Expanded Results of the 2025 ARRL 10 GHz and Up Contest

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Activity in the 2025 ARRL 10 GHz and Up Contest remained steady with a total of **156 entries**, matching the 2024 total. However, a significant shift in participation occurred as more operators moved into multi-band (10 GHz and Up) territory; the **10 GHz and Up category reached a new high of 65 logs**, an increase of 17 entries since the 2023 event–that's huge!

Entries were widely distributed across all regions, with a notably broader geographical spread than in previous years. Also a great trend! What all this indicates is that people are taking advantage of available 24 GHz+ equipment, and getting active *with their friends*, on more bands!

Highlights of 2025

Read on for more details about each of these highlights:

- **A Narrow Victory:** The margin of victory in the 10 GHz and Up category was razor thin at fewer than 500 points.
- **QSO Leader:** The highest QSO total in the contest was 350 contacts
- **The Century Club:** Four operators surpassed the 100 unique call sign barrier, with a new high of 107 uniques
- **Canadian Sweep:** Canadian operators took the top spots in both categories
- **Optical Record:** The best 300+ GHz DX was a 24-km optical contact

The 2025 soapbox comments on 3830scores.com provide a vivid look into the technical challenges, weather battles, and lighthearted moments that defined the contest. Many operators celebrated personal bests, whereas others faced unique obstacles ranging from uncooperative wildlife to "insect crud." Be sure to give the soapbox comments a thorough read for equal parts drama and humor! A few great stories stand out:

- N3MK reported a "spectacular" first-ever 10 GHz contact—a 488-km path over water to K3WHC while standing on a sand hill. He declared himself officially "hooked." (Mission accomplished!)
- The Next Frontier: After a thrilling aircraft scatter contact, Peter, WW2Y, mused about the future of the sport, asking, "What's next? Starlink satellite constellation scatter?"
- Technical Ingenuity: KØSM successfully "cobbled together" a 47 GHz station using an eBay tripler, a surplus mixer, and an SDR, noting that it worked "Way better than I would have

thought." This experience is reminiscent of what a number of people did to get on the band for the first time between 25 and 30 years ago, when these parts first hit the surplus market. Glad to see people still finding a way to get on these bands and not discarding the old ways for the new!

- Personal Milestones: K1RZ achieved a new personal high with 27 contacts on 24 GHz and humorously noted that he finally brought his "24 GHz cost" under $100 per QSO. *(Don't tell your wife that, Dave–she'll start asking you a lot of questions!--ed.)*
- First Contacts: Newcomers continued to join the fray, including Gary, W9XT, who made his first 10 GHz contacts using gear built by a silent key (WA9O). It's great to see that gear live on in an operator new to the bands!

And a few Lowlights

- "Biological Interference": NR2C discovered that "insect crud" had plugged up his 24 GHz waveguide, and his 10 GHz T/R relay failed for an entire Saturday before mysteriously starting to work again on Sunday.
- Weather and propagation Woes: Although August was productive for many, the September weekend was described as exhibiting"flat conditions." Pete, K9PW, noted that 24 GHz activity was down due to weather and high humidity on the lakes, and W8RU reported having to "ride the struggle bus" on the second weekend.
- Coordination gaps: Jeff, K1TEO, noted that coordination has become harder because the traditional 2-meter frequency (144.260) is no longer widely used, making it difficult for home stations to find rovers.

Humorous and Noteworthy Moments

- The Inquisitive Visitor: While operating at a mountain overlook, Dave, K1RZ, had a visit from a young deer that stood 10 feet from his tripod. He noted with some relief that, "No conversation was required, unlike so many other human visitors that came by that day."
- The Contest Concierge: Chris, NG3W, highlighted the social side of roving, noting it can be time-consuming giving directions to tourists, helping with group photos, and even *diagnosing engine problems* for people at the vistas. Talk about going above and beyond the call of duty!
- Wildlife alarms: NG3W, who camps in local forests during the contest, was kept awake "all night long" by local wildlife, leading him to wonder if he should have brought bear spray. Or perhaps ear plugs.

And now, on with the show.

Distances and Activity

Activity remained robust across all bands in 2025, with several new DX benchmarks established and a continued surge in multi-band entries.

10 GHz Highlights

The 10 GHz band remains the heart of the contest, with all 156 logs reporting activity. The West Coast provided the most significant DX paths this year. KB6BA, K6VHF, and NJ6D shared the top spot for best DX with a path of **863 km**. Close behind were Chris, N0UK, and Gedas, W8BYA, who completed an **848-km** contact.

Activity was widely distributed geographically, with the Toronto-area group led by VA3ELE and VA3TO once again showing dominant QSO volumes, including VA3ELE's winning 10 GHz Only total of 255 QSOs.

24 GHz Highlights

Activity on 24 GHz continued to grow, with the number of **entries rising to 65**, an increase of nine logs over 2024. The best DX of the contest was a tie between W1GHZ, K1RZ, and W1FKF, who logged contacts at **247 km**. K6ML followed oh-so-closely with a **246-km path**. The Toronto-area and North Texas regions also showed high levels of activity, with W5LUA, KI5EMN, and KM5PO all completing **242-km** paths. That's pretty amazing–seven stations all north of 242 km on 24 GHz–once quite a rare occurrence, now becoming more common thanks to KM5PO's particular efforts to get the surplus transverter boards on the air in as many hands as possible!

47 GHz Highlights

Participation on 47 GHz remained steady, with 34 stations reporting contacts on this Amateur-exclusive microwave allocation. West Coast stations once again dominated the DX rankings; K6ML and W6QIW shared the best DX title with a **174-km** path, followed by W6BY at 171 km. In the East, the western Lake Ontario-based Kevin, VE3KH, reached a significant 116 km, while the group including K2DH, K2UA, K8ZR, and N2MG logged a set of 105-km contacts from Mt Greylock to Mt Wachusett, both in Massachusetts.

