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Propagation Forecast and NA RTTY Sprint Results!

- Contesting During the 2025 Solar Cycle Peak
- Operating V47T in the CQ WW DX SSB
- *NCJ* Profiles: Tom McGinley, K7QA
- KE8LQR's Winning "Dream Rig" Essay

Top: Randy Thompson, K5ZD; Ken Claerbout, K4ZW; Andy Blank, N2NT, and Dave Pascoe, KM3T, sporting post-contest smiles from V47T.

Bottom: Katie Campbell, KE8LQR, doesn't need a shack or a keyer to run at high rates.

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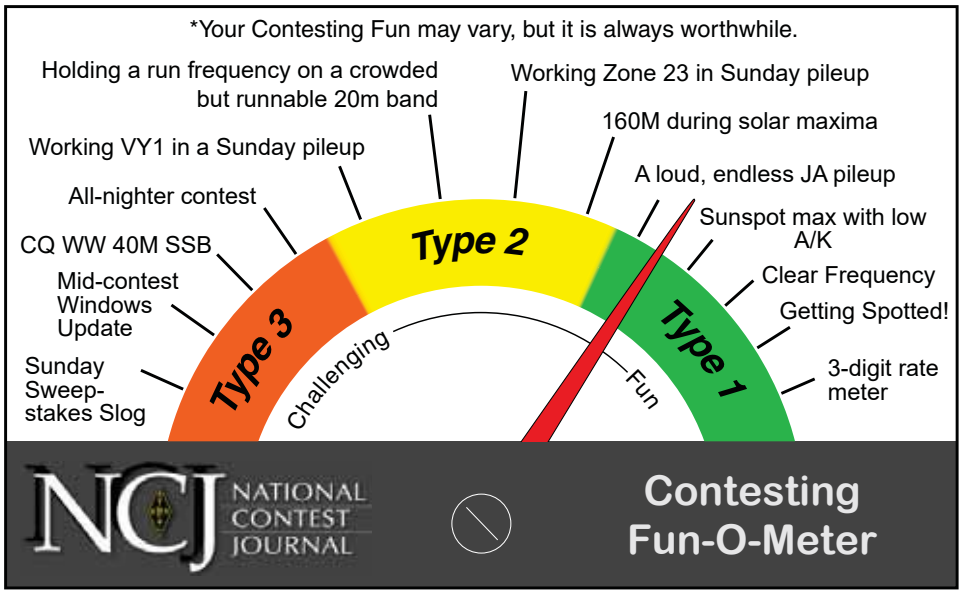
From the Editor

The Contesting Fun Scale

At the age of 12, I got interested in two things that 55 years later I still pursue: ham radio and long-distance bicycling (girls came a year later…). Early on in bicycling, someone introduced me to the Fun Scale, which may have come from rock-climbing or long-distance hiking.



The Fun Scale defines three types of fun:

Type 1 Fun is something that is fun while you are doing it. In bicycling, pro racers say it sometimes feels like the chain fell off and the bike is just racing along without the rider putting any pressure on the pedals. In contesting, running at a high rate on a clear frequency on a quiet (and open) band is Type 1 Fun. For dedicated S&Pers, hitting ALT-A or CTRL-UP to S&P and seeing the N1MM rate meter go to three digits is Type 1 fun. For some ops, building an awesome station or adding an 8-element switchable vertical array for the low bands and seeing others use it is the thing.

Type 2 Fun is definitely not fun at the time, but sometime later, the memory of it warms to make it seem like it was fun. In bicycling, riding up a steep hill or into a headwind doesn't become fun until you get to that nice warm coffee shop or lunch stop — or do your next ride and realize how much stronger your legs are. In contesting, finding a run freq on a noisy/echoey 20 meters when it is the only runnable band, or fighting that Sunday pileup to work VY1 or Zone 23 only become fun days later when you tell the story about breaking through to high rates or grabbing that final mult.

Type 3 Fun is never fun, ever. Bicycling in the rain or on a flat tire after you ran out of patches or tubes, or the last 10 miles of a century (100-mile) effort is miserable during the ride and the retelling. My first year as an op at the W3LPL multi-multi, I spent the night with George, N3GB, on 40-meter SSB in the CQ WW SSB, back when SW broadcast stations were rampant and working split was not just a mouse click. Thirty-five years have not dimmed the "un-funness" of those hours in my memory.

The Tour de France winners, just like radio contest winners, are always the ones who maximize the time spent having Type 1 fun, while persevering through periods of Type 2 fun, knowing it will pay off. They also build up lactic acid tolerance to endure Type 3 "fun" as an investment in maximizing future Type 1 fun.

Major bicycle races also feature teams that contain a mix of riders with a few superstars and many others who specialize in different types of fun. Radiosport is similar in having multi-op teams. George, N3GB, actually seemed to enjoy 40-meter SSB in CQ WW! If someone who just loves to run is paired with someone who loves to search and pounce, the fun goes up exponentially when the 3830 scores are posted.

As coaches say, teamwork can be dreamwork. Covid was a temporary speedbump in hams getting together in person, but vaccinations and now, remote operating, have brought back the opportunity to let inexperienced ops get hooked on some Type 1 contesting fun so that later on they will endure Type 2 and Type 3 periods.

Ken Claerbout, K4ZW / kenk4zw@gmail.com

V47T M/2 in the CQ WW DX SSB

Last summer, I was kicking around ideas of what to do for the fall contest season, beginning for me with CQ WW DX SSB. Operating from home is always an option but Single Operator All Band (SOAB) for 40-plus hours is hard. Mentoring the group at ET3AA had a certain appeal. At about this time, Andy Blank, N2NT, asked if I would be interested in joining a Multi-Two (M/2) at V47T with Randy Thompson, K5ZD; David Pascoe, KM3T, and him. I jumped on that, having never done a contest from the Caribbean before. The team he was assembling was hard to beat, too.

V47T is the legacy station of Alex Aimette, W2OX/V47KP (SK), and Joe Brue, K3NM, and is located on an 1100-foot hill overlooking the ocean on three sides. Antennas include:

160 meters: Inv L and/or dipole @ 60 ft., Beverages

80 meters: 3/4 wave OCF @ 70 ft., Beverages

40 meters: 402CD @ 60 ft.

20 meters: 4-el fixed NE@ 40 ft., 4-el fixed NW @ 50 ft., Skyhawk

15 meters: 5-el fixed NE @ 45 ft., 5-el fixed NW @ 55 ft., Skyhawk

10 meters: 5-el fixed NE @ 40 ft., 5-el rotatable @ 68 ft., Skyhawk

C3 tri-bander fixed south

Andy had managed that station for years, so he knew what needed to be done the week leading up to the contest and how to best maximize our effort for the weekend. I was happy to follow his lead. N2NT and K5ZD flew to St. Kitts on Saturday. I came down Sunday and KM3T arrived on Tuesday. The week leading up to the contest was spent fixing antennas, inside automation, and a trip to the telecommunications office to pick up/renew licenses. I obtained V4/K4ZW. A V47## call can be obtained after your third visit.

Beam level view of the ocean from V47T.

A four-element 20 fixed on Europe seemed to have a feed problem. The SWR was always a bit high, requiring the use of a tuner. We brought the antenna down and replaced the feed with a new hairpin from DX Engineering. We then pulled it up to about 20 feet and checked it with an analyzer. It looked pretty good, so we installed it back on the tower at 40 feet. As Murphy's Law would have it, the SWR was bad once it was back in place. Things were complicated by the fact that you couldn't reach the match from the tower.

Several of us suspected it was interacting with the 15-meter beam or the lowband wires around it. The next morning, Andy went up the tower, rotated it towards Europe and bang, it looked good again. It was an interaction problem. We left that one aimed at Europe and swung the other 4-element 20 from Europe to the US, basically swapping the two antennas. I understand this had been a problem for a few years, so it felt good to finally solve that puzzle. I took apart the driven elements of a Skyhawk tri-bander to clean up corrosion. In the process of doing that, I noticed the bracket that connects

If you ever wondered where the term "shack" came from…

to one side of the balun was severely corroded and ready to break. That was likely the cause of the intermittent problems Andy said they had been having with it. The short strap was replaced with a stiff piece of wire and lugs.

Each day we arrived at the station around 8 AM, leaving the hill when it got dark at 6. N2NT and K5ZD did climbing. Andy also swapped out a rotator. This is the first time I've been to the Caribbean when I didn't hit the beach or even the swimming pool at the apartment where we stayed. It was 100% ham radio. By Friday, the station was ready to go so we had a relaxed day.

The contest started with K5ZD on 20 meters and me on 15. Throughout the weekend, rates were limited only by the volume of callers and the behavior of the pileup. A benefit of operating outside the US is access to the phone sub-bands below 14150, 21200, 7125, etc. Plus, there we could concentrate on 3-point QSOs. But the number of US hams calling us down there, most likely clicking on a spot without noting the frequency, was disappointing. When we said something, many seemed oblivious to what they had done. Pay attention, please!

There was no set operator schedule. Each person operated until they wanted a break. Most stints lasted 2-3 hours. I did one 8-hour period as the others were sleeping. Being accustomed to being a single operator, any break was better than what I usually get. Having a team of four seasoned ops meant you were left on your own to make decisions about when to change bands, etc. Prior to the contest, there had been a discussion about running back to town for a shower and nap at the apartment since there is only one bed at the station and few creature comforts, including no bathroom. But that fell by the wayside, and we stayed up there for the full 48 hours.

K5ZD (L) and K4ZW (R) manning the K3s.

Claimed scores are as follows:

CALL	QSOs	ZONES	COUNTRIES	SCORE
CR3DX	15,722	169	670	39,439,712
P33W	15,406	173	697	39,004,710
V47T	15,628	175	622	31,340,431

Our only real goal was 16,000 QSOs. We knew we were at a disadvantage scorewise with CR3DX and P33W due to their geographic location to 3-point QSOs. Our setup was simple for M/2. There were basically two stations running, with short breaks to grab multipliers when the rate dropped to a point where it made sense.

(This article also ran in the Potomac Valley Radio Club newsletter.)

L-R, the team after the contest: K5ZD, K4ZW, N2NT, KM3T. [Photos courtesy of Randy Thompson, K5ZD]

Carl Luetzelschwab, K9LA / carlluetzelschwab@gmail.com

Solar Cycle 25 and Contesting for the Remainder of 2025

If you participated in contests late last year and in January and February of this year, you've probably come to the same conclusion as many other contesters — that Cycle 25 has provided great domestic and worldwide propagation opportunities during the fall and winter months on 15 and 10 meters — and even on 6, but to a lesser degree than the other two.

The purpose of this article is to review the expected propagation for the remainder of 2025. This is aided by using contest results for the East Coast, Midwest, and West Coast at a solar maximum period. For comparison, I've also included the same contest results at a solar minimum period.

