

JUNE 2026 VOLUME 23 ISSUE 6

THE LOGGER'S BARK



SEASIDE

THE RADIO CLUB OF TACOMA

CIVIC AND CONVENTION CENTER

SEA  PAC[®]



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Adam
Barbera
W2NCC

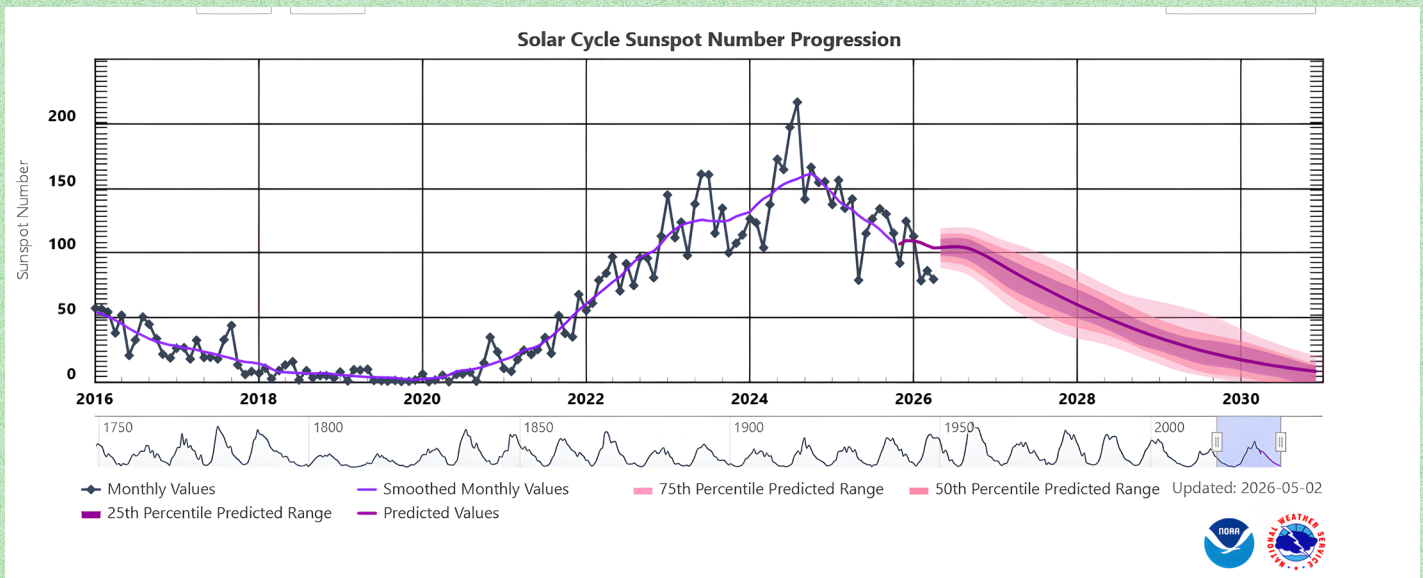
DECLINING PHASE OF SOLAR CYCLE 25

The solar peak for Cycle 25 has passed, and we are now in the declining phase of the cycle. For operators, the decline means changing propagation and shifting band conditions because of the lower solar activity. The official beginning of solar cycle 25 was in December 2019 with a sunspot number of 1.8. In August 2024, the sunspot number hit 337, the highest recorded number of Cycle 25 and the strongest activity seen in more than two decades. We did have a second peak when the sunspots surged in mid-August of 2024. The increased solar activity improves nighttime propagation on the lower HF bands like 40, 80, and 160 meters, especially at higher latitudes.

Highlights of Solar Cycle 25 to date

Event	Date	SSN	Notes
Official Start	12/01/2019	1.8	Beginning of Solar Cycle 25
Massive Peak	08/08/2024	337	Highest daily sunspot count since 2001
Official Max Period	10/01/2024	160.8	The official peak of Solar Cycle 25
Secondary Surge	04/2025	140.6	Late-cycle increase before decline
Significant Drop	05/2025	79.2	Reduction in solar activity
Major Geomagnetic Storms	Nov 2025 & Jan 2026	--	Severely reduced HF propagation Produced the cycle's strongest proton event to date.
First Spotless Days	Feb 22-24, 2026	0	The sun was spotless for the first time in 4 years. A good sign that the peak has passed.

Solar Cycle 25 is expected to continue until approximately 2030–2031, when solar activity will decline into the next solar minimum. At this point, Solar Cycle 26 will begin, and new sunspot activity will start to return. Cycle 25 is expected to follow the normal pattern of 11 years.



<https://www.weather.gov/news/201509-solar-cycle>

Note: “The daily sunspot peak and the official solar maximum are different measurements. The daily peak is the solar activity on a single day, while the official solar maximum uses a smoothed average over months to show the overall strength of the solar cycle. The averaging removes the daily spikes, giving a more accurate picture of solar activity.”

There is talk about the possibility of an upcoming Grand Solar Minimum. A Grand Solar Minimum is a very long period of low solar activity. A few researchers have suggested the possibility of a future “Grand Solar Minimum,” similar to the historical Maunder Minimum of the 1600s. This phenomenon causes sunspot activity to remain low for decades. They are suggesting a Maunder-like grand minimum from around 2030 to 2110. This would cover Solar Cycles 26 through 35 and last about 80 years. A 2023 study analyzing 1,012 auroral records from Korean historical texts found clear evidence of a distinct 8-year cycle during the original Maunder Minimum, rather than the typical 11-year cycle. It should be noted that this prediction is a minority viewpoint within community. The consensus still is, Solar Cycle 26 will follow a normal 11-year pattern. Let’s hope so!

What the Declining Phase Means for HF Operators

The 10 and 12-meter bands need strong solar ionization to reflect signals back to Earth. During a solar minimum, the Sun's ultraviolet radiation drops significantly. This limits the ionosphere's F2 layer from reaching a density needed to reflect high-frequency (HF) signals. This means fewer 10m and 12m openings.

During a solar maximum, 15m DX openings can often last into the evening or even nighttime. As solar activity declines, the daily window for long-distance propagation on 15 meters also shrinks. The band may only remain open for a few hours around local noon. The Maximum Usable Frequency (MUF) often drops below 21 MHz, causing the band to shut down earlier in the day.

During solar peaks, the 20-meter band is available 24 hours. It is the most stable and predictable DX band. The 20-meter band has the status of the daytime workhorse of HF radio even during solar minimums. Its frequency

is low enough to be bent by weaker ionization, so 20 meters supports long-distance daylight-hours QSOs. During reduced solar activity, it shuts down completely right after sunset.

As the higher bands close earlier in the day, 40 and 80 meters become the main bands for nighttime DX. During daytime the D-layer absorption becomes weaker, this allows 40 meters to open earlier in the afternoon. At night, the F-layer retains enough ionization to reflect these lower frequencies over long distances. This creates excellent low-band propagation that can last until dawn. Simply put, during a solar minimum, 40 meters often becomes the new 20 meters.

Tips for the Declining Phase:

Gray-line propagation becomes an important window for DX'ing as daytime propagation is reduced. The gray line, also called the terminator, is the moving boundary between daylight and night. Along this path, the D-layer weakens while the F-layer remains temporarily ionized, creating a short low-absorption corridor for HF. This allows 40 and 80-meter signals to travel long distances along the gray-line path with low signal loss.

Weak-signal digital modes like FT8, FT4, and JS8Call becomes core go-to tool during low solar activity. These protocols use digital signal processing to decode messages buried deep in the noise floor, sometimes down to -24 dB. When signals are too weak to be copied by ear, these digital modes can still make long-distance communication possible.

Don't overlook CW. CW is one of the most effective weak-signal modes in amateur radio and often will work when voice contacts struggle or become impossible. Because CW uses a very narrow bandwidth, it can be copied under extremely weak propagation conditions. During periods of low solar activity, CW operators are often still making DX contacts long after phone operators have lost the band. Even modest stations with simple antennas can get impressive results using CW during weak band conditions.

Antenna Efficiency Matters More

When propagation is poor and signals are weak, any loss in your antenna system can limit contacts. During solar maximum, high-power stations and high ionization can overcome inefficient antennas like shortened verticals or poorly matched wires. During solar minimum, every decibel counts. Operators need to consider optimizing and or upgrading their stations.

A resonant antenna and good quality feedline are excellent starting points for station upgrades. Improving antenna efficiency makes sense as solar activity declines. A better antenna system and low-loss feedline will make a noticeable difference. Adding a gain antenna will make a difference in receiving signals. A modest 3-element Yagi tri-band antenna, like the Cushcraft A3S, will significantly outperform a wire antenna.

Updating your feedline is a quick and inexpensive win. For example, with a 100-foot feedline, LMR-400 delivers about 5% more signal on 20 meters, 7% more on 15 meters, and nearly 9% more on 10 meters compared with RG-213. The improvement is modest, but during weak or bad propagation, every bit of saved signal helps.

Lowering the noise floor is another way to improve weak-signal reception. Identifying and eliminating local RF noise can significantly improve signal reception. In most cities and neighborhoods, the biggest problem is not weak signals, it is high noise levels from electronics. Some of the common noise sources are switching power

supplies, LED lighting, solar inverter systems, and Ethernet equipment. Reducing local noise by even 1–2 S-units can produce a bigger improvement than upgrading radios.

Solar Cycle 25 is in the declining years, but that does not mean operators should stop getting on the air. First, the cycle is far from over, and good propagation conditions still happen, especially on 20 and 15 meters. Second, understanding how lower solar activity affects the bands will help operators choose the best times, modes, and frequencies to make contacts. Finally, small station improvements such as lowering the noise floor, improving antennas, or upgrading feedlines can make a huge difference in weak-signal reception. Amateur radio has always been about adapting and experimenting, and the declining phase of the solar cycle gives us opportunities to do that.

73,
Adam Barbera W2NCC

Sunspots
Sunspots are comparatively cool areas at up to 7,700° F and show the location of strong magnetic fields protruding through what we would see as the Sun's surface. Large, complex sunspot groups are generally the source of significant space weather.

Coronal Mass Ejections (CMEs)
Large portions of the corona, or outer atmosphere of the Sun, can be explosively blown into space, sending billions of tons of plasma, or superheated gas, Earth's direction. These CMEs have their own magnetic field and can slam into and interact with Earth's magnetic field, resulting in geomagnetic storms. The fastest of these CMEs can reach Earth in under a day, with the slowest taking 4 or 5 days to reach Earth.

Solar Wind
The solar wind is a constant outflow of electrons and protons from the Sun, always present and buffeting Earth's magnetic field. The background solar wind flows at approximately one million miles per hour.

Solar Flares
Reconnection of the magnetic fields on the surface of the Sun drive the biggest explosions in our solar system. These solar flares release immense amounts of energy and result in electromagnetic emissions spanning the spectrum from gamma rays to radio waves. Traveling at the speed of light, these emissions make the 93 million mile trip to Earth in just 8 minutes.

Corona

Earth's Magnetic Field
Earth's magnetic field, largely like that of a bar magnet, gives the Earth some protection from the effects of the Sun. Earth's magnetic field is constantly compressed on the day side and stretched on the night side by the ever-present solar wind. During geomagnetic storms, the disturbances to Earth's magnetic field can become extreme. In addition to some buffering by the atmosphere, this field also offers some shielding from the charged particles of a radiation storm.

Sun's Magnetic Field
Strong and ever-changing magnetic fields drive the life of the Sun and underlie sunspots. These strong magnetic fields are the energy source for space weather and their twisting, shearing, and reconnection lead to solar flares.

Solar Radiation Storms
Charged particles, including electrons and protons, can be accelerated by coronal mass ejections and solar flares. These particles bounce and gyrate their way through space, roughly following the magnetic field lines and ultimately bombarding Earth from every direction. The fastest of these particles can affect Earth tens of minutes after a solar flare.

Geomagnetic Storms
A geomagnetic storm is a temporary disturbance of Earth's magnetic field typically associated with enhancements in the solar wind. These storms are created when the solar wind and its magnetic field interacts with Earth's magnetic field. The primary source of geomagnetic storms is CMEs which stretch the magnetosphere on the nightside causing it to release energy through magnetic reconnection. Disturbances in the ionosphere (a region of Earth's upper atmosphere) are usually associated with geomagnetic storms.

Space Weather
Space weather refers to the variable conditions on the Sun and in the space environment that can influence the performance and reliability of space-based and ground-based technological systems, as well as endanger life or health. Just like weather on Earth, space weather has its seasons, with solar activity rising and falling over an approximate 11 year cycle.

NOAA Space Weather Prediction Center - www.spaceweather.gov

Source images: NASA, NOAA

NOAA space weather infographic. (NOAA) <https://www.noaa.gov/explainers/space-weather-storms-from-sun>



STEPPIR DB-18 RECOMMENDATION

We are blessed to have both members and non-members donate their amateur radio equipment to The Radio Club of Tacoma. Our club Property Management Team receives all donations. They sort the donation, test equipment, manage a property list of major items and requests of the board approval for disposition of items in their possession. Our club retains the right to reserve items for club use. Items not reserved for club use are available for our members to purchase and twice a year items are sold at ham fests. Proceeds from the sales are used to meet our annual budget.

