ARRL 10 GHz and Up Contest 2024 Results

By Rus Healy, K2UA (k2ua@arrl.net)

Larry, K1CA; John, AA1I; Fred, K1FMS and John, K1OR, operate during the September weekend from one of their operating sites in Cummington, MA. From here, all four stations worked into Vermont on 10 and 24 GHz, and K1OR worked multiple stations in Vermont on 47 GHz and one on 78 GHz as well. *(K1FMS photo)*

Activity was *way* up, especially on 24 GHz, and conditions were generally good–making for a record-setting year in a number of ways for the 2024 ARRL 10 GHz and Up Contest!

Key Highlights

- The 10 GHz and Up category brought in 60 logs–an all-time high for the contest!
- Fred, K1FMS, led the charge to get eight new stations on 24 GHz in New England, leading to dozens of additional QSOs on that band for many operators. The number of 24 GHz logs submitted is up 27.3% over 2023.
- The 24 GHz QSO count across all logs submitted is up by 40.7%, eclipsing 900 in total. No other band came close to this kind of growth.
- Andy, KØSM/2, cracked the code on how to calculate optimal elevation for 24 GHz rain scatter and baked it into the code on https://rainscatter.com after learning and applying some lessons resulting in long rain scatter contacts during the contest. Also during the contest, his son, Toby, became his fourth licensed offspring!
- The W1, W2, and W6 call areas each produced at least 20 logs
- VA3TO's winning 10 GHz category effort produced a whopping 274 QSOs.
- VA3ELE's 10 GHz and Up winning score generated 325 QSOs.
- Canadian scores led both top-ten boxes and took the top three spots in the 10 GHz and Up category
- The sidebars explore these topics and more!

And One Lowlight

- Keen-eyed readers will note the absence of Dale, AF1T, and Mickie, W1MKY, from the top ten for the first time in a long time. Dale writes in his Soapbox,
  "Did well in August. Could not operate September 21 due to 8 inches of rain and 40 mi/h winds. Glad to get on September 22. We look forward to next year."
  You must love the die-hard spirit! Dale and Mickie have seen more than their share of bad weather on Martha's Vineyard in the last three or four years, from hurricanes to heavy rain–let's hope they can keep making the trip and enjoying the contest as long as possible!

Log Entries and QSOs by Band			
Band (GHz)	**Log Entries (Change from 2023)**		**Total QSOs (Change from 2023)**
10	156 (+12)		9,262 (+25)
24	56 (+12)		934 (+270)
47	33 (+5)		156 (+6)
76	10 (+2)		35 (+21)
122	14 (+0)		37 (+15)
134	0		0
241	0		0
300+	4		8 (-2)
Total	**273 (+34)**		**10,432 (+336)**

The home station trend we commented on last year continued in 2024. Kevin, VE3KH, broke the 75k score barrier from his home station, with 99 uniques –a remarkable achievement. Kevin and Wayne, N2WK, both continued their top-ten streaks in 2024 from their home stations. Furthermore, Kevin came within just about 300 points of winning the contest outright. From his *home station.* Let *that* sink in!

Log submissions for the event were up from 141 in 2023 to 156 in 2024 with entries climbing to 96 in the 10 GHz category, and to a record-breaking 60 in the 10 GHz and Up category. Great numbers! As good as 2024 was, especially the 10 GHz and Up category, the record for 10 GHz category entries is 110, set in 2019–much higher than we saw this year.

In 2019, the entry total was 144, so we're well above that now in total. Is it possible that many of the 10 GHz entrants have added a band (thanks, in part, to Wavelab builders enabled by KM5PO and K1FMS, for example), or do we need to encourage more people with rigs on the shelves of their garages and ham shacks to get them back on the air this year? What are your plans to mentor someone or help them resurrect that piece of broken gear, or help them fill in the one or two gaps they have toward a functional 10 GHz setup?

In 2024, it took almost 100 QSOs to make the top-ten QSOs box in the 10 GHz category, and exactly 200 to make the top ten QSOs box in the 10 GHz and Up category, which indicates good growth in activity across the bands. But 24 GHz was the real star as you'll see in the tables below and in the sidebar by Fred, K1FMS, "24 GHz Activity Gets a Big Boost in New England."

The number of unique calls worked in the contest has risen steadily as more operators have gotten on the air, and on more bands. Rule changes including increased points for bands above 10 GHz and longer operating hours may also have helped, and strategy is certainly a factor. For the first time, the 2024 contest saw not just one, but four operators break the 100 unique call barrier with 101-105 uniques each for N2MG (101), K8ZR (101), K2DH (104), and K2UA (105). Each of the ops in this group traveled from Western Ohio to New England across the course of the two weekends, which provided access to a lot of territory and therefore many operators. These four ops are on the bands from 10 through 122 GHz. A lot of factors go into working many unique calls in this contest, but those are two of the major ones. The numbers for all of these ops are up quite a bit this year; K8ZR previously held the contest record of 91 uniques, set last year. K2UA's 14-unique increase over that number this year is largely attributable to the number of newly active stations on 24 GHz in New England.

