# ARRL 2023 January VHF Contest Full Results

***By James R. Duffey, KK6MC (kk6mc@AMSAT.org)***

***2023 was a typical January contest in manv ways; good weather in some parts of the country, poor in others, little extended propagation, but the new analog-only categories had significant interest and complaints about the digital modes reducing activity were down.***

With 898 log entries, including check logs, participation in the 2023 January VHF Contest dropped from the 2022 level of 1,175 and the 2021 level of 1,198. This is probably due to the Covid bounce that all contests received due to hams staying home and contesting. The number of submitted logs is up significantly over the pre-2018 levels, though, in large part due to the widespread use of the WSJT modes.

K8AEP/R on High Knob, VA in heavy fog, snow, and sleet. What else is new for the January contest? [Donna Moore, K8AEP, photo]

Propagation was pretty much flat, with some scattered Sporadic E (Es) openings. There were a few reports of F2 propagation to the Caribbean and South America, but those openings were very localized and of short duration. Most of these openings were exploited by stations using the FT8 mode which allows one to capitalize on short and/or variable Es openings, the purpose for which it was intended. Watching the FT8 waterfall shows many openings of limited duration, often minutes or less. Prior to the introduction of FT8, it was hard to make use of these short openings, particularly for those in the single op category. Times have changed.

The impact of the use of the WSJT-X modes has begun to converge, and the new analog-only categories appear to have stemmed, at least for the time being, the flight from the analog modes to the digital modes. FT8 operators are learning how to QSY stations they work on the digital modes to other bands and modes and the new protocol for this has helped. The number of digital QSOs being made on 2M and up is increasing over the early days of WSJT-X, which has addressed, in part, the complaints that it was difficult to QSY stations from 6M WSJT-X to higher bands and/or modes. The higher band digital activity has grown as a result of this.

Although overall record-setting performances are usually reserved for those years when propagation is good or outstanding, the institution of the analog-only categories allowed four new national records to be set for those categories. In addition, a record was set in SO3B all-mode which would have been a new record even without the new analog-only categories. Many other records were set at the division and section level.

The North American QSO Party continues to siphon off VHF contest participants, particularly those for whom HF contests take priority. This, along with the albeit weak sporadic-E propagation being better earlier in the season, brings calls from some entrants to move the contest earlier in the year, or even into December. There is a lot to consider here, though, and shuffling the already crowded winter contest calendar is not trivial. Let your Division Contest Advisory Committee representative know your preferences.

Activity on the bands above 902 MHz continues to be low, for several reasons, but there are a lot of points and fun to be had on those bands. Admittedly, wrestling a 10 GHz dish in and out of a car in freezing temperatures is not easy, as is getting a LASER to start, but we are facing a “use it or lose it” situation on those bands. With most of the activity on those bands being during contests, it pays to get even small low power rigs on the air.

Mary, WØAAT in EN24ho woke up Saturday to ice loading on her antennas! Never a good sign, but often encountered in January. [Mary Brown, WØAAT, photo]

## The Winners

### Single Operator

Most of the entrants to the VHF contests are in the single operator categories. As a result, the single operator category is the bread and butter of VHF+ contesting. From the guys with a handie-talkie in the SOFM category, to portable operators, to home stations- both barefoot and high power, there is something for everyone in these categories.

### Single Operator FM (SOFM)

| Single Operator, FM Only | |
|---|---|
| W7IMC | 3,222 |
| VE3RWJ | 1,150 |
| KB1YNT | 570 |
| KG5UNK | 343 |
| N1TEN | 294 |
| VA2DG | 246 |
| AF6GM | 205 |
| N6DRE | 186 |
| KN6FKQ | 132 |
| VA2WDW | 84 |

While the SOFM category was envisioned as an opportunity for hams, particularly Technician class without weak signal capabilities, to participate in contesting, it has been pursued by some as an end unto itself. This FM activity is helped by the SOP operators, many of whom are also operating simultaneously SOTA or POTA activations, who mix modes to give out QSOs on more bands.

W7IMC took first place in only his second VHF contest competition by a good margin over last year's winner, VE3RWJ. W7IMC used all four bands; those 222 MHz QSOs and points help. VE3RWJ operated 3 bands, working 10 grids in the process. KB1YNT worked 10 grids on three bands as well.

The SOFM category is analog-only by definition.

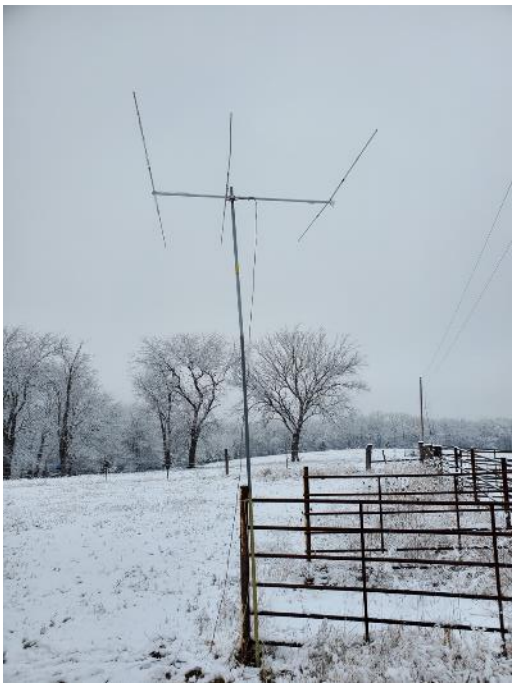
W7IMC's effective SOFM antenna farm worked into the adjacent grids in only his second entry into VHF contesting, demonstrating that one can have fun in the VHF Contests without a big commitment to antennas. [Scott Burgess, W7IMC, photo]

## Single Operator Portable (SOP)

This year the SOP category is split in two, the traditional SOP and the analog-only SOP, SOP-ALG.

| Single Operator, Portable | | Single Operator, Portable Analog-only | |
|---|---|---|---|
| AB4DX | 2,964 | N3YMS | 16,995 |
| WX3P | 798 | WA7JTM | 4,375 |
| WK9U | 725 | KF7NP | 2,159 |
| W1AW/Ø (NØJK, op) | 640 | AA6XA | 1,820 |
| NØSUW | 360 | WB2AMU | 481 |
| W8TL | 312 | N6ARA | 280 |
| AA1X | 287 | KQ2RP | 180 |
| W3FA | 189 | KØJJW | 168 |
| KD9NYE | 130 | KØNR | 168 |
| WB9AYW | 78 | N2MAK | 160 |

The SOP category requires hardy souls to go out in the field in January. Ops in the Southern tiers of states have an advantage here, but there are dedicated ops who go out in the field in the northern grids as well.



NØJK obtained permission to operate as W1AW/Ø in the contest as a part of the ARRL Volunteers on the Air event. This is a rare appearance of W1AW in a VHF contest! [Jon Jones, NØJK Photo]

With the perennial SOP high scorer WA7JTM moving into the SOP-ALG category, AB4DX took the honors here, operating with four bands. WX3P finished second with three bands. WK9U finished third, operating 6M only, as did W1AW/Ø, operated by NØJK. NØJK was using the W1AW call in the special event and was given special permission to operate it during the contest. The slippery roads Jon encountered on Sunday morning were slightly offset by a good Es opening. NØSUW took fifth place operating 6M only.


The W1AW/Ø call generated a lot of interest as shown in this WSJT-X screen shot. The call also worked some propagation magic with Jon working some $F_2$ in addition to $E_s$. [Jon Jones, NØJK, photo]

The analog-only SOP category is new this year. First place, by a large margin, was won by N3YMS, who is more often heard operating the multi-op station W3CXX. N3YMS made the transition nicely to both single op and low power categories. Perennial top SOP finisher WA7JTM, is a diehard analog operator and finished second, ahead of all of the SOP mixed mode ops. His score was diminished a bit this year by the lack of other SOP ops in AZ, but Peter put in a solid 6 band effort, as did N3YMS. More bands and knowing how to use them is important for successful contest operation, and particularly at low power without digital options. KF7NP finished third on a five-band effort. AA6XA finished fourth with an effort that combined activating SOTA peak Loma Alta (W6/NC-350) with the VHF contest effort. WB2AMU operated under abnormally mild weather conditions on Long Island to finish fifth.

## Single Operator 3 Band (SO3B)

| Single Operator, 3 Band | | Single Operator, 3 Band Analog-Only | |
|---|---|---|---|
| N3YY | 55,720 | N7QOZ | 2,457 |
| KO9A | 40,365 | K2GMY | 1,292 |
| W5TRL | 20,008 | K7CX | 1,290 |
| KK4MA | 15,900 | WB7FJG | 500 |
| KE3JP | 14,484 | KC3LEC | 440 |
| N3ALN | 10,679 | W7JMP | 440 |
| NE2U | 8,106 | N2KW | 330 |
| WDØBGZ | 8,004 | W2FDJ | 324 |
| K3RLW | 6,732 | N1ZN | 300 |
| K6KLY | 5,950 | W1DYJ | 294 |

The SO3B was originally envisioned as an entry level category for the operators with the ubiquitous "DC-to-Daylight" rigs capable of operation on three VHF bands. Having a taste of the thrill of competition, it was assumed that these ops would move up to categories with more bands. Over the years it has become a competitive category in and of itself though, with both positive and negative consequences. This year, the category has been split into mixed and analog-only categories, but participation is still high.

N3YY set up these secondary Yagis to complement his already impressive antenna array. Having the instantaneous choice of antennas pointed in different directions is a big advantage, especially in populated areas. [Steven Adel, N3YY, photo]

At N3YY's mountaintop retreat, the snow and ice parted on Saturday morning and stayed that way throughout the contest to allow N3YY to take this category handily. KO9A had a fun, frustrating, and interesting contest on his way to finishing second. He had a little bit of all the propagation modes including tropo on Saturday, outstanding meteors on both 6M and 2M Sunday morning, a scattering of Sunday morning Es and probable F2 or double-hop Es to PJ4. W5TRL took third place with 215 QSOs and 82 multipliers. KK4MA finished a close fourth with 171 QSOs and 110 multipliers.

The SO3B-ALG is also new this year with fewer entries than for the mixed-mode category. It will take a few years for the analog-only categories to settle out, but it appears that for SO3B, the analog entries are lagging the mixed category.

N7QOZ had a modest effort to take first place. K2GMY finished second, narrowly edging out K7CX on the basis of more multipliers, despite making fewer QSOs.

## Single Operator Low Power (SOLP)

| Single Operator, Low Power | | Single Operator, Low Power Analog-Only | |
|---|---|---|---|
| K2DRH | 77,714 | AF1T | 64,602 |
| N3RG | 65,208 | K3TUF | 28,853 |
| N2WK | 59,126 | VE3DS | 22,218 |
| NR2C | 53,728 | KA3FQS | 13,530 |
| WA3NUF | 40,128 | WB2JAY | 8,740 |
| KA2ENE | 35,581 | N7RK | 7,843 |
| WA3GFZ | 34,036 | WS3C | 5,868 |
| K9MU | 33,708 | AC1J | 5,859 |
| N2SCJ | 24,888 | W4RAA | 4,964 |
| NF3R | 21,584 | K6MI | 4,590 |

K2DRH is a familiar call on top of the SOLP category and this year is no different. Bob overcame a dead 2M transverter just days before the contest by reviving a junk box transverter and making the necessary tweaks to have good enough stability to operate the WSJT-X modes. Bob made the most of the mixed mode category, making contacts with no less than six different analog and digital modes!