In 2025 we received the entire estate of Rick Leary, a longtime member (55 years) of the Radio Club of Tacoma. A regular for so many years around the club and Field Day and an avid CW operator. Add photos. Among the many items received by the club was a 55-foot crank-up/tilt over tower with new rotor and a SteppIr DB-18 antenna. This tower and antenna was installed at Ricks house with the help of club members around 2012.



Donated SteppIr DB-18

In April of 2026 the Board voted to both retain the tower and SteppIr DB-18 and to install them on our property. The HF committee was asked to provide a proposal on location and installation. Jeff W8NGS provided the rebar for the new base. Tim KB7TNT has agreed to dig the 4'x4'x4' hole for the new tower base and donations have been pledged to help cover the cost of the concrete.



BJ KO7T removing DB-18 from the tower.

I have been an outspoken proponent of this project. I have spoken with several of our members about installing the SteppIr DB-18 on top of our 80' tower and relocating the tri-band to the 55' tower. Many think it would be a huge gain for our club while others disagree. I have provided the following analysis to show what I think are long term benefits.

Current Status

The club currently uses a 5-element tri-band beam antenna of an unknown age and manufacturer. The antenna continues to perform well, little is known about its design, optimization, or remaining service life.

The donated SteppIR DB-18 represents a new antenna technology that provides frequency tuning and provides additional band coverage of 12, 17 & 30 meters which is not currently available at W7DK clubhouse. The decision is not whether the existing antenna works, it clearly does. The decision is whether the club can significantly improve HF performance and operating flexibility by installing a more capable antenna that has already been donated to the club.

Comparison

Feature	Existing Trib-band	SteppIR DB-18
Bands Covered	10m, 15m, 20m	6, 10, 12, 15, 17, 20, 30 & 40m
Adjustable After Installation	No	Yes
Frequency Optimization	Fixed	Continuous
SWR Across Entire Band	Varies	Optimized
12 Meter Coverage	No	Yes
17 Meter Coverage	No	Yes
30 Meter Coverage	No	Yes
40 Meter Capability	No	Yes (2-element beam)
Age	Unknown	Known History
Engineering Documentation	Unknown	Well documented
Maintenance Support	Unknown	Available from SteppIR

Note: The DB-18 provides directional coverage on 30 meters, a band currently unavailable on the tower beam or on club property. The 30-meter band is often open during lower solar activity and is useful for long-distance digital and CW operations.

Advantages of the SteppIR DB-18

1. Frequency Agility

A conventional tri-band antenna is a compromise design. Once installed, element lengths are fixed. The antenna is typically tuned for either the CW portion or phone portion of a band. Performance decreases as operators move away from the design frequency. The SteppIR uses motor-driven copper tape elements that automatically adjust to the exact operating frequency. This means the antenna is effectively re-tuned every time the operator changes the frequency.

Benefits include:

- Lower SWR
- Better feed point impedance
- Improved efficiency
- Consistent performance across the entire band

Instead of optimizing for one small portion of a band, the antenna remains optimized across the band.

2. Additional Amateur Bands

The DB-18 adds:

- 12 meters
- 17 meters
- 30 meters

These are bands the club currently cannot use on the beam and the club does not have these antennas. These bands are overlooked and can produce additional DX opportunities, especially during periods of lower solar activity. Adding these bands immediately expands club operating capability without requiring additional antennas.

3. Significant 40-Meter Improvement

One of the most compelling advantages of the DB-18 is

its 40-meter capability. The antenna can be configured as a two-element beam on 40 meters. Currently the club relies on a fixed position inverted-V antenna approximately 40 feet above ground. While the inverted-V works well for regional contacts, it offers little forward gain.

A two-element 40m beam installed at 80 feet would provide:

- Forward gain
- Front-to-back rejection
- Better DX capability
- Improved weak-signal reception
- Directional capability 40-meters
- As Solar Cycle 25 declines, 40-meters will become more important for long-distance communications. Investing in solid 40-meter antenna with performance (Forward gain) now prepares the club for the future.

Potential Concerns & Risk Mitigation

EHU Replacement

The primary concern is the Element Housing Units (EHUs). Because the antenna is no longer new, replacing the EHUs make sense before installation. An official quote from SteppIR is still pending. This is a project expense; it should be viewed as a refurbishment investment and not a new antenna purchase. The club would still be getting a high-end HF beam system at a fraction of replacement cost.

Mechanical Complexity

The SteppIR is mechanically more complex than a conventional beam. It contains: Motors Control electronics and copper tape elements. This increases maintenance requirements.

- However, these systems are well understood and supported by SteppIR.
- Thousands remain in service worldwide.

Risk Mitigation

One of the strongest arguments for moving forward is that the risk is low.

If the antenna does not meet expectations:

1. The DB-18 can be removed.
2. The existing tri-band beam can be reinstalled.
3. The investment in refurbishment can be recovered by selling the DB-18.

Unlike many projects, this decision is reversible.

The club is not permanently committing itself to an unproven solution.

Additional Opportunity: Donated 55-Foot Crank-Up Tower

The donated tower provides additional options.

There is a space behind the clubhouse between the garage and storage shed for installation. If the tower installed 35 feet or less, no permit is required. Note: The club installed a 40' tower for the UHF/VHF stations in 2013.

The existing tri-band beam could then be mounted on this tower and retained as:

- A backup HF antenna
- A second operating position
- A contest station antenna
- An emergency alternative

This preserves club assets while expanding capabilities.

Conclusion

The donated SteppIR DB-18 presents a rare opportunity to significantly improve the club's HF capabilities at a low cost. The DB-18 adds capabilities the club simply does not have today:

- 12 meters
- 17 meters
- 30 meters
- 40 meters directional 2 element gain antenna at 80ft elevation
- Frequency tuning across entire bands
- Better frequency optimization on 10,15 and 20

meters

This positions the club for increased and stronger performance as Solar Cycle 25 declines.

The equipment comes with a known history, was professionally installed, and can be thoroughly tested before installation. Most importantly, the project carries limited risk. If performance does not meet expectations, the current tri-band antenna can be reinstalled. ***The performance improvements, the upcoming solar minimum, the known quality of the donated equipment, and the reversible nature of the project, installation of the SteppIR DB-18 on the club's 80-foot tower is my recommendation.***



Employing teeter-totter technology to gain elevation to load the tower.



Successful removal of DB-18 from the tower. Large footprint! Now ready for disassembly.



Trailer loaded, job well done. Approximate time 4.5 hours.



BJ, Adam and Dave taking a break while I (W7XH) continued to photograph.



Rick W7LKG Thank You !



SUBMIT YOUR ARTICLE TODAY

Well, the first published Loggers Bark under new leadership (Mike W7XH & BJ KO7T) received some very kind reviews. It was an honor to receive cudors from Dave W7UUU, it meant quite a bit to me personally.

While trying to have something that looked familiar, it was glaring that the Loggers Bark was in need of far more content. I am grateful to report that several people have stepped up to be content contributors. I would name names and their call signs but in that effort I would definitely forget several individuals. For now, I will state that several have agreed to monthly content, some to quarterly content and others as inspiration strikes.

If you have something that you would like to submit for publication, send your submission or questions to loggersbark@w7dk.org. I have included the following list (taken from the December 2025 issue if the Loggers Bark) to provide guidance to those submitting articles.

- 250 words for a 1/2 page “blurb” (no illustrations)
- 400-500 words plus one illustration for a full page article (this is the preferred length for submissions)
- Anything longer than 500 words, please email me at the address below to discuss particulars.
- Please submit using **plain text**—use MS Word (preferred), WordPad, or just Notepad. But please **no** PDFs.
- Please do not submit any form of AI-generated text from ChatGPT, Perplexity, etc. Articles must be written entirely by “real human writers”.
- All submissions may be subject to editorial adjustments to length or content as needed to fit.

- Any articles submitted may be published in the current Loggers Bark or in a future issue.

I want to comment on the last item in the list, your submission is important, but it might be held over to a future issue of the Loggers Bark. My hope is that I have several articles in waiting. I will not be publishing a 60+ page Loggers Bark. I love Dave (W7UUU) and the enormous amount of work he undertook the last two years. I certainly do not have his talents. I will be relying on content creators, editors and hopefully software to get each issue over the line.

73

Mike W7XH



AROUND THE CLUBHOUSE

Recent Photo highlights from the Clubhouse



CLUB HIGHLIGHTS



Bob K7MXE, Phil K7PIA, John N7TES



Dick W1UG with his friend Richard



Dave W7UUU giving photography instruction



Phil K7PIA



Paul W7PFU, Dick W1UG, Walt WA7SDY



John N7TES, Randy WB4SPB

AROUND THE CLUBHOUSE

Recent Photo highlights from the Clubhouse

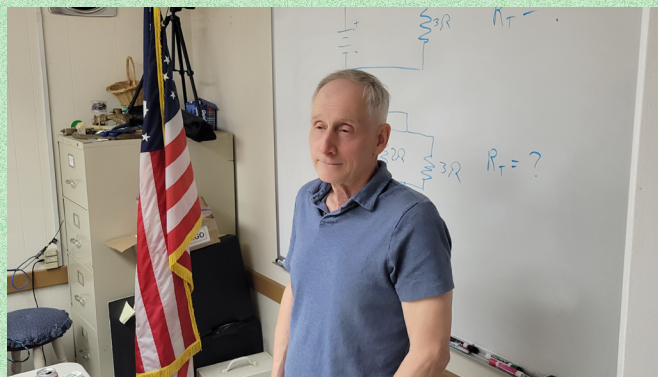


W7DK

CLUB HIGHLIGHTS



General meeting attendees



Peter KC7YDW our general class instructor.



General meeting attendees



Radio Club of Tacoma General License, class members



Angel, takes care of use with food and beverage.



Radio Club of Tacoma General License, class members

AROUND THE CLUBHOUSE

Recent Photo highlights from the Clubhouse



This was taken in 1931 at the original Radio Club of Tacoma Clubhouse. Note the sign!



Please welcome our new member David Hoefler WMCR442 the first GMSR club member.

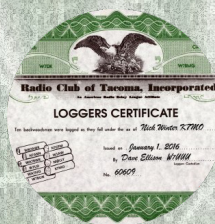


Now it is in Connecticut and looks like this!



W7DK LOGGER'S CERTIFICATE

Classic "first award" for Members



HAVE YOU APPLIED for your own W7DK Logger's Certificate?! It's FREE and it's EASY! All you have to do is work at least 10 members of the Radio Club of Tacoma, then send in your list of call signs worked, and BAM! We'll print out your certificate and get it to you toot sweet by US Mail.

of recipe boxes still held by the club. We still have a huge stash of this beautiful OFFICIAL logger's Certificate paper.... So if you do not already have yours, just shoot us an email with your list of call signs worked, and put "Logger's Certificate" in the subject line... -editor



There are no confirmations required, no logs to submit, and really no rules other than the

call signs you submit must be members of the club. You may work them on HF, 2m FM, on FT8 or SSB or any other mode! In fact, one of the best ways to get your 10 contacts is to check into the weekly Tuesday Night Net on the 147.28 club repeater... every Tuesday at 7:30 PM.

This venerable award was first launched in 1957, using certificate paper printed by club member Dick Ryan, **W7RGD** using a donated printing setup.

As of the date of this publication, there have been almost 700 certificates issued, including a few reissues over the years to replace lost certificates.

The original certificates were hand-lettered by long-time RCT member Barbara Osborne, **W7UYL** (SK 2022), and all of the records were kept in a series

Barbara Osborne
W7UYL in 1955
on
RCT USO event



Two recent "firsts"! Our first Ohio (Bob W8RID) Brazil (Marcos PP5AMP)

W7DK LOGGER'S CERTIFICATE

SEARCH YOUR LOGS!!! GET YOUR CERTIFICATE !



THE W7DK RADIO CLUB OF TACOMA LOGGER'S CERTIFICATE is available to anyone anywhere who has worked at least 10 members of the club. It's a long-held club tradition to issue these certificates, with just shy of 700 having been produced since the start of the program in 1957.

Are you active on the HF bands? If you are, it's entirely possible you already have all the contacts you need to get your own Logger's Certificate! And it's really easy to search this.

Almost all modern computer logging systems have a way to search for the county of stations you have worked. For example, in the popular N3FJP Amateur Contact Log (ACL), to find stations that could possibly be W7DK members, just go to the "County" field in the ACL interface, then click "Search". If you have at least 10 results come back, send me the list and I will check to see how many are members!

For those who use QRZ's powerful logbook software just open your main logbook, click the pulldown menu for "Filter" and select "New". In the "Filter Name" box you could call it "Logger's Certificate" (and then "save" if you want to use this rule in the future) - then in "Select Field" select "Their County", then for "State" pick WA for Washington, and lastly "Compare Value" set to "Pierce County, WA". Lastly, click "Add Rule". Once you do this, you will now see only those logged QSOs that the other station reported Pierce County. Since the Radio Club of Tacoma is in that county, your likelihood of pulling up club members is very high.

Regardless of the logging software you use, most should have a means for searching out county information.