Distances and Activity

10 GHz Highlights

A group of six operators shared the 710-km top-DX mark this year, including VE3KH at his home station and a group of island hoppers including AF1T, W1MKY, W1GHZ, K1RZ, and K3WHC. Just behind them for best DX was Chip, N6CA, with a 698-km QSO, and John, K1OR, with a 693-km QSO. It took 682 km to make the top ten DX box this year–impressive but doable!

24 GHz Highlights

There's a lot to talk about here! The number of 24 GHz entries was up by 12 to 56, and the number of QSOs reported was up by an astounding 270 (!) to 934. To put that number into perspective, the number of 24 GHz QSOs in 2024 contest logs was more than 10% of the number of 10 GHz QSOs–a *huge* milestone–but the number of logs with 24 GHz contacts was more than a third of the number of logs with 10 GHz contacts! That's really outstanding. I don't think we've ever seen that kind of growth on a single band in one year's time on any microwave band. The Wavelab project that Fred, K1FMS, reports on, and that KM5PO really drove by making interface board kits available, has made a huge difference in activity–let's make sure the trend continues!

K6MG and KB6BA logged a solid 258.7 km QSO to top the DX box on 24 GHz. The West Coast ops really know how to take advantage of their locations and paths to make those long microwave Qs–congrats on leading a competitive field! Right behind them, KE2AIZ and KØSM/2 were at one end of a 248 km QSO with VA3ELE for the second-longest 24 GHz QSO of the contest. Maggie and Andy did this from a portable spot in FN12dq, using rain scatter, and you can read more about that in the sidebar "It's All About Family in FN12eu." It took a 187-km QSO to make the top ten DX box for 24 GHz this year, which is quite impressive indeed. All but one of the top ten DX QSOs were more than 200 km long.

Fred, K1FMS, added 24 GHz to his 10 GHz system for 2024. The top dish is for 24 GHz and netted Fred 25 QSOs on 24 GHz. Read more about his efforts to get more stations on 24 GHz in his sidebar. *(K1FMS photo)*

47 GHz Highlights

Although 47 GHz growth wasn't at the pace of 24 GHz, entries were up by 18% over 2023. That's solid progress! West Coast stations dominated the top ten DX box on 47 GHz, our only exclusive microwave allocation. K6MG and KB6BA completed a QSO on the same 258-km path as their 24 GHz best-DX box-topping QSO to lead the pack here as well–something we almost never see. Usually, the best DX leaders by band are different stations on different paths. Just behind them are W6QIW with a 181.6-km QSO and K6ML with a 173.7-km QSO. Stations in the East got in on the top ten action too, with VE2UG, VA3ELE, and VE3KH making the box, and K9PW in the Midwest. It took nearly 99 km on this band to make the top ten box. These are big improvements compared to just a few years ago.

76-78 GHz Highlights

Just 10 stations entered the contest on this band in 2024, but that's still up 25% from 2023. Tony, K8ZR, was at one end of a 57.3 km path with VE2UG, VA3ELE, and VE3SST on western Lake Erie in August–those four stations share the top DX QSO of the contest this year. John, K1OR, made a 43.9 km QSO for the next-best DX. There's still room for more entrants on this band–it's challenging to make QSOs sometimes even if you have great equipment, but it's worth being on the band.

122 GHz Highlights

Four stations completed over an 8.3 km path in W1 and six more completed 4.6 km QSOs across a bit of Western Lake Erie to lock up the top ten DX box this time out. Who will be the first to make some long DX contacts during the contest? (And who else can't wait for the dual-band 122/134 GHz gear that's forthcoming from our VK friends?)

Top Ten by Category

10 GHz	*Score*	*10 GHz and Up*	*Score*
VA3TO	63,507	VA3ELE	76,058
WBØLJC	50,395	VE3KH*	75,786
WA9TT	41,641	VE3SST	70,015
NØUK	39,760	K8ZR	63,278
KØHAC	34,736	K9PW	60,984
WA6CDR	33,897	K1RZ	60,954
KA9VVQ	32,285	K2UA	60,776
W9FZ	31,804	K2DH	60,587
N2WK*	30,752	W2FU	58,263
NØKP	27,376	N2MG	54,946

*Home station/fixed location

Hugh, VA3TO, easily won the 10 GHz category by a 90 QSO margin. Hugh also worked 61 unique stations on 10 GHz. WBØLJC retained a solid hold on the #2 spot with his 50k score for the second year in a row. WA9TT finished ahead of N0UK, last year's leader, by just under 2k, a slim margin. Solid representation by the Midwest and Great Lakes region in this year's 10 GHz box was interrupted by a single entry from Nevada, where WA6CDR put in a strong 33.9k effort to take the #6 spot. Husband-wife team KA9VVQ and W9FZ took the next two spots, followed by home-station op Wayne, N2WK, in Western New York, and finally NØKP.

In the 10 GHz and Up category, a tight race for the top spot, decided by just 272 points, went to last year's second-place entrant, Peter, VA3ELE. His 76k score took the top spot, and you can read more about his operation with teammates VA3TO, VE3SST, and VE2UG in his sidebar. Kevin, VE3KH, operated from his home station at the western end of Lake Ontario and took advantage of his knowledge of propagation, his operating skill, and his unique location to break 75k and nearly win the whole thing.