78 GHz Highlights

Participation on 78 GHz saw a slight uptick, with 11 stations submitting logs. The roving group of K2DH, K2UA, K8ZR, and WA1MBA achieved the best DX of the contest with an **86-km** path from Hogback Mountain, Vermont, to Mount Wachusett, Mass. Hugh, VA3TO, also recorded significant distance on the band with a **71-km** contact with the same group in the first weekend, across Lake Erie. The August contacts were thrilling, since they were the first time that group had crossed Lake Erie on 78 GHz and it was especially hot and humid–not the conditions you'd think of for a successful DX contact on that band! Although the equipment for this band remains challenging, the steady participation indicates that

a dedicated and growing core of enthusiasts continues to seek new opportunities for DX on this exciting band!

122 GHz and 300+ GHz Highlights

Activity on 122 GHz was represented by 12 logs. AF1T and W1MKY shared the top DX distance at 9 km, followed by KB8U and WB8TGY at 7 km.

The 300+ GHz (optical) category saw a new benchmark. K1FMS and K1UU achieved the best DX of the contest with a **24-km** contact, a significant distance for optical communication. AF1T and W1MKY followed with a contact over a **9-km** path. Be sure to read the great sidebar by Fred, K1FMS, where he details the rigs and how they evolved toward this fantastic 24-km QSO!

Log Entries by Band

Band (GHz)	2025 Logs	Change from 2024
10	156	0
24	65	9
47	34	1
78	11	1
122	12	-2
134	0	0
241	0	0
300+	4	0

The number of logs grew most on 24 GHz in 2025, likely based on the continued deployment of Wavelab systems, as described in last year's writeup. This band saw an increase in 54 QSOs over last year as well, for an average of 15 QSOs per log. Compared to 10 GHz, where the average log included 60 QSOs, this is a significant number and shows the strength of 24 GHz and its potential for the future in this contest.

QSOs Logged by Band

Band (GHz)	2025 Total QSOs	Change from 2024	Change
10	9412	**150**	1.6%
24	988	**54**	5.8%
47	182	**26**	16.7%

78	42	**7**	20%
122	28	-9	24.3%
134	0	0	0%
241	0	0	0%
300+	10	**2**	25%
Total	**10,662**	**230**	2.2%

Note: Increases are shown in **bold.** Nearly every band showed growth, with the largest share of absolute growth coming from 10 and 24 GHz, and the 47 and 78 GHz showing large shares by percentage. 300+ GHz (optical) grew by two QSOs, which is a large percentage and although not meaningful in QSO count, the QSOs themselves were another story! Read on to learn more about that.

A Category Swap Among Winners

The 2025 contest results showed a significant reshuffling of the top ten leaderboards, starting with a direct category swap between the previous year's winners, and followed by a marked increase in QSO volume among 10 GHz and Up operators.

Hugh, VA3TO, the 2024 winner of the 10 GHz category, moved to the 10 GHz and Up category in 2025 and took the top spot with a very solid score of 74,871. Hugh logged 325 QSOs, second most in the category and only one of two entrants to break 300 Qs, and 73 unique calls. With 73 uniques, Hugh was eighth in the category for uniques, but his QSO count showed his scoring strategy was clearly distance point-driven. At the same time, one of Hugh's roving partners, Peter, VA3ELE, the 2024 10 GHz and Up category winner, moved to the 10 GHz category in 2025 and won it with a score of 59,063. Peter made 255 QSOs, by far the most in the category, and logged 45 unique calls, second-most in the category (to John, K9JK, who took top honors among 10 GHz entrants with 46).

Participation in the 10 GHz and Up category deepened significantly, with the threshold for making the top ten reaching 57k. Pete, K9PW, put on a great show in 2025 with his second-place score, jumping from fifth place to second, with a whopping *105 more QSOs* and a 17k score increase over the previous year. 350 QSOs, the most in the contest in any category *by a lot*, coupled with 77 uniques, put him within 477 points of category winner VA3TO. That's a tiny margin at this scoring level! Strong work, Pete!

Tony, K8ZR, scored 10k more points than 2024 and moved up from fourth place to third, finishing only 800 points behind Pete with 73,555 points on the strength of 103 uniques and 291 QSOs. Tony's secret is a wide west-to-east range between the August and September weekends, and QSOs on all bands from 10-122 GHz. Tony has a very effective 78 GHz station as well, which he used to work across Lake Erie and to make QSOs that others could only stand by and watch. It pays to sweat the details!

In the 10 GHz category, most entrants “in the box” made well over 100 QSOs. Gedas, W8BYA, was the outlier with 81, but his Indiana location with flat terrain gave him a greater average distance per QSO than most. His total distance points drove his 37k, fourth-place score. He’s also one of three home stations to make the top-ten score boxes, which is always an impressive feat.

“The Century Club” continued their trend as well. The group of operators breaking the 100-unique-call barrier remained consistent, as K2DH, K2UA, K8ZR, and N2MG all hit that mark. Dave, K2DH, achieved the highest unique count of 107, an improvement over the 2024 high water mark of 105 uniques.

Top Ten Scores with QSOs and Unique Calls

10 GHz	Score	QSOs	Unique Calls	10 GHz and Up	Score	QSOs	Unique Calls
VA3ELE	59,063	255	45	VA3TO	74,871	325	73
WB0LJC	52,670	178	28	K9PW	74,394	350	77
WA9TT	40,606	161	32	K8ZR	73,555	291	103
W8BYA*	37,261	81	41	K1RZ	70,702	203	90
K9JK	37,074	154	46	W6QIW	65,699	240	53
VE2UG	29,439	103	40	K2DH	63,869	262	107
VE3EG	29,285	126	44	VE3KH*	63,443	252	81
K6NKC	29,154	126	45	K2UA	63,439	261	106
N0UK	28,930	130	16	N2MG	58,736	248	100
N2WK*	28,039	123	43	K6ML	57,080	203	49

*Home stations

10 GHz Category Trends

While the multi-band category saw growth, the 10 GHz Only category was defined by stability in the rankings but a general decrease in scores and unique calls.