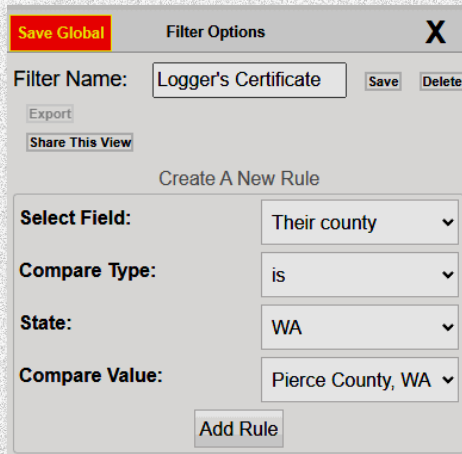
Just note that if you find "Special Event" call signs such as **W7F**, **W7B**, etc., those don't count as multiple operators share those call signs during the club's Bigfoot event every October. Only actual FCC-assigned call signs count for the Logger's Certificate. The club call of **W7DK** or the museum call of **W7OS** are considered acceptable to use.

Also consider filtering for Kitsap County (where I live) as we have a number of members there. You could also include King County, but I warn you: it's the largest county in the state, and has a lot of hams—most of whom will not be W7DK members. Searching there will result in a huge list without many "hits".

Then just email me the list of calls—you don't need to include anything else: it's the Honor System. I won't be confirming anything other than if the call sign is (or ever was) a member of the club.

So start SEARCHING! I will send you your own beautiful Logger's Certificate free of charge—mailed to your listed QRZ mailing address. In return, just send me a photo of you holding your certificate and I will run that in a future issue of The Logger's Bark!

-Dave **W7UUU**

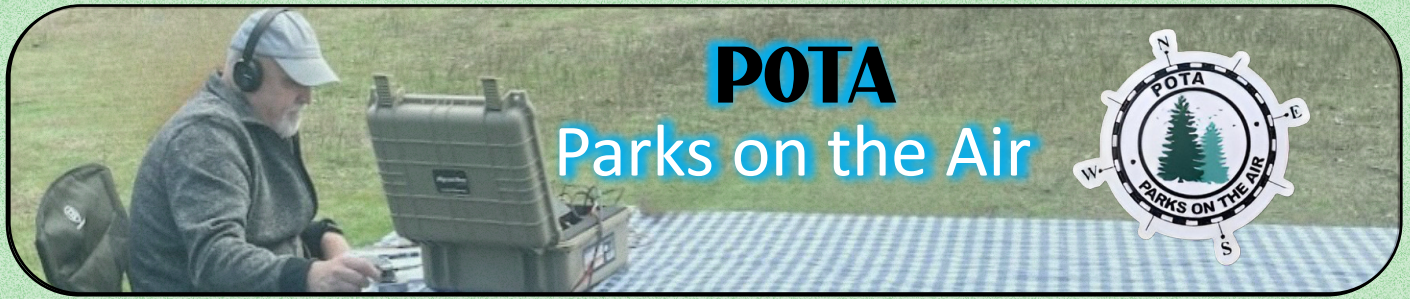


Above: Custom Filter dialog for QRZ Logbook—just search for State=WA, and Value=Pierce (or Kitsap) County



Left: Using N3FJP Amateur Contact Log, simply enter Pierce (or Kitsap) for the County field, then click "Search" to see a list of calls from these counties calendar to view on W7DK.org with current active links!

Wanna get yours? Send in those contacts!



POTA Parks on the Air



POTA AT SALTWATER STATE PARK US-3262

May 17th saw the W7DK POTA team going to Saltwater State Park. Beginning around 10 am two stations got set up: Mike W7MKE with his vertical “poor man’s POTA performer initially working 15m and Dave KK7NYW set up his EFHW antenna in what seemed an unusual way by supporting the middle of his wire on about a 20’ pole and the ends down to about picnic table height in an inverted V formation.

where he also hoped to contact his son Jeff W7JSJ working POTA from somewhere on the east coast.



Mike AK7C, Mike W7MKE, Jeff W8NGS

Several other members of the Radio Club of Tacoma showed up to both observe and to operate. Doug AB7DG came and set up his Xiegu on 20m but just monitored the band as he continued to learn about his equipment. Jeff W8NGS was there and worked W7MKE’S rig to log several contacts between 2 -3 pm. Mike’s table was also joined by a visitor, Mike AK7C, a resident of Des Moines, who stayed all day. He said he received a general invitation to join in W7DK activities sent out by our excellent membership chairman Mike W7XH to many area Hams. Mike W7XH also got in a call to our POTA activation from the W7DK clubhouse



Doug Ab7DG, Jeff W8NGS



Mike AK7C, Mike W7MKE

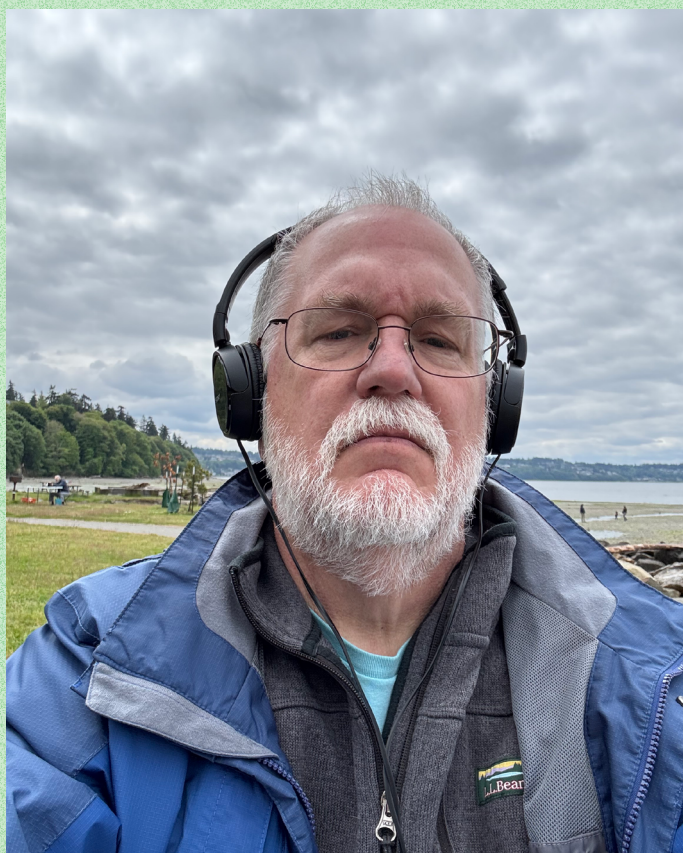
Joining us as observers were Cathi W6PSY who also took many helpful photos. Joining her, with dog in



Dave KK7NYW & a visitor



Doug AB7DG



Dave KK7NYW

Those who escaped ...

will not remain faceless.

tow, Kathryn K7USR was taking advantage of the mild weather, which gradually improved as the day waxed to a very pleasant sunny day throughout the Puget Sound region with many families visiting the park. One other POTA activator we met came out to try out some new gear. Lynden KM7FRI (Lindy) from Seattle is a newly licensed amateur who contacted us from far across the park for a park to park contact within the same park!




Cathi W6PSY



Kathryn K7USR

73
Mike W7MKE

THIS MONTH'S CALENDAR



MONTHLY ACTIVITIES

May		June 01, 2026				July	
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	
23 May	1 07:00pm General Class	2	3 07:00pm Board meeting	4 06:00pm HF Night at the ... 06:45pm Weekly RTTY Spr ...	5 09:00am Sea-PAC Setup	6 08:00am Tech Class 09:00am SEA-PAC Opening ...	
24 08:00am Tech Class 09:00am SEA-PAC Final D ...	8 07:00pm General Class	9 07:00pm VE License Exam ...	10	11 06:00pm HF Night at the ... 06:45pm Weekly RTTY Spr ...	12	13 01:00pm General meeting ...	
25 10:00am POTA Penrose St ...	15 WC2026SES 07:00pm General Class	16	17	18 06:00pm HF Night at the ... 06:45pm Weekly RTTY Spr ...	19 WC2026SES	20	
26 21	22 07:00pm General Class	23	24 WC2026SES	25 06:00pm HF Night at the ... 06:45pm Weekly RTTY Spr ...	26 09:00am Field Day	27 09:00am Field Day	
27 28 09:00am Field Day	29	30	July	July	July	July	

NOTES:

Dave N7HT is currently teaching a general class which started on April 20th and will conclude on June 22,2026. Please contact Dave at dbbrooks@hotmail.com if you want to attend.

EVERYDAY RF: THE HIDDEN RADIOS ALL AROUND US

By Dave W7UUU



EVERYDAY RF: THE HIDDEN RADIOS ALL AROUND US

Riding around on the 70-centimeter band every time you drive!

Welcome back to this continuing series on the hidden RF systems quietly surrounding us in our everyday lives. Last time we looked at hotel key cards and the tiny radio systems hidden inside them. This month, let's move from the hotel parking lot to the vehicle itself and talk about one of the most widespread little radio transmitters on the road today: the Tire Pressure Monitoring System, better known as TPMS.



TPMS unit in rim Wikipedia

If your vehicle was built in roughly the last twenty years, chances are it contains at least four tiny radio transmitters *hidden inside the wheels*. Most drivers, if

they are even aware of such technology, never think about them at all unless a warning light suddenly appears on the dashboard telling them one of the tires is low. But from a ham radio perspective, these things are surprisingly interesting little RF systems, operating on a band near and dear to many of us.

The particular TPMS sensor I took apart for this article operates at 433 MHz, which immediately caught my attention because that's essentially right next door to our 70-centimeter amateur band. In fact, it sits only slightly below the ham allocation. Every time you drive down the highway, there's a very good chance your vehicle is quietly transmitting digital RF bursts just below the frequencies many of us use for repeaters, weak signal work, satellites, and other UHF operations.

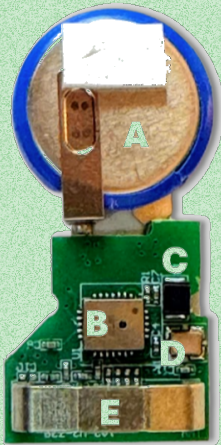
Unlike the hotel key card from the previous article, TPMS sensors are active radio transmitters. They contain a battery, a pressure sensor, a microprocessor, and a UHF transmitter all packaged into a rugged little module designed to survive years of vibration, heat, cold, water, potholes, and centrifugal force spinning inside a wheel at highway speeds.

Once the outer casing of TPMS unit is removed, the electronics are surprisingly compact and elegant. Refer to the photos I took of an actual TPMS sensor I disassembled for this article.

The large round object dominating the circuit board is the lithium coin cell battery that powers the unit for several years of operation. It's normally soldered in place (to prevent loose connections and false readings) – so

it's not considered user-serviceable. Nearby the battery is the RF circuitry and microcontroller that process the sensor data and generate the transmitted signal.

The most interesting component on the board is the small square metal-can device near the center of the PCB. That little silver package with the tiny black dot in the middle is the actual pressure sensor. Specifically, it's a MEMS absolute pressure sensor—a remarkable little piece of micromachined silicon engineering.



TPMS Sensor PC Board

- A = Lithium 3.0V battery
- B = MEMS Pressure sensor chip
- C = RF Coil and transmitter
- D = CPU processor chip
- E = 433 MHz antenna

Photo: Dave W7UUU

TPMS Exposed View

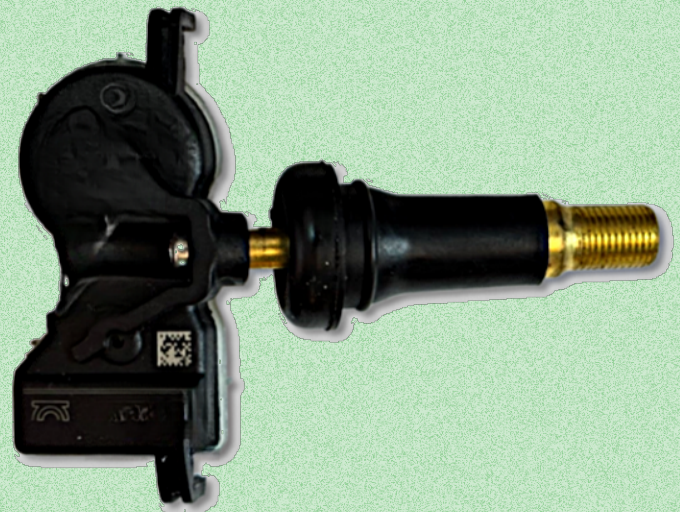
That tiny black dot is not simply a mark or alignment point. It's actually the *pressure port* where the tire's air pressure reaches the sensing diaphragm inside the chip. The TPMS housing is carefully designed so internal tire pressure is routed directly to that opening. Inside the metal can is a microscopic silicon diaphragm containing piezoresistive sensing elements (not terribly different than a radio crystal!). As the tire pressure changes, the diaphragm flexes by an incredibly tiny amount, slightly changing electrical resistance values that are then digitized by the electronics. It's these digitized values that correspond to the pressure inside the tire.