Third place went to Neil, VE3SST, who operated with VA3ELE and team and put up a very impressive 70k score. The fact that three Canadian scores have swept the top three in the 10 GHz and Up category–and the 10 GHz category winner is also a Canadian–is a unique and impressive achievement that hints at how focused these operators are, how devoted to the craft of microwave operating, and how serious they are about achieving high scores in the 10 GHz and Up Contest. Two other Great Lakes operators, K8ZR and K9PW, finished fourth and fifth, followed by other Northeast portable stations who share a common theme of covering a lot of ground in their portable operations over the two weekends. The race for fifth through eighth places was decided by a total of only 397 points, an incredibly slim margin for a two-weekend contest! We welcome W2FU and N2MG to the top ten, both first timers in this year's contest.

Top Ten Scores, QSO Totals and Unique Calls

10 GHz	*Score*	*QSOs*	*Unique Calls*	*10 GHz and Up*	*Score*	*QSOs*	*Unique Calls*
VA3TO	63,507	274	61	VA3ELE	76,058	325	91
WBØLJC	50,395	184	27	VE3KH*	75,786	276	99
WA9TT	41,641	153	33	VE3SST	70,015	300	87
NØUK	39,760	131	19	K8ZR	63,278	236	101
KØHAC	34,736	116	17	K9PW	60,984	245	68
WA6CDR	33,897	109	39	K1RZ	60,954	165	87
KA9VVQ	32,285	96	32	K2UA	60,776	228	105
W9FZ	31,804	95	32	K2DH	60,587	228	104
N2WK*	30,752	148	42	W2FU	58,263	227	77
NØKP	27,376	94	16	N2MG	54,946	210	101

*Home station/fixed location

As you can see, there's not necessarily a correlation between score order and unique calls worked, or even between score and most QSOs made. In the 10 GHz category, VA3TO did top the box across the entire row, but that's where it ended. The next line down, WBØLJC had the second-most QSOs (by a lot) but only the seventh-most unique calls in the top ten. So, for him, it was about distance points. You can draw similar conclusions as you read down the score column. In particular, note that KA9VVQ and W9FZ had fewer QSOs and unique calls than N2WK, but placed above him in the rankings–distance points make the difference.

In the 10 GHz and Up category, a similar pattern emerges. The top QSO count correlates to the top score, but that's where it ends. Below that, there's a strong pattern of larger unique call sign counts toward the bottom of the box. The interesting score that sticks out most is K1RZ's. Dave's QSO count is nearly 50 Qs below the next-lowest in the top ten, and his unique call count is the third lowest at 87. The difference in his score is that he operated one weekend from Block Island in FN41ee, where almost all his QSOs are longer than average, and therefore his QSO point total is unusually high. The other wildcard in the 10 GHz and Up category is the points structure of the higher-band QSOs. It tends to have a minimal effect on

the people who make the top ten, but it can change the order of the top ten, particularly the lower half of the box.

Top Ten Calls Worked, 10 GHz

Operator	*Unique Calls*
VA3TO	61
VE3DS*	45
N2WK*	42
W6DL	40
WA6CDR	39
N5BF	39
KB8U*	38
N2JMH*	38
N7DA	36
N6VHF	35

*Home station/fixed location

Remarkably, only three of the top ten for most unique calls worked made the top ten for the 10 GHz category. From that we can infer that distance points dominate the scoring over QSO points in this category.

Dana, VE3DS, operated from the home station of Peter, VA3ELE. It was Dana's second time on 10 GHz and his first time on in the contest–yet he worked the second-most unique calls of any station. Peter's station is located not far from VE3KH, just 28 km away, so location matters–this part of Ontario is located close to the Rochester, NY, area, and Ohio, and well within range of the Mid-Atlantic and New England regions, which puts it in an almost ideal location for 10 GHz activity. N2WK, similarly, put up the #3 top most unique calls on 10 GHz. Wayne is located 142 km east of VE3KH. N2JMH, who also made the box with 38 unique calls from his home station despite an equipment failure during the contest, is just 31 km southeast of N2WK. Regional activity really matters!

That said, this box shows more geographic diversity than the 10 GHz and Up category, with W6DL, WA6CDR, N5BF (all SoCal), KB8U (Michigan), N7DA (SoCal), and N6VHF (Arizona) also making the box. With the exception of the top spot, the other nine of the top ten are all within ten unique calls of each other–a really close competition. There's room for more competition, too!

Top Ten Calls Worked, 10 GHz and Up

Operator	*Unique Calls*
K2UA	105
K2DH	104
K8ZR	101
N2MG	101
VE3KH*	99
VA3ELE	91
VE3SST	87
K1RZ	87
AF1T	84
W1MKY	83

*Home station/fixed location

Eight of the top ten entrants made the unique calls worked box, though the listing order is quite different. Regular teammates K2DH, K2UA, N2MG, and K8ZR went on the road again, starting on Lake Erie in EN81 and ending in WNY in FN12 in August, and venturing back to New England and Central New York in September. Operating locations 831 km apart between the most distant points provided access to a lot of different stations on many bands, but nobody expected these numbers. We were glad to have the opportunity to break 100 for the first time. VE3KH came *this close* to breaking 100 as well, with 99! Truly remarkable. Dale, AF1T, and Mickie, W1MKY, just missed the top ten box but made the listing with 84 and 83 uniques, respectively–a fine total considering their distance from many ops on Martha's Vineyard–and especially the loss of an operating day in September due to receiving 8 inches of rain with high winds!

