

## **TORC newsletter Second edition**



Photo by Chris Seger

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## WELCOME

Welcome to the second 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>



Image

thanks to Tom Kravec W8TK

42 members and growing as of 09/29/20

I see that there are some members who have not subscribed to our email reflector on [groups.io](https://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](mailto:ToRC+subscribe@groups.io) or copy and paste that address on an email. If you don't already have a [groups.io](https://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](mailto: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.

Gotta buy Amanda some flowers or something.

de W8TK

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

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

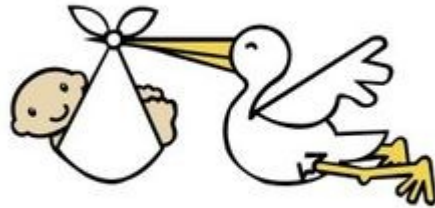
For those of you with inquiring minds:

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



# A new club is born!

The Tortolita Radio Club is open to everyone for membership.

- No dues or assessments.
- No rules. If you belong to another club, you can join this one.
- No repeaters.
- No monthly meetings.
- No hamfest.

- Handyman Corner resumes via youtube.
- Monthly operating events resume as coronavirus allows.
- Emphasis is on HF (1.8-30 MHz) radio, all modes.
- Elmers (mentors) available.
- Website is in development
- Mail reflector on groups.io is active, see following page.

Not yet a member? Email [tkravec@pobox.com](mailto:tkravec@pobox.com) and I will add you.

## GROUPS.IO

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

They click the address [ToRC+subscribe@groups.io](mailto: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/ToRC>

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

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## 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](mailto: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

by Tom Kravec W8TK

for November, 2020

This will probably reach you well before November, so I want to remind you that the Arizona QSO Party is scheduled for October 10 from 0800 MST to 2200 MST. Many of you know K6WSC, who took over management of the contest a couple years ago and has done a great job, getting out results and awards quickly. Contest is on all HF bands + 6 & 2m, all modes including digital. Exchange is RS(T) + AZ county for residents, RS(T) + state/province/dx for out- of-state operators. Logging software will expect the appropriate 3-letter abbreviation for AZ county. Check <http://azqsoparty.org/>

ARRL Sweepstakes is November 7-9 (CW) and 21-23 (SSB). Many folks don't like this one because of the long exchange patterned after the preamble on an ARRL radiogram. But I like it, especially the CHECK in the exchange, which is the year in which you were first licensed. You will find out how old a demographic hams really are. Contest period is 30 hours but you may operate any 24 of those. Details: [www.arrl.org/sweepstakes](http://www.arrl.org/sweepstakes)

Got "boat anchors"? November 15 is the "Home Brew and Old Time Equipment Party". Categories include >30 years age, "valved" (tubes!) before 1965, QRP and 100 watt categories. Details: [www.qrpcc.de/contestrules/hotr.html](http://www.qrpcc.de/contestrules/hotr.html)

K1USN Slow Speed CW Test is a new weekly CW contest which asks participants to limit Morse speed to <20 wpm. Runs every Sunday evening from 1700-1800 MST. Good opportunity to try contesting and practice your Morse. Exchange is name and state/province/country. Details: [www.k1usn.com/sst.html](http://www.k1usn.com/sst.html)

There are over 100 contests in October listed in the WA7BNM Contest Calendar, complete with all details: [www.contestcalendar.com](http://www.contestcalendar.com)

Plenty to keep us busy this season!

73 de W8TK



## FREQUENCY INFORMATION ABOUT WORKING THE NEW **INTERNATIONAL SPACE STATION FM REPEATER**

Assuming you have a basic knowledge of working satellites, if you want to work the new FM repeater on the International Space Station, here are the settings you need if you are using a channelized FM rig.

Always transmit on the same frequency (145.990) with a 67.0 PL.

Set the 7 memories as follows:

MEMORY	TRANSMIT	RECEIVE
1	145.990, 67.0 PL	437.815
2	145.990, 67.0 PL	437.810
3	145.990, 67.0 PL	437.805
4	145.990, 67.0 PL	437.800
5	145.990, 67.0 PL	437.795
6	145.990, 67.0 PL	437.790
7	145.990, 67.0 PL	437.785

You should set up 7 memory channels. Make sure that the rig will transmit on 144.990 (67.0 PL) on each of the 9 memory setting.