The first order of business, though, is to look at the latest data on Cycle 25. Figure 1 does this with the thick black line, which is the smoothed 10.7 cm solar flux data through June 2024. Cycle 24 (dashes) and Cycle 23 (dots) are also included. Note the text in the upper left.

The important takeaway from Figure 1 is that the magnitude of Cycle 25 is currently in between the maximum of Cycle 24 (the smallest in our lifetimes and the fourth smallest in recorded history) and the maximum of Cycle 23 (an average cycle based on all previous 24 solar cycles). This bounds our expectations for propagation for Cycle 25. But realize that Cycle 25 may get up to or even exceed Cycle 23. Thus the expectations could be a bit more optimistic.

Spring Months (March, April, May)

The composition of the atmosphere (specifically the ratio between atomic oxygen and molecular nitrogen) varies throughout the year. In the northern hemisphere, where the three largest contest populations live, this change means there is more F_2 region ionization in the daytime during fall and winter months than in spring and summer months. That means higher MUFs (Maximum Usable Frequencies) during the day in the fall and winter months.

We are now progressing into the spring months. Figure 2 is a plot of the MUF for a northern hemisphere path (from K9LA to England) at 1500 UTC throughout the year for three levels of a solar cycle. The thick black R12 = 140 curve is a little bit below where Cycle 25 is right now.

It's easy to see that the daytime fall/winter months are best, and the daytime summer months are worst. This also applies to domestic paths. Of course, the higher the smoothed sunspot number, the higher the MUF, especially in the fall and winter months.

The biggest impact to propagation as spring progresses is a slow reduction in opportunities on 10 and 15 meters. A more subtle and positive impact by being around solar maximum in spring is 20 meters possibly being open all night in April and continuing into May.

Summer Months (June, July, August)

In the summer months, Figure 2 says we'll see the worst propagation for daytime opportunities on 10 and 15 meters. We can also see this in Table I by looking at contest scores using IARU HF CW HP results from **https://contests.arrl.org/scores.php.** The data is for solar maximum of Cycle 24 in 2014 and solar minimum between Cycles 24 and 25. In the IARU HF contest, anyone can work anyone so domestic contacts are also important.

The East Coast will fare best on 10 meters and generally on 15 meters, but the number of Qs on both bands is down significantly from a fall/winter month (which are shown in Table II). Being at solar maximum adversely impacts 160 and 80 meters, but there are Qs and multipliers to be had if you keep your butt in the chair. The other bands (40 meters and 20 meters) will offer good opportunities.

Twenty meters should continue to offer opportunities during the night in June and July, which could also positively impact Field Day.

Fall/Winter Months (September through December)

The fall and winter months of 2025 (as well as January and February of 2026) will bring back excellent daytime propagation on 15 and 10 meters. Table II shows results of the ARRL DX CW HP contest at solar maximum and solar minimum (also from **https://contests.arrl.org/scores.php**).

The 160-meter band will still offer Qs and multipliers during the fall/winter of 2025 (due to less ionospheric absorption than the summer months). Eighty meters should also be more productive than it was in the summer. In addition to 10 meters offering many Qs and multipliers, 40, 20, and 15 meters should also fill your log.

Comments on 6 Meters

We had some F_2 propagation during the fall and winter of the second peak of Cycle 24. Thus we should have even more F_2 openings during the fall and winter of 2025 as Cycle

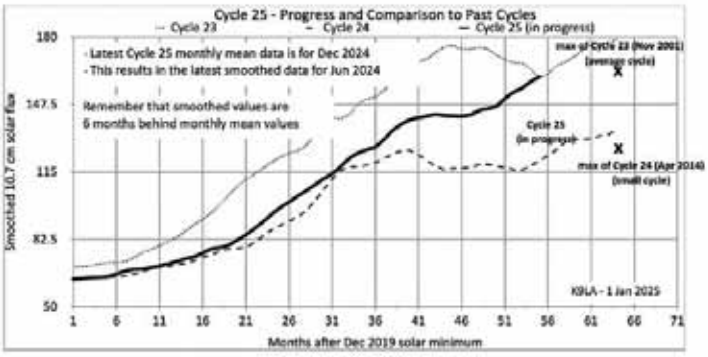


Figure 1. Solar flux data for Cycle 25, compared with Cycles 23 and 24.

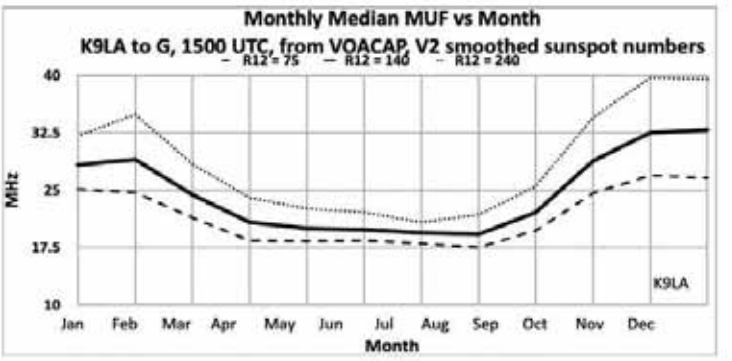


Figure 2. Median maximum usable frequencies (MUF) in each month at different numbers of sunspots.

25 has surpassed Cycle 24 by a decent amount.

During the summer, it's hoped that sporadic-E will be available. Last summer wasn't very productive. One last comment — if you hear (with your ears) the FT8 tones, try CW and maybe even SSB.

Disturbances to Propagation

All the opportunities throughout the year could be compromised if we experience disturbances to propagation. Simply put, we have to take the *bad* with the *good*. That means when we're around solar maximum (the *good* — where we are now), there is enough F_2 region ionization to give us consistent worldwide propagation on the higher HF bands (15 and 10 meters) and to a lesser degree on 6 meters. But CMEs (coronal mass ejections) and big solar flares are most prevalent around solar maximum, giving us disturbances to propagation (the *bad*).

Summary

We should have great propagation on the higher HF bands during 2025 in the fall and winter. In addition to making lots of Qs and working many multipliers, it is a good year to work on WAS, DXCC, WAZ, and other awards on the higher HF bands. Regardless of what you do, have fun.

Table I. Number of Qs / Number of Mults by Top Contender

			160m			*80m*			*40m*	
ARRL DX CW HP Feb	Conditions	East Coast W1,2,3,4 VE1,2	Midwest W5,8,9,0 VE3,4,5	West Coast W6,7 VE6,7	East Coast W1,2,3,4 VE1,2	Midwest W5,8,9,0 VE3,4,5	West Coast W6,7 VE6,7	East Coast W1,2,3,4 VE1,2	Midwest W5,8,9,0 VE3,4,5	West Coast W6,7 VE6,7
2014	Cycle 24 max	81/41	52/40	64/37	331/74	146/54	45/28	1508/108	862/97	882/92
2020	solar min C24/25	358/70	152/60	27/18	863/86	603/85	565/90	1553/115	814/89	360/83
			20m			*15m*			*10m*	
ARRL DX CW HP Feb	Conditions	East Coast W1,2,3,4 VE1,2	Midwest W5,8,9,0 VE3,4,5	West Coast W6,7 VE6,7	East Coast W1,2,3,4 VE1,2	Midwest W5,8,9,0 VE3,4,5	West Coast W6,7 VE6,7	East Coast W1,2,3,4 VE1,2	Midwest W5,8,9,0 VE3,4,5	West Coast W6,7 VE6,7
2014	Cycle 24 max	2161/119	1583/111	1165/104	2003/114	1532/113	1437/115	1627/108	1242/103	1221/106
2020	solar min C24/25	1640/105	1023/96	1215/104	179/52	34/25	39/21	48/27	-----	-----

Table II. Number of Qs / Number of Mults by Top Contender

			160m			*80m*			*40m*	
IARU HF CW HP Jul	Conditions	East Coast W1,2,3,4 VE1,2	Midwest W5,8,9,0 VE3,4,5	West Coast W6,7 VE6,7	East Coast W1,2,3,4 VE1,2	Midwest W5,8,9,0 VE3,4,5	West Coast W6,7 VE6,7	East Coast W1,2,3,4 VE1,2	Midwest W5,8,9,0 VE3,4,5	West Coast W6,7 VE6,7
2014	Cycle 24 max	9/4	3/2	2/2	241/36	62/13	58/11	542/63	558/56	347/32
2020	solar min C24/25	68/22	34/7	25/7	268/42	120/35	116/16	652/55	814/67	557/53
			20m			*15m*			*10m*	
IARU HF CW HP Jul	Conditions	East Coast W1,2,3,4 VE1,2	Midwest W5,8,9,0 VE3,4,5	West Coast W6,7 VE6,7	East Coast W1,2,3,4 VE1,2	Midwest W5,8,9,0 VE3,4,5	West Coast W6,7 VE6,7	East Coast W1,2,3,4 VE1,2	Midwest W5,8,9,0 VE3,4,5	West Coast W6,7 VE6,7
2014	Cycle 24 max	1290/76	1328/64	363/61	773/63	584/58	370/53	56/28	22/11	32/19
2020	solar min C24/25	1139/69	1075/62	581/57	442/45	435/48	265/30	122/27	40/21	14/6

Neil Rapp, WB9VPG / wb9vpg@arrl.net

Next-Gen Contesters

The Intrepid-DX Group began an essay contest five years ago to gather views and ideas from young people in amateur radio. The group hopes that the information collected from these young operators will help us all attract and retain more young people. The event, called the "Dream Rig" essay contest, has gathered quite a few entries over the years. This year the theme of the essay was: "What do you see as ham radio's place in society? How can it benefit our society, and at the same time, become attractive to others your age?" For winning first place, 16-year-old Katie Campbell, KE8LQR, won an ICOM IC-7300 transceiver. The second-place winner, 14-year-old Lila Shearer, KK7RRV, received an ICOM ID52A dual-band D-STAR handheld; while third place winner 15-year-old Michael Simon, KK7KLG, was awarded an ICOM T10 dual-band HT. KE8LQR shared a copy of her essay for the readers of *NCJ*.