Mike, WB6DJI, Dylon, N6MX, and Tony, KC6QHP, operate from Rocket Ship Park in DM03. *(KC6QHP photo*

Regional Highlights

Here's a detailed analysis of the 10 GHz and 10 GHz and Up categories by call area:

Area 0

- 10 GHz: Strong showing with WBØLJC leading at 50,395, followed by NØUK (39,760), KØHAC (34,736), NØKP (27,376), and WØZQ (26,986).

Area 1

- 10 GHz: The area leaders are Don, W1FKF (10,056), and Lanette, KA1NKD (8,764). Don and Lanette are one of several married couples who are active in the 10 GHz and Up Contest.

- 10 GHz and Up: A highly competitive call area led by another husband-wife team, Dale, AF1T (45,067), and Mickie, W1MKY (43,044), followed by Paul, W1GHZ (34,261) (whose wife Beth, N1SAI, was also active and scored a Golden Log), John, K1OR (25,257), and Fred, K1FMS (19,364).

Area 2

- 10 GHz: Top-ten box entrant Wayne, N2WK, led the field with 30,752, followed by Jim, N2JMH (17,975), Ken, N2ZN (16,554), Dave, N2OA (14,641), and Chris, K2CS (13,604).

- 10 GHz and Up: An extremely close race between roving teammates Rus, K2UA (60,776) and Dave, K2DH (60,587), with Jeff, W2FU (58,263) and Mike, N2MG (54,946), not far behind.

Area 3

- 10 GHz: Chris, NG3W, leads with 17,560, with WG3K at 8,419.

- 10 GHz and Up: Dave, K1RZ, dominates the field with 60,954, followed by K3WHC at 26,504.

Areas 4-7

- Generally lower participation and scores, with notable exceptions:
- Area 6: Courtney, N5BF, leads with 20,368 in the 10 GHz category
- Area 7: Robin, WA6CDR, stands out with 33,897 in the 10 GHz category
- Alex, K6VHF, leads Call Area 7 on 10 GHz and Up with a solid 20,684

Area 8

- 10 GHz: Russell, KB8U, leads the pack with 23,491, significantly ahead of others.

- 10 GHz and Up: Top-five entrant, Tony, K8ZR dominates with 63,278, followed by Steve, KB8VAO (24,079), and K2YAZ (20,042).

Area 9

- 10 GHz: Highly competitive area with WA9TT (41,641), and husband-wife team of KA9VVQ (32,285), and W9FZ (31,804) rounding out the top three. All three made the top ten in the 10 GHz category.

- 10 GHz and Up: Top ten entrant, and last year's contest winner, Pete, K9PW, stands alone with 60,984.

Canada

- 10 GHz: Hugh, VA3TO, leads by a wide margin with 63,507, followed by Dana, VE3DS (24,207), and VE4SA (16,730).

- 10 GHz and Up: An extremely close race between Peter, VA3ELE (76,058), and Kevin, VE3KH, (75,786), with Neil, VE3SST, close behind at 70,015. These three also hold the top three spots in the top-ten box for the contest.

Key Insights

- The closest competitions were in call area 2 (10 GHz and Up) and Canada (10 GHz and Up). A lot of this has to do with the number of entries, which are in turn driven by the number of active 10 GHz and up operators in the Rochester-Toronto region.
- Canada showed particularly strong–even dominant–performance in both categories. This pattern emerged a few years ago but has reached a peak with the 2024 contest as activity in the region continues to increase and operators are more and more focused on improving their stations, helping more new ops get on the air, ensuring that all the available stations are in use, and honing their operating abilities.
- Call areas 4-7 showed generally lower participation and scores compared to other regions.
- The highest individual scores were in the 10 GHz and Up category, with Canadian stations leading overall.

Mike, N2MG, Dave, K2DH, and Tony, K8ZR, operate on 10-122 GHz from a hilltop in FN23 during the September weekend. *(K2UA photo)*

Log Checking

In the 2024 contest, 55.8% of logs (87 out of the 156 submitted) had score reductions of less than 3% due to logging errors–so we are losing ground in logging accuracy. Something to pay attention to in your own log! 52 logs (33.3%) had no score reduction at all–down 4% from 2023, but a little better than 2022. Congratulations to the error-free log group, listed below, on your Golden Logs! Score reduction breakdowns due to logging errors are shown below.

Logging accuracy dipped significantly in 2024. It's hard to see a reason for that by looking at the data, but a couple of observations are in order.

- It's not just newcomers who have opportunities for improvement. Several familiar calls, some who have been on 10 GHz for decades, have significant error rates with score reductions of >10%. I encourage everyone to go to contests.arrl.org, click on 10 GHz on the left, and then select LCRs on the left. Type your call and check your email for your log checking report. Read through it–study and understand why you lost points. Learn from it–in many cases it will yield an "A-ha!" moment.
- Look back through the log you submitted last year. See whether, with the lens of a few months of retrospect, you spot anything that you would have caught with a more careful review.
- Make some notes and put them on your pre-contest checklist for 2025. Make sure you do them before you submit your log this year.