Consistency at the Top

WB0LJC retained his hold on second place for the third consecutive year, slightly increasing his score from 50,395 to 52,670. Larry, WA9TT, held his position at third place as well. His score dipped slightly from 41,641 to 40,606. Wayne, N2WK, operating his home station, remained in the top ten, moving down one notch from ninth place to tenth place.

Decreased Unique Totals

The number of unique calls for top 10 GHz finishers was lower in 2025. In 2024, winner VA3TO logged 61 uniques; in 2025, top-unique getter K9JK logged uniques. WB0LJC remained remarkably consistent, logging 27 uniques in 2024 and 28 in 2025.

And finally, welcome to the new entrants: The 2025 top ten saw the entry of Gedas, W8BYA, John, K9JK, René, VE2UG, and Keith, VE3EG.

Primary Activity Hubs

Although the total number of entries in the 2025 ARRL 10 GHz and Up Contest remained steady at 156 logs, the same total as in 2024, the contest saw a much wider geographical distribution of participation. As is usually the case, the W1 (New England), W2 (Mid-Atlantic), and W6 (California) call areas remained the primary centers of activity, each producing at least 20 logs.

- W1 led the contest with 26 logs
- W2 and W6 followed with 20 logs each

However, the middle tier of log submissions expanded. This is great news for all those considering getting on 10 GHz and up–more stations to work! 2025 saw six additional regions contribute more than 10 entries each:

- VE (Canada): 19 logs
- W8 (Michigan/Ohio): 16 logs
- W0 (Midwest): 12 logs
- W5 (South Central): 12 logs
- W9 (Midwest): 12 logs
- W3 (Mid-Atlantic/Pennsylvania): 10 logs

This broader distribution indicates that although the total volume of participants did not change, the activity was less centralized in the three major hubs than in 2024.

Areas of Low Participation

Despite the overall wider geographic distribution, some gaps persisted in 2025. Participation remained notably lower in the following areas:

- W4 (Southeast): 4 logs
- W7 (Northwest/Arizona): 5 logs
- XE (Mexico): 1 log

Best DX by Band

Band (GHz)	Callsign(s)	Distance (km)
10	KB6BA, K6VHF, NJ6D	863
24	W1GHZ, K1RZ, W1FKF	247
47	K6ML, W6QIW	174
78	K2DH, K2UA, K8ZR, WA1MBA	86
122	AF1T, W1MKY	9
300+	K1FMS, K1UU	24

Some serious DX achievements took place across the spectrum, with notable entries at both ends by the 6-land crew with 863 km on 10 GHz, and the optical contingent with a remarkable 24 km contact. In between, a 247 km contact on 24 GHz between W1GHZ and K1RZ on Block Island (FN41ee) showed some good tropo to W1FKF the first weekend. K6ML and W6QIW took advantage of their remarkably good terrain and equipment to make a great 174-km contact on 47 GHz. And on Saturday morning on the September weekend, K2DH, K2UA, and K8ZR gathered on a mountaintop in Vermont to work WA1MBA in Massachusetts at 86 km, repeating their previous best for this contest over the same path.

Side note: A more remarkable, but shorter, set of contacts took place on 78 GHz the first weekend across Lake Erie, when K2DH, K2UA, and K8ZR worked VA3ELE, VA3TO, and VE2UG across Lake Erie at 71 km between EN81uk and EN82sb on a searing-hot summer afternoon–not what you'd think would be ideal tropo conditions, but it yielded a first for this group of very happy operators!

Mike, N2MG, Rus, K2UA, and Dave, K2DH, set up along the western shore of Lake Erie at EN81pm on Saturday morning of the August weekend. *(K8ZR photo)*

Participation and Activity Trends

Comparing 2025 to 2024, we see the continued migration of 10 GHz Only operators into the multi-band category.

Activity in **New England (Call Area 1)** was a primary driver for the record-breaking participation in the multi-band category, helping the **10 GHz and Up category reach an all-time high of 65 logs** in 2025.

The following details from the sources explain how New England influenced these totals:

Category Growth

New England remained one of the most active regions in the contest, being one of only three call areas (alongside W2 and W6) to produce **at least 20 logs** in 2025. This high density of operators directly

supported the growth of the 10 GHz and Up, which has seen an increase of **17 entries since 2023** as more stations migrate from 10 GHz Only into multi-band operations. As you climb through the bands, remember to bring a friend!

Activity Influence on Unique Call Sign Totals

The concentration of active stations in New England is vital for roving teams pushing to maximize their activity and unique calls. In 2025, four operators—**K2DH, K2UA, K8ZR, and N2MG**—all broke the **100 unique call sign barrier**. The sources note that this "Century Club" performance is largely due to these operators traveling into regions like New England, where the high volume of active stations allows them to find and log a significant number of different participants. See the sidebar by Tony, K8ZR, on the approach they take to get there.

Importance of the Upper Frequency Bands

New England operators were essential contributors to the totals on the highest bands. Optical bands, in particular, appear to be the next frontier in activity as stations push forward to more bands and longer QSOs on the uppermost bands!

- **122 GHz and 300+ GHz:** Stations such as **AF1T, W1MKY, and K1FMS** provided a substantial portion of the logs for these bands. A secondary, smaller peak occurred on the Lake Erie shore with activity from K8ZR, K2DH, K2UA, N2MG, and WB8TGY.
- **Optical Record:** New England operators **K1FMS and K1UU** achieved the contest's best DX for the 300+ GHz category with a **24-km contact**. See K1FMS's sidebar about the equipment and activity.
- **122 GHz DX: AF1T and W1MKY** shared the top DX distance of **9 km** for the 122 GHz band.