Sixteen-year-old Katie Campbell, KE8LQR, pictured with her new ICOM IC-7300 transceiver. [Colleen Campbell, KB8VAQ, photo]

Katie is a junior at Columbiana High School in Ohio. She has been an Extra-class licensee since age 11, and the president of her school's amateur radio club, K8LPS. She teaches youth classes for the Long Island CW Club and is a very accomplished CW operator. She has been a participant and a graduate assistant for the Youth DX Adventure. She has competed in many radiosport events, including some at K3LR and other large contest stations. School Club Roundup is always a huge activity for Katie. She has served as ARRL Assistant Section Youth Coordinator for Ohio for 4 years and the net control for Ohio Section Youth Net, which she started 3 years ago. She has been the YLRL youth chairwoman since 2021. She has been a YLRL keynote speaker at Hamvention and presented at Carole Perry's youth forums at both HamCation and Hamvention. She is also the Public Relations Manager for Youth on the Air Americas, and a member of its camp planning working group, among a long list of other achievements and endeavors. Here is her essay:

How Ham Radio Benefits Our Society

I frequently wonder what I would tell my younger self about amateur radio if I could go back and have a conversation with myself six years ago while I was studying for my Technician Class. Since passing my Technician exam in March of 2019, I've done a number of things that I never thought I would be able to or have the opportunity to do — I've given presentations in front of hundreds of people, learned another language (well, sort of — I think we can count Morse code), traveled around the US and abroad, met mentors and Elmers and, most importantly, formed friendships that will last a

lifetime. While all these things may look good on a resume, especially for a young person, they've had far more important effects. These experiences have shaped who I am today and influenced nearly every aspect of my life. They've helped me become more outgoing, helped me develop my values, improve my communication skills, develop my sense of empathy, and inspire me to learn as much as possible about every subject that I can. Usually, though, when I think about how amateur radio has affected who I am, I wonder what the purpose of amateur radio is in society because it seems impossible that something that's had such significant impacts on my life is merely benefitting society through the obvious – volunteerism and existence as a fun hobby. After much contemplation, I've concluded that the most important purpose that amateur radio serves in society is to bridge gaps, culturally and generationally.

I attend a public high school, and as I've gotten older, I've started to notice how poorly most of my peers communicate, especially with adults. Some of my classmates are so nervous to interact with adults that they struggle to send an email or ask a question in class. It's no secret that young people are struggling more and more to communicate with adults, but what is the solution to this issue? That's where amateur radio comes in. Being a young ham puts you in a very interesting position where everybody wants to talk to you (except for the few who feel that young people are ruining the hobby). You get your license at 10, 13, maybe even 16 years old, get on the air, and have almost an instantaneous pileup. Suddenly, you've gone from not talking to adults, to talking to adults more than other young people and you don't even realize it. Amateur radio provides a gateway for having conversations with people or demographics that you may find intimidating by simply being something that both parties have in common.

Aside from simply talking to adults, amateur radio gives young people an opportunity to be taken seriously and to use their voices in a professional manner. Before getting my license, I was incredibly shy. I didn't even want anything to do with a presentation in class- that would have been a nerve-wracking experience. Speaking part in a school play? Absolutely not. Giving a presentation to an audience of 50, maybe even 100 people? Forget about it. However, giving presentations and speaking about the things that I've done in amateur radio has become one of my favorite parts of what I get to do with the hobby.

I love getting to be an example for young females in amateur radio, or more generally, STEM, and getting to encourage them to pursue whatever hobbies or career that they want even if it's not "the norm" for a young lady. Amateur radio has given me the chance to discuss something that I'm passionate about with an audience who wants to listen and wants to use my experiences to facilitate change for the better. I find that in other areas of my life, young people are usually regarded as "not having anything meaningful to share" and are not listened to because people don't believe that we can be catalysts for change. If I hadn't gotten involved with amateur radio, I wouldn't have this platform to share my experiences, inspire other YLs to do what they love, or develop more effective communication skills.

Thus far, I've focused on the "professional" aspects of being a young ham, in the amateur radio sphere, but I think it's also important to reflect on the more casual and insouciant parts of the hobby. Although it sounds cliché, I believe that the most important parts of amateur radio are the connections that you form and the friendships that you build. I haven't been involved in the hobby nearly as long as many of my fellow radio enthusiasts, but I have been involved long enough to figure out what parts of the hobby are paramount for me, and those are at the top of the list. While black and white accomplishments like winning contests or passing licensing exams and learning code are fun parts of amateur radio and give me clear-cut goals to work toward, the human connections I've formed are by far the most rewarding parts of the hobby.

After getting my license and getting involved with amateur radio, my friend group shifted out of my small middle/high school to a worldwide network of people who enjoy similar things to me. Now, some of my closest friends live in another state/country or even on another continent. Before getting involved in the amateur radio community, I knew very little about any other countries and their respective cultures. After meeting people from these different countries and different backgrounds, I've been able to expand my views and values, as well as deepen my sense of empathy. I've noticed that getting to know individuals with specific experiences helps you have more empathy towards other people or groups with similar or the same experiences. Lack of empathy and understanding is certainly a problem in the world today, but I feel as though amateur radio is helping us to overcome these challenges. Traveling around the US and internationally for amateur radio has given me a strong opportunity to witness and experience these regional/cultural differences from an outsider's perspective, which has helped me realize that no differences between people or cultures are so great that they should cause divides. I'm sure that these realizations are not unique to me, and this means that amateur radio is undoubtedly helping us build bridges across these cultural gaps and differences.

Admittedly, if most of my peers or classmates read what I've written so far, they'd roll their eyes and tell me that amateur radio "seemed boring" or that it's a "nerd hobby" (and while they're most definitely not incorrect

Katie operates CW on a Parks on the Air event at Youth on the Air Camp 2023 in Ottawa, Ontario, with a straight key she built earlier in the week. [Kristy Milluzzi photo]

with that second point…I've learned to own it…). With assumptions like that running rampant, it is incredibly hard to make amateur radio appealing to young people. We can tell them that it's fun, or that it's a good community/network to be part of, but nothing leaves a more vehement and lasting impression than showing them what amateur radio is all about.

A few weeks ago, I convinced my physics class to take turns getting on the air for the school club roundup. At first, we were working people "contest style" – the basic "59, we're in Ohio, my name is, we are a school" …until some of my friends and acquaintances from YOTA camp and other YOTA events started responding to our CQs. A few of them asked to talk to me, and the physics class who knew me as a quiet and reserved student with only a few friends at school, was shocked that I had this many friends. After actually seeing that amateur radio can be a fun hobby and lead to veritable and authentic friendships, a few of the kids in the class decided to start a study group to work on learning the material for their Technician exams. After reflecting on some of the ideas that I discussed in this essay, I've realized that amateur radio has had a far bigger impact on me (and my life) than I thought. So, if I could go back and have a conversation with my ten-year-old self while I was studying for the Technician license, I would tell myself about all of the amazing things that I'd get to experience because of getting that license — the places that I would go, the incredible things that I'd accomplish, and most importantly, the people that I'd meet (although I doubt that ten-year-old me would believe that most of that has happened). I hope that young people around the world continue to see the value of amateur radio and what it can do for society by bridging gaps culturally and generationally, and I hope that they are also inspired to pursue amateur radio endeavors and that they also get to experience things that will inspire them and teach them the invaluable lessons that I've gotten to learn through my involvement with amateur radio.

John Miller, K6MM / k6mm@arrl.net

NCJ Profiles: Tom McGinley, K7QA

Born into an all-ham family, Tom was destined to follow in his parents' footsteps. He learned Morse code at age 6, received his Novice license at 10, General at 11, Extra at 15, and First Class Commercial Radiotelephone license at 16. Mentored by his dad and a few local Elmers, Tom was active in most major contests while chasing DX throughout high school and college. After pursuing an EE degree and a short stint as an aerospace engineer, Tom spent most of his career in broadcast engineering. After several career moves, Tom settled in Missoula, Montana, where he operates all modes from his competitive hilltop QTH. Here is Tom's personal ham radio story.

Tom McGinley, K7QA, in his impressively wallpapered 2024 shack.

The Early Days

My ham radio adventure began at age 6 when my parents (W7TWG and W7TWH, both SK at age 93) enticed my older brother and me to learn Morse code and practice together as a family. Dad was a master mechanic, electrician and radio raconteur, having installed car radios for movie stars in Hollywood during the 1930s. He enjoyed AM rag chewing from our summer home station on Whitefish Lake, Montana. Mom was a superb executive secretary and homemaker, plus a great CW op. She loved rag chewing and handling traffic in the early 1950s in Sunburst, Montana.

Dad mentored my electronics learning while I tinkered with radios and TV sets. We attended the Glacier Waterton Hamfest many times. When I was 8 years old, I won an AM crystal set from a ticket drawing there and wired it together. Along with the family ham shack, we had radios all over the house playing the local AM stations.

I studied hard for the Novice at age 10 and got licensed as KN7CTI. One of my early Elmers was John Gilbert, W7BI (SK), who was a bank president in Columbia Falls, where I went most days after school. He would send Morse to me in the bank basement using a 5-tube AM radio converted into a code oscillator. It used a feedback capacitor across the 50L6 audio amp while keying the speaker wires with a J-38. I practiced improving my speed there to get up to 13 wpm to pass the Conditional license at age 11.

My other early Elmer was Fred Tintinger, W7EGN (SK), who owned a radio-TV repair shop in Whitefish, with a big ham shack in the back room. Fred got me hooked on working DX along with the magic of 6 meters. I built up a 6-meter receive converter for our HQ-129X and a 100-watt amplifier with P-P 6DQ5s from Dad's junk box along with a heavily modified Globe Scout 680.

I also built a 3-element 6-meter beam—robbing aluminum from old TV antennas—and a 2-element 10-meter beam out of tinfoil-wrapped bamboo poles. Fred would call me on the phone whenever he saw co-channel 2 TV interference to get on a 6-meter opening, circa 1959-61.

Hooked on Contesting

My first contest experiences as K7CTI were the Novice Roundup, the VE-W contest and SS in 1960. I became quickly and deeply hooked on contesting. We moved to Missoula the next year where I commandeered my parents' ham gear and built a station in my bedroom using

Tom in his parents' ham shack in 1962.

a TA-33 tri-bander, 40-meter ground plane and 80-meter inverted vee. I upgraded to Extra class and was quite active in most major contests including the venerable CD Parties while chasing DX throughout high school and college.

The 1962 photo shows me during a contest operating with the HQ-129X and an HT-20 driving my dad's home brew 500-watt transmitter that used P-P 811-As and plug-in coils for all bands. I later upgraded it to a full kW using PP-810s.

My Place in Space

I was predestined to pursue an EE degree in college, hoping to attend MIT or the University of Washington's NROTC program. But instead I chose Drexel in Philly for their 5-year cooperative education option, working alternate semesters at Lockheed Missiles and Space in Sunnyvale, California. I got to work in the guidance and control electronics assembly and test department supporting the Gemini space program just before the Apollo moon missions.

My Lockheed experience was unforgettable, joining the WA6GFY club station gang. There I met Jim Neiger, N6TJ, and Jim Maxwell, W6CF (SK), and they let me work the graveyard shift in major contests. I got the W6BZZ call to use while living in California. I also took advantage of Lockheed's continuing education program, taking many courses in electronics theory and design.

Even though a career in aerospace electronics appeared to be in my future, I decided after two years at Drexel that the EE curriculum was simply too narrowly focused. The world could not be adequately understood and appreciated solving calculus equations and mastering physics.