The alignment of that pressure port is extremely deliberate. Engineers have to ensure accurate pressure transfer while also preventing contamination, moisture, or debris from damaging the sensor. Even the small air volume around the port is carefully controlled to avoid damping effects that could reduce measurement accuracy. As a part of this precision, the actual "filler connection" must be a manufactured part of the

TPMS sensor. In other words, when it comes time to replace a failing sensor battery, the entire unit – filling stem and all – must be replaced at the tire shop.

In this particular design, the TPMS uses what's commonly called a "two-chip" architecture. One chip handles the actual pressure sensing (the MEMS chip) while a second integrated circuit acts as the brain and radio transmitter. Think of it this way: the metal can is the "ears" sensing the pressure, while the nearby IC is the "brain and radio" that processes and transmits the information. Referring back to the PC board photo, the small solid-black square is the RF tank coil for the transmitter, and the tinned metal strap that spans the bottom edge of the PC board is the 433 MHz antenna (which doubles as a stiffener for the device).

The RF portion of the system sends out short digital data bursts containing information such as tire pressure, internal temperature, battery status, and the unique identification code of the sensor itself. The vehicle's onboard computer listens for these packets and compares the readings against programmed thresholds. If one tire starts losing pressure, the driver gets the familiar dashboard warning light.



TPMS Sensor Unit Photo by Dave W7UUU

One particularly interesting thing about these systems is that they don't transmit continuously. To conserve battery life, most TPMS units spend the majority of their time asleep. They periodically wake up and transmit brief bursts of data, often increasing their transmission rate when the vehicle is moving. That's why you may have noticed in your car that tire pressure does not display for several minutes after you start driving. Under normal conditions, the battery can last anywhere from five to ten years before the entire sensor assembly must be replaced, filling stem and all.



Photo: Wikipedia—Willis Moon

Pressure Window

From an RF standpoint, these little transmitters are doing impressive work. Think about the abuses these PC boards with delicate electronics must endure! They have to reliably communicate from inside a rotating metal wheel assembly surrounded by steel belts, suspension components, electrical noise, wet roads, and other vehicles, all the while spinning. Yet they do it so well most drivers never even think about the radio engineering involved.

To put this in another perspective, imagine driving from the W7DK Radio Clubhouse building in Tacoma to downtown Seattle, for a total of about 35 miles. Each tire and TPMS sensor will have spun roughly 24 thousand revolutions during that drive. Now expand that mental picture to multi-state road trips, and a life span of 5 to 10 years of driving and you will start to gain a pretty solid understanding of how much

abuse that little sensor must endure in its operational life. (Tires come and tires go, but the TPMS device stays with the rim until the battery or the PCB fails).

What really fascinates me is how invisible all of this technology has become. Here we are, surrounded by countless tiny radio systems quietly exchanging digital data every second of the day, and most people never realize it. Your car alone may contain dozens of independent RF devices all operating simultaneously.

So the next time you're driving down the highway, remember that your vehicle is not just rolling along mechanically. Hidden inside each wheel is a tiny digital UHF radio station operating just below the 70-centimeter amateur band, faithfully checking tire pressure and quietly reporting back to the car's computer system several times every minute.

See you next month!

Dave
W7UUU

MIGHTY DK! QSO REPORT

Reporting all the HF QSO action from the club



YOUR MONTHLY QSO'S

In the Bark, the Radio Club of Tacoma recognizes the members and guests who have made non-contest QSOs using the HF stations at our clubhouse. [Saturday Open House](#), especially, is a time when members have access to this equipment. Why not sit down at one of our operating desks and make a contact or two? Assistance is almost always available for those unfamiliar with the equipment, and if your license class doesn't permit HF operation, ask the denizens of the HF Room or the Saturday clubhouse host to help you find a suitably-licensed control operator to sit with you. It's a feather in the club's hat for the call sign of The Mighty DK to be heard on the airwaves. So get on the air and get your name in the Bark! (Don't forget to enter your call sign as the operator into our logging program.

Clubhouse QSOs during this period

Name	Operator	QSOs
Mike	W7XH	22
Gary	WG7X	15
Mike	W7MKE	11
Jeff	KM7DWQ	6
Dan	KC7SV	3
Randy	WB4SPB	2
Natan	WA7BUG	2



Above: HF Room Flex 6600 & Mercury III

Below: HF Room Icom IC-7610 & KPA 500



Photos on this page provided by Dave W7UUU



ANTENNA TALK

VIRTUAL MODELING

Last month we examined the use of a few symbols in a simple dipole antenna model. We'll now take a look at more extensive use of symbols.

The Flexible Doublet

The source file for this model contains the following (you can copy and paste into Notepad or a similar text editor and save to a **.nec** file in order to open the model in 4nec2).

CM Flexible doublet model.

CM -

CM Change symbol values to adjust frequency, height, CM length, droop angle, and toe angle.

CE

SY FREQ=14.2 'Frequency

SY DBLLEN=468/FREQ 'Overall length of the doublet, 468/f is the conventional formula

SY DA=0 'Droop angle from horizontal (0 is horizontal)

SY VA=0 'Toe angle from Y axis, 0 puts the wires in line

SY HAG=33 'Mid point height above ground

SY MIDLEN=1.5 'Length of middle wire, may be helpful to shorten this at high frequencies

SY MIDY=MIDLEN/2 'Y extent of middle wire

SY ELEMLEN=DBLLEN/2 'Length of 1/2 of the antenna

SY LEGLEN=ELEMLEN-(MIDLEN/2) 'Length of a leg, exclusive of 1/2 of the middle (feed) wire

SY LEGZ=HAG-(LEGLEN*sin(DA)) 'End height of a leg

SY LEGD=LEGLEN*cos(DA) 'Distance from origin to end of leg

SY LEGX=LEGD*cos(90-VA) 'X coordinate of leg endpoint

SY LEGY=MIDY+(LEGD*sin(90-VA)) 'Y coordinate of leg endpoint

GW 1 LEGLEN*2 LEGX -LEGY LEGZ 0 -MIDY HAG #18/ft

GW 2 3 0 -MIDY HAG 0 MIDY HAG #18/ft 'Feed (center) wire

GW 3 LEGLEN*2 0 MIDY HAG LEGX LEGY LEGZ #18/ft

GS 0 0 0.3048

GE 1

LD 5 0 0 0 58000000

LD 7 0 0 0 3.5 #18*1.5 'A guess at thickness with insulation

GN 2 0 0 0 4 0.003

EK

EX 0 2 50% 0 1 0 0

FR 0 0 0 0 FREQ 0

EN

When we open this model, here are the symbol definitions we'll find on the **4nec2 Edit** window "Symbols" tab:

Symbols and equations	Comment
FREQ=14.2	Frequency
DBLLEN=468/FREQ	Overall length of the doublet, 468/f is the conventional formula
DA=0	Droop angle from horizontal (0 is horizontal)
VA=0	Toe angle from Y axis, 0 puts the wires in line
HAG=33	Mid point height above ground
MIDLEN=1.5	Length of middle wire, may be helpful to shorten this at high frequencies, remember to use an odd number of segments
MIDY=MIDLEN/2	Y extent of middle wire
ELEMLLEN=DBLLEN/2	Length of 1/2 of the antenna
LEGLLEN=ELEMLLEN-(MIDLEN/2)	Length of a leg, exclusive of 1/2 of the middle (feed) wire
LEGZ=HAG-(LEGLLEN*sin(DA))	End height of a leg
LEGD=LEGLLEN*cos(DA)	Distance from origin to end of leg
LEGX=LEGD*cos(90-VA)	X coordinate of leg endpoint
LEGY=MIDY+(LEGD*sin(90-VA))	Y coordinate of leg endpoint

And here are the geometry definitions found on the **4nec2 Edit** window "Geometry" tab:

Type	Tag	Segs	X1	Y1	Z1	X2	Y2	Z2	Radius	Comment
Wire	1	LEGLLEN*2	LEGX	-LEGY	LEGZ	0	-MIDY	HAG	#18/ft	
Wire	2	3	0	-MIDY	HAG	0	MIDY	HAG	#18/ft	Feed wire
Wire	3	LEGLLEN*2	0	MIDY	HAG	LEGX	LEGY	LEGZ	#18/ft	

The simple dipole model discussed in last month's article had a single wire, but this one has three. Recall also that NEC mathematically divides each wire into segments of equal size for the purpose of its calculations.

The short center wire, **Tag 2**, has three segments, and the middle one will hold the voltage source (feed point). Since the segment with the voltage source is on the same wire as the adjacent segments, we have satisfied a best NEC modeling practice that requires a **uniform size between a segment with a voltage source and the segments on either side**. This would not necessarily be the case if **Tag 2** had only one segment, since the adjacent segments would be on connected wires that might use different segmentation.

Using a separate center wire also allows the wires connected on either side of **Tag 2** to be oriented in directions other than "in line" with **Tag 2**, allowing us, for example, to model an inverted vee.

The number of segments for **Tag 1** and **Tag 3** have been set to **LEGLLEN*2**. Since **LEGLLEN** is a number of feet, this means segments are about 6 inches long. (If **LEGLLEN*2** is not a whole number, 4nec2 will round the number of segments to an integer.) For accurate modeling, NEC requires a **segment size between 1/10 wavelength and 1/1000 wavelength**. For 3.5 MHz, the smallest segment that meets this requirement is about 3.5 inches (from $984 / 3.5 / 1000 * 12$). For 148 MHz, the largest usable segment is about 8 inches (from $984 / 148 / 10 * 12$). While these are the outer limits, **it is a good idea to use segments that are no larger than 1/20 wavelength in size**. This model follows these guidelines without changes to the number of segments from about 3.5 MHz thru 90 Mhz. If needed or desired, the segment size can be altered by, for example, using **LEGLLEN** alone (fewer and

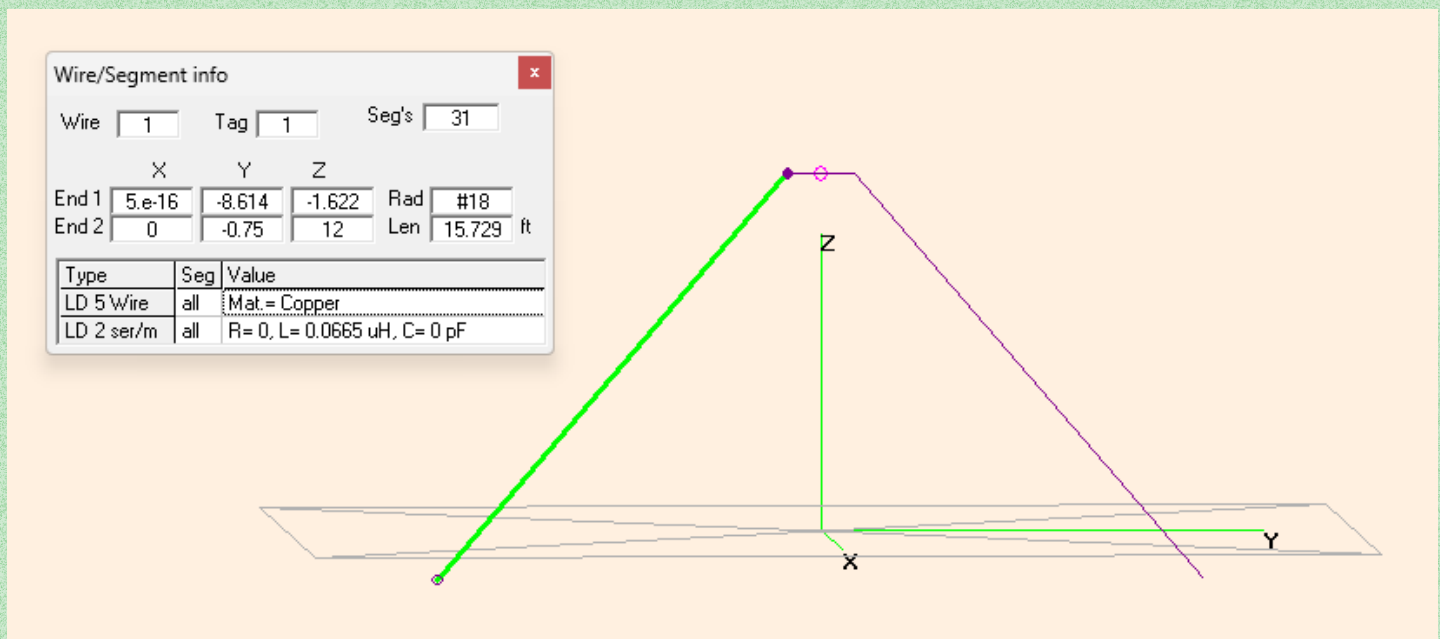
larger segments) or by using **LEGLEN*3** (more and smaller segments).

When NEC was first developed, it ran on mainframe systems that were slow by today's standards, and since computation time increases with the number of segments in the model, it was important to use just enough segments to achieve accuracy. However, with modern computers we generally do not need to minimize the total number of segments for the kinds of antennas most hams will model.