Without the concentrated activity and technical initiatives originating in the W1 call area, the 10 GHz and Up category would likely have seen lower overall QSO totals, but the distances involved likely mean that the number of unique calls available would have remained about the same.

The 2025 ARRL 10 GHz and Up Contest also saw strong performance and record-setting distances from operators in both the Midwest and the West Coast. Although the Toronto-area operators dominated the top spots, these regions contributed significant scoring volume and impressive DX paths. The unique climate and mountaintop-to-mountaintop paths of the West Coast provide for regular long-distance QSO opportunities with contacts that always make the top-DX boxes.

Midwest Regional Highlights

The Midwest (Call Areas 0, 8, and 9) featured several top-tier performers and shared one of the longest 10 GHz paths of the contest.

- **Near-Victory in 10 GHz and Up: Pete, K9PW (Area 9)**, nearly took the overall title in the 10 GHz and Up category, finishing in second place with **74,394 points**, trailing the winner by less than 500 points. Pete achieved the **highest overall QSO count** for the entire contest with **350 contacts**.
- **10 GHz Only Leaders: WB0LJC (Area 0)** secured second place overall in the 10 GHz Only category with **52,670 points**, winning the Midwest region by a significant margin. Other notable regional leaders include **WA9TT (Area 9)** and **K9JK (Area 8)**, both of whom finished in the top five overall for 10 GHz Only.
- **Long-Distance DX:** The Midwest was home to one end of a massive **848-km path** on 10 GHz, shared by **N0UK (Minnesota)** and **W8BYA (Indiana)**.
- **Century Club Achievement: Tony, K8ZR (Area 8)**, was one of only four operators to break the **100 unique call sign barrier**, logging 103 uniques and taking third place (up from fourth place a year earlier) in the 10 GHz and Up category.

West Coast Regional Highlights

The West Coast (Call Areas 6 and 7) maintained its reputation for leveraging specialized paths to dominate the distance-based "Best DX" categories.

- **10 GHz DX Record:** The West Coast swept the top spots for distance on 10 GHz. A three-way tie for the **best DX of the contest (863 km)** was shared by **KB6BA, K6VHF, and NJ6D**.
- **47 GHz Dominance:** Operators in Area 6 led the way on the 47 GHz band. **K6ML and W6QIW** shared the best DX title with a superb **174-km DX shot**, followed closely by **W6BY at 171 km**.
- **Category Leaders:**
    - **W6QIW (Area 6)** led the West Coast in the 10 GHz and Up category, finishing 5th overall with **65,699 points**.
    - **K6NKC (Area 6)** was the top 10 GHz Only operator for the region, placing 8th overall with **29,154 points**.
    - **N6RMJ (Area 7)** dominated the Northwest/Arizona region in the 10 GHz and Up category with **31,904 points**.
- **High Participation:** The W6 call area was one of only three regions (along with W1 and W2) to produce **more than 20 entries**, highlighting the density of microwave activity in California.

Top 24 GHz Top Performers in Toronto

In the 2025 contest, the Greater Toronto Area was a major center for high-level activity, producing the overall winners for both the 10 GHz and 10 GHz and Up categories.

The following details from the 2025 sources highlight 24 GHz activity specifically within this region.

The Toronto-area operators in the 10 GHz and Up category were among the most active on the 24 GHz band:

- The overall 10 GHz and Up category winner for 2025, Hugh, VA3TO, logged 39 QSOs on 24 GHz, contributing 6,706 points to his winning score. His best distance on the band was 143.79 km.
- Kevin, VE3KH, tied for the highest number of 24 GHz contacts in the region with 39 QSOs, totaling 6,180 points for the band. Kevin achieved the best 24 GHz DX for the Toronto area with a path of 182 km.
- Steve, VE3SMA, contributed significantly to the regional totals with 25 QSOs on 24 GHz, earning 3,320 points and reaching a best DX of 142 km.
- Neil, VE3SST, logged 10 QSOs on 24 GHz, adding 2,090 points to his total.

Regional Impact on the Contest

The activity in the Greater Toronto Area was a defining factor of the 2025 results in two ways.

High QSO Density: The high volume of 24 GHz contacts from operators like VA3TO and VE3KH helped drive the overall QSO totals for the multiband category, which reached 988 QSOs contest-wide.

Scoring Volume: VA3TO's 24 GHz performance was critical in his narrow victory—he won the category by less than 500 points.

Call Area Leaders

10 GHz

- **Area 0:** WB0LJC (52,670)
- **Area 1:** WG3K (19,873)
- **Area 2:** N2WK (28,039)
- **Area 3:** WA3DRC (6,701)
- **Area 4:** W3IP (5,364)
- **Area 5:** W5VY (15,369)
- **Area 6:** K6NKC (29,154)
- **Area 7:** NJ6D (20,200)
- **Area 8:** K9JK (37,074)
- **Area 9:** WA9TT (40,606)
- **VE:** VA3ELE (59,063)
- **XE:** XE2TT (711)

10 GHz and Up

- **Area 1:** AF1T (54,224)
- **Area 2:** K2DH (63,869)
- **Area 3:** K1RZ (70,702)
- **Area 4:** N9ZL (11,809)

- **Area 5:** W5LUA (21,009)
- **Area 6:** W6QIW (65,699)
- **Area 7:** N6RMJ (31,904)
- **Area 8:** K8ZR (73,555)
- **Area 9:** K9PW (74,394)
- **VE:** VA3TO (74,871)

Golden Logs

Congratulations to the following stations who submitted error-free logs with a **0% score reduction** in 2025. Category leaders are listed in **bold**.

10 GHz

N5BF, N2ZN, N3RG, WB5ZDP, KA9VVQ, W9FZ, KB1QV, N2YTF, WF0T, N2OA, AD5JK, AJ9L, N6CA, N3MK, WB2VVV, WA6BBQ, AF4JF, W3HMS, KK0U, W5ZCA, NJ7A, NV4B, **XE2TT**, VE7HR, KC3FQF.