Score Reductions Due to Logging Errors

Score Reduction	***Number of Logs (Percentage of Total), Change from 2023***
10+%	21 (13.5%), +5.5%
5-10%	25 (16%), +2%
3-5%	23 (14.7%), unchanged
0.2-3%	35 (22.4%), -3.6%
0% (Golden Log)	52 (33%)

Annual reminder: In this contest, nearly all logging errors *are avoidable.*

During the contest, take these steps:

1) Carefully copy what the other operator sends over the air. It's just their call and grid, and you probably know both of them already. Be careful to log them correctly!
2) We often see logging errors propagated across many QSOs when there's more than one operator at a portable location or when the first QSO with a station is logged incorrectly. This type of error nearly cost one station very dearly this year!
3) Be 100% sure to log *every QSO you make*. ***This is a bigger problem than you might think.*** If the other operator seems to be struggling, slow down when you move from band to band. Confirm whether the other op has logged you before you move on to the next band.

Then, follow these steps before you submit your log:

1) Check to be sure your log reflects the correct sent location for each of your operating locations.
2) Double check that you've transcribed your paper log to your computer correctly (calls and grids!).
3) Avoid propagating errors down your log (busted calls, for example, or bad grids).

Logs-checking reports (LCRs) are available from ARRL at this site:

https://contests.arrl.org/logcheckreports.php

Golden Logs

Listed in descending score order. ***Bold*** *indicates top-ten entrants*.

10 GHz

KA9VVQ, W9FZ, KB8U, VE3EG, NG3W, N6MI, K9JK, N6MX, W8RU, N3RG, VE3FN, WB5ZDP, KØAWU, K8DP, K8CLP, W3SZ, WB2RVX, W3TI, WQ5S, WF8Z, N6CA, K7MDL, N6ORJ, WA6BBQ, KM6RRV, WB2WGH, AF4JF, N2YTF, WB2VVV, VA7SC, AG6QV, KGØD, KK0U, W0AUS, AD5JK, KOØZ, KD7UO, W8BRY, N8KH

10 GHz and Up

AA5AM, AF1T, K3WHC, AA9IL, WA8VPD, AA1I, NN9X, K9TMS, KD9GGZ (Youth), WA1MBA, W5ZCA (Youth), K1RT, N1SAI, K9AGL

Congratulations especially to our top ten entrants, KA9VVQ and W9FZ, and to our Youth overlay entrants, KD9GGZ and W5ZCA, who submitted Golden Logs! That's a significant achievement!

The 2025 ARRL 10 GHz and Up Contest will be held on August 16 – 18 and September 20 – 22, 2025. We hope to see you there!
https://www.arrl.org/10-ghz-up

24 GHz Activity Gets a Big Boost in New England

By Fred Stefanik, K1FMS

A few years back, after participating in the ARRL 10 GHz and Up Contest for ten-plus years, I started to think about getting on 24 GHz. I hemmed and hawed about it because I couldn't justify spending the money it would take to get on the band and work just a few QSOs–maybe. But then, in 2022, along came commercial RX / TX converters that were originally used on 23 GHz links made by a company called Wavelab. These were available on the surplus market very inexpensively.

Thanks to work done by PAØMHE in designing interface boards for these modules, and by Jim, KM5PO, for making these board assemblies available at an affordable price, it was now possible to get on 24 GHz for a very reasonable cost for the electronics. John, K1OR, was twisting my arm to get on so he could have someone else / new to work on 24 GHz–so I bit the bullet and dove in.

I built up two module / interface systems in the spring of 2024 and decided to bring them to the New England VHF Conference in April to test them and to see what the performance was like on all the nice R&S test gear provided by Greg, WA1VUG. As it turns out, K1OR was also working on a couple of these systems.

When we tested them, all four of them performed nearly identically. They were all providing 24 dB RX gain with a 3 dB noise figure, +/-0.1 dB, and all produced just about 2 watts of output power. So not only were these affordable, but they worked well and showed consistent performance.

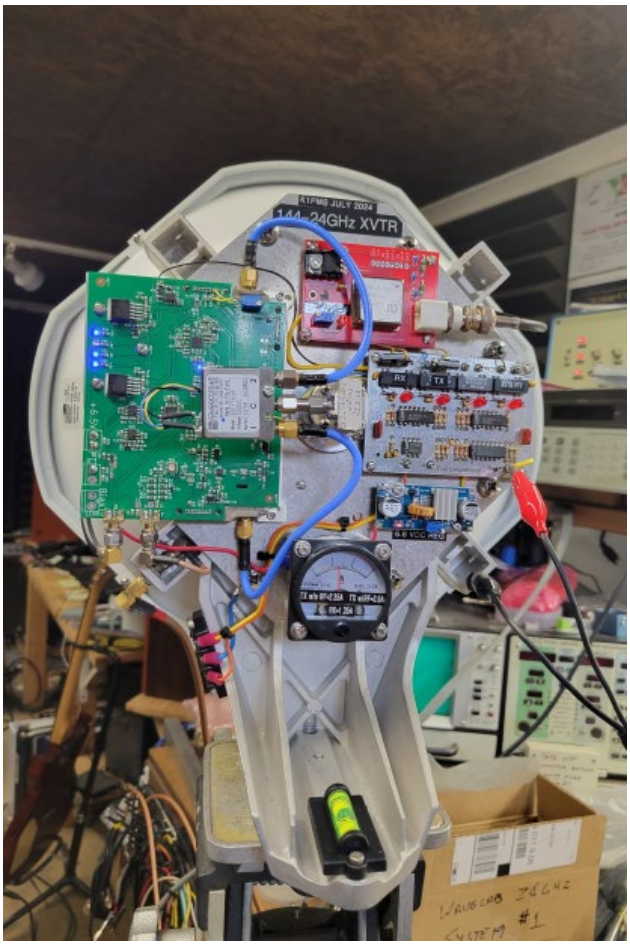
One of our “partners in crime” that we rove with in these contests, John, AA1I, wanted the second one I had so he could get on. Another one of us, Larry, K1CA, wanted one of John's extra ones. After I had built my system, I came across some more of the Wavelab modules from a ham source in Poland. So, I bought four more of them! Ordered four more boards from KM5PO.