N3RG finished second, making up, in some part, the difference with operation from nine bands. N2WK overcame lots of issues, which is not unexpected when running 10 bands, to finish a strong third. NR2C made the most of his first VHF+ contest with nine bands to finish fourth. WA3NUF finished fifth on the strength of a 10-band effort.

The Single Operator Low Power Analog-Only category is also new this year, with a familiar call at the top – AF1T. Dale overcame snow-encrusted antennas and low 5 GHz power to take first place by nearly 20,000 points, largely on the strength of a 14-band effort, even with low 5 GHz power. K3TUF, another call familiar to the SOLP world finished second operating his remote home station

in EL88, from his winter home FN10, proving that there is a way to avoid problems with weather in the January contest. VE3DS overcame a late start to finish third. KA3FQS finished fourth on the strength of a nine-band effort, including a LASER contact. WB2JAY finished fifth while dealing with apparent issues the town has with his antenna. N7RK finished a close sixth from AZ.

### Single-Operator High Power

K1TEO took first place in the SOHP category by overcoming noise issues on 6 and 2, which like for many of us just keep getting worse and worse. Jeff had some weak Es openings, which partially offset the low activity on the microwave bands. N2JMH, operating the second incarnation of his VHF+ contest station, finished in second. It is not often that new stuff works well in the first contest shakedown. N1AV finished third with a strong showing from Arizona. Jay was helped by the increasing rover activity in the southwest, much of which was spurred on by Jay. It was a close race for fourth place, K2TER edging out KE8FD on the strength of his ten-band effort benefiting from the higher QSO points on those bands.

| Single Operator, High Power | | Single Operator, High Power Analog-Only | |
|---|---|---|---|
| K1TEO | 294,140 | WZ1V | 49,536 |
| N2JMH | 209,088 | VE3ZV | 47,530 |
| N1AV | 104,299 | W3IP | 26,714 |
| K2TER | 58,667 | W2FU | 24,684 |
| KE8FD | 58,512 | W2KV | 18,265 |
| W1FKF | 51,200 | WØGHZ | 11,856 |
| N4QWZ | 48,984 | WA1PBU | 6,864 |
| WA3DRC | 39,425 | WB2RVX | 6,440 |
| WA2OMY | 35,309 | W1GHZ | 5,760 |
| K1KG | 34,720 | K1TR | 5,406 |

WZ1V, on his way to first place, noted that there was increased local activity on 222 and 1296 MHz, which helped his score. VE3ZV, close behind in second place, worked several stations on 10 GHz with snow scatter out his living room window. Snow scatter is a uniquely winter propagation phenomenon. W3IP missed some prime time operating due to a funeral and some IT issues on his way to finishing third. W2FU, finished fourth operating his NY station remotely from Florida. It is no small feat to keep an eight-band station up and running from more than 1000 miles away. W2KV parlayed good activity and low power line noise to finish fifth.

## Multioperator

### Limited Multioperator (LM)

| Limited Multioperator Top Ten | |
|---|---|
| N2NT | 149,898 |
| K5QE | 70,848 |
| W2MMD | 66,700 |
| W3HZU | 60,568 |
| VE3MIS | 55,753 |
| WA3EKL | 22,932 |
| N3EXA | 22,144 |
| KE8RV | 18,530 |
| W3ZGD | 18,216 |
| WH6A | 12,483 |

N2NT, with ops N2NC, N2NT, and WW2Y, ran away with the Limited Multioperator category by effectively and extensively working all of the four bands allowed, along with working meteor scatter, analog and digital modes, helped by some long 432 openings to the west and openings to PY/LU/CE on 6m Sunday night. This shows the power of the WSJT-X modes under marginal conditions.

K5QE, with ops KØAXX, K2EZ, K5QE, K5SAB, KA6U, KC5HOZ, KF5LKG, KI5MHB, and N5YA finished second on the strength of EME and meteor scatter-generated multipliers and contacts. Marshall has adopted a unique LM strategy in choosing to operate 1296 MHz, primarily EME, instead of 222 MHz, with the view that the increased QSO points at 1296 and the large user population and potential larger number of different grid multipliers available on 1296 MHz EME would make up for the missing 222 MHz QSOs with their lower point values.

W2MMD, with ops K2QA, KB2AYU, N3PUU, and W2MMD, finished a strong third. Thanks to a good 6M showing, W3HZU, with ops KB3RCT, KB3RFH, KC3UHB, KC3UUZ, N3AIR, N3BMX, N3CH, N3FIX, N3VQH, N3XUD, W3TWB, and WBØNDY finished fourth utilizing the same strategy as K5QE of replacing 222 MHz as one of the four bands with 1296 MHz. VE3MIS, with ops VA3CW, VA3ELE, VA3HES, VE3ACK, VE3MDX, VE3MYO, VE3NE, and VE3SVF, finished fifth with conditions "that weren't terrible, but weren't amazing either." But VE3MIS only had to climb the 6M tower twice during the contest to free the rotator from the end stops.

### Unlimited Multioperator (UM)

| Top Ten, Unlimited Multioperator | |
|---|---|
| N3NGE | 111,280 |
| W4NH | 70,140 |
| N4SVC | 62,699 |
| KD2LGX | 55,180 |
| N8GA | 53,280 |
| WD9EXD | 41,676 |
| KE1LI | 35,862 |
| WØRSJ | 20,740 |
| W3RFC | 8,050 |
| W2SZ | 7,614 |

N3NGE, operated by K3EGE and N3NGE, won the Unlimited Multioperator category operating on 10 bands, including light. W4NH with ops K4VBM, KI4US, KM4QHI, N4SDK, NX9O, W4ZST, WG8S, and WW8RR, finished second operating seven bands. N4SVC with ops K1UHF, KD4AMP, and N2CEI, finished third on the strength of a six-band effort with CW, SSB, meteor scatter, and several digital modes. KD2LGX, operated by KD2LGX and N2IK, took fourth with a seven-band effort. N8GA with ops K8DZ, KB8ZR, N8ZM, W8BFT, and WB8ART, took fifth with a solid five-band effort.

The WO1S Unlimited Multi shack in DM34oa with a long-boom 2-Meter Yagi and a two-antenna 23cm array. [John Kountz, WO1S, photo]

And inside the WO1S shack. [John Kountz, WO1S, photo]

## Rover

### Classic Rover (CR)

| Top Ten, Classic Rover | |
|---|---|
| N7GP/R | 215,137 |
| VE3OIL/R | 63,500 |
| K2UA/R | 56,056 |
| NN3Q/R | 46,626 |
| N7DSX/R | 40,920 |
| K2ET/R | 34,638 |
| K7LSX/R | 34,614 |
| W3ICC/R | 27,140 |
| W2EV/R | 19,296 |
| KK6MC/R | 16,020 |

N7GP continued his domination of the Classic Rover category with another first-place finish. Tom's 10-band effort was aided by the nearly ideal weather for roving in AZ, easy travel to grid convergences, and an active VHF and microwave community, including several rovers. VE3OIL put in a 13-band effort, including 122 GHz, to finish second.

K2UA marked his return to roving in VHF+ contests after a 24-year hiatus with a solid third place finish. Rus put together a solid 10-band station for the rove. NN3Q put in an 11-band effort, including light, to finish fourth. N7DSX finished fifth, also from AZ, and also enjoying the nice weather. He didn't even have to turn on the van's air conditioning! K7LSX also roved with N7DSX, giving lots of ops a second QSO under the family rule.

The K7LSX/r and N7DSX/r in DM42. The family rule, 10 band capability, and roving at a grid convergence resulted in lots of QSO points and multipliers for Phoenix area VHF/UHF contesters from this well-equipped rover. [James Duffey, KK6MC, photo]

N7GP/R made good use of his 10-band rover setup, increased VHF weak signal activity, the growing popularity of roving, and microwave activity in AZ, to win the Classic Rover category. N7GP is ex-WA8WZG, a familiar call to both VHF and HF contesters. [Thomas Whitted, N7GP, photo]

## Limited Rover (LR)

| Top Ten, Limited Rover | |
|---|---|
| NV4B/R | 30,667 |
| W5TN/R | 29,510 |
| KG9OV/R | 27,413 |
| KA5D/R | 23,820 |
| N6RH/R | 10,920 |
| W9YOY/R | 10,450 |
| KI5FIQ/R | 10,440 |
| AE5P/R | 9,540 |
| VE3GKT/R | 9,020 |
| KM4OZH/R | 8,342 |

The Limited Rover category was quite competitive with the top three stations all within 10%, with the fourth and fifth place finishers not far behind. NV4B overcame some computer problems early, to take first place while activating seven grids. W5TN finished a close second, overcoming generally horrible conditions which were interrupted by a brief Es opening at the end of the contest. KG9OV roved from 8 grids to finish third with average conditions. Tweaks to the KG9OV rover since the September contest paid off. KA5D finished fourth, overcoming poor band conditions in part by roving from 10 grids. Those grid activation multipliers add up. N6RH finished fifth operating from 6 grids.

The Limited Rover station of KG9OV/R, cold and snowy on the outside, warm and comfy on the inside. [Anthony Contratto, KG9OV, photos]

## Unlimited Rover (RU)

| Top Ten, Unlimited Rover | |
|---|---|
| NØLD/R | 69,993 |
| K5SRT/R | 66,794 |
| KI5VZJ/R | 51,156 |
| K5ATX/R | 32,452 |
| K9JK/R | 12,312 |
| W6YX/R | 11,920 |
| K4NO/R | 10,032 |
| KCØP/R | 8,880 |
| NØHZO/R | 4,640 |
| K4CNY/R | 4,148 |

NØLD put together a ten-grid six-band effort to take first place. He and others in Oklahoma put in a successful effort to use the RU category to train new rovers. K5SRT was a close second with a similar 10 grid effort to NØLD. KI5VZJ, an all-YL team, finished third in the RU class in their first roving effort. K5ATX finished fourth, overcoming flat conditions by making QSOs with other rovers.

Not everyone experienced snowy winter weather; NØLD/r had rainy weather in Winfield, KS. [Randall Wing, NØLD, photo]

K9JK, a familiar call within roving circles, finished fifth with an all analog, all vertical antenna effort from the "Coroverolla". John made QSOs on 222 MHz and 902 MHz with a handie talkie, which demonstrates that one does not need sophisticated gear to activate more bands and accumulate more points.

Nick, KI5RHN, operating K5SRT/r at sundown near New Castle OK. The software is Rover Contest Logger by KG9DUK-Alex. [Nick Carpenter, KI5RHN, photo]

K5SRT took advantage of one of the Unlimited Rover intents, to encourage experimentation, to have a "virtual operator" remote in from his home location to operate the rover. I suspect that we will see more of this in the future.

"Virtual Bob", K3NT, part of the K5SRT/r team, participating remotely from his home QTH. [Robert Kirby, K3NT, photo]

## The Records

With the introduction of the analog-only competition, new records were set in each of these categories.

Overall records were set by WZ1V in the SO-ALG-HP category, AF1T in SO-ALG-LP, N3YMS in SOP-ALG, N3YY for SO3B, and N7QOZ in SO-ALG-3B.

Of particular note is the record set by N3YY in the SO3B category, mixed, so that record would have been set whether or not the analog-only category was in place.

There were numerous records set at the division and section levels.