10 GHz and Up

KI5EMN, KM5PO, KE2AIZ, W6BY, **N9ZL**, K8DP, K8CLP, AA9IL, K1ZZ, KA1ZD, VA3ECO, VE3HPC.

Log Checking and Accuracy Trends

The winners for each category had excellent, sub-1% score reductions:

- **10 GHz Category Winner:** Peter, VA3ELE, who finished with a score of 59,063 and a score reduction of just 0.8%.
- **10 GHz and Up Category Winner:** Hugh, VA3TO, who finished with a score of 74,871 and a score reduction of just 0.5%. Excellent attention to detail!

Several top-performing stations achieved Golden Logs, including **N9ZL** (Call Area 4 leader, 10 GHz and Up), and **XE2TT**: The sole entrant and leader for Mexico in the 10 GHz category.

Other call area leaders, such as Wayne, **N2WK** (Call Area 2, 10 GHz Only) and Dave, **K1RZ** (Call Area 3, 10 GHz and Up), came very close to Golden Logs as well, with score reductions of less than **0.5%**. Super job, all!

Logging accuracy in 2025 showed marked improvement over the previous year, reversing the trend seen in 2024 when accuracy appeared to be losing ground. Although the total number of entries remained

identical at **156 logs**, there was a significant migration of logs from higher error brackets into the lower-reduction categories. Great work!

The most impressive shift occurred in the 0.2–3% bracket, which saw an increase of 20 logs compared to 2024, now representing over 35% of all entries. Meanwhile, the number of Golden Logs remained consistent, with 52 operators submitting error-free logs for the second year in a row. The higher-error categories (5% reduction and above) both saw decreases, suggesting that operators are becoming more diligent in verifying exchanges and grids before submission. As in previous years, hams are encouraged to review their Log Checking Reports (LCRs) on the ARRL website to identify and learn from specific errors.

Score Reductions Due to Logging Errors

Score Reduction	Number of Logs (Percentage of Total), Change from 2024
10+%	19 (12.2%), -1.3%
5–10%	21 (13.5%), -2.5%
3–5%	9 (5.8%), -8.9%
0.2–3%	55 (35.3%), +12.9%
0% (Golden Log)	52 (33.3%), unchanged

Annual accuracy reminder: Nearly all logging errors in this contest **are avoidable**. To maintain this positive trend into 2026, remember to carefully copy what the other operator sends over the air—specifically their call and grid—and double-check that your log correctly reflects your sent location for every portable stop. Confirming that the other operator has successfully logged you before moving to the next band can prevent "missing" QSOs that lead to score reductions for your partners.

We'll see you all on the third weekend in August and the third weekend in September! Don't forget to check contests.arrl.org for specifics including dates, times, and rules!

–73, Rus, K2UA

[Sidebar 1]

Membership in the informally-named “Century Club” as it pertains to the 10 GHz and Above Contest requires participants to work at least 100 unique callsigns during the course of the two contest weekends. K2DH (107 uniques), K2UA (106), K8ZR (103) and N2MG (100) achieved this goal in 2025. To accomplish this objective is no easy task. It requires maximizing operating time during the contest, operating from two diverse, active regions over the course of the two weekends, and operating on as many bands as possible.

Maximizing operating time simply means starting as early as possible while moving throughout the course of the day and operating until past dark until no other stations are QRV. Then rinse and repeat for day two of the weekend. The key to working at least 100 unique callsigns is the number of bands activated during both contest weekends. This group activated 10, 24, 47, 78 and 122 GHz. The intrepid roving squad spent the first weekend on the south shore of Lake Erie, while traveling to New England for the second weekend. Each region resulted in approximately 50 unique callsigns adding at least 10,000 points to our scores. Operating time X the number of bands X regions = Success.

Are you ready for 2026?--*73, Tony, K8ZR*

[end of sidebar 1]

[Sidebar 2]

24 km on a Beam of Light: A technical look at the 24 km 940 nm IR contact between K1FMS and K1UU

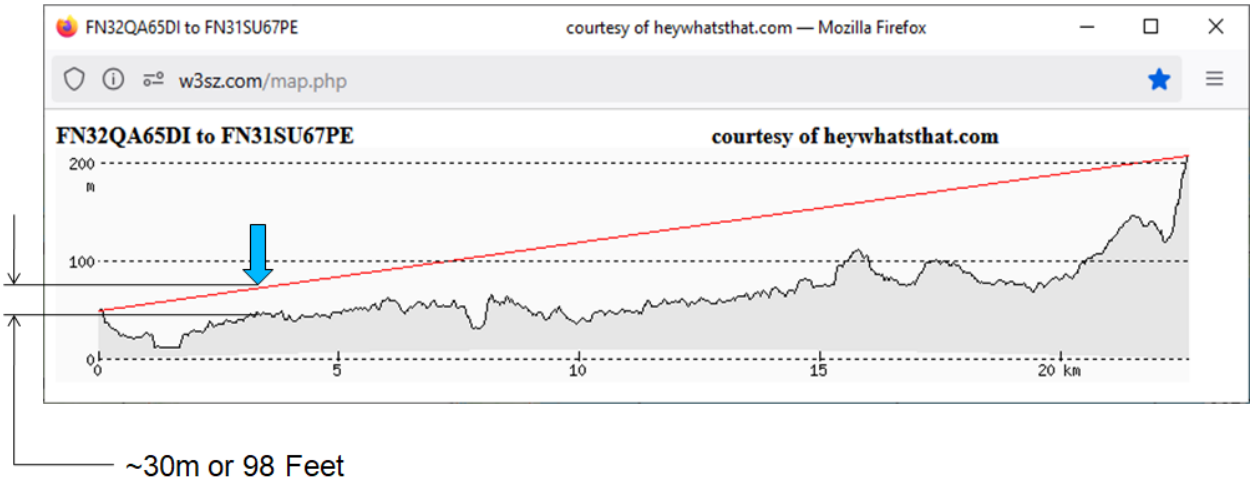
Blame it on Paul, W1VLF! Well, that was how this all started. My old friend Paul, W1VLF, and me. Paul has been putting out YouTube videos on various subjects that interest him. I found him there, and one day about a year ago saw his video called “2 Mile Optical Path with one LED.” After watching this I thought, *this is really cool!* I started talking to Paul about this and also involved John, K1OR, in on these conversations. Paul is not a microwave contester, although he’s recently put up a 10 and 24 GHz flyswatter system at his home QTH, and has worked some very nice QSOs with it. John and I immediately thought, “What an easy way to add another band.” Paul looked at us as, “Hey, now I have someone to experiment with me on this stuff.”