Then I found and bought/scrounged more dish antennas, coax relays rated to 26 GHz, 10 MHz OCXO sources, and the other various bits to make up some systems. I decided that If I made “turn-key” systems that were affordable (just the sum of the cost of the parts) that were tested and working, people would be likely to jump at the opportunity to get on 24 GHz. They did!

Paul, W1VLF was just bitten by the 10 GHz bug, and he wanted one. The husband-and-wife team of Dave, K1ZZ and Linda, KA1ZD wanted one. Chris, KG6CIH and Ed, K1RT also got on the band. So, including me, that's eight more stations now on the air in New England on 24 GHz! That alone is about double what K1OR would typically work in previous years!

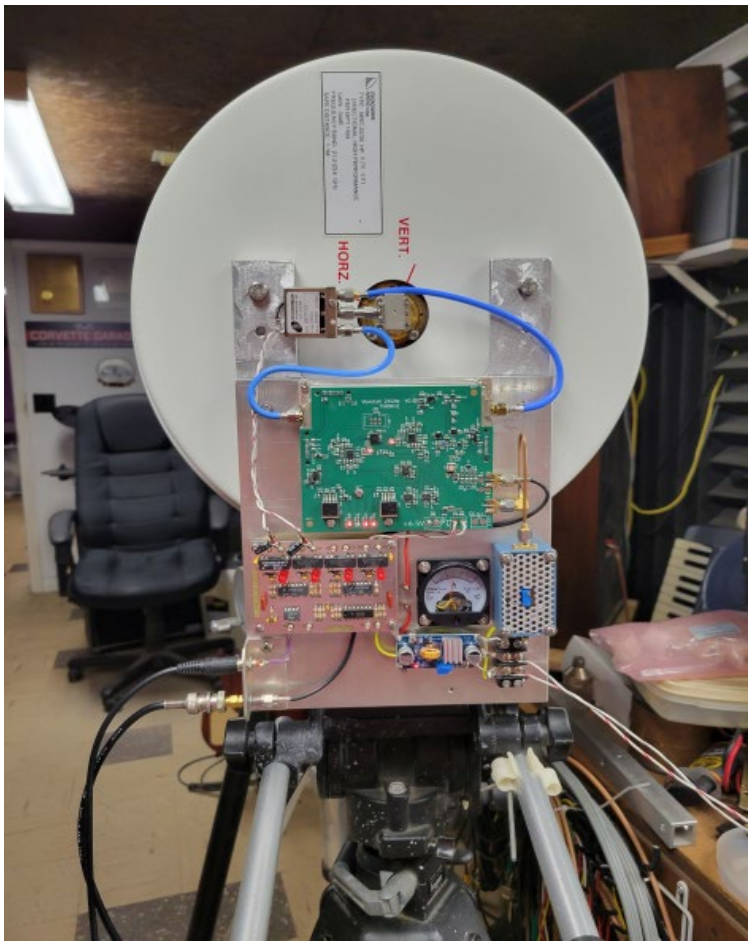
Unfortunately, Chris wasn't able to work anyone on 24 GHz during the August weekend, and he wasn't going to be around for the September weekend, so he graciously lent his new 24 GHz rig to George, KC1V, for the September weekend. I gave George some pointers on where to go to easily work a few of us, and other stations. He had enough fun that now he's building a rig of his own! So, with all of these rigs out there now, the activity has taken off here in New England.

To illustrate the activity increase, in 2022, K1OR made 8 QSOs on 24 GHz, and in 2024 he made 34 QSOs! For my first time out in the contest I wound up working a total of 25 QSOs. We hope that more people will take the same path and get on in New England and elsewhere as well!



K1FMS built this 24 GHz Wavelab rig for Linda, KA1ZD and Dave, K1ZZ. *(K1FMS photo)*


24 GHz Wavelab rig built for Ed, K1RT. *(K1FMS photo)*



K1FMS built this 24 GHz Wavelab rig for Chris, KG6CIH. *(K1FMS photo)*

It's All About Family in FN12eu

By Andy Flowers, KØSM/2

This is my favorite contest of the year, and there is always something that happens on the air that makes it memorable each time. There was a lot to choose from, but I think my favorite was witnessing the moment Mark, VA3HES, discovered the "magical FM repeater in the sky" (rain scatter) for the first time the Saturday of the September weekend while operating from his driveway in the suburbia of Toronto.