## Affiliated Club Competition

| Affiliated Club Competition | | |
|---|---|---|
| **Club** | **Score** | **Entries** |
| | | |
| **Unlimited** | | |
| Mt Airy VHF Radio Club | 1,246,618 | 53 |
| | | |
| **Medium** | | |
| Rochester VHF Group | 683,227 | 24 |
| Arizona VHF Society | 430,341 | 13 |
| Ontario VHF Association | 230,624 | 20 |
| North East Weak Signal Group | 200,286 | 17 |
| Society of Midwest Contesters | 172,142 | 16 |
| Potomac Valley Radio Club | 167,281 | 44 |
| Fourlanders Contest Team | 88,629 | 6 |
| Contest Club Ontario | 86,581 | 10 |
| Roadrunners Microwave Group | 60,901 | 5 |
| Northern Lights Radio Society | 58,001 | 16 |
| Pacific Northwest VHF Society | 57,777 | 26 |
| Yankee Clipper Contest Club | 50,866 | 17 |
| Kentucky Contest Group | 45,959 | 5 |
| Arizona Outlaws Contest Club | 42,267 | 14 |
| Badger Contesters | 35,036 | 12 |
| Michigan VHF-UHF Society | 28,349 | 4 |
| Frankford Radio Club | 26,364 | 6 |
| Florida Weak Signal Society | 18,965 | 3 |
| Northern California Contest Club | 15,540 | 9 |
| Mad River Radio Club | 10,458 | 4 |
| Carolina DX Association | 8,440 | 6 |
| South East Contest Club | 8,011 | 4 |
| Wayne County Amateur Radio Club | 6,129 | 5 |
| Minnesota Wireless Assn | 4,020 | 8 |
| Tennessee Contest Group | 3,972 | 4 |
| South Jersey Radio Assn | 3,840 | 3 |
| Florida Contest Group | 3,308 | 4 |
| Western Canada Weak Signal Assoc | 1,992 | 3 |
| Hudson Valley Contesters and DXers | 1,712 | 5 |
| Texas DX Society | 1,348 | 4 |
| Grand Mesa Contesters of Colorado | 1,051 | 3 |
| Southern California Contest Club | 1,024 | 3 |
| | | |
| | | |

| Local | | |
|---|---|---|
| Chippewa Valley VHF Contesters | 46,912 | 3 |
| Stoned Monkey VHF ARC | 45,356 | 5 |
| Hilltop Transmitting Assn | 24,500 | 3 |
| Bristol (TN) ARC | 5,225 | 3 |
| Meriden ARC | 2,916 | 3 |
| Central Virginia Contest Club | 1,412 | 3 |

Club activity in the VHF contests is the one thing that correlates well with VHF contest activity. In general, when club entrants are up, overall participation in the contest is up. With 40 club entries this year, the club competition remains healthy. If you contest in an area with others, and you all belong to the same club, or can join the same club, it is worthwhile for everyone to enter the club competition.

The Packrats, also known as the Mt. Airy VHF Radio Club, placed first in the Unlimited category. There isn't a lot of competition at this level in January, but the Packrats manage to put a lot of stations on the air, including rovers. The club wins, and other contest participants benefit from the increased activity.

The Rochester VHF Group finished first in the Medium category on the basis of increased microwave activity, rover activity, and a general push in the club towards VHF and microwave contesting. The Arizona VHF Society finished second with a strong showing from what can be a VHF black hole. They shine in the January contest with nice weather, active VHF snowbirds swelling the VHF population, and an easily accessible grid convergence located near a major population center. The Ontario VHF Association finished third.

In the Local club competition, there was close competition between the Chippewa Valley VHF Contesters and the Stoned Monkey VHF Amateur Radio Club, with Chippewa taking first. The Hilltop Transmitting Association took third.

## General comments on the January 2023 VHF Contest

The new analog-only categories were popular. It will be interesting to see if this trend holds through the June and September contests. But, at least for now, it seems to be popular and has addressed some of the concerns about declining analog activity in the January contest.

Digital modes continue to dominate the majority of activity in the contest, with nearly 55% of all VHF contest QSOs made on the digital modes. While FT8 is by far the most popular digital mode, those using MSK find it a great way to increase multipliers, especially when the band is flat. FT4 is a great contest mode, allowing rapid QSOs at nearly the rate available on CW, but it has been slow to take off. Give it a try. Q65, another digital mode, is effective and taking hold on the higher bands.

After a slow start on 2M, digital activity has increased on that band so that slightly over half, 54%, of QSOs on that band are made on digital modes. Digital modes have made EME QSOs available even to modest stations. The effectiveness of an EME effort can be seen by looking at 2M multipliers in the scores. Those with high numbers of 2M multipliers usually get them with EME. While you may not be able to accumulate the high numbers, with a modest station, you can probably add a few mults that you would not normally work.

The cold Minnesota winter did not stop NØSPN/R (right) from mentoring new Tech KØDMF/R and his two daughters in VHF contesting and roving. The girls were able to log and give the grid exchange. It is never too soon to start the young ones on roving. [Devin Funk, KØDMF, photo]

One good use of the January contest is to train operators in contesting without having overwhelming contest conditions. There are several ways to do this, but in 2023, there were several groups that took advantage of the Unlimited Rover category to introduce and train new operators. Let us hope this trend continues.

In what may well be a sign of things to come, AA5PR, SO3B, used the January contest to wring out his new "remote portable" station. A solar powered remote station in an easily transported trailer, John can move the remote VHF station to any grid, leave it there, and then return home to operate it when the band is open or there is activity. John, who has activated many remote grids

through roving activities, envisions this as a way to activate grids without driving to them, thereby being able to be on when the band is open. While only on 6M during this contest with only a few openings, this concept may revolutionize VHF contesting and certainly will aid in putting wanted grids on the air during non-contest periods. Nineteen stations made QSOs with John's remote in rare grid DM74 during the contest. Stay tuned!

If you worked AA5PR in the contest you worked this innovative solar powered remote portable in DM74. [John Klem, AA5PR, photo]

## Log submission and checking

If you participated in the contest, even in a modest way, it is important for you to submit a log. Encourage others, especially the casual operators, to submit logs. It indicates support for the January contest and tells the ARRL contest staff and the Program Services Committee that there is significant interest in the contest and that it should be continued.

All logs are cross checked against all other logs to validate QSOs. You may find your score has decreased from what you submitted. If you are a league member, you can access your log checking report (LCR) on the ARRL web site. This will help you ascertain why your score was reduced, so that you can make an effort to improve your logging accuracy in the future.

## Coordinated Roving

There were 20 rovers out of 68, or 29% of all rovers, in the January contest who participated in coordinated roving.

Coordinated roving, also known as pack roving, grid circling, grid squaring, and other names, has been around since the Rover category was formed. Basically, a group of rovers get together and agree to meet at a grid convergence or boundary and work as many possible combinations of grid/bands as they can. Depending on the number of rovers and bands that they have, the scores resulting from this activity can be quite high.

This practice was controversial when it first appeared and still is to some extent. There are several reasons for the controversial nature of this practice, and it has prompted some rules changes over the years, not all favorable, to either the rovers or other contestants.

Whatever one's opinion, the practice has become more widespread, and, it seems, gained wider acceptance within the contest community. While the complexion of coordinated roving varies from one group to another and is used for various purposes, it can have both useful and harmful attributes. I don't expect that the number of coordinated rovers will decrease in the future. Whether or not the increase is a problem is a judgement call and depends a lot on one's views of contesting.

## Logs Submitted

| Category | Entries |
|---|---|
| R | 28 |
| RL | 29 |
| RU | 11 |
| SOHP | 174 |
| SOLP | 258 |
| SO-ALG-HP | 30 |
| SO-ALG-LP | 85 |
| SOP | 15 |
| SOP-ALG | 23 |
| SO3B | 165 |
| SO-ALG-3B | 25 |
| SOFM | 16 |
| LM | 21 |
| UM | 15 |
| CHECKLOG | 3 |
| Total | 898 |

## Summary

The January Contest is healthy with almost 900 entries. While not at recent peak levels, likely due to people no longer being in Covid quarantine, activity is above the pre WSJT-X levels. The digital modes have gained wider acceptance, and contestants, serious and casual alike, are adjusting their operating styles to accommodate.

Activity remains low on the microwave bands. While due in some part to the winter weather, there is substantial room for growth there. The rewards are higher QSO points and additional multipliers which mean higher scores. The cost of entry to microwave has dropped considerably over the past 30 years and is less of a deterrent to microwave operation.

The January 2023 contest is in the books, and it is time to look forward to the 2024 January VHF Contest. It will take place 1900Z, Jan 20 to 0359Z, Jan 22, 2024. Start your planning now!

KK6MC/r in DM33 near the Maricopa convergence. To the right is the fertilizer plant, with its piles of manure, which makes for a stinko path in that direction. [James Duffey, KK6MC, photo]

| QSOs by Mode and Band | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Band** | **CW** | **DG** | **FM** | **PH** | **RY** | **DG+RY** | **%Digi** | **Band Qs** | **%/Band** |
| 50 | 488 | 23755 | 232 | 6165 | 1722 | 25477 | 78.73% | 32362 | 45.66% |
| 144 | 521 | 11315 | 1388 | 8326 | 810 | 12125 | 54.23% | 22360 | 31.55% |
| 222 | 174 | 423 | 553 | 3288 | 68 | 491 | 10.90% | 4506 | 6.36% |
| 432 | 303 | 1276 | 674 | 5075 | 111 | 1387 | 18.64% | 7439 | 10.50% |
| 902 | 152 | 8 | 104 | 984 | | 8 | 0.64% | 1248 | 1.76% |
| 1.2G | 247 | 105 | 76 | 1465 | 15 | 120 | 6.29% | 1908 | 2.69% |
| 2.3G | 139 | | 5 | 343 | | | 0.00% | 487 | 0.69% |
| 3.4G | 40 | | | 90 | | | 0.00% | 130 | 0.18% |
| 5.7G | 38 | | | 97 | | | 0.00% | 135 | 0.19% |
| 10G | 70 | | | 171 | 1 | 1 | 0.41% | 242 | 0.34% |
| 24G | | | | 5 | | | 0.00% | 5 | 0.01% |
| 47G | | | | 3 | | | 0.00% | 3 | 0.00% |
| 123G | 1 | | | 7 | | | 0.00% | 8 | 0.01% |
| LIGHT | 33 | | | 4 | | | 0.00% | 37 | 0.05% |
| **Total** | **2206** | **36882** | **3032** | **26023** | **2727** | **39609** | **55.89%** | **70870** | |