In the "Flexible doublet" model, the lengths of the wires and the coordinates of their end points have all been specified or determined by calculations in the "Symbols" spreadsheet, and symbols have been used to describe the "Geometry" of the antenna. Sine and cosine trig functions are very handy for finding the end points of wires of a given length and orientation. The use of symbols allows easy changes to basic aspects of the design.

As described in the example model above, the three wires of this antenna fall on a line. But if we change the "droop angle", **DA**, we can cause **Tag 1** and **Tag 3** wires to slant downward from the **Tag 2** (center) wire, forming an inverted vee. Or we can specify a negative droop angle and have these wires slant upward, which is the typical configuration for a doublet that is supported only at the ends.

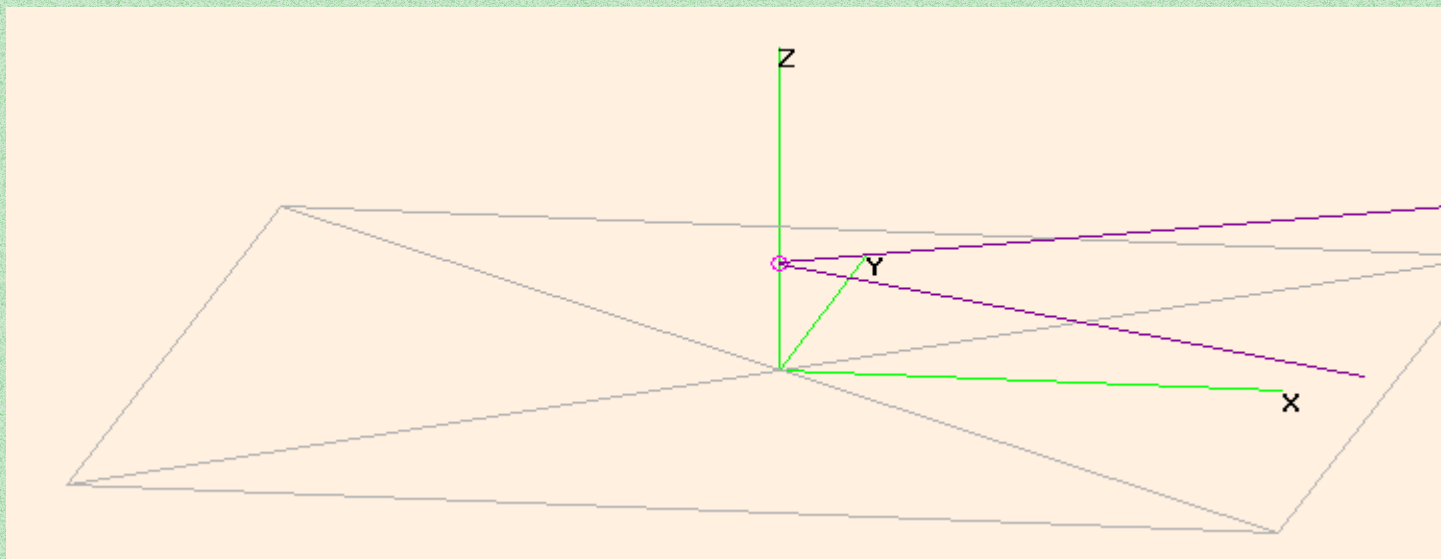
Since **HAG** determines the height of the **Tag 2** wire, some combinations of **DA** and **HAG** may result in wires that end up touching or below ground. This is more likely with longer wires we would use for lower frequencies, but in the following extreme example for 20M, **HAG** is 12 feet and **DA** is 60. One of the drooping wires is selected (green) so that 4nec2 will display its parameters:



The Z coordinate for one end point of the **Tag 1** wire is negative, showing it is below ground. If we try to calculate this model, 4nec2 will display error messages. We need to raise **HAG** and/or lower **DA** until the **Tag 1** and **Tag 2** wire ends are above ground.

Another adjustment we can make is to toe the wire ends and model the case where a doublet has a horizontal vee component. In the next example, **DA** is 0 (so the wires are horizontal), **VA** has been

set to 60 and **DBLLEN** has been set to 300, causing the legs of the doublet to be about 150 feet long and to depart from the Y axis by an angle of 60 degrees (the included angle is therefore 60 degrees as well).



Non-zero values for **DA** (droop angle) and **VA** (toe angle) can be used at the same time to model an inverted vee that can't be squeezed into available space if the wires are kept in line.

Model accuracy

There are limitations in NEC that make it possible for a model to produce inaccurate results. To avoid this, it will be helpful to review suggestions for building reliable models that can be found in the 4nec2 "Help" documentation (use the **Main** window **Help->GENERAL HELP** menu item). On the first Help page, scroll down to find links to many useful topics, especially **Modeling Guidelines**. We have already noted a couple of these: 1) keeping segment size between 1/20 and 1/1000 wavelength, and 2) placing the source (feed point) on a segment that has equal-size segments next to it.

The Help documentation also describes **Validating Structure**, which 4nec2 performs at the beginning of each calculation and which may produce warnings or errors that halt the calculation. We can perform geometry validations on-demand using the **Geometry** window **Validate->Run geometry check** and **Validate->Run segment checks** menu items.

We should also look for problems not caught by geometry and segment checks by using the "Average Gain Test" (AGT). When we generate output with the 4nec2 **Main** window **Calculate->NEC output-data** menu item and select the **Far Field pattern** option, there is a checkbox that selects the **Average Gain Test** (note this is a sticky setting – we will need to un-check it on a subsequent calculation to turn off AGT). When we generate output data using this option, 4nec2 first warns that "Wire/ground losses are set to zero for AGT-test" (click "OK" to proceed), then it performs the AGT calculation. The pattern and feed impedance outputs will not be useful, but note the "AGT results" figure:

Filename	FlexibleDoublet.out	Frequency	14.2	Mhz
		Wavelength	21.11	mtr
Voltage	87.4 + j0 V	Current	1.14 + j0.37 A	
Impedance	69.1 - j22.4	Series comp.	0.252	uH
Parallel form	76.4 // -j235	Parallel comp.	2.638	uH
S.W.R.50	1.64	Input power	100	W
Efficiency	100	Structure loss	0	uW
AGT results	1.000 (-0 dB)	Network loss	0	uW
RDF [dB]	7.95	Radiat-power	100	W

When the result is “1.000” or close to it, the model is probably reliable. Specifically, 4nec2 documentation states the following for evaluating the AGT result:

- > 0.95 and < 1.05 Model is likely to be accurate
- > 0.90 and < 1.10 Model is usable for most purposes.
- > 0.80 and < 1.20 Model may be useful, but can be improved.
- < 0.80 or > 1.20 Model is questionable and should be refined.

Conditions that can produce a poor AGT result include:

- Parallel wires too close together
- Close parallel wires of different diameters
- Wires of different diameter meeting at sharp angles
- Thick wires meeting at sharp angles

Summary

We’ve seen that symbols can enable us to simplify the adjustment of a model for refinement or to examine different scenarios. Their use can also make the Geometry spreadsheet more readable.

We’ve also discussed the basic ways to check model accuracy. Next time, we’ll take a practical look at another NEC requirement, for close parallel wires to have the “same segmentation”. Here’s the model we’ll employ for that purpose:

CM A fan dipole for 80 and 40 for a 50 ft wide lot

CM with a 6 ft fence on either side and

CM 33 ft center support, using insulated wire.

CM -

CM Resonant at 3.850 and 7.150.

CM Total 80M leg length is about 60ft 11in

CM Total 40M leg length is about 33ft 6in

CM -

CM Adjust the tail ends to resonate in different

CM parts of the bands.

```

CM
CE
SY FREQ=3.85 'Goal is low SWR (50) on 3.85 and 7.15
SY HAG=33 'Center section height above ground
SY CENT=1.5 'Length of center (feed) wire
SY DA=49 'Droop angle of lower vee
SY SP=6/12 'Connector length (fan element spacing), 6/12 = 6 inches
SY W80CY=(CENT/2)+(SP*cos(90-DA)) 'Y coordinate of 80M connector wire endpoint
SY W80CZ=HAG+(SP*sin(90-DA)) 'Z coordinate of 80M connector wire endpoint
SY W80L=36 'Length of 80M main wire from connector to tail
SY W80S=23+8/12 'Length of 80M horizontal tail wire
SY W80Y=W80L*cos(DA)+W80CY 'Y coordinate of 80M main wire endpoint
SY W80Z=W80CZ-(W80L*sin(DA)) 'Z coordinate of 80M main wire endpoint
SY W40CY=(CENT/2) 'Y coordinate of 40M main wire start point
SY W40CZ=HAG 'Z coordinate of 40M main wire start point
SY W40L=31 'Length of 40M main wire from center wire to tail
SY W40S=2 'Length of 40M tail wire
SY W40Y=W40L*cos(DA)+W40CY 'Y coordinate of 40M main wire endpoint
SY W40Z=W40CZ-(W40L*sin(DA)) 'Z coordinate of 40M main wire endpoint
GW 1 3 0 -(CENT/2) HAG 0 CENT/2 HAG #14/ft 'Center wire, with source
GW 21 1 0 CENT/2 HAG 0 W80CY W80CZ #14/ft '80M connector
GW 22 1 0 -(CENT/2) HAG 0 -W80CY W80CZ #14/ft '80M connector
GW 23 W80L*2 0 W80CY W80CZ 0 W80Y W80Z #14/ft '80M main wire
GW 24 W80L*2 0 -W80CY W80CZ 0 -W80Y W80Z #14/ft '80M main wire
GW 25 W80S*2 0 W80Y W80Z -W80S W80Y W80Z #14/ft '80M horizontal tail
GW 26 W80S*2 0 -W80Y W80Z -W80S -W80Y W80Z #14/ft '80M horizontal tail
GW 33 W40L*2 0 W40CY W40CZ 0 W40Y W40Z #14/ft '40M main wire
GW 34 W40L*2 0 -W40CY W40CZ 0 -W40Y W40Z #14/ft '40M main wire
GW 35 3 0 W40Y W40Z 0 W40Y W40Z-W40S #14/ft '40M tail
GW 36 3 0 -W40Y W40Z 0 -W40Y W40Z-W40S #14/ft '40M tail
GS 0 0 0.3048
GE -1
LD 5 0 0 0 58000000
LD 7 0 0 0 3.5 #14*1.5
GN 2 0 0 0 4 0.003
EK
EX 0 1 50% 0 1 0 0
FR 0 0 0 0 FREQ 0
EN
    
```

Happy modeling!

73
Randy WB4SPB

THE W7DK ELMER BOARD

Do you have a skill or tool to help new hams?



HAMS OPPORTUNITIES AVAILABLE

Do YOU have a skill you could pass on to new amateur radio operators? Do you possess a skill or piece of gear that you're willing to share with others to fix antenna problems, diagnose noise issues, drive a ground rod, teach Morse, help teach technical topics? If the answer is YES you too could be

a W7DK Elmer!! Let any officer know what your skills are or how you could help new hams get a leg up on the hobby. And if you're one of those already on the list, are there any changes we should be aware of? If so please hit the email address (found bottom of page on the right) and let us know so we can update the W7DK Radio Club of Tacoma "Elmer Board".

NEW HAMS OR MEMBERS: If you are looking for help, and NEED AN ELMER to help guide your way, use this table! Find the skill you need on the left, then look for an Elmer Provider of that skill on the right and reach out to them. ALL of these Elmer's have committed to helping so please don't hesitate.

Elmer - Mentor - Board

Do you need help with some area in ham radio?

List of members areas of interests

Name/Call Sign /Phone Number/ Topic

1. Technical questions, Classes
2. Help with Code
3. License Examinations
4. Antenna and Station planning
5. Antenna and Tower erection
6. Buying new or used equipment
7. Equipment repair
8. Understanding and operating your equipment
9. DX and Contests
10. Club and ARRL activities
11. Using test equipment
12. IRLP, Digital, SDR, ARPS, Winlink, Vara, Satellite
13. Understanding How Electronic Circuits Work

- Adam W2NCC 360-870-7894 (4,5,6,7,11)
- Al N7OMS 253-495-9068 (10,12)
- Dave N7HT 253-363-1692 (1,2,4,6,8)
- Dave W7UUU 253-820-0890 (2,4,6,9) and more
- Gary WG7X 253-327-0503 (1,4,5,6,8,9,10,11,12)
- Mike W7XTZ 253-405-8095 (6,8,10)
- Phil K7PIA 253-307-4781 (9,10,12)
- Randy WB4SPB 253-761-9391 (2)
- Stephen AD7AB 253-212-9437 (1,3,4,12)

Are you an RCT member with skills to offer? Please let any officer know and we can add you.



The Bailiwick of Jersey

Once again, I traveled to France where my daughter has been working for the past 2 years. Last year, she was teaching in Lyon in the southeastern part of the country. I was able to work a few POTA parks near the city, and I also took a short 2-hour train ride to Geneva, Switzerland to play radio in a park at the southern end of Lake Geneva. If you plan to travel around Europe, trains are perhaps the best way to travel with radio gear because commercial airlines are extremely restrictive on baggage allowances, especially on the size and weight of carry-on bags.