Our operation was mostly from FN12eu, our west-facing driveway, with a couple trips to FN12ev up the road to work stations to the east. As described below, we were forced by necessity to operate in some new places. I think we'll do more of that in the future as family logistics allow.

L-R: Maggie, KE2AIZ, Toby, KE2EDK, Alanna, KE2AIY, and Dora, KE2AJA. Equipment L-R: 20 W 10 GHz station, 3 W 10 GHz station, 47 GHz station, 76 GHz station (borrowed from KB8VAO for the contest). (24 GHz Wavelab system not pictured.) (*KØSM, photo)*

The theme was "rain." Sometimes too much of it, but on the whole the score went up quite a bit as a result of it.

Maggie, KE2AIZ (9), put in a significant effort and made use of her budding CW skills. She worked pretty much everything I did, but I got up earlier and my bedtime is later, and that is pretty much the

difference in the score. (I still think she beat my score from last year.) Microwaves are a pretty good place for a CW beginner, and it was great to see people QRS when needed. I got to be someone's first CW QSO during this contest!

There were a couple deer-in-the-headlights moments when Maggie got tail-ended, but she got through it! The vast majority of her Q's were on CW.

KE2AJA (Dora, 12) made some SSB Q's, and my wife Rebekah, KE2AMI, stopped outside to make a few Q's too. I got to hold the baby while she worked a 400 km Q with K2UA/K2DH/N2MG/K8ZR west of Cleveland on CW.

KE2AIY (Alanna, 15) worked some locals on SSB. At one point she was working someone as a storm front approached, when a gust front hit with a large amount of wind and rain, and we backed up 10 feet from the garage door. VE3DS tail-ended while the lights flickered. Alanna just finished the Q and we closed the door to let the storm pass.

On Saturday morning of the September weekend, my son Toby took (and passed) his Technician exam. Maggie and I turned this occasion into a DX-pedition and worked several stations from the edge of the Rochester Institute of Technology's U-shaped parking lot while the test was going on inside the building nearby (this is at FN13db). It's not a location you would ever pick on purpose, but we just let the many finely tuned 10 GHz stations out there do the heavy lifting. During a Q with VE3SST, the shuttle bus parked in the path, requiring a 15-foot QSY.

We then made a quick trip down the road to FN13eb, which is a real microwave location. We worked VE3KH on 24 GHz again off the rain pointing 20-30 degrees up, and then the rain arrived overhead, ending our stay there. Once the rain passed through, we stopped at FN12ev to double up some rover packs we had worked at FN13eb. By that time the rain developed into a decent thunderstorm about 30 miles east of us. We worked W2FU and WA2TMC on 24 GHz rain scatter at about 225 km. We then dodged some new rain and went down to FN12dr and worked them again on 10 and 24 GHz.

At FN12dq, we made our longest 24 GHz Q's to VA3ELE and VA3TO in EN94 at 249 km via the aforementioned rain that brought VA3HES great joy. Peter, VA3ELE, decided we should do it on 24 GHz FM just to prove that it could be done. We didn't get rained on out there, but we were pretty well surrounded by local scattered T-storms all Saturday afternoon, which made it tough to work the really long stuff on 10 GHz. Our best DX of the contest on 10 GHz was 667 km, and on 24 GHz, 249 km.

We're starting to figure out that the trick to 24 GHz rain scatter is elevating the antennas on both sides. I'm pretty excited about 24 GHz possibilities now with all the activity. Great fun! Since the contest, I've updated the rainscatter.com website to account for elevation needed to take advantage of these effects. See the small yellow "New!" button in the upper right corner of the page for details. For more deeper dive, visit the YouTube video of a presentation I did for the North Texas Microwave Society, New Opportunities in 24 GHz Rain Scatter, available for viewing here:
https://www.youtube.com/watch?v=D1hBdWxxVkY

North Shore ’24 Report

By Peter Prabucki, VA3ELE and Hugh Duff, VA3TO

Following our success of past 10 GHz and Up Contests, we started out on Saturday in August at the west end of Lake Erie beginning in grid EN82oa, then moved on to grids EN82sb and EN82ve. We only did those three stops and nothing roadside since we "wanted to take it easy this year."

On Sunday the weather radar was showing a lot of rain just ahead of us to the East so we did a stop in grid FN03dp at the Hurontario/HWY401 carpool lot in Mississauga to give it time to pass. We made a few contacts from there then continued East along Lake Ontario to grids FN03ou then FN03qv, plus a couple of quick stops on the way home. Those few stops netted 161 QSOs on 10, 24, 47 and 78 GHz. There were a few new calls in the log but we were missing a few from the regular suspects. Either way, we were happy campers as a group of four, consisting of René, VE2UG, Neil, VE3SST, Hugh, VA3TO, and Peter, VA3ELE.