Career Shift

I transferred back home to the University of Montana where I eventually obtained an MA in political science and international relations. I almost joined the US Information Agency (USIA) as a foreign service officer and almost went to Katmandu, Nepal, to teach math and science as a Peace Corps volunteer. Later, I almost became a political science junior college professor, but radio had other plans for me.

My 1968 senior year at UM was spent studying in London, Geneva and Paris. We lived with families while attending classes with a group of 90 students and professors from several northwestern universities. I got licensed as G5AKU, visited several hams in London and worked quite a few CW QSOs. I also visited Gerrard at 4U1UN and got to operate the station in Geneva.

When I returned to Missoula, I was essentially conscripted into the radio broadcasting business because I had an FCC First Class Radiotelephone license. The First Phone was FCC-required back then to work as a DJ or engineer at a directional AM station. It was assumed I could fix broken transmitters and studio gear. I soon became the chief engineer at several local stations while attending UM fulltime.

New Bride, New QTH

After college and getting fully engaged in Missoula radio as an announcer, program director and chief engineer, I married my angel bride BB in 1973. We moved to a hilltop location where I built a better station using Drake R4/T4 twins with the same kW amp and the same 40- and 80-meter antennas, along with a new TH6-DXX tribander on a 45-foot tower. I acquired my K7QA vanity call in 1978.

We realized that living in a small town had wonderful lifestyle advantages, but it's harder to fulfill career hopes and dreams in small market broadcasting. Son Jeff came along in 1977 and we also wanted to afford him the best educational and life experiences we could.

In 1980, I was offered an opportunity to become the director of engineering for the Hatch family-owned group of radio and TV stations based in Salt Lake City. The rigors of the new job responsibilities mostly furloughed my contesting addiction for the next 35 years. But I did set up a

K7QA's current QTH and antenna farm in Missoula, Montana. [Photos courtesy of K7QA]

small station in SLC to stay in contact with my parents, who had moved to Payson, Arizona.

In 1984, we got what was clearly the opportunity of a lifetime to move to the Washington DC area, closer to BB's family in Virginia. I became the director of engineering for First Media Corp. a Marriott family-owned group of 10 major market radio stations. CBS Radio acquired most of the group in 1992.

East Coast Contesting

I did set up a small station while living in Silver Spring, Maryland, using my Drake twins and a roof-mounted Butternut all-band vertical. It was fun working EU in a few contests on 80 and 160 with 100 watts. But not having better antennas made contesting a bit frustrating with only limited time to play. However, I did manage to light up WPGC's 170-foot standby AM tower with my buddy and engineering assistant Ron, W3DJ. We worked the 1987 ARRL 160-meter contest, which was extra special fun.

While living in Maryland, I attended many Gaithersburg hamfests, looking mostly for computer hardware. I also visited a few PVRC club meetings and their Field Day event as an observer. I recall meeting Vic Clark, W4KFC, again. He had previously visited our Missoula Hellgate Amateur Radio Club many years before.

On the Move Again

CBS Radio transferred me to Seattle in 2000, where I managed the technical operations for seven radio stations. I never had the time or a suitable QTH to rebuild my ham station there. But I did get to meet and work with quite a few local hams who also worked in Seattle and Portland broadcasting. CBS Radio sold all their stations in 2016. I thought that was going to be the final chapter of my broadcast engineering career so we decided to move back home to Missoula and "retire." I had big plans to finally build a competitive contesting and DX station on a hilltop and get back in the game fulltime. But once again, broadcasting had other plans for much of my time.

TownSquare Media now owns many of the same Missoula stations I had worked with in the 1960s and '70s, and they needed a lot of engineering help. Along with remodeling our new old home, I spent 6 years as a contractor for TSM fixing all the broken gear and installing backup systems. I am now mentoring a young fulltime engineer to take over, but TSM still sends me to several of their other MT markets to fix transmitters. In 2019, Montana Public Radio and TV asked me to rejoin their operations at the University of Montana where I had been the Chief Engineer from 1975-1979. My fulltime job there now as CE is installing and maintaining transmission equipment for KUFM-FM/TV and their 18 FM repeater stations.

Hilltop Station

All this extra work has thankfully not deterred me from building my new hilltop station and getting contest active again. I've modeled and built a 13-element tribander on a 60-foot tower along with a 2-element 40-meter Yagi on a 50-foot tower and a 5-element 6-meter Yagi. I shunt feed both towers as a switchable 2-tower directional array for both 80 and 160 meters. I use six different receiving antennas out in my 2-acre pasture. The shack hardware includes an Icom IC7610 and SPE 2K-FA amp along with an IC7300, Yaesu FTDX-101MP and a heavily modified Amp Supply LK-500 for backup. More station details can be found on my QRZ.com page.

Montana Ham Connections

I'm an active member of HARC, our local Hellgate Amateur Radio Club. My contest buddies include: Tom, KØSN, who has helped me a lot with antenna modeling and construction. We've battled neck and neck in many contests and done some fun amplifier projects together; Dick, W7XT, who has been a good friend since the 1970s and helps raise and lower my towers with KØSN, and Pat, N9RV, who sets a high standard for contesting excellence with his very impressive superstation. We all get together every so often for Saturday breakfast to kick around contest and DX tall tales and world events while poking fun at

almost anything and anybody.

When I started contesting again in Montana in 2016, I was very rusty and very old school with no PC or internet in the shack. I ran my Drake twins into an inverted vee fan dipole with paper and pencil logging like the good ole days. But contesting had changed to an extraordinary new level. Dick, W7XT, urged me to get updated to the 21st century and try N1MM+ with RBN and telnet spotting and I've never looked back.

Digital Has Its Place

I prefer CW as my primary mode and enter most all major contests using all power levels. I joined CWops in March, 2018, and thoroughly enjoy the adrenaline rush in the high speed Wednesday CWT sessions. I've always been eager to engage in other modes and new technical challenges our magnificent hobby offers, so I'm also active in SSB, digital and RTTY events. I'm a big fan of Top Band. Having access to light up a 265-foot dark AM tower here in town allowed me to enlist KØSN and W7XT for multi-op efforts in the 2021 and 2022 ARRL and CQWW 160 contests. We strung out a 700-foot Beverage for receiving and ran full power, working almost everything we heard or called, including many EU.

Regarding digital, FT8/FT4 is controversial and shunned by many CW and SSB purists. But I marvel at the underlying technology and how well the K1JT/K9AN invention performs. Rare DX is certainly easier to work on FT8 than any other mode. We've got to admit that a K7QA/599/MT/73 exchange on CW that ends most QSOs is not much different than a K7QA/-10/DN26/RR73 exchange on an FT8 QSO. You can exchange more info in an FT8 QSO if you choose.

Digital modulation has proven to be a superior transmission/reception method in AM/FM and TV broadcasting as well as IP platforms. Digital initially augmented analog but will eventually replace the legacy analog modes. Ham radio is a big enough tent to keep the legacy modes alive for a long time if for no other reason they are easy and fun to use. But we need to embrace the reality that digital is already dominating all electronic communication.

Improving My Contest Skills

My next self-imposed contesting challenge is to use SO2V (single-op-2-VFOs – see this issue's "Little Pistols" column – ed.) more often and then implement an SO2R option at my station and start practicing. I sense I am maxing out my contest scoring capabilities with SO1R and need to upgrade my operating skills more than upgrading hardware. Even so, I do plan to replace my 40-meter beam with a 40/20 8-element duobander on a taller tower.

I realize the learning curve to master SO2R will be steep and frustrating, but as the saying goes, nothing ventured, nothing gained. Even if my contest scores don't get more competitive, SO2R should be good exercise to help keep my aging brain hyper focused on eyes, ears and hands coordination.

Looking Back with a Smile

I am incredibly fortunate that, after 51 years of marriage, BB has graciously tolerated my broadcasting and contesting obsessions. Our mutual recreational pursuits include yard landscaping, growing organic vegetables and playing occasional rounds of golf.

To get away from the grind, we've explored new destinations around the world, including Hawaii, Alaska and many European countries. Scotland, Italy and Israel are our favorites. We have just returned from a Christmas cruise of the Danube. Australia, New Zealand and an around-the-world cruise are still on our bucket list.

As most serious contesters will attest, active participation is much more than just piling up big scores and fast rates. No matter if you engage with low power and wire antennas or use a superstation with large aluminum, becoming part of the contest fraternity is truly special. Regularly participating and forming new friendships are just as important as scoring big.

Since becoming thoroughly active again at my new Montana QTH, I've logged over 200,000 QSOs and nearly 300 DXCC entities. I hope to attend the Dayton Hamvention for the first time sooner than later to work eyeball QSOs with so many familiar calls and names in my logs.

My 35-year hiatus from serious ham radio activity was self-inflicted. But I owe so much of what I've done professionally to the hobby. I am forever grateful beyond words for the early opportunities my beloved parents afforded me along with and the guidance of the Good Lord.

With so many of us enjoying extended longevity (old age) running contests, we have to accept the reality that every new day is a gift. Let's use each and every one wisely.

Thanks, Tom, for sharing the various stages of your ham radio career and for your contributions to the hobby over the years. Your experiences may inspire others to leverage the resources of local clubs and operators to improve both station efficiency and operating skill. Stay safe...and keep having fun!

Mike Goldstein, VE3GFN / mgold@pathcom.com

The Little Pistol Pages

Here is valuable help in making data corrections within the N1MM+ contesting software, during the Sweepstakes contest. Thanks to John, K3TN, for this idea. I checked out this technique during the recent SS, and the way it works is a real treat.

Correcting What You Copied

The N1MM Logger+ has a powerful "parser" in the entry window for logging the SS exchange. The N1MM "parser" lets you correct an entered call on the fly, such as if you click on a spot for VE3NFN, and during the exchange you're copying the real call, VE3GFN. The basic rule is simply to type your corrections at the **end** of the Exchange string you have already copied. This includes call signs.

Entering Received Exchanges

Entering the received information in Sweepstakes is different from any other contest because SS uses a five-part exchange (number, precedence, call, check, section). After you enter the call and move to the Exchange window (either by ESM ["Enter Sends Message"], or by pressing the space bar or tab key), you can enter all five in one window, and the program will do its best to interpret what you enter. Use spaces to separate exchange elements except for the serial number and precedence, which should be entered without a space between them.

You do not need to type the call again unless you had it wrong the first time, in which case you can type it into the exchange box to the right of what is already there and you'll see the program magically correct it.

If the program thinks there may be a problem, it tries to signal that by changing the type color to blue. If something is wrong, the best option is to simply enter the correct information at the end (new information will override the previous information). You should never have to wipe, or highlight and hit delete.

John Sluymer. VE3EJ (right), receives plaque from Paul Caccamo, VA3PC, for his 1st-place finish in the 2023 Ontario QSO Party. [Mike Goldstein, VE3GFN, photo]

You must always enter the Serial Number and Precedence as a single element, e.g. 23B, not 23 B. This is how the program tells a check from a serial number. Otherwise, you should put a space between elements.