This year, my daughter was teaching in Brittany in the small town of Lannion. Planning for any DX Holiday for me starts well in advance. Fortunately, France is a CEPT country, so I always carry a laminated copy of the CEPT license agreement (FCC Public Notice DA 16-1048) when traveling in Europe with my radio kit. Operating under CEPT requires pre-pending your callsign with the country's DX identifier and following the rules and regulations of the host country. French regulations require all foreigners to also include an operational indicator (/P, /M or /MM) as a suffix when they identify on the air. So, my call sign in France is F/KO7T/P. Needless to say, "Foxtrot stroke Kilo Oscar Seven Tango stroke Portable" (F/KO7T/P) is a mouthful on phone.

My daughter had also spent a study abroad year in Rennes, and she was excited to take us on a tour around Brittany to show us some of her favorite places. Playing radio was of secondary concern on this trip as it should be on any family vacation. But I could still squeeze out a few hours here and there to get on the air on that side of the pond. I looked at the POTA map and noticed quite a few parks up along the Brittany coastline only 30 minutes away by bus. I also

saw the islands of Jersey and Guernsey just off the coast and started to contemplate a side trip to Jersey. As luck would have it, one of our planned excursions throughout Brittany was to the town of St. Malo where there is daily ferry service to the Bailiwick of Jersey.

Jersey is the largest of the Channel Islands and is a self-governing dependency of the British Crown, and a separate DX entity. The UK and all her dependencies are covered under the CEPT licensing agreement. However, since 2023 the UK and her crown dependencies require Electronic Travel Authorization (ETA) to enter the country. The ETA is available online and can take up to 3 days to process. The ETA costs 20 British Pounds and is valid for 2 years.

With the hotel, rental car, and ferry reservations all booked, and an ETA in hand, my next step was to get my radio kit ready and take care of the administrative work. I already had an LoTW certificate for France (F/KO7T/P), but I had to submit another certificate request for Jersey (MJ/KO7T). The next task was to set up a secondary callsign in QRZ, along with a biography page with that callsign, and of course a logbook. On my DX Holiday bio-pages I like to include basic information such as the dates, the bands I might work, modes and whether I work split or simplex, and QSL'ing information. Finally, I also create a secondary callsign in Club Log. If I am operating from fixed location that has internet access, I will enable Club Log's live streaming so DX'ers can track my activity. This was just a short DX Holiday, so no live streaming, but I always upload my log files to Club Log, LoTW, and QRZ.

Let's fast forward to May 8 and my departure from St. Malo to Jersey. The Danish ferry company DFDS sails between St. Malo and Jersey 2 times per day. I arrived

at the ferry terminal an hour before the scheduled departure and get my ticket and clear French immigration. Unfortunately, there was a technical problem with the ferry that day, and we didn't depart until 12:30 pm. The crossing takes approximately 2 hours, but total trip time is closer to about 4 hours considering the 1 hour before the scheduled departure, foot passengers being the last to disembark from the ferry and clearing Jersey immigration. Then it was a 25-minute ride from the ferry terminal to the airport to get a rental car because there are no rental agencies at the ferry port any longer.

I am thinking that's half an operating day down the tubes, and I'd have to be satisfied with activating 1 park that day instead of my planned 2 activations. When things are beyond your control you have to take things in stride and adapt, improvise and overcome! I find my way to Sir Winston Churchill Park (JE-0005), find a grassy area with a bit of shade and begin my



Sir Winston Churchill Park in Jersey

first POTA activation from Jersey calling "CQ POTA this is Mike Juliet Stroke Kilo Oscar Seven Tango standing by." After a few CQ calls the contacts from Europe and a few faint signals from North America started piling up. It was a wonderfully warm day and felt quite satisfied while looking over a huge sandy white beach and across the English Channel while playing radio.

Around 7 pm I packed things up, plugged the address of the hotel into my car's GPS and drove to the east side of the island to check in to my lodging for the

night. My original plan was to set up my antenna in



Mont Orgueil Castle in Jersey

the courtyard and work a little RTTY and CW that night while my batteries were recharging. But the delayed ferry across the channel threw off my schedule, and I was already well into Plan B. By the time I got checked in to the hotel it was already dark and it had already been a long day. And honestly, I didn't really feel like setting up the antenna in the dark. So, I plugged in the battery chargers, jumped into the shower and crashed for the evening to prepare for my next day's operations.

The next morning after breakfast, I packed up the car and took the A8 road across the northern part of the island to avoid the Liberation Day festivities in the main city of St. Helier. Shortly into the drive I came upon



Sailing away from St Malo France

Mont Orgueil Castle in the distance and thought I'd stop and take a quick photo. The castle is a heritage site and open to the public, but it is not (yet) listed as a POTA park. The castle sits on a high point on the island, and on clear days like this one, I could see across the channel to France and the European mainland. There were a few benches in the field just outside the castle walls overlooking the ocean down below. I paused for a moment and came up with Plan C and set up my portable radio kit to operate from this spot for the day.

After a few hours of operation, it was time to get the car back to the airport and a taxi to the ferry terminal so I could catch the boat back to France and rejoin my family and enjoy a few more days in Rennes before heading back home to Seattle. I knew I would not get a lot of operating time, but that really wasn't the purpose of this trip. I had fantastic time exploring many sites off the beaten track and away from the typical tourist destinations with my daughter as an interpreter. And spending time with my family is always time that is well spent! While I didn't get the big pile ups I've had on many of my other DX Holiday adventures, it's always fun to be the DX!

By BJ Rollison KO7T

AROUND THE CLUBHOUSE



CELEBRATING JUNE BIRTHDAYS



Brad K7BTC



Dave W7UUU



Tim KB7TNT

Member	Call sign	Member	Call sign
Dave Ellison	W7UUU	Buzz Dean	KB7FD
Angela Korn	KC7EQ	Timothy Tasse II	KB7TNT
David Burke	N7PKG	Brad Cunningham	KK7YQC
Mark Rader	KC7AFO	Jonathan Haynes	W0XO
Brian Terjeson	..	Howard Lim	W1COL
Don Hatlestad	K7OG	Kirk Parker	AF7HQ
Mike Mikuchonis	W7XTZ	Alan Olsen	KM7CIJ
Ronald Carper	KG7RKC	Andrew Berets	K7FDT
Lucy Key	KG7ONN	Todd Samuel	KK7YIJ
Mike Drorbaugh	W7MKE	Sean Kelley	KS4BAR
Billy Byers	W3VGR	Frederick Lorenz	KG7GTM
Brad Cullen	K7BTC	Seth Richey	KM7DKX
Billy Stockho	W7SSN	Larry Brown	W1LGB
Lal Chandwaney	KJ7YSX	Blake Kersen	KM7EKK
Paul Petach	KI6QXV	Ronald Cammers	KE7KR
Laura Moody	KK7NKL		

ANYTONE REVIEW



BETWEEN TWO WORLDS

Today I want to report about my latest transceiver by Anytone. The Anytone AT-5555N Plus/N Ver1 is 100% identical to the KPO DX-5000 Plus. What I found first in the box was the data cable to program the device, which was a surprise. All components in the box seemed to be at a high standard. When someone thinks about the old crackers from China is wrong. The company Anytone produces its own devices and sends them out under different names like K-PO, CRT, Maas, Dynascan, Top Gun Tech Quad 5 and Intek. They are producing radios for Baofeng, CRT France and Alinco Japan.



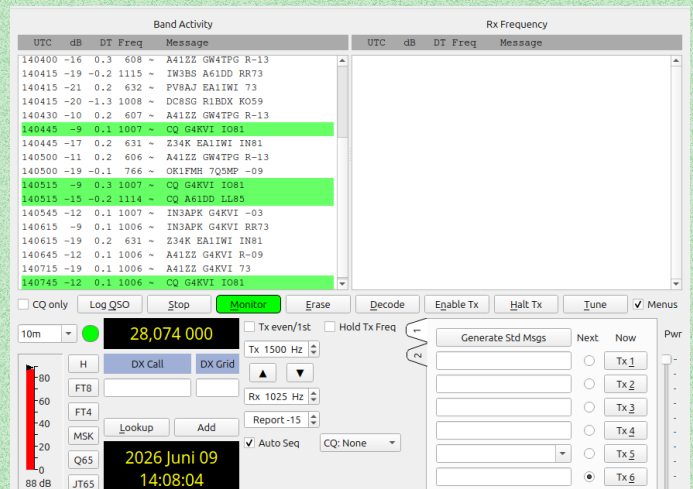
Anytone AT-5555n Plus

The transceiver is really a 10m ham-radio device for licensed operators. There is an 11m version, but it is defused. The ham version has some risks and no safety. You should know what you want to do and what you are doing. For example, you can switch to the 11m band to have an easy chit-chat but remember the range for to program is from around 25 - 30 MHz in the "export mode".

The next look is at the backside. Here I found the UHF SO239 antenna connect, CW, USB-C plug for programming (not digital-modes), and audio-output. The front comes with 7 tunable knobs with double functions. There is volume, squelch, Echotone (not

necessary), RF gain, RF power, band choice (Bank A to F), mode choice (PA, CW, AM, FM, USB, LSB), clarifier and the channel. The "channels" are just the steps of the different band choices. Next there push-buttons for Function, R.B., NB / ANL, Dualwatch, scan, scan list, BP +10 KHz, Hi-Cut, Lock, SWR, TOT, LCD-Off, EMG and the big display.

For experienced users most functions are immediately clear. The internal SWR is a bit special. To use this, the length of the cable to the antenna shouldn't be more than 3 meters in length. The most special of the internal features is the SWR Protection in the device. It's always on and the factory default setting. The SWR Protection can be turned off, but there is no need. The SWR Protection will automatically reduce RF power until the antenna SWR is reduced.



Operating FT-8 WSJTX on Linux Mint using the Anytone.

My first thoughts in the beginning were on how to modify the dynamic microphone. There are different ways to use a cheap CBers microphone with a 4-pin connector, or a 6-pin connector for microphones with internal/external power. Modifying the original microphone is the safest and easiest way. My dealer got a service option to have change to an electret element

which is what I wanted. You just have to change the configuration in the software menu of the transceiver from dynamic to electret and it will work well. If you prefer other ways, it gets complicated and dangerous. Especially the 6-pin solution contains a modification of the device by itself, and another wire and solder point needs to be set for the power-supply. The decision lays in your hands.

Next, I can say, leave the device closed. There is nearly nothing to see or change. Just the dangerous way for the modification. I wrote in the start, that the Anytone AT-5555N Plus/N Ver1 seems to be of a high standard and has been constructed with SMT (Surface Mount Technology), better known as planar mounting. Parts are too small to solder in any conventional way, and there is nothing accessible for screwdrivers and pincers.

When starting the device the first time, the display shows 28 MHz and is waiting for action. There are hidden menus, which are normally only used in the factory to adjust, like by known YAESU digital devices. The changes which can be made are not very fruitful and mostly just for fine adjustments of the special device which lies in front. There are other things which are much more interesting. Maybe a change of the Hub at first sight. It is set on 2.5 and can be increased up to 3 in the hidden menus. This will create problems with a modified dynamic mic or other changed things. Further the power adjust of USB/LSB in the Mic-Gain can do an overdrive or other useless faults. To play in the hidden menus is dangerous and can only be reset by the operator who performed the changes. Always write down what you changed by yourself because no factory reset possible!!!

To adjust the outgoing power there is a knob to change it in steps (2 to 40W). This is only for the FM and AM mode. SSB (0-30W) and CW (1-12W) are always at full throttle and can only be changed by using the internal mic-gain. This is one point for to be a real operator with a license, when you have limits in cause of distance to the neighbors. Try to understand the logic here before using the radio. My own problem is that I'm just allowed to use the calculated 14 W at my balcony with 10m. And digital modes are mostly SSB. So, the setting (max. 60) in the software, which is set to 40 (factory choice)

needs just a bit more than 30%, to reach the limit. Turn it down to 20 or a bit lower, and to be really sure use a power meter to adjust.

The typical functions like VOX, CTCSS/DCS Code, noise blanker and noise reduction are included. Many other options in the internal software are fully explained in the manual. These are the points of most interest. The other points of interest in the internal software are Mic Gain, VOX sensitivity, VOX delay, RX CTCSS/DCS, TX CTCSS/DCS, noise commander, noise gate, noise reduction, mic type, TX monitor, sidetone level, beep tone level, clarifier steps, auto squelch, TOT, scan type, SWR protection, voltage protection, transmit display, roger beep frequency, roger beep time, side tone frequency, and single tone frequency.

When done with a proper setup it's better to bring the RF-Gain to most sensitive setting in DX operations. In local operations turn it down to prevent overdrive. My first tries brought me FT-8 signals with my Outback 2012 antenna (Logger's Bark 10/24) from Australia. Then I just compared the signals with a local WebSDR station at the PTB in Braunschweig (<https://dl0ptb.de/openwebrx-sdr/>) and on a day without much traffic it's comparable. So, I can say, that receiving is top notch. The WebSDR showed about 60db, the Anytone around 20db. For my small possibilities not so bad (Australia to Europe via ham radio).