## Regional Leaders

| West Coast Region | | Midwest Region | | Central Region | | Southeast Region | | Northeast Region | |
|---|---|---|---|---|---|---|---|---|---|
| (Pacific, Northwestern and Southwestern Divisions; Alberta, British Columbia and NT Sections) | | (Dakota, Midwest, Rocky Mountain and West Gulf Divisions; Manitoba and Saskatchewan Sections) | | (Central and Great Lakes Divisions; Ontario East, Ontario North, Ontario South, and Greater Toronto Area Sections) | | (Delta, Roanoke and Southeastern Divisions) | | (New England, Hudson and Atlantic Divisions; Maritime and Quebec Sections) | |
| **Classic Rover** | | | | | | | | | |
| N7GP/R | 215,137 | KI5PYQ/R | 8,790 | VE3OIL/R | 63,500 | AG4V/R | 7,802 | K2UA/R | 56,056 |
| N7DSX/R | 40,920 | NØSPN/R | 495 | K9TMS/R | 15,876 | KN4SYO/R | 70 | NN3Q/R | 46,626 |
| K7LSX/R | 34,614 | N5ZY/R | 399 | N9REP/R | 14,168 | | | K2ET/R | 34,638 |
| KK6MC/R | 16,020 | AF4JF/R | 176 | AA9IL/R | 6,524 | | | W3ICC/R | 27,140 |
| K7TJK/R | 2,806 | WAØCNS/R | 65 | | | | | W2EV/R | 19,296 |
| **Limited Rover** | | | | | | | | | |
| KA7RRA/R | 1,635 | W5TN/R | 29,510 | KG9OV/R | 27,413 | NV4B/R | 30,667 | N5BNO/R | 4,158 |
| K7BWH/R | 564 | KA5D/R | 23,820 | W9YOY/R | 10,450 | AE5P/R | 9,540 | AF1R/R | 1,104 |
| KD6EFQ/R | 432 | N6RH/R | 10,920 | VE3GKT/R | 9,020 | KM4OZH/R | 8,342 | K2CR/R | 216 |
| KI6A/R | 348 | KI5FIQ/R | 10,440 | N9YH/R | 6,240 | | | | |
| K6LMN/R | 264 | WA5AZQ/R | 387 | KD9VUT/R | 1,404 | | | | |
| **Unlimited Rover** | | | | | | | | | |
| W6YX/R | 11,920 | NØLD/R | 69,993 | K9JK/R | 12,312 | K4NO/R | 10,032 | | |
| | | K5SRT/R | 66,794 | | | K4CNY/R | 4,148 | | |
| | | KI5VZJ/R | 51,156 | | | KK4BZ/R | 2,862 | | |
| | | K5ATX/R | 32,452 | | | | | | |
| | | KCØP/R | 8,880 | | | | | | |
| **Single-operator, High Power** | | | | | | | | | |
| N1AV | 104,299 | WØZQ | 15,138 | KE8FD | 58,512 | N4QWZ | 48,984 | K1TEO | 294,140 |
| N7VD | 22,528 | KØSIX | 10,721 | N4SV | 23,793 | K1HTV | 30,600 | N2JMH | 209,088 |
| KE7SW | 8,322 | KØAWU | 8,040 | VE3WY | 22,000 | N3MK | 24,624 | K2TER | 58,667 |
| K7EME | 6,154 | W5LO | 7,474 | K8MM | 21,243 | K3SK | 23,661 | W1FKF | 51,200 |
| W7FI | 4,410 | NYØV | 2,470 | KB8U | 20,678 | WB4OMG | 7,938 | WA3DRC | 39,425 |

| Single-operator, Low Power | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| N7IR | 16,324 | | NØLL | 4,960 | | K2DRH | 77,714 | | W4MAA | 7,670 | | N3RG | 65,208 |
| N7EPD | 9,366 | | KM5RG | 4,368 | | K9MU | 33,708 | | KY4G | 6,372 | | N2WK | 59,126 |
| WZ8T | 5,400 | | K5TRA | 4,248 | | VE3SMA | 12,485 | | WB2SNN | 3,920 | | NR2C | 53,728 |
| KD7UO | 4,712 | | KB5VKP | 1,100 | | KE8JCD | 8,160 | | K4FJW | 3,268 | | WA3NUF | 40,128 |
| KE6GLA | 3,264 | | KA5PMV | 1,075 | | KE8QEP | 7,504 | | W4TM | 3,081 | | KA2ENE | 35,581 |
| **Single-operator, Analog-only, High Power** | | | | | | | | | | | | | |
| K6WIS | 1,292 | | WØGHZ | 11,856 | | VE3ZV | 47,530 | | W3IP | 26,714 | | WZ1V | 49,536 |
| K7ND | 760 | | K5LLL | 3,026 | | K9YR | 2,548 | | N1GC | 2,144 | | W2FU | 24,684 |
| K7HP | 12 | | | | | VE3KG | 902 | | W4YN | 1,342 | | W2KV | 18,265 |
| | | | | | | K2YAZ | 90 | | NT4RT | 629 | | WA1PBU | 6,864 |
| | | | | | | | | | W4AMP | 465 | | WB2RVX | 6,440 |
| **Single-operator, Analog-only, Low Power** | | | | | | | | | | | | | |
| N7RK | 7,843 | | KAØPQW | 3,503 | | VE3DS | 22,218 | | W4RAA | 4,964 | | AF1T | 64,602 |
| K6MI | 4,590 | | WB5ZDP | 336 | | K8BB | 3,060 | | N4IS | 1,610 | | K3TUF | 28,853 |
| KC6ZWT | 1,826 | | WØZF | 216 | | VE3WJ | 1,118 | | KW4G | 108 | | KA3FQS | 13,530 |
| N4DLA | 1,716 | | KJØP | 70 | | N9GH | 299 | | KF7CG | 30 | | WB2JAY | 8,740 |
| K7YO | 1,386 | | W5TV | 60 | | WO3X | 261 | | WB2CYJ | 20 | | WS3C | 5,868 |
| **Single-Operator, Portable** | | | | | | | | | | | | | |
| VE7KPM | 24 | | W1AW (NØJK, op) | 640 | | WK9U | 725 | | AB4DX | 2,964 | | WX3P | 798 |
| VE7VIE | 16 | | NØSUW | 360 | | KD9NYE | 130 | | W8TL | 312 | | AA1X | 287 |
| | | | KØDBU | 30 | | WB9AYW | 78 | | N4NQY | 6 | | W3FA | 189 |
| **Single-Operator, Analog-only, Portable** | | | | | | | | | | | | | |
| WA7JTM | 4,375 | | KØNR | 168 | | N8XA | 72 | | WX4DAT | 40 | | N3YMS | 16,995 |
| KF7NP | 2,159 | | KØJJW | 168 | | | | | N3AWS | 1 | | WB2AMU | 481 |
| AA6XA | 1,820 | | | | | | | | | | | KQ2RP | 180 |
| N6ARA | 280 | | | | | | | | | | | N2MAK | 160 |
| N7JA | 90 | | | | | | | | | | | KK4YZG | 28 |
| **Single-operator, 3 Band** | | | | | | | | | | | | | |
| K6KLY | 5,950 | | W5TRL | 20,008 | | KO9A | 40,365 | | KK4MA | 15,900 | | N3YY | 55,720 |
| W8JH | 4,719 | | WDØBGZ | 8,004 | | K9SB | 3,465 | | KV4ZY | 3,864 | | KE3JP | 14,484 |
| KG7PD | 1,530 | | KØVG | 2,352 | | KT8O | 3,432 | | KO4PZW | 3,366 | | N3ALN | 10,679 |
| KK6ZIZ | 728 | | NØAT | 2,176 | | WB9TFH | 3,362 | | AB4SF | 3,007 | | NE2U | 8,106 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AD7MC | 572 | | KBØHNN | 1,222 | | N8HRZ | 2,516 | | NS4T | 2,769 | | K3RLW | 6,732 |
| **Single-operator, Analog-only, 3 Band** | | | | | | | | | | | | | |
| N7QOZ | 2,457 | | AD4OS | 280 | | VE3WG | 270 | | KN4QPA | 288 | | KC3LEC | 440 |
| K2GMY | 1,292 | | WBØLJC | 130 | | | | | K1CE | 1 | | N2KW | 330 |
| K7CX | 1,290 | | | | | | | | | | | W2FDJ | 324 |
| WB7FJG | 500 | | | | | | | | | | | N1ZN | 300 |
| W7JMP | 440 | | | | | | | | | | | W1DYJ | 294 |
| **Single-operator, FM only** | | | | | | | | | | | | | |
| W7IMC | 3,222 | | KG5UNK | 343 | | VE3RWJ | 1,150 | | | | | KB1YNT | 570 |
| N1TEN | 294 | | KFØKFB | 10 | | | | | | | | VA2DG | 246 |
| AF6GM | 205 | | | | | | | | | | | VA2WDW | 84 |
| N6DRE | 186 | | | | | | | | | | | AK1EB | 18 |
| KN6FKQ | 132 | | | | | | | | | | | | |
| **Limited Multioperator** | | | | | | | | | | | | | |
| WO1S | 3,360 | | K5QE | 70,848 | | VE3MIS | 55,753 | | WH6A | 12,483 | | N2NT | 149,898 |
| | | | NØLBY | 9,680 | | KE8RV | 18,530 | | W4GZX | 3,068 | | W2MMD | 66,700 |
| | | | K7EMR | 42 | | | | | W4TG | 530 | | W3HZU | 60,568 |
| | | | W5AC | 12 | | | | | K8AEP | 52 | | WA3EKL | 22,932 |
| | | | | | | | | | | | | N3EXA | 22,144 |
| **Unlimited Multioperator** | | | | | | | | | | | | | |
| W7DG | 2,484 | | KC5MVZ | 348 | | N8GA | 53,280 | | W4NH | 70,140 | | N3NGE | 111,280 |
| VE6AO | 407 | | | | | WD9EXD | 41,676 | | N4SVC | 62,699 | | KD2LGX | 55,180 |
| | | | | | | | | | N4BRF | 6,815 | | KE1LI | 35,862 |
| | | | | | | | | | | | | WØRSJ | 20,740 |
| | | | | | | | | | | | | W3RFC | 8,050 |

## Division Winners

R = Classic Rover; RL = Limited Rover; RU = Unlimited Rover; SO = Single Operator; ALG = Analog-only;
3B = 3 Band; FM = FM only; P = Portable; HP = High Power; LP = Low Power;
LM = Limited Multioperator; UM = Unlimited Multioperator

| Division | R | RL | RU | SOHP | SOLP | SO-ALG-HP | SO-ALG-LP |
|---|---|---|---|---|---|---|---|
| **Atlantic** | K2UA/R | N5BNO/R | | N2JMH | N3RG | W2FU | K3TUF |
| **Central** | K9TMS/R | KG9OV/R | K9JK/R | N4SV | K2DRH | K9YR | N9GH |
| **Dakota** | NØSPN/R | KFØFQV/R | KCØP/R | WØZQ | WAØVPJ | WØGHZ | KAØPQW |
| **Delta** | AG4V/R | NV4B/R | | N4QWZ | AJ6T | | KF7CG |
| **Great Lakes** | | | | KE8FD | KE8JCD | K2YAZ | K8BB |
| **Hudson** | | K2CR/R | | WA2FZW | WB2SIH | W2KV | WB2JAY |
| **Midwest** | AF4JF/R | | | KFØM | NØLL | | |
| **New England** | | AF1R/R | | K1TEO | N8RA | WZ1V | AF1T |
| **Northwestern** | WA6OEM/R | KA7RRA/R | | KE7SW | N7EPD | K7ND | K7YO |
| **Pacific** | | | W6YX/R | N6KOG | KE6GLA | K6WIS | K6MI |
| **Roanoke** | KN4SYO/R | KM4OZH/R | KK4BZ/R | K1HTV | K4FJW | W3IP | WB2CYJ |
| **Rocky Mountain** | | WØWLA/R | | WTØDX | NJ7A | | |
| **Southeastern** | | | K4NO/R | WB4OMG | W4MAA | W4AMP | W4RAA |
| **Southwestern** | N7GP/R | KD6EFQ/R | | N1AV | N7IR | K7HP | N7RK |
| **West Gulf** | KI5PYQ/R | W5TN/R | NØLD/R | W5LO | KM5RG | K5LLL | WB5ZDP |
| **Canada** | VE3OIL/R | VE3GKT/R | | VE3WY | VE3SMA | VE3ZV | VE3DS |
| | | | | | | | |
| | | | | | | | |