Icom IC7610/IC7300 CW/SSB Contesting Configuration

Here are some ideas from Rudy Bakalov, N2WQ / VE3EID, for configuring your Icom rigs for contesting. I've tried them, and they work! When going through the steps below, you end up with an incredibly quiet receiver, and silky smooth yet narrow filters.

1) At all times, keep RF gain as low as possible for each band's noise level. Go to a clear frequency and adjust RF gain to a setting where the band noise does not move the S-meter, or only does it occasionally. You will also notice that the waterfall background is mostly black. Keep an eye on RF gain on all bands and at all times, as there is no "set it and forget it" correct level.
2) Set up all your filters as a combination of a base BW plus further narrowing them down with the PBT (Passband Tuning) shift knobs. My CW filters are 600, 400, and 200 Hz, and created by setting BW to 800 Hz/500 Hz and then shifting PBT to get to the lower bandwidth. I can operate a full contest without any hearing fatigue, with the 200 Hz filter set as above.

All filter shapes are set to SHARP. To set up your filters, press and hold the FILTER button to bring the filter setup menu.

3) Turn on NR and always keep it on. Set NR level to 2-4 based on your local environment. In my experience, 2 is all you need, but I have not operated in a very noisy environment.

4) Turn on APF and set it to MED and +6 db. Keep it on at all times.

5) Turn on RX Tone Control for CW. Set the lower end of your BPF to the lower frequency shown for your widest CW filter and set the higher frequency of the BPF to the highest filter frequency. For example, let's say that the widest CW filter is 600 Hz and your pitch is set to 600 Hz; your BPF should be set to 300 and 900 Hz.

6) Enable DIGI SELECT and keep it on at all times. I also enable my tuner at all times, as it acts as an additional RX filter circuit in front of the super-sensitive receiver (unlike other radios, the tuner is inline on receive).

7) On the lower bands, turn on IP+. On the higher bands, if you need to turn on the preamp, you have to disable IP+.

8) Maximize the use of your screen by switching to the much leaner bar graph meter and setting up the waterfall size to LARGE.

9) Set your waterfall band edges to something appropriate for a CW contest. For example, one for the entire CW segment and another one for the first, usually very crowded, 50 kHz of the band.

10) Last but not least, get yourself an SD card and save all of the above settings so you can quickly restore everything if you forget what you have changed and don't like the changes.

When you configure the radio as above, your first reaction may be that something is wrong as the radio will be virtually silent on a clear frequency. Don't be tempted to crank up the audio to hear the band noise because as soon as you tune to a signal, the audio will come to life.

Jon Jones, NØJK / n0jk@hotmail.com

VHF/UHF Contesting!

As I write this column, the 2025 ARRL January VHF Contest is still pending. Six-meter F2 propagation slowed significantly in December as the solar flux dropped. Conditions picked up after the new year with several days having F2 propagation from North America to the Caribbean and South America. Even rarer DX was noted January 6 by W3UR to 9G1SD and WA3QPX to ZL1RS on 6 meters. Some sporadic-E to Florida was noted by WB2AMU in New York. I am cautiously optimistic there will be some Es and F2 in the January VHF Contest on 6 meters.

Solar Cycle 25 — One Peak or Two?

I discussed in my March *QST* column the possibility that Solar Cycle 25 may have two peaks. The past few solar cycles — 22, 23, and 24 — all had two peaks. In some, the second peak was stronger than the first. If that occurs, you may have more potential aurora and F2 on the VHF bands. The second peak usually takes place about two years after the first. There tend to be more auroras in the latter part of solar cycles.

K9ZO

Ralph Bellas, K9ZO, became a Silent Key in December. Ralph was active in VHF contests as well as HF contests. I contested with Ralph at HC8N in 2001 at Solar Cycle 23's peak and recall him watching me run Japan on 6-meter SSB. We ran a Kenwood TS-50 at 50 watts and a 6M7JHV Yagi. Ralph noted on his qrz.com page, "We still hold the world record in the multi-multi class for the CQWPXCW contest with 12,640 contacts and 1293 multipliers for a score of 57 million. Ten meters was unbelievable with 3,091 QSOs. I was so fortunate to be a part of the team."

The Low-Power Category in the ARRL VHF Contests

Sharp-eyed reader Steve Hewlett, W1NIV, noted I was only partially correct on the power levels for the low-power category in the ARRL VHF contests. The correct power levels per band are:

50 MHz and 144 MHz bands: 200 watts PEP output or less

222 MHz and 432 MHz bands: 100 watts PEP output or less

902 MHz and above: 50 watts PEP output or less

Note that 50 watts is pretty high power on 902 and 1296 MHz. Steve also reminds us that 432/440 MHz is limited to 50 watts within 150 miles of PAVE/PAWS installations in Massachusetts and military installations in New Mexico. Rover and portable operators, please take note of these power restrictions.

Lance Collister's, W7GJ, 6-meter Yagi at ZD9GJ tied down for moonrise. [Photo courtesy of W7GJ]

Top Sprint Scores 2024 Fall

6 Meters	2 Meters	222 MHZ	432 MHZ	902 MHZ +
SOHP W4MW 1,768 N2NT (N2NC) 1,679	SOHP K1TEO 2,340 K1RZ 1,760	SOHP K1RZ 1,508 K1TEO 1,456	SOHP K1TEO 1,200 K1RZ 88	SOHP K1RZ 7,505 K1TEO 7,229
SOLP WA2VNV 749 KOØA 58	SOLP N3RG 1,296 WA2VNV 746	SOLP WA3NUF 738 WA2VNV 510	SOLP VE3OS 345 W3LL 299	SOLP N3RG 4,354 WZ1V 2,230
ROVER NV4B/R 825	ROVER NV4B/R 1,218	ROVER NV4B/R	ROVER NV4B/R 272	ROVER NV4B/R 1,801

Pack Rats Announce Fall VHF Sprint Winners

The Pack Rats took over responsibility for managing the VHF Fall Sprints for the first time this year. The sprints are now concluded, the scores have been submitted, and the final determination of the category winners in all five sprints has been completed by the Fall Sprint Committee. Here is their summary:

The committee made a few changes for 2024. The most significant was changing the 6-meter sprint from an evening contest to an afternoon contest. We also increased the number of award categories by adding single operator low power as a separate award.

On the downside, we learned the difficulty of scheduling these events in between the multitude of existing major contests, conferences, and other VHF operator events. The lessons learned this year will help us improve the Fall Sprints in the coming years.

The results and operator comments we received were very favorable for our first time running the sprints. Most comments on the 6-meter time change were very positive, even though the propagation in early August this year was no better in the daytime then it was in the past in the nighttime.

A total of 232 logs were submitted across the five sprint dates. The 2-meter (71 logs) and 6-meter (55 logs) sprints account for 54% of the recorded scores. The 902 and above sprint has consistently had the lowest participation of the series. It didn't help that our schedule date conflicted with the Microwave Update Conference held in Vancouver, Canada. Still, the numbers in years past were not that far from this year's total. There is more work to be done to promote and expand participation in the microwave sprint.

The complete listing of all submitted scores for the Fall Sprints can be found on the 3830scores website. The final scores have been reviewed and confirmed by the Fall Sprint contest committee. The winning scores and runner-up scores for each sprint are displayed here and on the Pack Rat website, **https://packratvhf.com/**. Thanks to everyone who participated in the Fall Sprints this year and congratulations to all of the 2024 Fall Sprint winners! — Phil Miguelez, WA3NUF, Chairman, Fall Sprint Contest Committee. **fallsprints@packratvhf.com**

Don Daso, K4ZA / k4zadondaso@juno.com

Workshop Chronicles

As a certified “tool guy,” I often find myself answering questions about tools or demonstrating their proper (sometimes even improper) usage. A recent conversation with a client led to this column.

Drill bits are a source of confusion for many. Indeed, I often encounter clients who are confused about even the most basic points of bit design, let alone using them. Let's begin at what I'll call the beginning. And the focus here will be on drilling metal, not wood (which uses an entirely different set of designs and applications).

If you do not use the proper bit, you can damage the material to be drilled, or at worst, injure yourself. Let me begin by saying I learned much of what I will disclose here from the men who ran the Ohio University Department of Physics machine shop. I ran the university's film production laboratory, which was equipped with processors and other equipment donated to the university by TV stations, where this gear had already served a long and useful life. In almost every instance, the equipment was no longer made, nor were parts available, so things had to be specially made to keep it functioning. I found this task especially interesting; I loved working within the tolerance levels required. And I thank those men every time I find myself fabricating a part for a client, for what they so willingly shared with me.

Commonly Used Materials

High-speed steel (HSS) bits are (despite their name) suitable for general-purpose use with most materials.

Cobalt steel bits are better than HSS bits and should be used when drilling very hard materials, such as stainless steel.

Carbide-tipped bits resist wear better than both HSS and cobalt bits.

Carbide drill bits are harder and resist wear better than the previously listed bits. But they require very rigid tool holding, meaning they should not be used in hand-held tools.

Treatments and Coatings

Uncoated means the surface is not treated. It’s suited for general-purpose use.

Black oxide treated, which are dull black finish bits, should be used when drilling ferrous metal, such as cast iron, steel, or stainless.

Black and gold treated bits are more resistant to breaking than oxide treated bits, and should also be used when drilling ferrous metals.

Be Prepared

As always when drilling metal, proper layout and preparation are required to ensure successful results. That means using something like a toolmaker's layout blue paint, a sharp scribe to etch lines on the material, and then a sharp center punch to tap a hole mark where you want to drill. If this seems overly complicated, then you have likely been bothered by holes not being drilled exactly where they were needed, etc. The adage “Measure twice, cut once” applies equally well to hole drilling. Follow a few simple rules when drilling holes, and you will be rewarded with holes of the proper size located exactly where you want them! Work slowly (there is no need to rush or otherwise compromise the process) and you will be rewarded.

If this sounds like an excessive number of tools required before actually drilling, remember we are talking about accuracy here. And we are trying to do things not only efficiently, but precisely as well. So, these tried-and-true methods will help you in that quest. And the more experience you have with them, the more accurate you will be, as well as working faster with them — in the end, worthwhile investments.

It doesn't matter if you're working with hand tools versus a drill press — the aforementioned items are important items to have and to use. The drill press will allow more precision, and less energy expended when doing the actual drilling. But the key to drill press success is making sure the piece to be drilled is secured to the drill press worktable. Do NOT think (regardless of size) you can hold the workpiece securely by hand.