The transceiver isn't what many operators think about. The ways of configuration aren't always comfortable. Many operators don't like manuals in the start. Here it's better to start with the manual to be safe. The first results showed what I hadn't expected. It's really a ham device for beginners, but maybe not so easy to use in a correct way. So, help the youngsters or new operators, speak loud and clear, when their choice is something "small" like this.

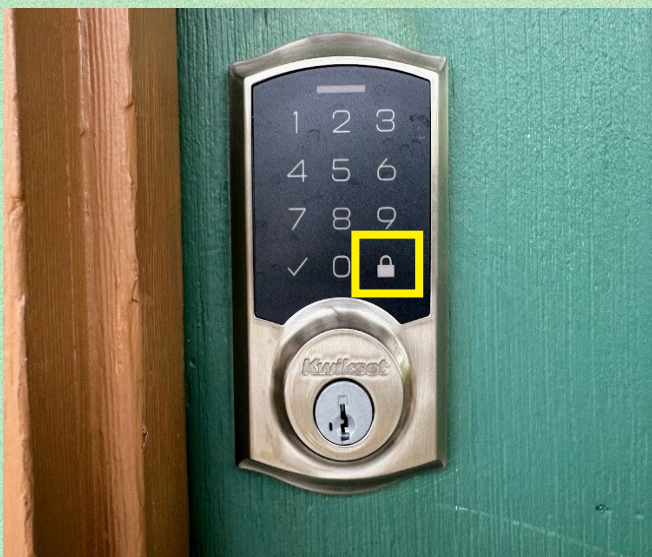
73
Cornelius
DO1FER



How To Lock The Doors

In recent months there have been reports of the clubhouse being found unattended and the doors not even locked! Obviously, this is not acceptable. It's the responsibility of the Club Hosts on Open House Day (Saturday) or those who have door and alarm codes on other days to make certain the building is secure when leaving.

But should you be in the position of being the "last one out", you can still LOCK THE DOOR even if you don't have the code or a key. Simply pull the door closed and push the "lock symbol". The battery-powered mechanism will then lock the door (you won't be able to get back in without the code!). This applies to both the front door and the back door. See photo below—note the "lock" button.



Help Keep The Clubhouse Clean

THIS IS JUST A GENTLE REMINDER that the W7DK Clubhouse is for all members to use and enjoy, and is a place to put our best foot forward as a club for visitors we welcome in almost every Saturday of the year.

Please be mindful of leaving trash, empty cans or bottles, food wrappers, McDonalds bags, and whatever else. Same holds for coffee cups... we frequently see cups left on classroom tables, the kitchen counters, at the Lou Room table, and wherever else. Please just make sure to "pick up after yourself". Also, remember that liquids and radios don't mix. Please don't take cans or cups of beverages into the HF room or the Museum—just water bottles with lids or closures of some sort. And no "sticky foods" like donuts! No one wants to reach for the tuning knob only to find your sticky donut residue on it!





REPORT FROM SEASIDE

I planned for a year now for my return to Seaside Oregon to attend Sea-Pac, the “The Northwest's Largest Ham Convention” and the ARRL Northwestern Division Convention, and remembered to make my accommodations a year in advance. I love the ocean, and being near the ocean usually means an extended stay. While some hams swoop in for the weekend then fly away carrying away their new treasures, I planned a week long stay.



Mike W7XH Del Rey Beach POTA

On the way down Thursday, we made a stop at Del Rey Beach State Recreation Area (US-9539) for a POTA activation. Sad to say, I got skunked making only eight of the required ten contacts. The silver lining was that I had a SSB QSO with North Dakota and that completed my worked all states and DC as a hunter on single side band. Friday, I met up at the convention center with Jeff W8NGS and Paul W7PFU to set up our area. We brought many items from our club to sell. Sea-Pac contacted us about partnering

with them to run both the country store and the test station. It was reported to me that several sales were made because we were able to demonstrate that sale items were working properly. So we also brought test gear, dummy loads, and power supplies for the event test bench.



Jeff W8NGS, Shay W17NGS

To make our trip successful Jeff W8NGS and Rik N7RIK prepared and packaged our sale items and a sales list. With Jeff W8NGS, Shay W17NGS, Paul W7PFU, BJ KO7T, Adam W2NCC and Mike W7XH at the ready, event doors were opened and the rush began to find the very best deals. With over 1400 in attendance, cash was soon trading hands.



BJ KO7T and Joan KX2CW



RCT hosting the Test Bench



RCT hosting the Country Store



Rebecca KK7IJZ

Several club members were seen shopping at the event. Mike W7XTZ, Phil K7PIA, Rebecca KK7IJZ, Mike W7MKE, Sam N9MII, Becky KG7FZH, Bob AD7LJ, Ricky KR7W, Joe KG7ZYB and others.

I did have just a few minutes away from our sales table to drop in on three of our seminal presenters. Sam N9MII presented on Youth Amateur Radio Education. BJ KO7T presented on DX Holidays: Go on your own Dxpedition! And Adam W2NCC, gave a talk on Endowments for Radio Clubs: Securing the Future. **See below** for a synopsis of BJ's and Adam's presentations. If your club

was unable to attend SeaPac you can contact BJ, Adam, or the Radio Club of Tacoma for them to present at your club.



Paul W7PFU our serial winner.

We did pretty well with our club sales. As the event came to a close, we had a lot fewer items to load into the trailer for the trip back to Tacoma. Test bench and country store duties completed, we cleaned up and waited for the final raffle that would conclude this year's Sea-Pac Ham Convention. Of course, I needed to stay in case any additional photos were needed. Our very own Paul W7PFU has been a serial winner at Sea-Pac, and this year he was not disappointed.



Soldering class was very active.

Sea-Pac provides a host of events for attendees. While it is a little late this year you might like to jump over to their website at <https://seapac.org/>. Perhaps plan to attend next year, June 4-6, 2027. BTW you might want to book a reservation early!



Friday Night Radio on the Beach

It was a great event and now that I have completed this article, I can publish the June issue of the Loggers Bark and resume my POTA activities.

73

Mike

W7XH



BJ KO7T presentation of DXpedition

Presentation: DX Holidays: Go on your own Dxpediton!

By BJ Rollison KO7T

Have you been thinking of playing radio while on vacation, or perhaps in the evenings while on a business trip? Maybe you dream of travelling to another country with the primary intent just to play radio? If this sounds appealing to you, then perhaps you need a DX Holiday!

DX Holidays are sometimes referred to as one-man

DXpeditions, or mini or micro-DXpeditions, and even poor man's DXpeditions, but they all have one thing in common: it's a personal endeavor. There are no stressful expectations of making 10's of thousands of QSOs, there are no expectations to work every band and every mode, and there are no expectations of even being on the air round the clock. Although the scale of your DX Holiday is small in comparison to the multi-op mega DXpeditions, you will have pile ups of DX'ers wanting to contact you, and possibly even being someone's All Time New One (ATNO)!

Like the multi-op mega DXpeditions, everything relies on you! It is up to you to make travel plans. It is up to you to arrange lodging (that will accommodate antennas if you plan to work from that location). You must acquire the necessary licenses and paperwork that can sometimes take weeks or months. Along with the licensing, you must learn about regulations in the country you are visiting. The ease of transporting your equipment to and around your destination and setting up your radio station (often without assistance) during a DX Holiday cannot be over-emphasized.

BJ Rollison (KO7T) has flown, sailed, rode trains and ferries to more than a dozen countries in Europe, the Caribbean, Oceania and Southeast Asia to play radio. He has also done extensive research into many other countries and interviewed dozens of one-man DX operators as he plans his future DX Holidays. In his presentation, he provided an overview of basic equipment, travel, lodging, planning, and preparation for a DX Holiday. Perhaps most importantly, he reviewed various licensing requirements for common travel destinations. His talk was a high-level overview of one-man DXpeditions and we look forward to his soon to be released book *DX Holidays: Go on your own DXpedition!* with in-depth details and helpful information for anyone considering a DX Holiday!



Adam W2NCC presenting on club endowments

Presentation: Endowments for Radio Clubs: Securing the Future.

By Adam W2NCC

What if your club could generate income year after year without increasing dues or relying solely on fundraising? That is the idea behind an endowment. In this presentation Adam shared how amateur radio clubs can use endowments to build long-term financial stability and preserve the club's mission for future generations. He explained different types of endowments, how they work, funding sources, governance considerations, and practical steps clubs can take to get started.

The presentation also covered the difference between the "Money Anxiety Cycle," where clubs continually worry about next year's budget, and the "Endowment Cycle," where investment income helps support equipment maintenance, educational programs, and future growth.

Using the Radio Club of Tacoma's Endowment Fund as an example, participants learned how this club is planning for its next century of service. Whether your club owns a building, maintains repeaters, or simply wants greater financial security, this session will provide ideas for creating a lasting legacy. The goal is simple; to ensure that future generations inherit a stronger club than the one we enjoy today.

Additional Sea-Pac photos



Jeff W8NGS working the test bench



ARRL radio program



Annual raffle hopefuls!



BOARD-APPROVED MINUTES FROM MAY 2026

Radio Club of Tacoma

Board Meeting Minutes: May 6th, 2026

Approved June 3rd

Officers and Directors Present

Present	Position	Position	
X	President	Adam Barbera W2NCC	
X	Vice President	Mike Isakson W7XH	
X	Secretary	David Ashley W7GEL	
X	Treasurer	Doug Schafer AB7DG	
X	Board Member	Dan Vacanti KD7SV	
X	Board Member	Dave Ellison W7UUU	
	Board Member	BJ Rollison KO7T	
X	Board Member	Wade Marshall W7ITL	
X	Board Member	Phil Shideler KC7PS	

Zoom:

RED WB7EC

Wade W7ITL

Dave Ellison W7UUU

Dan KD7SV

Philip K7PIA

Jeff W8NGS

Randy WB4SPB

Meeting Called to Order at: 19:00

Quorum YES

Silent Key or Illness:

Jack Hegseth member #459 K7DBU has become a SK

Dan Vacanti KD7SV will send a condolence card from the club, unknown if immediate family is around.

Wild bill is recovering

Bruce Hansen – recovering at home from operations

Approval of Minutes of Prior month BOD meeting

Mike Isakson W7XH - Proposes approval of last month's meeting Min.

Wade Marshall W7ITL - Seconds I

Adam Barbera W2NCC calls vote

Motion passes

Secretary's Report - David Ashley W7GEL

Email from BJ asking for tweak to standing rules approved in April

Quote

The 3 bold statements are what I propose is added to the Standing Rules.

The HF committee is responsible for the upkeep of all HF radio equipment assigned to the HF Committee by the Board of Directors.

Question to the group, is the Field Day equipment assigned to the HF committee? If it is not, is it the responsibility of the HF Committee to

The HF committee is responsible for the planning and installation of HF radio stations and associated station equipment.

Prior to any changes or modifications to the HF stations, or the installation of radio systems that may interfere with existing HF systems, the HF Committee should review the proposed changes, modifications, or installations and provide feedback to the Board of Directors.

Thanks

BJ

KO7T

End Quote.

Current Standing Rules

The HF committee is responsible for all Radio Club of Tacoma's Radio equipment, including accessories, portable radio equipment and antennas. But excluding repeater committee, museum and PMT.

The committee will strive to keep all equipment in service and usable for the membership. As such, any changes to this equipment should first be vetted by the HF committee before any changes are made.

Proposed Standing Rule change – By David Ashley W7GEL

1HF Committee Responsibilities and Authority

The HF Committee is responsible for the upkeep, operation, and readiness of all HF radio equipment and associated station accessories assigned to the HF Committee by the Board of Directors, consistent with Article VI of

the Bylaws regarding committee duties and Board oversight.

The HF Committee is responsible for the planning, installation, configuration, and maintenance of HF radio stations, including antennas, feedlines, tuners, amplifiers, portable HF equipment, and related station components under its purview.

To maintain system integrity and avoid interference with existing HF operations, any proposed changes, modifications, or additions to HF stations—or the installation of any radio systems that may affect HF performance—must be submitted to the HF Committee for review prior to implementation. The HF Committee will evaluate the proposal and provide recommendations or concerns to the Board of Directors.

2 Equipment Loans

Loaning of HF related equipment, including portable HF radios, antennas, tuners, and accessories, shall be managed and approved by the HF Committee. The HF Committee will ensure that loaned equipment is functional, safe, and appropriate for the intended use, and that its deployment does not conflict with Club operations or other committee responsibilities.

3 Event Specific Equipment Use (POTA, SOTA, Field Day – Winter & Summer)

Leadership for Parks on the Air (POTA), Summits on the Air (SOTA), and ARRL Field Day events (Winter and Summer) shall have operational authority over the HF equipment assigned for their respective events. Event leads may organize, deploy, and utilize HF equipment necessary for successful operation of their activities.

The HF Committee will provide coordination, technical support, and reasonable assistance to event leadership, including equipment preparation, configuration guidance, and troubleshooting support as needed.

4 Committee Boundaries

This Standing Rule does not apply to equipment under the authority of the Repeater Committee, the Museum Committee, or the Property Management Team (PMT), as defined in the Bylaws and Standing Rules.

David Ashley W7GEL - pulling motion as BJ is working on the standing rules

Treasurer's Report - Doug Schafer AB7DG

Doug is asking for meeting minutes to be distributed within a week following a meeting so memories are fresher.