Through the winter of 2024-2025, K1OR and I built some rigs, almost constant consultation with Paul. In March of 2025 I had built two rigs using the 5-inch Delta 2 surplus projection TV lens as the “antenna” and I went QRO (at the time) with an array of 24 LEDs. I figured If Paul could easily hear one LED over 1 km, 24 should be considered “high power.” I arrived at 24 LEDs

through a complex scientific calculation: The vendor selling the LEDs had a price break at 50 pieces. I needed one LED for a weak signal source, and you always need a spare, so that left 48 divided by 2 or 24 LEDs per rig.

For the receive end, René, VE2UG, had been playing with some of this gear also, and had a PC board layout using an OPT101 detector / trans-impedance amplifier along with an LM386 audio amplifier all nicely put together on a simple PC board layout. So I obtained the Gerber files and ordered some boards and parts. This configuration started and easily worked 1 km and then 3 km on some test runs in early April 2025 between my two rigs with W1VLF on one end and me on the other. We then set out to stretch out the QSO distance and spent countless hours looking for possible paths. We used two very useful web sites for scouting sites online: k7fry.com/grid, and the w3sz.com microwave planning site, for looking at paths. Ten-digit grid squares are essential to get proper path profiles.

The next jump was to a 24 km path between FN32QA65DI, Hilltop Farm in Suffield, CT, and FN31SU67PE, Fox Hill Monument in Rockville, CT. Here's a path profile between these two sites:



It's important to make sure there is 75+ feet of clearance along the path as what is displayed on the path profile is ground level and we all know there are obstructions such as houses, trees, water towers, etc, along the path that you need to clear. Optical paths need to be completely unobstructed. This basic path took us three tries to make in testing for various reasons, but mostly because we were blocked and didn't know it. Once we got to places on either end that could see the other end, it just worked. Signals were very weak though.

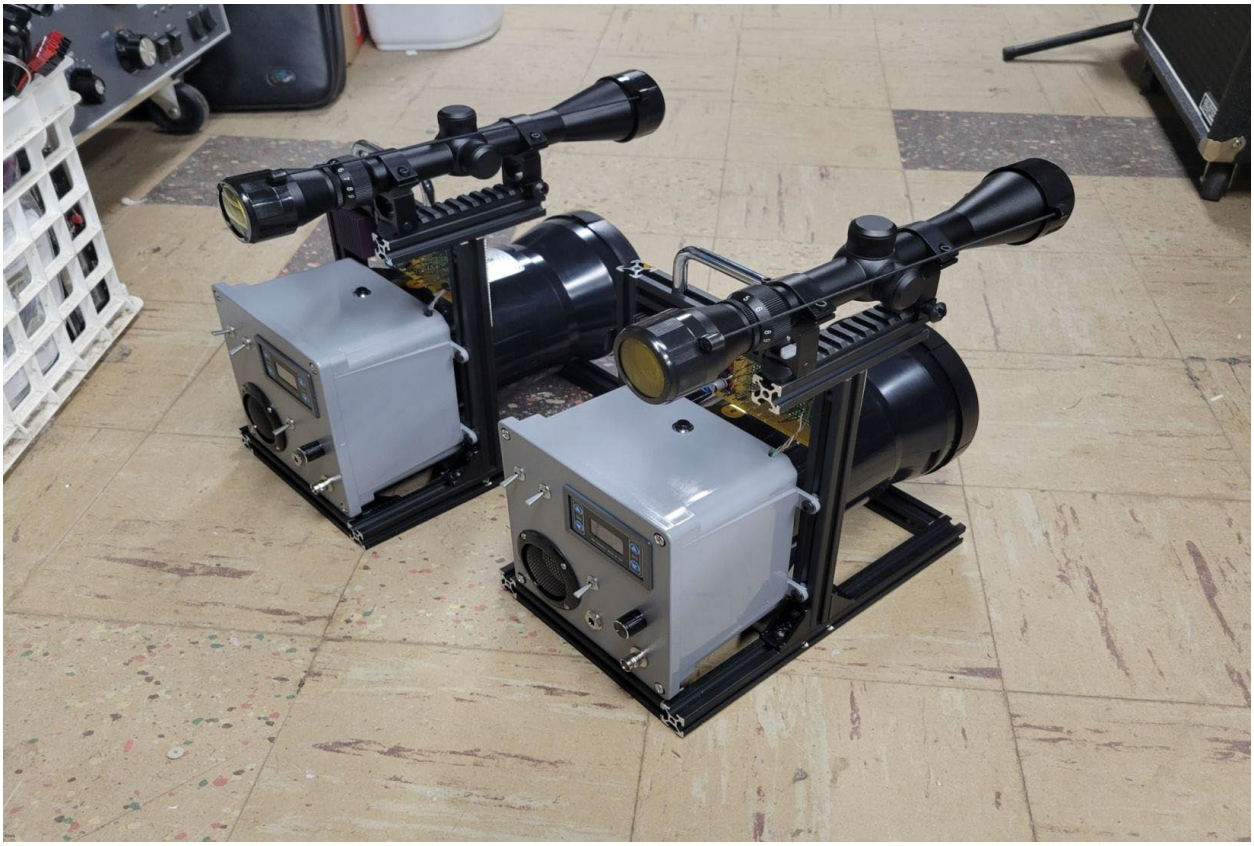
Over the next few months I made incremental improvements to both the receiver and transmitters on each rig. The receiver had the OPT101 replaced with a PD49pi photodiode with a 940 nm bandpass filter glued on the front of it feeding a OPA350 trans-impedance amplifier