Lubrication is another area where you need some knowledge, as well. Do not think you can "get away" with drilling without it. But you do not need to buy expensive or fancy-sounding lubricants just to drill through a boom-to-mast plate, for example. On aluminum, I've long used kerosene as a lubricant, with excellent results. When working with steel, I've had good luck using TapMagic, advertised as a cutting lubricant for tapping. But I use it as a lube for drilling steel. Another choice is well-used motor oil — a variety of oils/fluids collected and stored for various uses!

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OnAllBands.com is dedicated to educating and informing the Amateur Radio community.

Dave Mueller, N2NL / N2NL@yahoo.com

Rules: North American QSO Party (CW/SSB/RTTY)

1. **Eligibility**: Any amateur radio licensee may enter.
2. **Object**: To work as many North American stations as possible during the contest period.
3. **North American Station**: Defined by the ARRL *DXCC List*, with the addition of Hawaii.
4. **Contest calendar:**

Mode	Times/Dates	Logs Due	Contest Weekend
CW	1800 UTC Jan 11 to 0559 UTC Jan 12	0600 UTC January 19	2nd full weekend January
	1800 UTC Aug 2 to 0559 UTC Aug 3	0600 UTC August 10	1st full weekend August
SSB	1800 UTC Jan 18 to 0559 UTC Jan 19	0600 UTC January 26	3rd full weekend January
	1800 UTC Aug 16 to 0559 UTC Aug 17	0600 UTC August 24	3rd full weekend August
RTTY	1800 UTC Feb 22 to 0559 UTC Feb 23	0600 UTC March 2	Starts last Saturday in February
	1800 UTC Jul 19 to 0559 UTC Jul 20	0600 UTC July 27	3rd full weekend July
Submit logs via **www.ncjweb.com/naqplogsubmit** - See Rule 16			

5. **Entry Classifications:**

A) Single Operator (SO):

i) One person performs all transmitting, receiving, and logging functions as well as equipment and antenna adjustments.

ii) Access to spotting information obtained directly or indirectly from any source other than the station operator, such as from other stations or automated tools, spotting networks, skimmers, social media, watching participating stations live streaming, etc., is prohibited. Spotting other stations or self-spotting is prohibited.

iii) Use of a CW decoder or wide-band multi-channel RTTY decoder (RTTY Skimmer) is prohibited.

iv) Only one transmitted signal allowed at a time.

v) May operate up to 10 out of the 12 hours of the contest. Off-times must be at least 30 minutes in length. To count as off-time, the difference between the times of consecutive contacts must be greater than or equal to 31 minutes (i.e., 30 intervening minutes, during which no contacts occur). The contest period ends at 05:59:59 UTC.

B) Single Operator Assisted (SOA):

i) One person performs all transmitting, receiving, and logging functions as well as equipment and antenna adjustments.

ii) May use spotting information obtained directly or indirectly from any source such as from other stations, automated tools, spotting networks, skimmers, social media, watching live streaming, etc. Soliciting contacts via social media is not allowed. Spotting other stations or self-spotting is allowed.

iii) May use a CW decoder or wide-band multi-channel RTTY decoder (RTTY Skimmer).

iv) Only one transmitted signal allowed at a time.

v) May operate up to 10 out of the 12 hours of the contest. Off-times must be at least 30 minutes. To count as off-time, the difference between the times of consecutive contacts must be greater than or equal to 31 minutes (i.e., 30 intervening minutes, during which no contacts occur). The contest period ends at 05:59:59 UTC.

C) Multioperator Two-Transmitter (M2):

i) More than one person performs transmitting, receiving, and logging functions, etc.

ii) May use assistance such as packet spotting networks, skimmers, social media, live streaming, and the like. Soliciting contacts via social media is not allowed. Spotting other stations or self-spotting is allowed.

iii) May use a CW decoder or wide-band multi-channel RTTY decoder (RTTY Skimmer).

iv) A maximum of two transmitted signals at any given time, each on a different band. Both transmitters may work any and all stations.

v) May operate for the entire 12 hours of the contest.

vi) Starting when the first QSO on a band is logged, a signal may not transmit on a different band until 10 full minutes have passed. Any QSOs made on a different band before 10

minutes have passed will not count for scoring. The other station will receive full credit for the QSO.

vii) Multioperator entries are required to use only one name throughout the entire contest.

viii) Multioperator entries with only one operator may be reclassified to Single Operator Assisted (SOA).

6. **Output Power**: Maximum of 100 W from the output of the final amplifier. QRP (5 W or less) entries will be recognized in the results. Entries from stations choosing to use more than 100 W or entered as High Power will be classified as check logs. Entries found to use more power than claimed will be disqualified. Power categories are:

a) 5 W or less — QRP
b) 5 – 100 W — Low Power
c) Over 100 W — Check Log

7. **Mode**: CW only in CW parties. SSB only in phone parties. RTTY only in RTTY parties.

8. **Bands**: 160, 80, 40, 20, 15, and 10 meters only, except no 160 meters for the RTTY contest.

9. **Station**: All radio transmitters, receivers, and antennas used by an entrant must be associated with one station. A station may be operated remotely. Use of multiple stations during the contest using the same call sign, whether directly or remotely operated, is prohibited. Entrants must use only one call sign per station operated and may not work themselves.

10. **Exchange**: Operator name and station location (state, province, or country) for North American stations; operator name only for non-North American stations. Each entrant is required to use a single name throughout the entire contest period, including multi-operator entries.

11. **Multipliers**: Multipliers are all 50 US states, including Alaska and Hawaii, the District of Columbia (DC), the 13 Canadian provinces/territories (British Columbia, Alberta, Saskatchewan, Manitoba, Ontario, Quebec, New Brunswick, Nova Scotia, Prince Edward Island, Newfoundland-Labrador, Yukon, Northwest Territories, and Nunavut), and other North American entities as defined by the ARRL *DXCC List*. For other North American entities, please use the standard DXCC prefix for the country in the received location field in your log. See multiplier list included with sample paper logs. Multipliers count again on each band. Non-North American countries, maritime mobiles, and aeronautical mobiles do not count as multipliers but may be worked for QSO credit; these should be entered as DX in the received location field.

12. **Valid Contact**: Stations may be worked once per band. Duplicate contacts on a band will not receive credit as a valid contact. A valid contact consists of a complete, correctly copied and logged two-way exchange between a North American station and any other station. Contacts with an incorrectly received exchange are removed with no additional penalty. Call sign errors (bust) or call signs not in the other log (NIL) are removed and receive a penalty of one QSO point value. Proper logging requires including the time in UTC and band for each contact.

13. **Scoring**: Multiply total valid contacts by the sum of the number of multipliers worked on each band.

14. **Team Competition**: You may wish to form a team with fellow NAQP participants. If so, your team must consist of two to five Single Operator and Single Operator Assisted stations whose individual scores are added together to produce a team score. Although clubs or other groups having more than five members may form multiple teams, there are no club membership, distance, or meeting requirements for a team entry. Teams must be registered prior to the start of the contest. Use one of the following online forms to register your team:

CW team registration: **www.ncjweb.com/cwnaqpteamreg**
SSB team registration: **www.ncjweb.com/ssbnaqpteamreg**
RTTY team registration: **www.ncjweb.com/rttynaqpteamreg**

These team registration forms automatically provide confirmation of team registration by return email. Inclusion of team information in submitted Cabrillo logs is not required, as teams are determined ahead of time through the team registration system.

15. **Log Formatting**: All logs must be submitted electronically via web upload. The file format for electronic logs for *NCJ*-sponsored contests is Cabrillo; see **wwrof.org/cabrillo/** for details. For those participants logging on paper, please use the manual log entry Web-to-Cabrillo online forms available at the links below to submit your logs.

16. **Log Submission**: Entries must be received no later than 7 days after the end of the contest. Cabrillo-formatted logs must be uploaded via web form (use for all modes): **www.ncjweb.com/naqplogsubmit**

a) To manually convert paper or computer log to Cabrillo log, consider using one of the following tools:
CW: **www.b4h.net/cabforms/naqpcw_cab.php**
SSB: **www.b4h.net/cabforms/naqpssb_cab.php**
RTTY: **www.b4h.net/cabforms/naqprtty_cab.php**

17. **Disqualifications**: Any entry may be disqualified for illegal operation, unethical operation, excessive score reduction, excessive error rates, or rules violation. Such disqualification is at the discretion of the contest manager.

18. **More Information**: Questions regarding the contests, including requests for Log Check Reports, may be addressed to the appropriate contest manager at the e-mail address listed below:

CW: Dave Mueller, N2NL, **cwnaqpmgr@ncjweb.com**
SSB: Bill Lippert, ACØW, **ssbnaqpmgr@ncjweb.com**
RTTY: Mark Aaker, K6UFO, **rttynaqpmgr@ncjweb.com**

19. **Awards**:

a) Plaques will be awarded for the high score in each of the categories given below, provided there is a minimum of five entries in the category. If a plaque is not sponsored, the winner may purchase it. Plaques will be awarded as follows:

Mode	Category	Sponsor
CW	Single Op, North America	Florida Contest Group
CW	Single Op QRP, North America	Grand Mesa Contesters of Colorado
CW	Single Op Assisted, North America	Arizona Outlaws Contest Club
CW	Multiop, North America	Minnesota Wireless Association in memory of Dave, KTØR
CW	Team	The CW Operators Club
SSB	Single Op, North America	South East Contest Club
SSB	Single Op Assisted, North America	Grand Mesa Contesters of Colorado
SSB	Multiop, North America	Tennessee Contest Group
SSB	Team	No sponsor
Combined Score, CW/SSB	Single-Op unassisted, North America	Southern California Contest Club
RTTY	Single Op, North America	Icom America, Inc.
RTTY	Single Op Assisted, North America	Icom America, Inc.
RTTY	Multiop, North America	Icom America, Inc.
RTTY	Team	Icom America, Inc.

i) Combined score plaque recognizes the single unassisted operator producing the highest total combined normalized score from the CW and SSB events separately by season (January/August). Scores are normalized to 500 points for the top scorer and added together.

b) Certificates of merit will be awarded to all participants with a final score greater than zero.

i) Single operator certificates will display the top 20 ranking by category; call area; and state, province, or North American country.

ii) Multi-operator certificates will display overall ranking for the top 10 multi-operator logs.

Ed Muns, WØYK / ed@w0yk.com

Results: North American Sprint, RTTY — September 2024

The 50th NA RTTY Sprint completes 25 years for this little contest. Hard to believe. However, the continued decrease in participation (see Figure 1) portends potential demise. There were 42 logs with 29 multipliers and 59 participants. What ideas do you have for reversing this trend?

Dave, K6LL, topped the closely spaced top five finishers, all SO2R. With low participation, stations tend to catch up through the contest period. Log-checking changed the order-of-finish due to differences in multipliers and QSO errors. Ty, K3MM, was the only station to exceed 100 QSOs after log-checking reductions.

