# ARRL June VHF Contest 2020 Full Results

***By Phil Koch, K3UA (k3ua1541@me.com)***

## How were those Digital Modes?

The FT8 mode provided an excellent means to work DX as well as single-hop and multiple-hop paths while utilizing simple antennas and low power. But with the new FT4 mode this year the digital rates increased dramatically and lots of stations used the FT4 mode to full advantage with activity primarily on 50.318. Even though the Big Gun antennas are much better, the Little Pistol folks were able to enjoy amazing success working new grids and new countries utilizing FT8 and FT4. But always remember that when the band is really open then use the SSB and CW modes for greater Q totals.

### Notes on FT8 and FT4

If you suddenly see your FT8 spectrum "light up" on 6 meters in the June contest, it may be time to take a break from FT8 and FT4 and go to SSB and CW to take advantage of the higher rates possible on those modes. Then return to the FT modes as SSB and CW rates start to fall.

### Notes on MSK144

The MSK144 mode in WSJT-X allows meteor scatter contacts at distances similar to single-hop E-skip. If you haven't tried this mode, consider giving it a spin on 6 meters in the next VHF+ contest. You can watch people setting up MSK144 skeds on the PingJockey webpage (www.pingjockey.net/cgi-bin/pingtalk) and the best time of day for meteor scatter is in the early morning.

In summary, keep an eye on conditions and adjust your operating accordingly. Take advantage of the rates available on SSB and CW when the band is fully open.

### There was plenty of DX activity...

Although the June VHF Contest activity is primarily from US and Canada there were some faithful calls active from the DX side. Several Mexico and Caribbean stations were active to represent North and South America. Europe calls were active according to logs received but no Europe stations submitted logs for the 2020 event.

Alaska and Hawaii were active with logs being submitted by AL7JK, KL1JP, KL2DN, KL2R, KL4E, KL5AF, KL7UW, KL7VHF/R, NL7B/R, WL7ZZ/R, KH6CJJ, KH6U, NH6Y.

Mexico was very well represented with the following calls submitting logs:

SOLP: XE2JS, XE2YWH, XE2NK, XE1HG, XE2N, XE2OK, XE1EE, XE1H

SOHP: XE2X, XE2CQ, XE2NBW

SO3B: XE2YWB, XE2SOZ

Also from North America we had three entries from Cuba – CM2RSV, CO2BK, and CO8ZZ – all three SOLP. The remaining logs submitted from North America are FG8OJ, HI8DL and J68HZ.

South America was represented with two logs – PV8DX from Brazil and 9Y4D from Trinidad.

JP1LRT was the only log submitted from Asia.

Thanks to all for being active and submitting logs.

**Category Abbreviations**

Single-Op HP/LP – SOHP/SOLP
Single-Op Portable – SOP
Single-Op 3 Bands Only – SO3B
Single-Op FM Only – SOFM
Multiop Limited/Unlimited – LM/UM
Rovers Classic/Limited/Unlimited – R/RL/RU

## Single Operator Results – Low and High Power

Congratulations to Mitch W1SJ for reaching the top spot in the SOLP category. AF1T moved up one position placing in the number 2 spot. Bob K2DRH is 3rd. These three ops managed some movement in the top three positions but their scores all very close. N0UR moved up from his number 6 spot in 2019 to end up 4th in 2020 with N2WK landing in the number 5 spot. Rounding out the Top Ten we have WA3NUF, WØZQ, W9GA, NØLL and KAØPQW. W9GA and NØLL repeated their Top Ten finishes from 2019 with W9GA repeating his number 8 position. Great job everyone!

### Single Operator, Low Power

| | |
|---|---|
| WB1GQR (W1SJ, opr) | 213,060 |
| AF1T | 210,532 |
| K2DRH | 191,673 |
| NØUR | 150,017 |
| N2WK | 136,040 |
| WA3NUF | 114,696 |
| WØZQ | 109,850 |
| W9GA | 107,262 |
| NØLL | 101,568 |
| KAØPQW | 82,908 |

Now for the SOHP results: Returning to the Top Ten in 2020 are K1TEO, K1RZ, K9CT, N2YB and K1KG. Congrats once again to Jeff K1TEO for repeating as the top score SOHP. K1RZ moves up from the number 9 spot last year to secure the number 2 slot. But not far behind is K1BX in the 3rd position. Craig K9CT lands in 4th with George K5TR securing the number 5 spot.