As the satellite passes, switch through the 7 channels sequentially to get the best received signal. Time your channel switching so that at about half way through the pass, you will be on memory 4. Remember, always transmit on 144.990 and remember to not transmit on 70 cm. Practice a couple of times. Since everyone shares the same repeater on the satellite, only one person at a time gets in. Often there is a fairly strong signal that will run the frequency during most of the pass. At the appropriate time, give you call. When they acknowledge you, give them your grid square.

That's about it, but, if you are interested, here is a little more about why we use this setup: The satellite transmits on 437.800. Notice that when the satellite first comes up, you have to listen on 437.815 - about 15 KHz higher than it is transmitting on. That, of course, is because the satellite is traveling towards you really fast which causes Doppler Shift. Doppler shift is directly proportional to frequency; therefore the Doppler shift on 2 meters will be about 1/3 of that, or about 5Khz. The satellite will hear your signal about 5 KHz high. That's not good, but, due to FM capture effect, if you have a good signal, it may receive you OK, but, when it first comes up, it is really far away and you really need a much better setup than a simple antenna. It is beyond this article, but you could program memory 1 and 7 to compensate a bit for this shift, but it really isn't worth it. When the satellite is in those positions, it is so low and far away that you probably won't work it any way!!!

But, shortly, when the satellite is truly in range, the Doppler on 2 meters is well within the passband of the satellites receiver. At that instant that the satellite is at its absolute closest, you will appear to be right on frequency. But, it won't last very long. Once it passes you at halfway through its pass, it will now be going away from you and the Doppler shift will cause your signal to appear a lower.

If you really get into this, fancy computer programs that connect to your radio can make sure your rig, both transmits and receives always on the right frequency. But, that's not what this article is about.

Good luck. At the time I write this, towards the end of Sep, I have heard but not worked this new target. Right now, this is a very popular bird, partly because it is new but mostly because it is on the international space station. Pretty cool, for sure.

There are many FM repeater satellites in orbit and the procedure is pretty much the same. Set up 7 memory channels for you to receive, have them spaced at 5KHz and have the middle channel, memory 4 in this example, be set at the exact output frequency of the satellite. Don't forget to not transmit on these frequencies! Practice a few times before you go live. Between muckin' with the radio, antenna, logging, trying to keep track of where the satellite is, etc. it can get a bit awkward.

There are a million resources out there with much more detail about things like antennas, tracking programs, logging, procedures, etc. Good luck. Let us know how it goes.

73

Ron Jones

K7RJ

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

## TORC TIPS , TRICKS, AND LINKS

### [How to Remove the Background from a Picture in Microsoft PowerPoint](#)

- Removing a distracting background from an image allows your audience to focus on the subject matter. Microsoft PowerPoint provides a suite of basic image editing tools—including one that lets you remove the background from an image.

### [How to Check the Air Quality Near You \(or Anywhere\)](#)

- How unhealthy is the air outside right now? You don't need your own sensor to find out. Here's how to find out how bad the smoke and pollution in your local area—or anywhere else.

### [OLED vs. QLED, and More: Which TV Should You Buy?](#)

- Want a new TV, but confused by the barrage of acronyms and jargon manufacturers love? One of the biggest decisions you'll have to make is whether you want a traditional light-emitting diode (LED) model, or a set that features the newer organic light-emitting diode (OLED) technology.

### [How to Find Files You Downloaded on Android](#)

- It can be frustrating to not be able to find your [downloaded files](#). This can happen on Android devices, too, which have file systems like any other operating system. Here's how to find downloaded files on Android.

### [How to Turn On Spatial Audio for AirPods on iPhone or iPad](#)

- If you have [AirPods Pro](#), you can now turn on Spatial Audio for a “theater-like surround-sound experience.” Your iPhone or iPad will track the movement of your head and device to deliver more immersive sound.

### [How to Remove the Background from a Picture in Microsoft PowerPoint](#)

- Removing a distracting background from an image allows your audience to focus on the subject matter. [Microsoft PowerPoint](#) provides a suite of basic image editing tools—including one that lets you remove the background from an image.

### [How to Detect Hidden Surveillance Cameras With Your Phone](#)

- A family recently discovered a rude surprise at their Airbnb: a hidden camera disguised as a smoke detector in the living room. Here are two ways to check for cameras—in an Airbnb or elsewhere—using only an iPhone or Android phone.