Figure 2 shows the activity per band throughout the 4-hour contest period. The low activity is illustrated by both the relatively low number of QSOs at the beginning and the decrease to 20% of the initial 10-minute QSO total. Plus, during the first half hour, the SO2R participants are essentially SO1R, while 40-meter activity is slowly building. There were no QSOs on 80 meters for the first two hours and virtually none on 20 meters for the final two hours. QSOs were distributed 37%, 44%, and 19% across 20, 40, and 80 meters.

The top ten stations were skewed to the east with only Dave, K6LL, and Mike, KH7X, in Arizona representing western North America. Fred, K4IU, led the Low Power stations and placed 8th overall. The lone QRP entry came from Dave, WD6T, operating from N6RO, and only for the last two hours, clearly a challenge!

Ron, NØAT, led the five Golden Logs with 71 QSOs. The Sprint format makes it difficult to produce an error-free log because entrants are dependent upon their QSO partners as well as their own skill. Your LCR (Log Check Report) is a valuable analysis of your log accuracy which can lead to future improvement. Request yours from **ed@w0yk.com**.

In team competition, SWACC #1

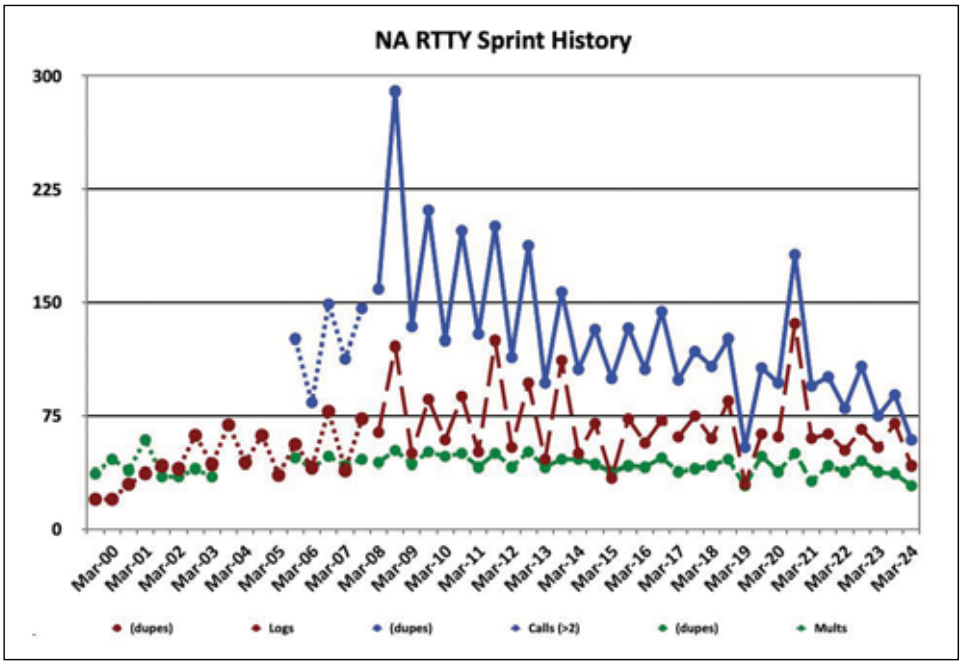

Figure 1. NA RTTY Sprint History

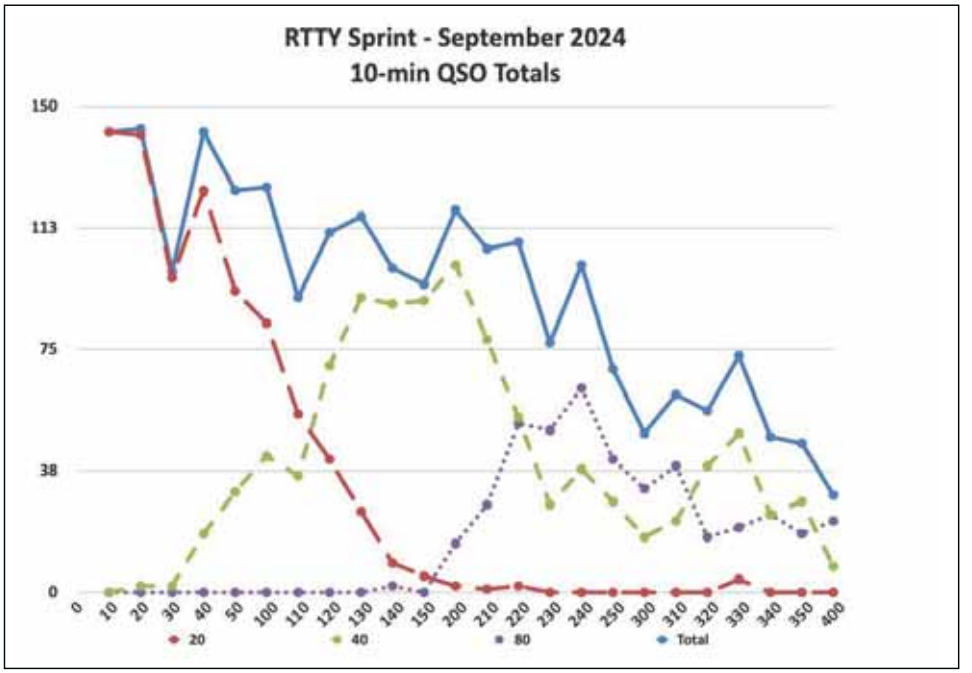

Figure 2. 10-minute QSO Totals

and SWACC #2 took the top two slots above third-place Blue Sky. Team formation and competition is one way to raise activity. The future of this contest hinges on more activity.

The next RTTY Sprint begins at 0000 UTC, Sunday, March 9, 2025, which is Saturday evening NA time.

Soapbox:

This was a last-minute WQ6X RTTY Sprint run from the East Bay Section of California. There's not much to say, mainly because solar storms ruined radio conditions virtually ALL weekend. The FT-2000 was run at about 75 watts to keep things cool as an LP station into the usual 8JK Cobra Sloper and 10-meter Long John used as a roto-dipole on 20 meters. Way more activity was expected on 40 meters, while 80 meters was a barely-show activity. Look for a write-up on this gig at: **http://WQ6X.Blogspot.com**. — WQ6X

Top Ten Scores

Call Sign	*Score*	*QSOs*	*Mults*	*Bnd Chgs*	*Qs Lost*	*00Z*	*01Z*	*02Z*	*03Z*
K6LL	2,646	98	27	13	5	39	26	22	11
K3MM	2,525	101	25	42	1	43	24	24	10
N4IQ	2,496	96	26	38	2	37	30	20	9
N3QE	2,430	90	27	26	8	35	24	24	7
N4ZZ	2,403	89	27	35	3	40	18	21	10
KH7X	2,016	84	24	4	12	28	24	20	12
WQ5L	1,900	76	25	3	5	33	21	8	14
K4IU	1,656	69	24	18	6	25	21	17	6
WD9CIR	1,656	69	24	5	2	24	21	19	5
K5AM	1,596	76	21	14	4	26	21	20	9

Top Ten Low Power

Call Sign	*Score*	*QSOs*	*Mults*	*Bnd Chgs*	*Qs Lost*	*00Z*	*01Z*	*02Z*	*03Z*
K4IU	1,656	69	24	18	6	25	21	17	6
WD9CIR	1,656	69	24	5	2	24	21	19	5
K5AM	1,596	76	21	14	4	26	21	20	9
KM9R	1,495	65	23	12	6	24	21	12	8
NØAT	1,491	71	21	12	0	30	22	19	0
AA4DD	1,176	56	21	5	2	15	19	15	7
NF6R	1,120	56	20	2	4	16	16	13	11
AE1P	1,083	57	19	8	2	5	28	15	9
KØVG	1,080	54	20	11	2	12	17	15	10
KIØF	1,080	54	20	4	6	25	19	10	0

Top QRP

Call Sign	*Score*	*QSOs*	*Mults*	*Bnd Chgs*	*Qs Lost*	*00Z*	*01Z*	*02Z*	*03Z*
WD6T	540	36	15	13	6	0	4	21	11

Top Ten QSO Totals

Call Sign	*QSOs*
K3MM	101
K6LL	98
N4IQ	96
N3QE	90
N4ZZ	89
KH7X	84
K5AM	76
WQ5L	76
ABØS	72
NØAT	71

Top Ten Multipliers

Call Sign	*Mults*
K6LL	27
N3QE	27
N4ZZ	27
N4IQ	26
K3MM	25
WQ5L	25
K4IU	24
KH7X	24
WD9CIR	24
KM9R	23

Golden Logs

Call Sign	*QSOs*
NØAT	71
WØZA	40
KN5S	14
VE2GT	5
PY3LX	1

Top Ten Number of Band Changes

Call Sign	*Band Chgs*
WØYK	88
NØXR	80
N4ZZ	78
WD6T	71
K4ZW	62
WV4P	57
N4IQ	50
W1UJ	40
K7SV	36
N3QE	31

Team Scores

1. SWACC #1

N4ZZ	4,794
NØXR	4,768
N3QE	4,256
K7SV	3,927
K9OM	3,720
Total	**21,465**

2. SWACC #2

K6LL	4,653
K5AM	3,875
NØTA	3,534
K4ZW	3,480
WQ5L	3,024
Total	**18,566**

3. NCCC Probablies

WD6T	4,864
WØYK	4,719
K6GHA	2,716
W6SX	2,668
N6ZFO	1,428
Total	**16,395**

4. Mount Elbert

WØZA	3,277
NØKQ	2,210
Total	**5,487**

5. NCCC Maybes (NN7SS, NN6U, NF6R, NW2P)	4,886
6. SCCC (WQ6X)	1,050
7. Team Montrose (KA2JAI, K3YLW)	366

Single Operator Scores

* Low Power, ** QRP

Call	*Name*	*QTH*	*20*	*40*	*80*	*QSO*	*Mult*	*Score*	*Band Changes*	*Team*
AE1P	*NEIL	NH	19	26	12	57	19	1,083	8	
WB2COY	*BOB	NY	14	10	0	24	12	288	1	
K3MM	TY	MD	40	40	21	101	25	2,525	42	SWACC #1
N3QE	TIM	MD	31	37	22	90	27	2,430	26	SWACC #1
N4IQ	BILL	SC	34	41	21	96	26	2,496	38	SWACC #2
N4ZZ	DON	TN	29	41	19	89	27	2,403	35	SWACC #1
AA4DD	*DAVE	TN	17	20	19	56	21	1,176	5	
W4CQE	KEN	TN	27	26	8	61	19	1,159	2	SWACC #2
KI4JFX	*ORE	FL	0	17	0	17	13	221	0	
N4NTO	*TRIPP	NC	0	4	11	15	10	150	3	
K7OM	TED	SC	0	13	0	13	8	104	1	
WQ5L	RAY	MS	33	32	11	76	25	1,900	3	SWACC #1
K5AM	*MARK	NM	27	31	18	76	21	1,596	14	SWACC #2
WW5L	*JIM	LA	13	17	14	44	18	792	4	
KN5S	ERIK	TX	14	0	0	14	11	154	0	
NF6R	*BILL	CA	21	24	11	56	20	1,120	2	
KH6CJJ	*KENT	HI	29	12	0	41	18	738	1	
NN6U	*JOHN	CA	17	20	8	45	16	720	4	
WD6T	**DAVE	CA	1	21	14	36	15	540	13	
WQ6X	*RON	CA	15	15	3	33	14	462	2	
K6LL	DAVE	AZ	37	40	21	98	27	2,646	13	SWACC #1
KH7X	MIKE	AZ	30	32	22	84	24	2,016	4	
KM9R	*MIKE	NV	28	26	11	65	23	1,495	12	
N7WY	*BOB	WY	28	21	0	49	20	980	1	Blue Sky
NV3P	*BRIAN	WA	19	20	0	39	17	663	1	
K7TQ	*RANDY	ID	0	19	7	26	12	312	11	
N7GP	*TOM	AZ	0	9	2	11	8	88	3	
WD9CIR	*STEVE	IL	21	30	18	69	24	1,656	5	