-Club has about 120 k in multiple accounts.

Asking to transfer \$75-85K from our low-interest US Bank MM account to an investment account offered by Greater Tacoma Community Foundation.

Unfinished Business – Prior months.

1. Mike Isakson W7XH asks for details on the budget item for club expenses and would like to hear some details on what. Also wanted to know if open-housing donations and donuts expenses are covered. – Next month revisit
 - a. Mike and Doug will take offline
2. Doug Schafer AB7DG – Asking if we can invest a portion of our 100k in savings to earn something more

than the peanuts our US bank offers. Suggesting that we maybe use Greater Tacoma community foundation. Discussions on options with other banks.

- a. Adam Barbera W2NCC will look at some options and report back.
 - i. This is a great opportunity in Adam research.

General discussion on the dollar amount to invest.

Adam Barbera W2NCC asking to approve \$70K to Greater Tacoma Community Foundation

Mike Isakson W7XH Asking how quick we can get money if we want it back.

Doug confirmed fund disperses money on the 15th and 30th of the month and needs 1-week notice.

Doug Schafer AB7DG and David Ashley is asking for more than \$70K as we have \$120K total

Dan Vacanti KD7SV moves to approve Doug Schafer AB7DG moving \$85K to Greater Tacoma Community Foundation for investment in an agency account for the club.

David Ashley W7GEL second motion

Adam Barbera W2NCC calls vote

Motion passes

Unfinished General Business:

Unfinished Business – Prior months.

- Sea-Pac
 - Adam Barbera W2NCC Asking the board if we want to sign up long term with SeaPac to run the Country Store and testing station.
 - Jeff Winget W8NGS – taking over planning with Sea-Pac
 - Is looking at getting a flag – banner for the table to make us look professional
- Bylaw changes - BJ Rollison - KO7T
 - Ballots have been mailed out.
 - Email from Gary – Please see unedited at bottom of agenda
W7GEL Summary
 - If ballots were only sent to eligible voting members, expressing concern about costs and the absence of a return envelope.
 - questioned why members are required to sign their name and membership number if only eligible members received ballots.
 - expressed concern about the lack of secret ballots, stating that this approach may not reflect well on the Officers and Board of Directors.

Board discussion

Ballots sent are for those that can't attend in person, envelopes should have been sent out and was an oversight on our committee, follow up email will be sent out.

- Field Day - Inviting another club to our Field Day

- David Ashley W7GEL – report on Micro Hams to Field Day.
- We Need a 20M station Captain,
- David will work with Commander Bob Purdom, AD7LJ on obtaining site permissions at Western State
- Chef Paul may have launcher Adam Barbera W2NCC will see if Waren NG7G is going to repair the old launcher
- Donation of Antenna
- Tower retrieval
- Plan once we have items
- HF – committee Need to know what the status of the equipment is.

New Business:

- Field Day - David Ashley W7GEL
- Signup digital version of volunteering – need to do still
- Email topic on Celebrate the 110th anniversary of W7DK coming up in October 2026 – Dave Ellison W7UUU Full email below.

Adam Barbera W2NCC Appoints Dave Ellison W7UUU to make our 110th anniversary happen.

\$200 ish budget within reason for Potluck for October Meeting at the Eagles Club.

Adam Barbera W2NNCC will make sure our contract with the Eagles is on par as it is up for renewal.

- DMR – Mike VP
Email received
VP Mike may have forgotten. He will talk about wrong callsign on clup DMR hotspot. Has museum call-sign a no no if you look at the mission statement for W7OS. Bob K7MXE and Ricky KR7W

W7OS – is reserved for ANTIQUE radio use only. Dan Vacanti KD7SV will investigate

Committee / Activity Reports

- Property Management - Jeff Winget W8NGS.
\$500 income
spent about \$100 for tool chest and organization of the garage

2 items for disposal from PMT

4695

- Cushcraft MA5B 10/12/15/17/20 meter beam antenna (needs matching box)

4696

- HP ProOne 600 All-in-One computer (21.5" screen, 16Gb RAM, 476Gb hard

Motion to dispose of listed items by Mike Isakson W7XH
David Ashley W7GEL - second motion
Adam Barbera W2NCC calls for vote
Motion passes

- General Meeting program - Dave Ellison W7UUU

Clark County member KD7RUS Tim Kuhlman do program about EyeWarn

- Info Tech and Website – Randy Myers WB4SPB

All systems nominal

Fiber internet Very Fast.

looking into an issue with kiwisdr is blocked on the internet.

- POTA - John Sherrill - N7TES
<https://w7dk.org/pota-operations>

PARK: Saltwater State Park (US-3262)

DATE: May 17

TIMES: 10am - 4pm

NOTES: The Club POTA Team may not be attending due to other commitments.

- Membership - Mike Isakson W7XH
Stands at 392. Rod Kirsh has moved to TX
Membership dues to increase to \$45/yr, etc.
- Repeater Ops - Alan N7OMS

No updates

- Museum - Dan KD7SV
 - Prior months
 - Update on the Need to change Museum address to the PO Box for QSL cards - On my to-do list.

Johnson Ranger is on the Air, after a bunch of changes and updates like a 3-prong plug found a few issues played around with some other radios and discovered kiwisdr is blocked on our new internet.

- HF Operations – Phil K7PIA

World cup – on the club Calander for info. www.WC2026SES.org

Starting grounding project 5/7/2026, need to lower coax ladder down one set of rungs on the tower to make room for the connector box and dress the coax cables from antenna into the box. Grounding will connect three

antenna “towers” and have about 6-7 new rods.
Random wire is installed.

- Facilities Management - Adam W2NCC

Dave AC7KP thanks to mowing

Paint is coming for handrailing

Thank you to Cunningham, Julie W7JUL for helping with edging.

- Library - Doug AD7AV

- Training/ VE – Stephen Morton AD7AB

2nd Sat

5/12 for testing.

3 VE are needed Phil Shideler KC7PS

- 4th Wed Activity Night – Paul Nosal K7OSS

Last month, went well modified and built our radio, April 15th for the next part of the class. No May class

June – etch PCB

July builds an amplifier.

August will be the next group class starting.

Paul Nosal K7OSS Open to ideas and projects for classes, please let me know your ideas.

- Thursday Night HF – Mike Drorbaugh W7MKE
 - Starts around 5pm – Learn how to do RTTY, come have fun.
 - Special Events
 - One of our amplifiers is sent back to Palstar for some repairs

- Bark Newsletter - Mike Isakson W7XH

New Bark is coming soon.

Link to Bark page

<https://w7dk.org/newsletter/185-newsletter>

To send in content, Activities – photos send them our way

loggersbark@w7dk.org

Activity Reports, Announcements

Adjournment

2041

Email from Members

#1

Officers & Directors,

Yes, I have several questions regarding the ballots that were sent out last week.

Point number one: I can believe that our officers have the ability to slice & dice the membership roles in such a way that a ballot would be sent only to voting members. That is, members who are eligible to vote because of their membership status. We are not just sending out ballot to everyone in the club, right? No, that can't be right, money is tight right now enough, so that RCT didn't even supply a return envelope.

Point Number two: If point one is true, then why is it necessary to have each member sign their name and membership number?

Point number three: Voting in any organization is usually a "secret ballot" for what should be obvious reasons. I feel that such an obvious attempt to separate the membership is not worthy of the Officers and BOD of the Radio Club of Tacoma.

I look forward to your responses to my questions.

--

73 Gary McAdams WG7X

RCT Life member #1249

Ex President, Secretary, BOD member etc, ect...

--

73 Gary McAdams WG7X

#2

Hello Mr. President, Mr. Vice President, BOD et. al,

I just got to thinking: now's a good time for us as a club to start putting ideas together to celebrate the 110th anniversary of W7DK coming up in October 2026! It's so hard to believe the 100th was ten years ago already!

No, I don't think it needs to be on the order and magnitude of the 100th by any means, but as we all know, as

everything and everyone ages, such time compresses. We still have a number of "old guard" members around and plenty of new folks as well, all of whom should embrace this milestone much as we did ten years ago, just not at such a grand scale.

Anne N7ANN and I would certainly be able to at least work with such a committee (we have a new grand***baby due that month, as well as a New England cruise***) - ***but we would want to make sure we don't have date conflicts for us so that we can be fully engaged.... that's all stuff we can talk about of course - we have lots of time.***

If nothing else, it's certainly an appropriate time to start talking about this and what it might entail.

Thoughts?

Dave

W7UUU

Anne

N7ANN

--

--

W7UUU

Dave Ellison

ARRL Member (Since 1974)

RCT Lifetime Member #743 (1975)

2-Term Past President, Radio Club of Tacoma (2017-2020)

WB7AWK > W7UUU 2012

Amateur Extra since 1997

General Class 1975 - 1997

WN7AWK Novice 1974 - 1975

Director, QRZ.com Forums



BOARD-APPROVED MINUTES FROM THE MAY MEETING

Radio Club of Tacoma
 General Meeting: May 9th, 2026
 Approved June 3rd 2026

Held at
 South Tacoma Eagles #2933
 7037 S Pine St, Tacoma, WA 98409
 Or Zoom <https://w7dk.org/activities/27-club-meetings#regularmeeting>

Officers and Directors Present

Present	Position	Position	
x	President	Adam Barbera W2NCC	
x	Vice President	Mike Isakson W7XH	
x	Secretary	David Ashley W7GEL	
	Treasurer	Doug Schafer AB7DG	
x	Board Member	Dan Vacanti KD7SV	
x	Board Member	Dave Ellison W7UUU	
	Board Member	BJ Rollison KO7T	
x	Board Member	Wade Marshall W7ITL	
x	Board Member	Phil Shideler KC7PS	

Zoom

Tim Kuhlman KD7RUS
 Andrew K7FDT
 Koponen KF4ME

Club House - Zoom

Samuel Minton — N9MII
 Becky Friedman — KG7FZH
 William Smith — WB7TVS

James McCarter — KF4EDG

Michael Williams — KJ5MEW

Christopher Johnson — KK7YTV

Meeting Called to Order at: 1300

Flag Salute lead by Phil Shideler KC7PS

Quorum (10% of membership required to “conduct business”)?

NO

Welcome and Acknowledgment of New Members and Visitors (Please introduce yourselves)

Health and Welfare/Silent Key & Illness

- Jack Hegseth K7DBU is SK and will have no funeral Jack wishes are for ashes scatter at sea, US Coast Guard will fulfil this request
- Bruce WE7P is recovering.
- Bill Wright AD7QI is recovering.

PROGRAM:

- Dave Ellison W7UUU Presents, Tim Kuhlman KD7RUS with EyeWarn system <https://www.eyewarn.net/>
- There are over 2000 amateur radio operators in Clark County Washington. About 100 belong to the local Amateur Radio Emergency Service (ARES/RACES) group. In a disaster, that would leave potentially 1900 Radio operators available to provide visual (eyes on the ground) reporting in areas where damages or injuries have occurred. Thus helping save lives and protect property. EYEWARN is a group of trained amateur radio volunteers, providing disaster reporting services for those Radio operators that choose to report damage or injuries. We report what we see... from where we are.

Voting on Bylaw Changes

- Adam Barbera W2NCC calls for vote on bylaws.

Secretary Report: Dave W7GEL

- Bylaws change In person vote called by president of those present that have not previously voted

	In person	Zoom	Mail in Absentee	total
Approve	10	5	81	96
Disapprove	1	0	2	3
Signed no choice made	0	0	1	1
Approve no Sign	0	0	1	1

Motion Passes the new bylaws are approved

Treasurer's Report: Doug AB7DG Doug

- Nothing to report Is at Arres meeting
- Board approved moving money to an account to earn some real interest.

Committee / Activity Reports

- Field Day – David Ashley W7GEL
- Need Volunteers

Wed. Night Activity (Paul K7OSS)

- Etching some boards this month,

Thursday Night HF (Mike W7MKE)

- Come out and see us for Thursday Mike is there at about 5 pm
Come learn the club equipment, we can accommodate – make phone contact, every Thursday there is a RTTY contest come learn and have fun.
- Dan Vacanti KD7SV has been playing with the random wire at the club, and he has been enjoying it and will try with the museum.
- Ladder tray moved down 1 rung; new box will be installed for lighting protection. Ground is in the works and will be coming soon to RCT.
- Next year we are planning a triplexer, common mode protection and new changes coming.

Bark Newsletter – Mike W7XH

- Bark will have meeting minutes.
- Bark has been published
- Bring articles to us, we are always interested in new items.

POTA

<https://w7dk.org/pota-operations>

May 17th check the website for details. Saltwater State Park.

Dave Brooks, N7HT

- General class with 13 students, this is awesome.

Unfinished Business:

- Nothing to note

Announcements/show and tell/ traffic & tuning

- Dave Ellison W7UUU has gotten the POTA group a flag to have on display for POTA operations.
- Sasquatch awareness - BJ is looking for operators – get ready.

Door Prizes Lenard for Door Prized, 50/50 raffle coming in July

Dennis KK7DDW – winner winner !

Adjournment:

1417