## Division Winners

R = Classic Rover; RL = Limited Rover; RU = Unlimited Rover; SO = Single Operator; ALG = Analog-only;
3B = 3 Band; FM = FM only; P = Portable; HP = High Power; LP = Low Power;
LM = Limited Multioperator; UM = Unlimited Multioperator

| Division | SOP | SOP-ALG | SO3B | SO3B-ALG | SOFM | LM | UM |
|---|---|---|---|---|---|---|---|
| **Atlantic** | W3FA | N3YMS | N3YY | KC3LEC | | W2MMD | N3NGE |
| **Central** | WK9U | | KO9A | | | | WD9EXD |
| **Dakota** | NØSUW | | KØVG | WBØLJC | KFØKFB | | |
| **Delta** | | N3AWS | K5TRP | | | W4GZX | |
| **Great Lakes** | | N8XA | N8HRZ | | | KE8RV | N8GA |
| **Hudson** | WX3P | WB2AMU | KD2TT | WB2ONA | | N2NT | W2SZ |
| **Midwest** | W1AW (NØJK, op) | | WDØBGZ | AD4OS | | NØLBY | |
| **New England** | AA1X | | W1QK | N2KW | KB1YNT | W1FM | KE1LI |
| **Northwestern** | | N7JA | KG7PD | N7QOZ | W7IMC | | W7DG |
| **Pacific** | | AA6XA | K6KLY | K2GMY | KM6SJO | | |
| **Roanoke** | W8TL | WX4DAT | KK4MA | KN4QPA | | W4TG | |
| **Rocky Mountain** | KØDBU | KØJJW, KØNR | AA5PR | | | K7EMR | |
| **Southeastern** | AB4DX | | NS4T | K1CE | | WH6A | W4NH |
| **Southwestern** | | WA7JTM | W8JH | N9OBB | N1TEN | WO1S | |
| **West Gulf** | | | W5TRL | | KG5UNK | K5QE | KC5MVZ |
| **Canada** | VE7KPM | VA7USD | VA3WB | VE3WG | VE3RWJ | VE3MIS | VE6AO |

| QSO/Mult Band Leaders by Category | |
|---|---|
| | |
| **Classic Rover** | |
| 50 MHz QSOs | |
| N7GP/R | 196 |
| VE3OIL/R | 100 |
| KK6MC/R | 84 |
| W3ICC/R | 59 |
| K7LSX/R | 53 |
| | |
| VE3OIL/R | 9 |
| AG4V/R | 7 |
| NN3Q/R | 7 |
| W3ICC/R | 7 |
| K2ET/R | 6 |
| K2UA/R | 6 |
| KI5PYQ/R | 6 |
| N7DSX/R | 6 |
| N7GP/R | 6 |
| | |
| 432 MHz QSOs | |
| N7GP/R | 173 |
| K9TMS/R | 58 |
| KK6MC/R | 58 |
| W3ICC/R | 55 |
| KI5PYQ/R | 53 |
| N9REP/R | 53 |
| | |
| 432 MHz Mults | |
| VE3OIL/R | 10 |
| W5VY/R | 8 |
| W3ICC/R | 7 |

| 50 MHz Mults | |
|---|---|
| VE3OIL/R | 30 |
| AG4V/R | 14 |
| N7GP/R | 11 |
| KK6MC/R | 9 |
| W5VY/R | 9 |
| | |
| 144 MHz QSOs | |
| N7GP/R | 173 |
| VE3OIL/R | 90 |
| NN3Q/R | 85 |
| | |
| AG4V/R | 6 |
| K2ET/R | 6 |
| K2UA/R | 6 |
| KI5PYQ/R | 6 |
| KK6MC/R | 6 |
| N7DSX/R | 6 |
| N7GP/R | 6 |
| NN3Q/R | 6 |
| | |
| 902 MHz QSOs | |
| N7GP/R | 121 |
| K2UA/R | 39 |
| K2ET/R | 35 |
| K9TMS/R | 35 |
| N9REP/R | 32 |
| | |
| 902 MHz Mults | |
| N7GP/R | 6 |
| K2ET/R | 5 |
| K2UA/R | 5 |
| VE3OIL/R | 5 |

| W3ICC/R | 67 |
|---|---|
| KK6MC/R | 63 |
| | |
| 144 MHz Mults | |
| VE3OIL/R | 21 |
| W5VY/R | 14 |
| NN3Q/R | 10 |
| AG4V/R | 9 |
| KK6MC/R | 8 |
| KV2X/R | 8 |
| N7DSX/R | 8 |
| | |
| AA9IL/R | 4 |
| K7LSX/R | 4 |
| K9TMS/R | 4 |
| KV2X/R | 4 |
| N7DSX/R | 4 |
| N9REP/R | 4 |
| NN3Q/R | 4 |
| W2EV/R | 4 |
| | |
| 1.2 GHz QSOs | |
| N7GP/R | 141 |
| KK6MC/R | 52 |
| K2UA/R | 37 |
| N7DSX/R | 37 |
| W3ICC/R | 32 |
| | |
| 1.2 GHz Mults | |
| VE3OIL/R | 7 |
| W3ICC/R | 7 |
| KK6MC/R | 6 |
| N7GP/R | 6 |

| W3ICC/R | 8 |
|---|---|
| | |
| 222 MHz QSOs | |
| N7GP/R | 129 |
| K9TMS/R | 51 |
| KI5PYQ/R | 51 |
| W3ICC/R | 49 |
| N9REP/R | 47 |
| | |
| 222 MHz Mults | |
| | |
| K2ET/R | 5 |
| KV2X/R | 5 |
| N7DSX/R | 5 |
| NN3Q/R | 5 |
| | |
| 2.3 GHz QSOs | |
| N7GP/R | 92 |
| K2UA/R | 23 |
| W3ICC/R | 18 |
| K2ET/R | 14 |
| NN3Q/R | 14 |
| | |
| 2.3 GHz Mults | |
| N7GP/R | 6 |
| K2ET/R | 4 |
| K2UA/R | 4 |
| K7LSX/R | 4 |
| N7DSX/R | 4 |
| NN3Q/R | 4 |
| W2EV/R | 4 |
| W3ICC/R | 4 |

| | |
|---|---|
| 3.4 GHz QSOs | |
| K2UA/R | 17 |
| N7GP/R | 13 |
| NN3Q/R | 9 |
| K2ET/R | 7 |
| N7DSX/R | 7 |
| | |
| 3.4 GHz Mults | |
| K2UA/R | 4 |
| K7LSX/R | 4 |
| N7DSX/R | 4 |
| N7GP/R | 4 |
| K2ET/R | 3 |
| NN3Q/R | 3 |
| | |
| 5.7 GHz QSOs | |
| N7GP/R | 20 |
| NN3Q/R | 12 |
| K2UA/R | 9 |
| K7LSX/R | 7 |
| N7DSX/R | 6 |
| | |
| 5.7 GHz Mults | |
| K7LSX/R | 4 |
| N7DSX/R | 4 |
| N7GP/R | 4 |
| NN3Q/R | 4 |
| K2UA/R | 3 |
| | |
| 10 GHz QSOs | |
| N7GP/R | 28 |
| K2UA/R | 27 |
| K7LSX/R | 11 |

| | |
|---|---|
| N7DSX/R | 11 |
| K2ET/R | 10 |
| | |
| 10 GHz Mults | |
| K7LSX/R | 4 |
| N7DSX/R | 4 |
| N7GP/R | 4 |
| K2UA/R | 3 |
| NN3Q/R | 3 |
| | |
| 24 GHz QSOs | |
| VE3OIL/R | 1 |
| | |
| 24 GHz Mults | |
| VE3OIL/R | 1 |
| | |
| 123 GHz QSOs | |
| VE3OIL/R | 1 |
| | |
| 123 GHz Mults | |
| VE3OIL/R | 1 |
| | |
| Light QSOs | |
| KØBAK/R | 12 |
| NN3Q/R | 1 |
| VE3OIL/R | 1 |
| W3ICC/R | 1 |
| | |
| Light Mults | |
| KØBAK/R | 3 |
| NN3Q/R | 1 |
| VE3OIL/R | 1 |
| W3ICC/R | 1 |

| **Limited Rover** | |
|---|---|
| 50 MHz QSOs | |
| NV4B/R | 88 |
| W5TN/R | 87 |
| W9YOY/R | 83 |
| KG9OV/R | 80 |
| KI5FIQ/R | 66 |
| | |
| 50 MHz Mults | |
| NV4B/R | 29 |
| KG9OV/R | 23 |
| W5TN/R | 16 |
| KA5D/R | 15 |
| W9YOY/R | 15 |
| | |
| 144 MHz QSOs | |
| KG9OV/R | 126 |
| W5TN/R | 90 |
| VE3GKT/R | 84 |
| W9YOY/R | 82 |
| KM4OZH/R | 78 |
| | |
| 144 MHz Mults | |
| KG9OV/R | 32 |
| W9YOY/R | 25 |
| NV4B/R | 23 |
| VE3GKT/R | 19 |
| W5TN/R | 18 |
| | |
| 222 MHz QSOs | |
| W5TN/R | 64 |
| KA5D/R | 63 |
| N6RH/R | 62 |
| KI5FIQ/R | 60 |

| | |
|---|---|
| AE5P/R | 54 |
| | |
| 222 MHz Mults | |
| NV4B/R | 16 |
| KA5D/R | 10 |
| W5TN/R | 10 |
| KG9OV/R | 7 |
| AE5P/R | 6 |
| KI5FIQ/R | 6 |
| N6RH/R | 6 |
| | |
| 432 MHz QSOs | |
| W5TN/R | 78 |
| KA5D/R | 75 |
| N6RH/R | 63 |
| KI5FIQ/R | 60 |
| N9YH/R | 58 |
| | |
| 432 MHz Mults | |
| NV4B/R | 16 |
| KA5D/R | 12 |
| W5TN/R | 11 |
| KG9OV/R | 9 |
| VE3GKT/R | 9 |
| | |
| **Unlimited Rover** | |
| 50 MHz QSOs | |
| K5SRT/R | 95 |
| K5ATX/R | 92 |
| W6YX/R | 82 |
| K4NO/R | 70 |
| NØLD/R | 69 |
| | |
| 50 MHz Mults | |

| | |
|---|---|
| K5SRT/R | 29 |
| K4NO/R | 28 |
| NØLD/R | 16 |
| W6YX/R | 15 |
| K4CNY/R | 13 |
| K5ATX/R | 13 |
| | |
| 144 MHz QSOs | |
| K5ATX/R | 114 |
| NØLD/R | 92 |
| W6YX/R | 85 |
| K5SRT/R | 71 |
| KI5VZJ/R | 71 |
| | |
| 144 MHz Mults | |
| K4NO/R | 15 |
| K5ATX/R | 14 |
| K5SRT/R | 11 |
| NØLD/R | 11 |
| KI5VZJ/R | 9 |
| KK4BZ/R | 9 |
| | |
| 222 MHz QSOs | |
| K5ATX/R | 72 |
| NØLD/R | 68 |
| KI5VZJ/R | 50 |
| K5SRT/R | 48 |
| K9JK/R | 44 |
| | |
| 222 MHz Mults | |
| K5ATX/R | 10 |
| K5SRT/R | 10 |
| NØLD/R | 10 |
| K4NO/R | 9 |

