPo>

I decided to buy the 36 AH version for \$100, for the extra energy.

So 8AH @ \$30
16AH @ \$50
36AH @ \$100

Hope this helps all of our fellow hams who want to get out & venture, or just to have a battery backup @ home when the power goes out.
P.S. while I didn't find a 100 AH size (yet), if they keep this pricing structure, these will be great for larger projects too; like home powerwall backup systems!

73 - John - N7GHZ

I just found the 100AH version on Amazon for \$399.99 29 lbs ... Ron W7HD

[Miady 12V 100Ah Victron Energy Orion-Tr IP43 12/12-Volt 18 amp 220-Watt DC-DC Converter, Isolated \\$116.59](#) [AIMTOM 7.2Amp Smart Battery Charger 9 Stages Ultimate-Safe \\$64.97](#)

Cheapskates guide to the End Fed Half Wave antenna

Many members are familiar with the end-fed halfway (EFHW) antenna which we use on our outings.

It's simple, requiring only a single suspension point and no radials. It works well and yields us a few EU contacts in addition to countless USA QSOs on every outing. The antenna we usually use was purchased from Myantennas.com. It's an excellent quality product, but is expensive. The latest model, rated for full power, lists for \$265! It's just an impedance transformer and length of wire.

Paul K7AZT found a superb presentation online: <http://gnarc.org/wp-content/uploads/The-End-Fed-Half-Wave-Antenna.pdf>

This pdf slide show describes the antenna, explains the theory behind it, and goes into great detail about how to make your own transformer. You can make one that will handle a couple hundred watts for about \$30. Paul built one for 20 meters, and he and I used it in AZQP a couple weeks ago. We tossed the wire up into a tree at Columbus Park, made 100 contacts (including a couple EU stations) in 3 hours, and quit when temp reached 95°. The transformer will work on any band, and some lengths of wire will work on several bands.

Have a look. I learned a lot from the presentation and built one myself. Easy.

73 de W8TK
Tom Kravec

I credit Quinton NU7Y and Bill K0MP for alerting me to this 49:1 transformer and EFHW in general.

The EFHW is a great stealth or HOA-avoider antenna. No coax hanging down. I built an 80m EFHW using #26 wire at a stealthy 14' off the ground. A sharp horizontal bend in it would make you cringe, but it worked New Zealand in a recent contest. I make QSOs with it every Wednesday in the CWOps CWT. For field use I have one transformer and two wires. One wire cut for 30m, the other for 20m. I carry both.

No tuner is required for any of these three antennas other than what is in my TS-590.

For easy field deployment, or HOA stealth, the EFHW is hard to beat.

73, Paul
K7AZT

I use EFHW antennas for both my home and portable operations. My home antenna is the MyAntennas 40-10 EFHW in an inverted-V configuration, with the center at 24'. I live in an HOA and I can't go any higher than 24' before the top of the pole can be seen from the street. Fortunately, I live on a wash, so there are no neighbors directly behind me to complain. I also painted the fiberglass pole sky blue.... 😊

For SOTA activations, I have several homemade EFHW antennas. The bigger the toroids, the more efficient the transformer, but also the heavier to hike up with, so I favor smaller toroids. My current favorite is a 64:1 on an FT-114-43 core with 65.75' of wire.

Dave, AE9Q

PURPOSE

TORTOLITA RADIO CLUB TORC

A group of amateur radio operators aiming to just have fun

located south of the Tortolita mountains near Marana

Serving the greater northwest Tucson area and beyond.

- No formalities
- No regular meetings - just occasional weekend outings
- Occasional newsletters will cover items of interest to the group
- **NO DUES**
- No repeaters
- Emphasis is on **having fun**
- **No bureaucracy**



Newsletter editor: Ron Herring W7HD

Material in this newsletter is public domain and may be freely shared.

Credit may be given as follows: *Courtesy of Tortolita Radio Club*

Of course, we are just starting out, so there is a lot yet to come. Your feedback and articles are very much wanted. Please feel free to email me with **suggestions and articles** at w7hd.torc@gmail.com ...

The word *tortolita* means little dove and is used here as a reference to the Tortolita Mountains north of Tucson, AZ USA.

The cactus field photo is courtesy of Chris Seger KI7DET.

The flag photo is courtesy of Ron Herring W7HD and was taken from my front porch.