Single Operator Scores

* Low Power, ** QRP

Call	*Name*	*QTH*	*20*	*40*	*80*	*QSO*	*Mult*	*Score*	*Band Changes*	*Team*
KB9S	*MARK	WI	21	26	0	47	22	1,034	5	
WO9B	MIKE	WI	6	15	10	31	13	403	2	
K4IU	*FRED	MN	24	29	16	69	24	1,656	18	
AB0S	TIM	NE	27	30	15	72	22	1,584	6	
NØAT	*RON	MN	24	28	19	71	21	1,491	12	
NØTA	JOHN	CO	29	27	15	71	21	1,491	2	Blue Sky
KØVG	*VERN	MN	14	28	12	54	20	1,080	11	
KIØF	*ROGER	MN	24	20	10	54	20	1,080	4	
WØZA	GREG	NE	0	30	10	40	22	880	4	Blue Sky
KH6XX/WØ	RANDY	ND	0	17	0	17	13	221	0	
VE2FK	*DUB	QC	23	11	0	34	15	510	3	
VA6RCN	*KEVIN	AB	18	14	0	32	15	480	1	
VE2GT	*PIERRE	QC	0	5	0	5	4	20	0	
PY3LX	LUCIANO	PY	1	0	0	1	1	1	0	

2025 State/Province QSO Party Calendar

State and province QSO parties are excellent training grounds for new contesters and great warmups for experienced contesters preparing for the year's major on-air competitions. Plus, you may make some fans who will try to work you in domestic contests — and they're just plain fun! Here, courtesy of WN4AFP, is a rundown of this year's state and province QSO parties, along with links to contest rules or home pages. Please note that some pages, especially for parties later in the year, may not yet have been updated with 2025 details, so check back in on those as the dates get closer.

Start Date	Start Time	End Date	End Time	Contest Name/Link
2/1	0000Z	2/2	2400Z	Vermont QSO Party / **https://www.ranv.org/vtqso.html**
2/1	1400Z	2/1	2400Z	Minnesota QSO Party / **https://www.w0aa.org/mn-qso-party/**
2/1	1600Z	2/2	0359Z	British Columbia QSO Party
2/2	1600Z	2/2	2359Z	British Columbia QSO Party / **https://www.orcadxcc.org/bcqp_rules.html**
2/22	1500Z	2/23	0159Z	South Carolina QSO Party / **https://scqso.com**
2/23	1500Z	2/24	0100Z	North Carolina QSO Party / **https://ncqsoparty.org**
3/8	1900Z	3/9	1900Z	Idaho QSO Party / **https://www.idahoqsoparty.org**
3/8	1500Z	3/9	0200Z	Oklahoma QSO Party
3/9	1500Z	3/9	2200Z	Oklahoma QSO Party / **https://k5cm.com/okqp.htm**
3/9	1800Z	3/10	0100Z	Wisconsin QSO Party / **https://www.warac.org/wqp/wqp.htm**
3/15	1400Z	3/16	0400Z	Virginia QSO Party
3/16	1200Z	3/16	2400Z	Virginia QSO Party / **https://tinyurl.com/ykjupx58**
4/5	1400Z	4/6	0200Z	Louisiana QSO Party / **https://laqp.louisianacontestclub.org**
4/5	1400Z	4/6	0200Z	Mississippi QSO Party / **https://arrlmiss.org/mississippi-qso-party/**
4/5	1400Z	4/6	0400Z	Missouri QSO Party
4/6	1400Z	4/6	2000Z	Missouri QSO Party / **https://w0ma.org/index.php/missouri-qso-party**
4/12	1400Z	4/13	0200Z	New Mexico QSO Party / **https://www.newmexicoqsoparty.org/wp/**
4/12	1800Z	4/13	1800Z	North Dakota QSO Party / **https://ndarrlsection.com**
4/12	1800Z	4/13	0359Z	Georgia QSO Party
4/13	1400Z	4/13	2359Z	Georgia QSO Party / **https://gaqsoparty.com**
4/19	1100Z	4/20	2259Z	Nebraska QSO Party / **https://nebraskaqsoparty.com**
4/19	1600Z	4/20	0400Z	Michigan QSO Party / **https://miqp.org**
4/19	1800Z	4/20	0500Z	Ontario QSO Party
4/20	1200Z	4/20	1800Z	Ontario QSO Party / **http://www.va3cco.com/oqp/**
4/20	1200Z	4/20	2200Z	Quebec QSO Party / **https://quebecqsoparty.org**
4/26	1600Z	4/27	0159Z	Florida QSO Party
4/27	1200Z	4/27	2159Z	Florida QSO Party / **https://floridaqsoparty.org/rules/**
5/3	1300Z	5/4	0700Z	7th Call Area QSO Party / **http://7qp.org/new/page.asp?content=start**
5/3	1500Z	5/4	0259Z	Indiana QSO Party / **http://www.hdxcc.org/inqp/**
5/3	1700Z	5/4	2359Z	Delaware QSO Party / **https://www.fsarc.org/qsoparty/rules-2023.html**
5/3	2000Z	5/4	0500Z	New England QSO Party
5/4	1300Z	5/4	2400Z	New England QSO Party / **https://neqp.org/rules/**
5/10	1700Z	5/11	0300Z	Canadian Prairies QSO Party / **https://cpqp.ve6hams.ca**
5/17	1400Z	5/18	0200Z	Arkansas QSO Party / **https://arkqp.com**
6/7	1300Z	6/8	0100Z	Kentucky QSO Party / **https://kyqsoparty.org**
6/14	1600Z	6/15	0400Z	West Virginia QSO Party / **https://www.qsl.net/wvqp/**
7/26	1500Z	7/27	0300Z	Alabama QSO Party / **https://alabamacontestgroup.org/aqp/**
8/9	1400Z	8/10	0359Z	Maryland-DC QSO Party / **https://www.w3vpr.org/Maryland-DC_QSO_Party**
8/23	0400Z	8/25	0359Z	Hawaii QSO Party / **https://www.hawaiiqsoparty.org**
8/23	1600Z	8/24	0400Z	Ohio QSO Party / **https://www.ohqp.org**
8/30	1400Z	8/31	0200Z	Kansas QSO Party

Start Date	Start Time	End Date	End Time	Contest Name/Link
8/31	1400Z	8/31	2000Z	Kansas QSO Party / **https://ksqsoparty.org**
8/30	1300Z	8/31	0400Z	Colorado QSO Party / **https://ppraa.org/coqp**
9/7	1800Z	9/8	0300Z	Tennessee QSO Party / **https://tnqp.org**
9/20	1400Z	9/21	0200Z	Texas QSO Party
9/21	1400Z	9/21	2000Z	Texas QSO Party / **https://www.txqp.net**
9/20	1400Z	9/21	0200Z	Iowa QSO Party / **http://www.w0yl.com/IAQP**
9/20	1400Z	9/21	0159Z	New Jersey QSO Party / **http://www.k2td-bcrc.org/njqp/**
9/20	1600Z	9/21	0400Z	New Hampshire QSO Party
9/21	1200Z	9/21	2200Z	New Hampshire QSO Party / **https://w1wqm.org/nh-qso-party/**
9/20	1600Z	9/21	0700Z	Washington St Salmon Run
9/21	1600Z	9/21	2400Z	Washington St Salmon Run / **http://salmonrun.wwdxc.org**
10/4	1600Z	10/5	2200Z	California QSO Party / **https://www.cqp.org/Rules.html**
10/11	1500Z	10/12	0500Z	Arizona QSO Party / **https://www.azqp.org**
10/11	1600Z	10/12	0400Z	Pennsylvania QSO Party
10/12	1300Z	10/12	2200Z	Pennsylvania QSO Party / **https://paqso.org**
10/11	1800Z	10/12	1800Z	South Dakota QSO Party / **https://pdarc.org/sd-qso-party**
0/11	0300Z	10/12	2100Z	Nevada QSO Party / **http://nvqso.com**
10/18	1400Z	10/19	0200Z	New York QSO Party / **https://nyqp.org/wordpress/**
10/19	1700Z	10/20	0100Z	Illinois QSO Party / **https://w9awe.org/ilqp/**

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Selected Contests — March/April 2025

Spring is coming, and bringing with it equinoctial propagation that can offer great DX opportunities, especially at the peak of the sunspot cycle. Contests improve the chances of someone being on the air at the other end of the propagation path! Here's a list of selected contests planned for this March and April. (**ARRL-sponsored contests in bold** / *NCJ-sponsored contests in italics*)

MARCH

1-2 ARRL International DX / Phone https://www.arrl.org/arrl-dx

*9 North American Sprint, RTTY **http://ncjweb.com/Sprint-Rules.pdf***

9 YOTA Contest **https://www.ham-yota.com/contest/**

15-16 Russian DX Contest **https://www.rdxc.org/rules_eng**

15-17 BARTG HF RTTY Contest **http://www.bartg.org.uk/**

16 UBA Spring Contest **https://www.uba.be/en/hf/contest-rules/spring-contest-dst**

23 North American SSB Sprint **https://ssbsprint.com/rules/**

29-30 CQWW WPX Contest, SSB **https://www.cqwpx.com/rules.htm**

APRIL

12 QRP ARCI Spring QSO Party **http://qrparci.org/contest/spring-qso-party**

12-13 JIDX CW Contest **http://www.jidx.org/jidxrule-e.html**

13 ARRL Rookie Roundup / SSB https://www.arrl.org/rookie-roundup

18-19 World Wide Holyland Contest **https://tools.iarc.org/wwhc/#/**

Sources: ARRL Contest Calendar, WA7BNM Contest Calendar, individual contest rules pages

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