| | |
|---|---|
| KI5VZJ/R | 9 |
| | |
| 432 MHz QSOs | |
| K5ATX/R | 84 |
| NØLD/R | 78 |
| KI5VZJ/R | 66 |
| K9JK/R | 65 |
| K5SRT/R | 61 |
| | |
| 432 MHz Mults | |
| K5ATX/R | 11 |
| K5SRT/R | 11 |
| NØLD/R | 10 |
| KI5VZJ/R | 9 |
| K4NO/R | 7 |
| | |
| 902 MHz QSOs | |
| KI5VZJ/R | 56 |
| NØLD/R | 55 |
| K5SRT/R | 47 |
| K9JK/R | 30 |
| K5ATX/R | 6 |
| | |
| 902 MHz Mults | |
| K5SRT/R | 10 |
| NØLD/R | 10 |
| KI5VZJ/R | 9 |
| K9JK/R | 4 |
| W6YX/R | 3 |
| | |
| 1.2 GHz QSOs | |
| NØLD/R | 61 |
| KI5VZJ/R | 59 |
| K5SRT/R | 46 |

| | |
|---|---|
| KCØP/R | 10 |
| NØHZO/R | 8 |
| | |
| 1.2 GHz Mults | |
| K5SRT/R | 10 |
| NØLD/R | 10 |
| KI5VZJ/R | 9 |
| KCØP/R | 5 |
| NØHZO/R | 5 |
| | |
| 2.3 GHz QSOs | |
| K5ATX/R | 1 |
| | |
| 2.3 GHz Mults | |
| K5ATX/R | 1 |
| | |
| 10 GHz QSOs | |
| KCØP/R | 4 |
| NØHZO/R | 3 |
| | |
| 10 GHz Mults | |
| KCØP/R | 4 |
| NØHZO/R | 3 |
| | |
| **Single Operator, High Power** | |
| 50 MHz QSOs | |
| K1TEO | 273 |
| K1HTV | 221 |
| WA2FZW | 179 |
| N3FTI | 174 |
| N2JMH | 172 |
| | |
| 50 MHz Mults | |

| | |
|---|---|
| N2JMH | 80 |
| W5LO | 74 |
| KE8FD | 71 |
| KB8U | 64 |
| N4QWZ | 64 |
| | |
| 144 MHz QSOs | |
| W3XTT (KA1ZE, op) | 246 |
| K1TEO | 229 |
| WA2ZPX | 143 |
| K2TXB | 130 |
| KE8FD | 123 |
| | |
| 144 MHz Mults | |
| W3XTT (KA1ZE, op) | 71 |
| KE8FD | 56 |
| K1TEO | 46 |
| N4QWZ | 42 |
| VE3WY | 42 |
| | |
| 222 MHz QSOs | |
| K1TEO | 66 |
| N2JMH | 50 |
| N1AV | 35 |
| N4QWZ | 32 |
| W1FKF | 32 |
| | |
| 222 MHz Mults | |
| K1TEO | 29 |
| N4QWZ | 22 |
| N2JMH | 16 |
| W1FKF | 16 |
| KE8FD | 13 |
| | |

| 432 MHz QSOs | |
|---|---|
| K1TEO | 103 |
| N2JMH | 50 |
| N1AV | 47 |
| KU4XO | 44 |
| KC3BVL | 36 |
| | |
| 432 MHz Mults | |
| KU4XO | 32 |
| K1TEO | 29 |
| N4QWZ | 23 |
| KE8FD | 18 |
| N2JMH | 13 |
| N4SV | 13 |
| | |
| 902 MHz QSOs | |
| N2JMH | 29 |
| N1AV | 26 |
| K1TEO | 23 |
| W2SJ | 14 |
| K2TER | 12 |
| WA2OMY | 12 |
| | |
| 902 MHz Mults | |
| K1TEO | 17 |
| N1AV | 9 |
| N2JMH | 8 |
| K1KG | 6 |
| K2TER | 6 |
| N7VD | 6 |
| | |
| 1.2 GHz QSOs | |
| N1AV | 50 |
| K1TEO | 42 |
| N2JMH | 29 |
| K7EME | 20 |
| W2BVH | 17 |
| W2SJ | 17 |
| | |
| 1.2 GHz Mults | |
| N1AV | 21 |
| K1TEO | 18 |
| K7EME | 14 |
| N2JMH | 8 |
| N7VD | 7 |
| | |
| 2.3 GHz QSOs | |
| N2JMH | 22 |
| K1TEO | 21 |
| N1AV | 15 |
| WA2OMY | 11 |
| K2TER | 9 |
| | |
| 2.3 GHz Mults | |
| K1TEO | 11 |
| N2JMH | 6 |
| K2TER | 5 |
| N1AV | 5 |
| W1FKF | 5 |
| WA3DRC | 5 |
| | |
| 3.4 GHz QSOs | |
| N2JMH | 12 |
| K1TEO | 6 |
| K2TER | 6 |
| W3SZ | 4 |
| WA2OMY | 3 |
| | |
| 3.4 GHz Mults | |
| K1TEO | 6 |
| N2JMH | 4 |
| W3SZ | 4 |
| K2TER | 3 |
| K1KG | 2 |
| WA2OMY | 2 |
| | |
| 5.7 GHz QSOs | |
| N2JMH | 12 |
| K1TEO | 5 |
| N1AV | 5 |
| WA2OMY | 5 |
| K2TER | 3 |
| N7VD | 3 |
| W3SZ | 3 |
| | |
| 5.7 GHz Mults | |
| K1TEO | 5 |
| N1AV | 4 |
| N2JMH | 4 |
| W3SZ | 3 |
| WA2OMY | 3 |
| | |
| 10 GHz QSOs | |
| N1AV | 20 |
| N2JMH | 16 |
| K2TER | 5 |
| N7VD | 5 |
| K2DH | 4 |
| W1FKF | 4 |
| W3SZ | 4 |
| | |
| 10 GHz Mults | |
| N1AV | 8 |
| N2JMH | 4 |
| K2DH | 3 |
| K2TER | 3 |
| N7VD | 3 |
| W1FKF | 3 |
| W3SZ | 3 |
| | |
| 24 GHz QSOs | |
| W1FKF | 1 |
| | |
| 24 GHz Mults | |
| W1FKF | 1 |
| | |
| 47 GHz QSOs | |
| W1FKF | 1 |
| | |
| 47 GHz Mults | |
| W1FKF | 1 |
| | |
| Light QSOs | |
| W2SJ | 2 |
| KB1JEY | 1 |
| KC2TN | 1 |
| | |
| Light Mults | |
| KB1JEY | 1 |
| KC2TN | 1 |
| W2SJ | 1 |
| | |
| **Single Operator, Low Power** | |
| 50 MHz QSOs | |
| K2DRH | 177 |

| NF3R | 149 |
|---|---|
| W2DAN | 139 |
| N2SCJ | 136 |
| K9MU | 131 |
| | |
| 50 MHz Mults | |
| K2DRH | 85 |
| K9MU | 55 |
| NØLL | 50 |
| KE8JCD | 44 |
| NR2C | 43 |
| | |
| 144 MHz QSOs | |
| N2SCJ | 130 |
| K2DRH | 103 |
| KA2ENE | 101 |
| WB2SIH | 99 |
| N8RA | 98 |
| | |
| 144 MHz Mults | |
| K2DRH | 51 |
| KA2ENE | 32 |
| VA3IKE | 32 |
| N2SCJ | 29 |
| WA8MCD | 29 |
| | |
| 222 MHz QSOs | |
| N3RG | 42 |
| N2WK | 39 |
| WA3NUF | 38 |
| WA3GFZ | 31 |
| N7IR | 30 |
| | |
| 222 MHz Mults | |

| K2DRH | 17 |
|---|---|
| AJ6T | 16 |
| N3RG | 12 |
| N8RA | 10 |
| NF3R | 10 |
| | |
| 432 MHz QSOs | |
| N3RG | 50 |
| N7IR | 45 |
| WA3NUF | 42 |
| WA3GFZ | 39 |
| K2DRH | 37 |
| | |
| 432 MHz Mults | |
| K2DRH | 20 |
| N8RA | 13 |
| N3RG | 12 |
| WB2SIH | 11 |
| KE8QEP | 10 |
| KY4G | 10 |
| N2WK | 10 |
| WA3NUF | 10 |
| | |
| 902 MHz QSOs | |
| N2WK | 29 |
| KA2ENE | 15 |
| N3RG | 15 |
| NR2C | 14 |
| WA3GFZ | 13 |
| | |
| 902 MHz Mults | |
| KA2ENE | 6 |
| N2WK | 6 |
| N3RG | 6 |

| NR2C | 5 |
|---|---|
| WA3GFZ | 4 |
| WA3NUF | 4 |
| | |
| 1.2 GHz QSOs | |
| N7IR | 32 |
| N3RG | 28 |
| N2WK | 19 |
| WA3GFZ | 17 |
| NR2C | 12 |
| | |
| 1.2 GHz Mults | |
| N3RG | 11 |
| K2DRH | 6 |
| N2WK | 6 |
| N7IR | 6 |
| WA3NUF | 6 |
| | |
| 2.3 GHz QSOs | |
| N2WK | 15 |
| NR2C | 11 |
| N3RG | 9 |
| WA3GFZ | 9 |
| WA3NUF | 9 |
| | |
| 2.3 GHz Mults | |
| N3RG | 6 |
| N2WK | 5 |
| NR2C | 5 |
| WA3NUF | 5 |
| WA3GFZ | 4 |
| | |
| 3.4 GHz QSOs | |
| N2WK | 7 |

| WA3NUF | 4 |
|---|---|
| WA3GFZ | 1 |
| | |
| 3.4 GHz Mults | |
| N2WK | 4 |
| WA3NUF | 2 |
| WA3GFZ | 1 |
| | |
| 5.7 GHz QSOs | |
| N2WK | 7 |
| NR2C | 6 |
| N3RG | 2 |
| WA3NUF | 2 |
| WA3GFZ | 1 |
| | |
| 5.7 GHz Mults | |
| N2WK | 4 |
| NR2C | 3 |
| N3RG | 2 |
| WA3GFZ | 1 |
| WA3NUF | 1 |
| | |
| 10 GHz QSOs | |
| N2WK | 17 |
| NR2C | 9 |
| VE3SMA | 2 |
| WA3GFZ | 1 |
| | |
| 10 GHz Mults | |
| N2WK | 6 |
| NR2C | 5 |
| VE3SMA | 1 |
| WA3GFZ | 1 |
| | |