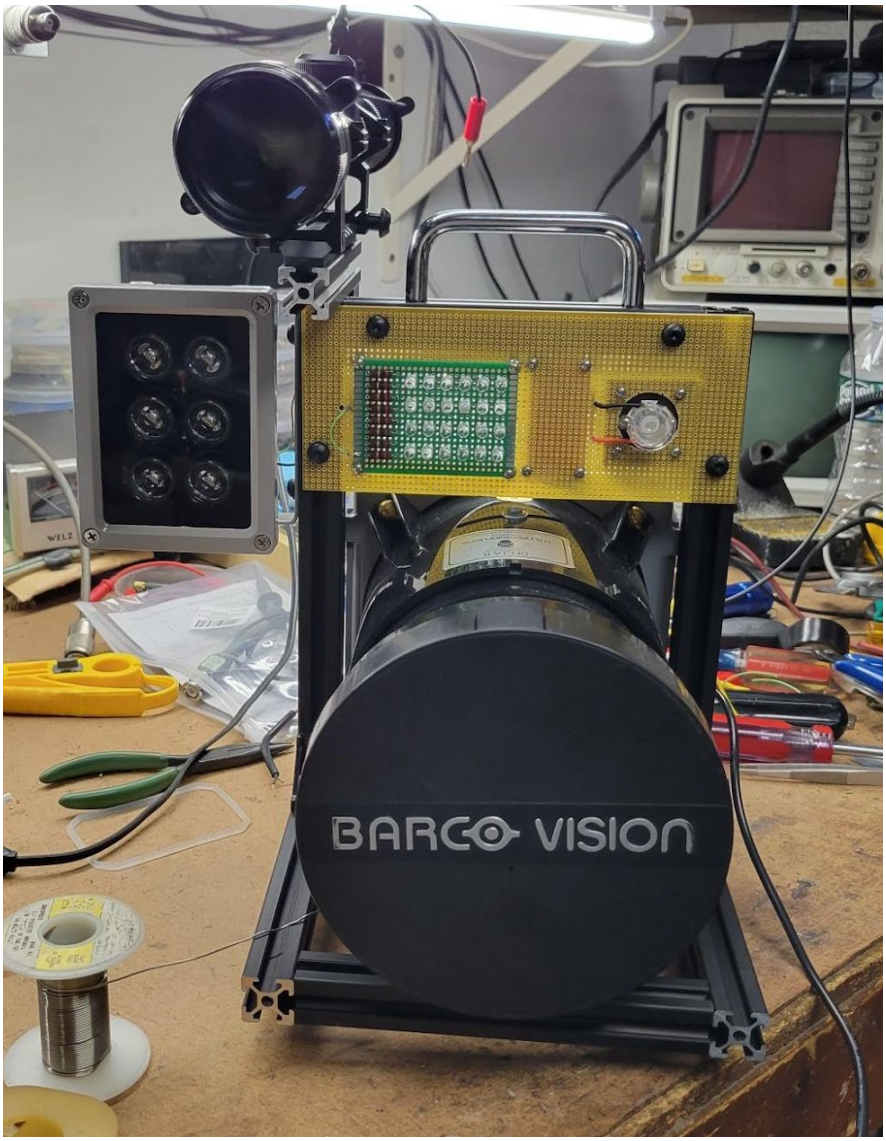
module and still using the LM386 audio amplifier section. This improved receiver sensitivity about 10 dB from as best as could be measured using a weak signal source and an SDR dongle.

The transmitter also received a more QRO source of a 9 degree, 940 nm security floodlight driven by the same square-wave generator driving a power FET used in Paul's original experiments. This became known affectionately as "The Afterburner" as it added about 10 dB to the TX signal! So a 20 dB overall improvement was made.

Along comes the ARRL 10 GHz and Up Contest and I needed to find someone who was willing to take my second rig and use it to provide a QSO or two in the contest. Fred, K1UU had just been bitten by the 10 GHz bug and he volunteered to give it a shot. There were also a few other stations attempting QSOs with this type of gear that were with us. K1OR, AA1I, KC0IYT all had rigs, and we had made some 5 km QSOs earlier that day. We set up to try the 24 km path with K1UU and KC0IYT, both at Fox Hill, and AA1I, K1OR, and myself at Hilltop Farm.

We had worked this path on all the "traditional" microwave bands so we set the light gear up just after dark. K1UU started transmitting toward us and with the improvements I had made I easily found his signal. Unfortunately, both AA1I and K1OR could not hear his transmitter. I then transmitted back and K1UU easily found my signal. Again, unfortunately KC0IYT could not hear my transmitter. K1UU and I exchanged grid squares for the 24 km QSO easily.





Since the contest, I have continued to improve the rigs with some audio tailoring and a new audio amplifier in the receiver using a TDA2050, which provides a much more stable audio amplifier to drive a speaker or headphones than the LM386 solution. I have also since added another 6 dB of power by adding three more of the 9-degree floodlights to the rigs. With these modifications, I believe I have found about another 12 dB or more performance. Now that the weather is turning in our favor, it'll be time for some more testing and seeing if in this next contest we can stretch out that distance some more.