### **[How to Find Latitude and Longitude Coordinates Using Google Maps](#)**

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- As one of the most powerful mapping tools available, Google Maps has a number of features designed to help you pinpoint your location. If you want to know your exact position, you can pull up your GPS coordinates in Google Maps.

### **[How to Perform Actions by Tapping the Back of Your Android Phone](#)**

- Gestures and shortcuts allow you to quickly access things without jumping through apps and menus. What if you could simply tap the back of your phone to perform an action? We'll show you how to do this on your Android phone.

### **[How to Launch Shortcuts By Tapping the Back of Your iPhone](#)**

- If you have an iPhone 8 or later running iOS 14 or later, you can launch any shortcut created by the Shortcuts app with two or three taps on the back of your iPhone. A feature called Back Tap makes it possible. Here's how to set it up.

### **[5 Things to Consider Before Upgrading Your PC's RAM](#)**

- There was a time when the prescription for speeding up a slow PC was just to add more (or faster) RAM. These days, though, that's not necessarily the best upgrade to choose first.

### **[How to Show Mac's Hidden Floating Performance Panels](#)**

- If you like to keep an eye on CPU or GPU usage on your Mac, you can enable several little-known performance windows in Activity Monitor. These float above all other application windows, so you can check them at a glance.

### **[This free Linux course has trained a million people in open-source tools](#)**

- The Linux Foundation has offered its free Introduction to Linux course for the past six years, providing individuals with no prior experience of the platform a working knowledge of Linux and its major distributions.

### **[How to Check the Linux Kernel and Operating System Version](#)**

- Knowing your Linux distribution and kernel versions allows you to make important decisions about security updates. We'll show you how to find these, no matter which distribution you're using.

### **[What Is 4K Resolution? An Overview of Ultra HD](#)**

- If you're buying a TV or upgrading to a next-generation console, you've probably seen terms like 4K and Ultra HD thrown around. Let's cut through the jargon and get down to what these terms mean, and if they're even interchangeable.

### **[How to See Which Programs Are Using All Your Memory on Windows](#)**

- If your Windows PC feels mysteriously sluggish or refuses to load more programs, it may have run out of working memory. When that happens, PCs often fall back to using virtual memory, which can be much slower. Here's how to see which programs are eating up all your memory.

### **How to Change the Page Color in Google Docs**

- A Google Docs document typically has a white background for each page. If you want to customize the page color in Google Docs, you can do so in your page settings menu. Here's how.

### **How to Block Emails from Specific Senders in Gmail**

- There are some email senders from which you never want to hear. You can't stop them from sending you emails, but you can set up Gmail to automatically delete the emails as soon as they arrive. Here's how.

From KI7DET

[Because of COVID, the Arizona Historical Society is currently closed, so can't see this exhibit yet](#) Sneak Peek: Barry Goldwater, K7UGA station

["THE HAM'S WIDE WORLD" 1960s AMERICAN RADIO RELAY LEAGUE HAM PROMO FILM BARRY GOLDWATER 15204](#)

[Todays People - Barry Goldwater K7UGA](#)

Thanks to Tom Kravec !!!

I may be the last man on earth to learn this but here goes. Do you notice that Phillips screwdrivers often strip out the head of **screws on Japanese equipment**? That's because they are not Phillips head screws but rather JIS (Japan Industrial Standard) screws and there is a specific screwdriver designed for them. I found a set on Amazon and haven't stripped a screw since. Here's what I learned on Wikipedia:

JIS B 1012



JIS cruciform driver sizes<sup>[1]</sup>

Driver size	Machine screw size
#000	
#00	
#0	
#1	M2, M2.2, M 2.5
#2	M3, M3.5, M4, M4.5, M5
#3	M6, M8

The **JIS B 1012** is commonly found in Japanese equipment. It looks like a Phillips screw, but is designed not to cam out and will therefore be damaged by a Phillips screwdriver if it is too tight. Heads are usually identifiable by a single dot or an "X" to one side of the cross slot.<sup>[29]</sup>

Specific "JIS" standardized cruciform-blade screwdrivers are available for this type of screw.