| Light QSOs | |
|---|---|
| WB3IGR | 3 |
| N3RG | 1 |
| W3GAD | 1 |
| WA3EHD | 1 |
| WA3GFZ | 1 |
| WA3NUF | 1 |
| | |
| Light Mults | |
| N3RG | 1 |
| W3GAD | 1 |
| WA3EHD | 1 |
| WA3GFZ | 1 |
| WA3NUF | 1 |
| WB3IGR | 1 |
| | |
| **Single Operator, Analog Only, High Power** | |
| 50 MHz QSOs | |
| WZ1V | 91 |
| W3IP | 85 |
| W2KV | 56 |
| WA1PBU | 54 |
| WØGHZ | 34 |
| | |
| 50 MHz Mults | |
| WZ1V | 21 |
| W3IP | 19 |
| W2KV | 16 |
| W2FU | 11 |
| K1TR | 8 |
| K1ZZ | 8 |
| K5LLL | 8 |
| VE3ZV | 8 |
| W1GHZ | 8 |
| W4AMP | 8 |
| WA1PBU | 8 |
| | |
| 144 MHz QSOs | |
| W2KV | 127 |
| WZ1V | 108 |
| W3IP | 73 |
| VE3ZV | 65 |
| WØGHZ | 57 |
| | |
| 144 MHz Mults | |
| W2KV | 32 |
| WZ1V | 24 |
| VE3ZV | 23 |
| W3IP | 21 |
| N1GC | 18 |
| | |
| 222 MHz QSOs | |
| WZ1V | 49 |
| VE3ZV | 42 |
| W3IP | 29 |
| WB2RVX | 25 |
| W2FU | 23 |
| | |
| 222 MHz Mults | |
| VE3ZV | 20 |
| WZ1V | 20 |
| N1GC | 14 |
| W1GHZ | 11 |
| W2FU | 11 |
| W3IP | 11 |
| | |
| 432 MHz QSOs | |
| WZ1V | 63 |
| W2KV | 52 |
| W3IP | 47 |
| VE3ZV | 45 |
| WB2RVX | 31 |
| | |
| 432 MHz Mults | |
| VE3ZV | 20 |
| WZ1V | 19 |
| W2KV | 17 |
| W3IP | 16 |
| W2FU | 11 |
| | |
| 902 MHz QSOs | |
| W2FU | 16 |
| VE3ZV | 14 |
| WB2RVX | 10 |
| W1GHZ | 5 |
| WØGHZ | 5 |
| | |
| 902 MHz Mults | |
| VE3ZV | 8 |
| W2FU | 6 |
| W1GHZ | 5 |
| K5LLL | 3 |
| N1JEZ | 3 |
| WB2RVX | 3 |
| WØGHZ | 3 |
| | |
| 1.2 GHz QSOs | |
| WZ1V | 25 |
| WØGHZ | 15 |
| VE3ZV | 13 |
| W3IP | 9 |
| WA1PBU | 9 |
| | |
| 1.2 GHz Mults | |
| WZ1V | 12 |
| VE3ZV | 8 |
| WØGHZ | 6 |
| W3IP | 5 |
| N1JEZ | 4 |
| W1GHZ | 4 |
| WA1PBU | 4 |
| | |
| 2.3 GHz QSOs | |
| W2FU | 11 |
| VE3ZV | 9 |
| N1JEZ | 4 |
| K7ND | 2 |
| WB2RVX | 1 |
| WØGHZ | 1 |
| | |
| 2.3 GHz Mults | |
| W2FU | 6 |
| VE3ZV | 5 |
| N1JEZ | 3 |
| K7ND | 1 |
| WB2RVX | 1 |
| WØGHZ | 1 |
| | |
| 3.4 GHz QSOs | |
| VE3ZV | 3 |
| | |
| 3.4 GHz Mults | |
| VE3ZV | 3 |
| | |
| 5.7 GHz QSOs | |

| | |
|---|---|
| WB2RVX | 1 |
| WØGHZ | 1 |
| | |
| 5.7 GHz Mults | |
| WB2RVX | 1 |
| WØGHZ | 1 |
| | |
| 10 GHz QSOs | |
| W2FU | 8 |
| VE3ZV | 4 |
| WØGHZ | 3 |
| W3IP | 1 |
| | |
| 10 GHz Mults | |
| W2FU | 4 |
| VE3ZV | 2 |
| WØGHZ | 2 |
| W3IP | 1 |
| | |
| Light QSOs | |
| WB2RVX | 2 |
| | |
| Light Mults | |
| WB2RVX | 1 |
| | |
| **Single Operator, Analog Only, Low Power** | |
| 50 MHz QSOs | |
| AF1T | 60 |
| K3TUF | 59 |
| KA3FQS | 44 |
| N1GLT | 40 |
| AC1J | 34 |
| N7RK | 34 |

| | |
|---|---|
| | |
| 50 MHz Mults | |
| AF1T | 13 |
| KAØPQW | 12 |
| K3TUF | 11 |
| WS3C | 9 |
| AC1J | 8 |
| K8BB | 8 |
| KA3FQS | 8 |
| KD2QKU | 8 |
| N7RK | 8 |
| VE3DS | 8 |
| | |
| 144 MHz QSOs | |
| AF1T | 88 |
| KA3FQS | 60 |
| K3TUF | 54 |
| WB2CUT | 54 |
| WB2JAY | 49 |
| | |
| 144 MHz Mults | |
| VE3DS | 17 |
| AF1T | 15 |
| WS3C | 13 |
| KD2HZI | 12 |
| WB2CUT | 12 |
| | |
| 222 MHz QSOs | |
| KA3FQS | 40 |
| AF1T | 39 |
| VE3DS | 25 |
| K3TUF | 24 |
| WB2JAY | 22 |
| | |

| | |
|---|---|
| 222 MHz Mults | |
| AF1T | 14 |
| VE3DS | 12 |
| KA3FQS | 8 |
| N1GLT | 8 |
| K3TUF | 7 |
| W4RAA | 7 |
| WB2VVV | 7 |
| | |
| 432 MHz QSOs | |
| AF1T | 54 |
| N7RK | 42 |
| KA3FQS | 40 |
| K3TUF | 36 |
| VE3DS | 33 |
| | |
| 432 MHz Mults | |
| AF1T | 15 |
| VE3DS | 14 |
| N7RK | 9 |
| K3TUF | 8 |
| KA3FQS | 8 |
| WS3C | 8 |
| | |
| 902 MHz QSOs | |
| AF1T | 16 |
| K3TUF | 12 |
| VE3DS | 10 |
| KA3FQS | 7 |
| W4RAA | 6 |
| | |
| 902 MHz Mults | |
| AF1T | 10 |
| K3TUF | 5 |

| | |
|---|---|
| VE3DS | 5 |
| WB2VVV | 4 |
| WB2JAY | 3 |
| | |
| 1.2 GHz QSOs | |
| N7RK | 26 |
| AF1T | 20 |
| K3TUF | 16 |
| VE3DS | 13 |
| AC1J | 11 |
| KA3FQS | 11 |
| | |
| 1.2 GHz Mults | |
| AF1T | 9 |
| VE3DS | 7 |
| K3TUF | 6 |
| N7RK | 5 |
| W4RAA | 5 |
| | |
| 2.3 GHz QSOs | |
| K3TUF | 10 |
| AF1T | 7 |
| VE3DS | 5 |
| K6MI | 1 |
| VE3WJ | 1 |
| WB2JAY | 1 |
| | |
| 2.3 GHz Mults | |
| AF1T | 6 |
| K3TUF | 6 |
| VE3DS | 4 |
| K6MI | 1 |
| VE3WJ | 1 |
| WB2JAY | 1 |

| | |
|---|---|
| 3.4 GHz QSOs | |
| AF1T | 5 |
| KA3FQS | 2 |
| VE3DS | 2 |
| WB2JAY | 1 |
| | |
| 3.4 GHz Mults | |
| AF1T | 5 |
| VE3DS | 2 |
| KA3FQS | 1 |
| WB2JAY | 1 |
| | |
| 5.7 GHz QSOs | |
| K3TUF | 5 |
| AF1T | 1 |
| K6MI | 1 |
| VE3WJ | 1 |
| | |
| 5.7 GHz Mults | |
| K3TUF | 4 |
| AF1T | 1 |
| K6MI | 1 |
| VE3WJ | 1 |
| | |
| 10 GHz QSOs | |
| AF1T | 7 |
| K3TUF | 3 |
| K6MI | 1 |
| VE3EG | 1 |
| VE3WJ | 1 |
| | |
| 10 GHz Mults | |
| AF1T | 5 |
| K3TUF | 3 |
| K6MI | 1 |
| VE3EG | 1 |
| VE3WJ | 1 |
| | |
| 24 GHz QSOs | |
| AF1T | 1 |
| K6MI | 1 |
| VE3WJ | 1 |
| | |
| 24 GHz Mults | |
| AF1T | 1 |
| K6MI | 1 |
| VE3WJ | 1 |
| | |
| 47 GHz QSOs | |
| AF1T | 1 |
| K6MI | 1 |
| | |
| 47 GHz Mults | |
| AF1T | 1 |
| K6MI | 1 |
| | |
| 123 GHz QSOs | |
| AF1T | 1 |
| K6MI | 1 |
| VE3WJ | 1 |
| | |
| 123 GHz Mults | |
| AF1T | 1 |
| K6MI | 1 |
| VE3WJ | 1 |
| | |
| Light QSOs | |
| K3EGE | 2 |
| AF1T | 1 |
| K6MI | 1 |
| VE3WJ | 1 |
| | |
| Light Mults | |
| AF1T | 1 |
| K3EGE | 1 |
| K6MI | 1 |
| VE3WJ | 1 |
| | |
| **Single Operator, Portable** | |
| 50 MHz QSOs | |
| AA1X | 40 |
| W1AW (NØJK, op) | 34 |
| WK9U | 34 |
| WX3P | 29 |
| W8TL | 26 |
| | |
| 50 MHz Mults | |
| WK9U | 25 |
| W1AW (NØJK, op) | 20 |
| AB4DX | 13 |
| W8TL | 13 |
| WX3P | 13 |
| | |
| 144 MHz QSOs | |
| AB4DX | 21 |
| W3FA | 21 |
| NØSUW | 17 |
| KD9NYE | 13 |
| AA1X | 4 |
| WX3P | 4 |
| | |
| 144 MHz Mults | |
| AB4DX | 12 |
| KD9NYE | 10 |
| W3FA | 9 |
| WX3P | 4 |
| NØSUW | 2 |
| | |
| 222 MHz QSOs | |
| AB4DX | 7 |
| | |
| 222 MHz Mults | |
| AB4DX | 7 |
| | |
| 432 MHz QSOs | |
| AB4DX | 10 |
| NØSUW | 5 |
| WX3P | 4 |
| | |
| 432 MHz Mults | |
| AB4DX | 7 |
| WX3P | 4 |
| NØSUW | 2 |
| | |
| **Single Operator, Portable, Analog Only** | |
| 50 MHz QSOs | |
| N3YMS | 34 |
| WA7JTM | 19 |
| AA6XA | 14 |
| KF7NP | 11 |
| WB2AMU | 10 |
| | |
| 50 MHz Mults | |
| N3YMS | 11 |

| | |
|---|---|
| AA6XA | 6 |
| WA7JTM | 5 |
| WB2AMU | 5 |
| KQ2RP | 4 |
| N2MAK | 4 |
| N6ARA | 4 |
| N8XA | 4 |
| | |
| 144 MHz QSOs | |
| N3YMS | 41 |
| AA6XA | 31 |
| KF7NP | 28 |
| WA7JTM | 26 |
| W7ETF | 18 |
| | |
| 144 MHz Mults | |
| N3YMS | 12 |
| WA7JTM | 6 |
| AA6XA | 5 |
| KF7NP | 5 |
| N2MAK | 4 |
| N6ARA | 4 |
| WB2AMU | 4 |
| | |
| 222 MHz QSOs | |
| N3YMS | 28 |
| KF7NP | 11 |
| WA7JTM | 11 |
| KAØCRO | 5 |
| WB2AMU | 4 |
| | |
| 222 MHz Mults | |
| N3YMS | 9 |
| KAØCRO | 3 |