EN82oa on Lake Erie during the August weekend. L-R Hugh, VA3TO, Peter, VA3ELE, and René, VE2UG. *(VE3SST photo)*

Due to various circumstances, we opted not to travel East to Quebec in September as we have in previous years, choosing instead to stay somewhat local as a group of three with VA3TO, VE3SST and VA3ELE. That decision, as it turned out, worked out well for us. Starting out on Saturday at 7 am we hit FN03au, EN93vw, EN94wb, EN94wf, and VA3ELE made one more stop on the way home in FN04bf. The Saturday stops were productive, although there was heavy fog the first 2.5 hours in FN03au. It seemed like we were drowning in a bowl of milk and we could barely see 100 meters in front of our dishes. The fog eventually lifted as the morning progressed then we moved on.

Conditions improved later in the morning and into the afternoon and we made many more contacts. Between FN03au and EN93wv we managed to make just shy of 20k points. However, activity in the later part of the day seemed to taper off and we only did two more out of the total six planned stops.

We started off Sunday again at 7 am, this time in grid FN03lt. We stayed there for a few hours then started driving North of the lake to grid FN04dp. Along the way Peter was looking in the rearview mirror at one point and said, “Wow, what a great view,” on the 2-meter radio. Neil responded, "Yeah, this is FN04oa, one of my regular sites," so we stopped to operate from there. That turned out to be a very good decision.

Moving on, we went to FN03vw and FN14ca back along Lake Ontario. These are a couple of our favorite operating sites that give a great view to many popular operating sites on the other side of Lake Ontario, back towards the Greater Toronto Area and even Lake Erie. We packed up at FN14ca then Hugh and Peter made one more quick stop at FN04xa and Neil stopped at FN03rw, where we worked each other and a few of the regular late-night suspects.

Great company = Great fun in the contest. Thank you everyone for all the fun and QSO's and we already can't wait till this year's contest!--*VA3ELE*

I originally intended on entering the 10 GHz and Up category, but I encountered some issues with my 24 and 47 GHz rigs and eventually stopped setting them up out of frustration. In the end I still had a top five score for the 10 GHz & Up category but chose to enter the 10 GHz Only category for a better opportunity to place higher.

Echoing Peter's closing remarks, I also had a lot of fun and a great time with the crew. This is the only contest that I participate in competitively and I love the opportunity to operate outdoors and take in the beauty of nature! I'm also looking forward to the 2025 contest.--*VA3TO*

Peter, VA3ELE and Hugh, VA3TO, lining up a 24 GHz QSO in FN03au during the September weekend. (VE3SST photo)

2024 ARRL 10 GHz and Up Contest - Call Area Leaders

Call Area 0			
10 GHz Only		**10 GHz and Up**	
WBØLJC	50,395	No Entries	
NØUK	39,760		
KØHAC	34,736		
NØKP	27,376		
WØZQ	26,986		

Call Area 1			
10 GHz Only		**10 GHz and Up**	
W1FKF	10,056	AF1T	45,067
KA1NKD	8,764	W1MKY	43,044
WZ1V	6,520	W1GHZ	34,261
K1MAP	4,454	K1OR	25,257
K1KG	3,829	K1FMS	19,364

Call Area 2			
10 GHz Only		**10 GHz and Up**	
N2WK	30,752	K2UA	60,776
N2JMH	17,975	K2DH	60,587
N2ZN	16,554	W2FU	58,263
N2OA	14,641	N2MG	54,946
K2CS	13,604	K0SM	46,044

Call Area 3			
10 GHz Only		**10 GHz and Up**	
NG3W	17,560	K1RZ	60,954
WG3K	8,419	K3WHC	26,504
W3SZ	5,412		
WA3GFZ	3,680		
N3FL	2,722		

Call Area 4			
10 GHz Only		**10 GHz and Up**	
W8BRY	389	N9ZL	15,258
N8KH	101	K9AGL	105

Call Area 5			
10 GHz Only		**10 GHz and Up**	
WB5ZDP	8,818	W5LUA	10,731
W5VY	6,368	KM5PO	9,755
WA5WCP	3,389	KI5EMN	8,017
N6CA	2,661	AA5AM	6,799
WQ5S	1,670	AA5C	4,981

Call Area 6			
10 GHz Only		**10 GHz and Up**	
N5BF	20,368	W6QIW	41,937
N7DA	17,235	K6MG	32,444
W6DL	16,356	K6ML	29,453
N6VHF	15,079	W6BY	20,516
AG6KG	8,134	KB6BA	19,578

Call Area 7			
10 GHz Only		**10 GHz and Up**	
WA6CDR	33,897	K6VHF	20,684
W7GLF	1,587		
K7MDL	1,189		
AG6QV	817		
KGØD	772		

Call Area 8			
10 GHz Only		**10 GHz and Up**	
KB8U	23,491	K8ZR	63,278
K8DP	5,993	KB8VAO	24,079
K8CLP	5,435	K2YAZ	20,042
VE3ADQ/W8	5,242	WB8TGY	19,532
W8RU	5,234	AA9IL	13,722

Call Area 9			
10 GHz Only		**10 GHz and Up**	
WA9TT	41,641	K9PW	60,984
KA9VVQ	32,285		
W9FZ	31,804		
KØKFC	26,964		
K9JK	24,201		

Canada			
10 GHz Only		**10 GHz and Up**	
VA3TO	63,507	VA3ELE	76,058
VE3DS	24,207	VE3KH	75,786
VE4SA	16,730	VE3SST	70,015
VE3EG	12,082	VE2UG	35,907
VE3FN	10,101	VE3SMA	34,713