73 de W8TK

Tom Kravec, an old dog

**Where to buy:** [Amazon ordering JIS screwdrivers](#)



## BASH SCRIPTS

To create a web page in a shell script, this is how I generate the html page for my w7hd weather server:

```
# makehtml
# Reads readings.txt and produces readings.htm
#
TGT="readings.htm"
SRC="readings.txt"
LINE=1
echo "<html><head><title>WX READINGS</title>">$TGT
# This is the title at the top of the page
echo "<META HTTP-EQUIV=\"Refresh\" CONTENT=\"60\">>$TGT
# This causes the page to refresh every 60 seconds
echo "</head>">$TGT
echo "<body bgcolor=palegreen>">$TGT
# make the body background color a palegreen
echo "<table border=4>">$TGT
# start a table
echo "<tr><td>">$TGT
# start a row and data entry
echo "<font size=4>">$TGT
# Set the font size
cat $SRC| while read f1 f2 f3 f4 f5 f6 f7 f8 f9 f10
# read the source and put it in the page
do
    if [ $LINE -eq 1 ]      # Not the first line
    then
        echo -n "<b>">$TGT      # Make it bold
        echo "$f1 $f2 $f3 $f4 $f5 $f6 $f7 $f8 $f9 $f10 <hr>">$TGT
```

```

echo "</b>">>$TGT          # Turn off bold
LINE=0
else                        # if it is the first line
    echo "$f1 $f2 $f3 $f4 $f5 $f6 $f7 $f8 $f9 $f10<br>">>$TGT
fi                            # <br> means line break
done
echo "</td></tr>">>$TGT          # Close the data and row
echo "<tr><td align=center>">>$TGT  # next table data is centered
echo "<font size=2>">>$TGT          # set font size to 2
echo "Readings are updated <br>automatically every 5 minutes at DM42ji</td>">>$TGT
#close the table data
echo "</tr>">>$TGT              # close the row
echo "</table>">>$TGT           # close the table
echo "</body></html>">>$TGT      # end the html page

```

**READINGS.TXT contents:**

Avra Valley AZ weather at qth of W7HD DM42ji

09-27-2020 12:25:02 MST

93.9 F 20% humidity

26.767 hG

Wind: 5 mph from 190 degrees

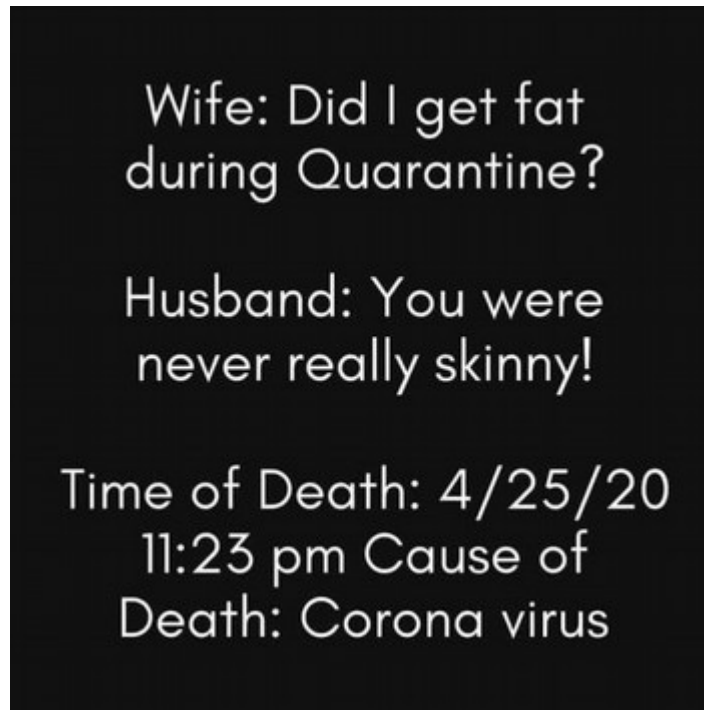
Rain today: 0.00 in<br/>

Solar flux 73 A-index 26. K-index 3. at 1800 UTC

Sometimes, a shell script can only do so much, or it would take an inordinate amount of time to create. Then I revert to the C language.