| | |
|---|---|
| KF7NP | 2 |
| N2MAK | 2 |
| WA7JTM | 2 |
| WB2AMU | 2 |
| | |
| 432 MHz QSOs | |
| N3YMS | 32 |
| WA7JTM | 23 |
| KF7NP | 16 |
| AA6XA | 12 |
| K7UOU | 7 |
| | |
| 432 MHz Mults | |
| N3YMS | 9 |
| WA7JTM | 5 |
| AA6XA | 4 |
| KF7NP | 4 |
| K7UOU | 3 |
| | |
| 902 MHz QSOs | |
| N3YMS | 15 |
| WA7JTM | 4 |
| KF6CVA | 1 |
| N7JA | 1 |
| | |
| 902 MHz Mults | |
| N3YMS | 6 |
| WA7JTM | 2 |
| KF6CVA | 1 |
| N7JA | 1 |
| | |
| 1.2 GHz QSOs | |
| N3YMS | 14 |
| WA7JTM | 14 |

| | |
|---|---|
| KF7NP | 12 |
| AA6XA | 5 |
| KAØCRO | 2 |
| | |
| 1.2 GHz Mults | |
| N3YMS | 8 |
| WA7JTM | 5 |
| AA6XA | 4 |
| KF7NP | 3 |
| KAØCRO | 1 |
| KF6CVA | 1 |
| KØJJW | 1 |
| KØNR | 1 |
| N6ARA | 1 |
| N7JA | 1 |
| WX4DAT | 1 |
| | |
| 123 GHz QSOs | |
| K7UOU | 1 |
| | |
| 123 GHz Mults | |
| K7UOU | 1 |
| | |
| **Single Operator, 3 Band** | |
| 50 MHz QSOs | |
| N3YY | 245 |
| KO9A | 177 |
| WDØBGZ | 145 |
| KE3JP | 129 |
| KC3NDU | 127 |
| | |
| 50 MHz Mults | |
| N3YY | 91 |
| KO9A | 65 |

| | |
|---|---|
| KK4MA | 64 |
| WDØBGZ | 58 |
| W5TRL | 53 |
| | |
| 144 MHz QSOs | |
| N3YY | 119 |
| KO9A | 117 |
| NE2U | 102 |
| N3ALN | 86 |
| KE3JP | 68 |
| | |
| 144 MHz Mults | |
| KO9A | 40 |
| N3YY | 40 |
| KE3JP | 29 |
| N3ALN | 28 |
| NE2U | 25 |
| | |
| 432 MHz QSOs | |
| K6KLY | 34 |
| W5TRL | 30 |
| KO9A | 29 |
| W8JH | 27 |
| N3YY | 22 |
| | |
| 432 MHz Mults | |
| KK4MA | 12 |
| KO9A | 12 |
| W5TRL | 11 |
| N3YY | 9 |
| W8JH | 8 |
| | |
| **Single Operator, Analog Only, 3 Band** | |

| 50 MHz QSOs | |
|---|---|
| KC3LEC | 34 |
| N2KW | 30 |
| N7QOZ | 28 |
| WB7FJG | 21 |
| K7CX | 18 |
| | |
| 50 MHz Mults | |
| N2KW | 11 |
| N1JD | 7 |
| KC3LEC | 6 |
| N7QOZ | 6 |
| K2GMY | 5 |
| | |
| 144 MHz QSOs | |
| N7QOZ | 49 |
| K7CX | 42 |
| K2GMY | 29 |
| W7JMP | 29 |
| AD4OS | 25 |
| KN4QPA | 25 |
| | |
| 144 MHz Mults | |
| KN4QPA | 10 |
| AD4OS | 8 |
| K7CX | 8 |
| N7QOZ | 8 |
| K2GMY | 6 |
| N1JD | 6 |
| | |
| 432 MHz QSOs | |
| N7QOZ | 25 |
| K2GMY | 19 |
| K7CX | 13 |
| W7JMP | 10 |
| VE3WG | 9 |
| W1DYJ | 9 |
| | |
| 432 MHz Mults | |
| N7QOZ | 7 |
| K2GMY | 6 |
| K7CX | 3 |
| W2FDJ | 3 |
| W7RDW | 3 |
| | |
| **Single Operator, FM Only** | |
| 50 MHz QSOs | |
| W7IMC | 30 |
| KB1YNT | 8 |
| KG5UNK | 4 |
| VA2DG | 2 |
| AF6GM | 1 |
| N1TEN | 1 |
| | |
| 50 MHz Mults | |
| KB1YNT | 2 |
| AF6GM | 1 |
| KG5UNK | 1 |
| N1TEN | 1 |
| VA2DG | 1 |
| W7IMC | 1 |
| | |
| 144 MHz QSOs | |
| W7IMC | 116 |
| VE3RWJ | 47 |
| KB1YNT | 34 |
| AF6GM | 22 |
| N1TEN | 19 |
| | |
| 144 MHz Mults | |
| KB1YNT | 5 |
| VE3RWJ | 4 |
| W7IMC | 3 |
| AF6GM | 2 |
| KFØKFB | 2 |
| KG5UNK | 2 |
| KM6SJO | 2 |
| KN6FKQ | 2 |
| N1TEN | 2 |
| N6DRE | 2 |
| N6IV | 2 |
| VA2DG | 2 |
| VA2WDW | 2 |
| | |
| 222 MHz QSOs | |
| W7IMC | 34 |
| VA2DG | 6 |
| VE3RWJ | 5 |
| KG5UNK | 3 |
| KO6BT | 3 |
| N6DRE | 3 |
| | |
| 222 MHz Mults | |
| KG5UNK | 2 |
| N6DRE | 2 |
| VE3RWJ | 2 |
| W7IMC | 2 |
| AK1EB | 1 |
| KN6FKQ | 1 |
| KO6BT | 1 |
| N1TEN | 1 |
| VA2DG | 1 |
| VA2WDW | 1 |
| | |
| 432 MHz QSOs | |
| W7IMC | 76 |
| VE3RWJ | 29 |
| N1TEN | 14 |
| AF6GM | 11 |
| KG5UNK | 11 |
| | |
| 432 MHz Mults | |
| VE3RWJ | 4 |
| KB1YNT | 3 |
| KM6SJO | 3 |
| W7IMC | 3 |
| AF6GM | 2 |
| KG5UNK | 2 |
| N1TEN | 2 |
| N6DRE | 2 |
| VA2DG | 2 |
| | |
| **Limited Multioperator** | |
| 50 MHz QSOs | |
| N2NT | 281 |
| W2MMD | 224 |
| W3HZU | 208 |
| K5QE | 170 |
| WA3EKL | 161 |
| | |
| 50 MHz Mults | |
| K5QE | 106 |
| N2NT | 62 |
| VE3MIS | 56 |
| NØLBY | 50 |
| WH6A | 46 |

| | |
|---|---|
| 144 MHz QSOs | |
| N2NT | 279 |
| W3HZU | 216 |
| N3EXA | 146 |
| W2MMD | 129 |
| VE3MIS | 115 |
| | |
| 144 MHz Mults | |
| K5QE | 60 |
| N2NT | 53 |
| W3HZU | 41 |
| KE8RV | 38 |
| W2MMD | 36 |
| | |
| 222 MHz QSOs | |
| N2NT | 76 |
| W2MMD | 50 |
| VE3MIS | 33 |
| N3EXA | 29 |
| W4GZX | 9 |
| | |
| 222 MHz Mults | |
| N2NT | 23 |
| W2MMD | 19 |
| VE3MIS | 16 |
| N3EXA | 9 |
| KE8RV | 2 |
| W2RME | 2 |
| W4GZX | 2 |
| | |
| 432 MHz QSOs | |
| N2NT | 106 |
| VE3MIS | 67 |
| W2MMD | 66 |
| W3HZU | 50 |
| K2AA | 29 |
| | |
| 432 MHz Mults | |
| N2NT | 28 |
| VE3MIS | 24 |
| W3HZU | 22 |
| W2MMD | 20 |
| K5QE | 14 |
| | |
| 1.2 GHz QSOs | |
| WH6A | 14 |
| K5QE | 12 |
| WO1S | 11 |
| W3HZU | 8 |
| | |
| 1.2 GHz Mults | |
| WH6A | 14 |
| K5QE | 12 |
| W3HZU | 8 |
| WO1S | 4 |
| | |
| **Unlimited Multioperator** | |
| 50 MHz QSOs | |
| KE1LI | 189 |
| N4SVC | 180 |
| W4NH | 178 |
| N8GA | 146 |
| N3NGE | 132 |
| | |
| 50 MHz Mults | |
| N4SVC | 88 |
| W4NH | 80 |
| N8GA | 69 |
| KD2LGX | 47 |
| KE1LI | 45 |
| | |
| 144 MHz QSOs | |
| N3NGE | 140 |
| KE1LI | 136 |
| N8GA | 130 |
| W4NH | 93 |
| W3RFC | 88 |
| | |
| 144 MHz Mults | |
| N8GA | 47 |
| W4NH | 44 |
| WD9EXD | 40 |
| N3NGE | 38 |
| N4SVC | 32 |
| | |
| 222 MHz QSOs | |
| N3NGE | 59 |
| KD2LGX | 30 |
| WD9EXD | 29 |
| W4NH | 25 |
| KE1LI | 22 |
| | |
| 222 MHz Mults | |
| WD9EXD | 22 |
| N3NGE | 20 |
| W4NH | 17 |
| N4SVC | 14 |
| KD2LGX | 13 |
| | |
| 432 MHz QSOs | |
| N3NGE | 64 |
| KD2LGX | 40 |
| W4NH | 35 |
| WD9EXD | 35 |
| N4SVC | 33 |
| | |
| 432 MHz Mults | |
| WD9EXD | 25 |
| N4SVC | 24 |
| KD2LGX | 21 |
| W4NH | 20 |
| N3NGE | 19 |
| | |
| 902 MHz QSOs | |
| N3NGE | 19 |
| KD2LGX | 10 |
| WØRSJ | 6 |
| N4SVC | 4 |
| WD9EXD | 4 |
| | |
| 902 MHz Mults | |
| N3NGE | 8 |
| KD2LGX | 5 |
| N4SVC | 4 |
| WD9EXD | 4 |
| WØRSJ | 3 |
| | |
| 1.2 GHz QSOs | |
| N3NGE | 21 |
| KD2LGX | 13 |
| WØRSJ | 9 |
| N4SVC | 8 |
| N4BRF | 5 |
| W4NH | 5 |
| | |

| 1.2 GHz Mults | |
|---|---|
| N3NGE | 8 |
| N4SVC | 7 |
| KD2LGX | 5 |
| W4NH | 4 |
| WØRSJ | 4 |
| | |
| 2.3 GHz QSOs | |
| N3NGE | 13 |
| KD2LGX | 4 |
| WØRSJ | 3 |
| W2SZ | 2 |
| | |

| 2.3 GHz Mults | |
|---|---|
| N3NGE | 5 |
| KD2LGX | 4 |
| W2SZ | 2 |
| WØRSJ | 2 |
| | |
| 3.4 GHz QSOs | |
| W2SZ | 2 |
| | |
| 3.4 GHz Mults | |
| W2SZ | 2 |
| | |
| 5.7 GHz QSOs | |

| N3NGE | 6 |
|---|---|
| W2SZ | 1 |
| | |
| 5.7 GHz Mults | |
| N3NGE | 5 |
| W2SZ | 1 |
| | |
| 10 GHz QSOs | |
| N3NGE | 4 |
| W4NH | 2 |
| KA1SU | 1 |
| W2SZ | 1 |
| | |

| 10 GHz Mults | |
|---|---|
| N3NGE | 3 |
| KA1SU | 1 |
| W2SZ | 1 |
| W4NH | 1 |
| | |
| Light QSOs | |
| N3NGE | 2 |
| | |
| Light Mults | |
| N3NGE | 1 |