–73, Fred, K1FMS

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[sidebar 3]

Log Analysis for 10 GHz and Up Contest Logs

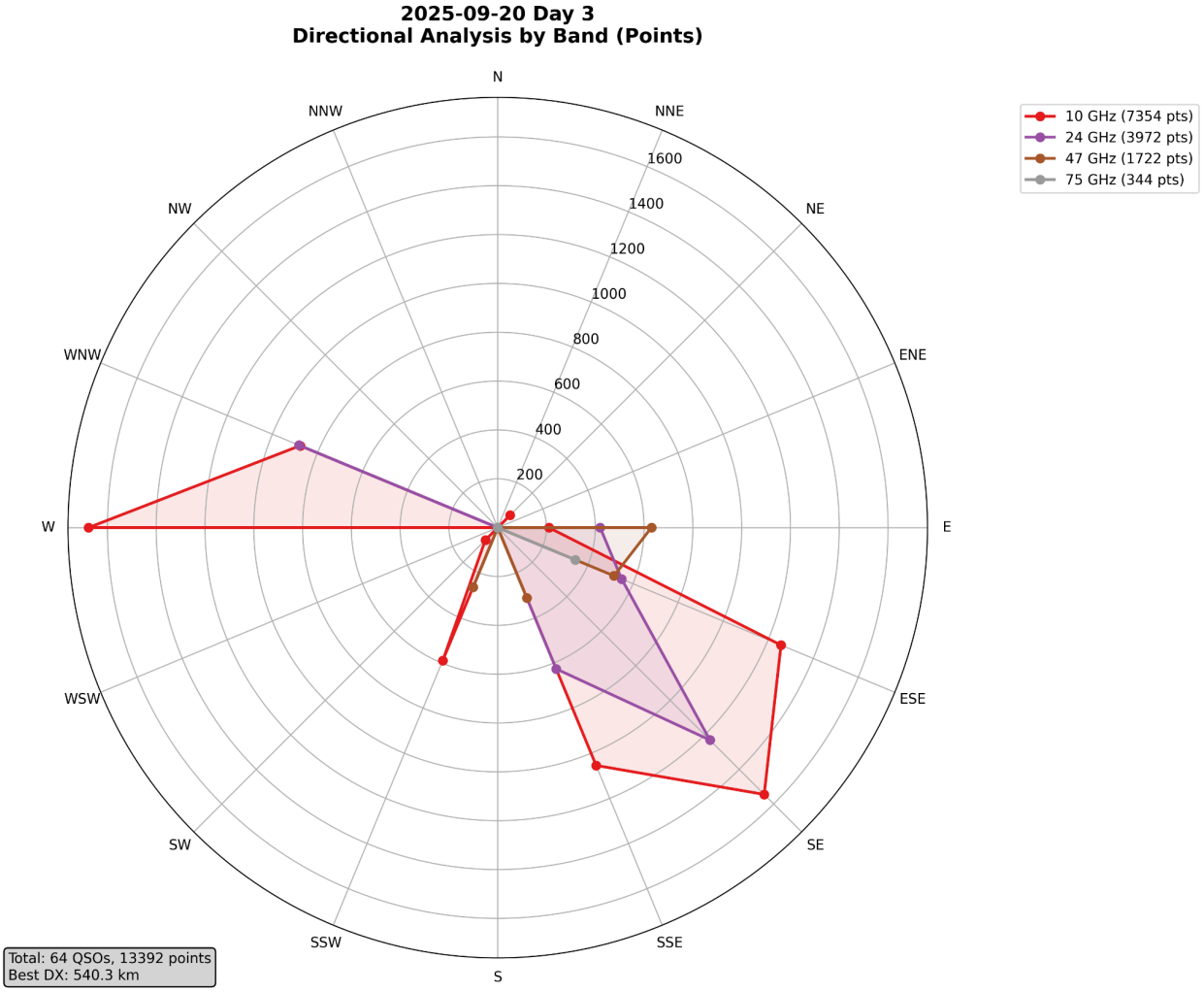
Generative AI has been a boon to me as a radio contester. One of the ways I've used it is to help me gain insights into my microwave contest logs. I used Amazon's Kiro (web interface at https://app.kiro.dev, though you could also use Claude Code or any number of other development environments to do similar work) to generate an analysis tool for the 10 GHz and Up Contest. Its features include:

1) Convert a Google Sheet into a Cabrillo file (I like to type my paper logs into Google Sheets rather than a logging program because it saves me having to fix all the time offsets manually, a particularly painful process)
2) Calculate contest score breakdowns by band, including distance points and QSO points (for uniques by band), suitable for posting to 3830scores.com
3) Calculates bearings and distances for every QSO
4) Create a comprehensive, day-by-day breakdown for all four days of the contest, including an hourly breakdown of QSO counts, highlights and observations, longest QSOs of the day, most productive and least productive hours and directions, and points per day
5) Compares up to four logs against each other (for example, to see year-over-year improvement with your own logs or between you and your friends)
6) Creates graphics showing performance by day and by band, by compass direction, so you can see how each day actually delivered for you.

You can find an example of the output from the day-by-day analysis in my 3830 writeup from the 2025 contest here: https://3830scores.com/showrumor.php?arg=RvYizV7n7eDD7U

Here's an example of the graphics output by the analysis, showing day 3 of the contest, which was Saturday, September 20. On that day, I operated from Hogback Mountain in Vermont and at Mt Greylock, Massachusetts. Color coding shows the bands, the lines showed the distances and directions where I made contacts, and the text shows the number of points by band as well as the total QSOs,

points, and best DX of the day:



Dave, K2DH, operating at Mt Greylock, Mass, on September 20, 2025. *(K2UA photo)*

Feel free to use the project yourself to gain insights into your logs. You can find the project on GitHub here: https://github.com/rusk2ua/10ghz-log-analyzer. The main page (the readme) includes instructions on how to use the project. The code is entirely written in Python and it has just a few dependencies.

I encourage anyone who is a developer or who has an itch to begin experimenting with developing code to fork the project in GitHub or download it and start developing in your favorite environment and share your results!

–73, Rus, K2UA

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