Having used C since about 1977, I do a lot of my programming in C just because it is fast and easy for me. A plus is the fact that most Linux distributions have a C compiler built in to them. I learned C and Unix from the guys at Bell Labs when I was working for Pacific Northwest Bell as a senior analyst and troubleshooter for their Electronic Switching Systems. Back then we used a DEC PDP-7 and PDP-45. Now **that** is nostalgic :-)

Ron W7HD



**Cartoons** are Thanks to  
PCARS Newsletter Oct 2020

Portage County Amateur Radio Service (PCARS)

705 Oakwood Street - Box 12

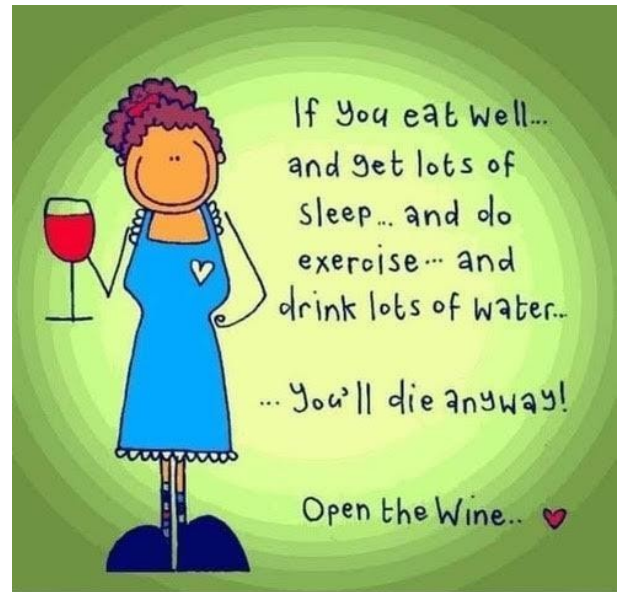
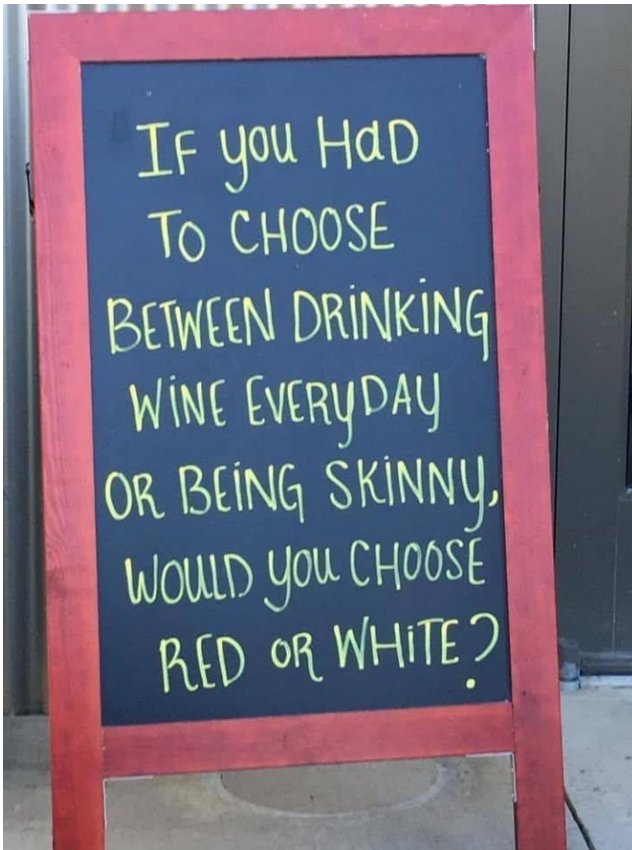
Ravenna, OH 44266 USA

**Two main symptoms of having COVID-19** is losing your sense of smell and taste.

Here's the Redneck COVID-19 Test.

- 1) Get a bottle of your favorite wine.
- 2) Pour some into a wine glass.
- 3) Place it up to your nose, and take a sniff. If you smell the flavor, take a sip of it. If you can taste it, then you're negative.

Repeat the test as often as needed (hi hi).



# PURPOSE

<b>TORTOLITA RADIO CLUB TORC</b>
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.
<ul style="list-style-type: none"> <li>• No formalities</li> <li>• No regular meetings - just occasional weekend outings</li> <li>• Occasional newsletters will cover items of interest to the group</li> <li>• <b>NO DUES</b></li> <li>• No repeaters</li> <li>• Emphasis is on <b>having fun</b></li> </ul>



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](mailto: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.