### Single Operator, High Power

| | |
|---|---|
| K1TEO | 506,989 |
| K1RZ | 290,830 |
| K1BX | 282,746 |
| K9CT | 261,375 |
| K5TR | 239,705 |
| W5ZN | 205,700 |
| N2YB | 178,088 |
| KC4PK | 165,438 |
| K1KG | 159,378 |
| WA1T | 154,088 |

W5ZN captured the 6th position. N2YB repeats his 7th place finish as he did in 2019. Rounding out the remaining Top Ten are KC4PK, K1KG and WA1T. A hearty congratulations to all!

KB5PRZ/KA5D/R, W5TN/R, K2EZ/R and KD5IKG/R pose with their rover vehicles during one of several point and shoot spots. [Kyle DeHaas, 5A5D, photo]

## Single Operator Portable Results

WA2TMC is the winner this year — up from 2nd place in 2019. Great job Bruce! The number 2 position goes to Tom W4RXR. Third place goes to NØJK. In the fourth slot we have KCØSKM. Rounding out the top five is K3HW. And finally, the remaining slots 6 through 10 were achieved by WB2AMU, W7JET, WD5AGO, KD8RTT and K7JSG respectively. WB2AMU improved his number 10 showing in 2019 to 6th. Great job all.

### Single Operator, Portable

| | |
|---|---|
| WA2TMC | 24,780 |
| W4RXR | 12,416 |
| NØJK | 7,242 |
| KCØSKM | 6,552 |
| K3HW | 4,558 |
| WB2AMU | 4,232 |
| W7JET | 3,164 |
| WD5AGO | 2,535 |
| KD8RTT | 2,508 |
| K7JSG | 2,052 |

## Single Operator, 3 Band Results

KO9A repeats as the winner of the SO3B category – increasing his score by nearly 50K over his 2019 score. Fantastic job Jim! N4OGW repeats as the 2nd place finisher. Tor more than doubled his 2019 score. K2PS lands in 3rd place moving up from number 9 in 2019. NS4T is 3rd and AG4W rounds out the top five in 5th place. Rounding out the top ten are NØHJZ, VE3KI, KK4MA, VE3SST and VA3ASE. Wonderful job everyone!

### Single Operator, 3 Band

| | |
|---|---|
| KO9A | 139,332 |
| N4OGW | 106,023 |
| K2PS | 68,040 |
| NS4T | 66,912 |
| AG4W | 58,680 |
| NØHJZ | 56,261 |
| VE3KI | 51,948 |
| KK4MA | 48,513 |
| VE3SST | 47,813 |
| VA3ASE | 46,269 |

## Single Operator, FM Only Results

This year's SOFM winner WG4I achieved an excellent showing with 6,183 points - easily outdistancing the rest of the Top Ten by a sizeable margin. The number 2 spot belongs to KC6ZWT with 2,975 points. 3rd place goes to KG7AZY with 1,177 points. The bottom four scores Top Ten are so close ranging from 264 to 294 points.

### Single Operator, FM Only

| | |
|---|---|
| WG4I | 6,183 |
| KC6ZWT | 2,975 |
| KG7AZY | 1,177 |
| WB6ETY | 884 |
| KG5UNK | 522 |
| KC9PCP | 336 |
| W7AIT | 294 |
| AE6GR | 287 |
| K6QCB | 264 |
| W6ESL | 264 |

## Multiop Results – Limited and Unlimited

KG5CCI and crew hit the high notes this year and topped the LM category! The crew of Dave KG5CCI, Wyatt ACØRA and Matt NJ4Y worked hard and it paid off. Congrats! The crew of N2NT, N2NC, and WW2Y worked their wonders once again to pilot the N2NT station to their third consecutive 2nd place finish in LM. In the number 3 slot we have KZ9O. And repeating in 4th place from last year is AA4ZZ. K5QE is number 5 this year after winning in 2019. The remaining five positions for 2020 are N4SVC, N4WW, K3CT, WD9EXD and W1QK. K3CT was 9th last year improving to 8th in 2020. Fine job by all!

### Limited Multioperator

| | |
|---|---|
| KG5CCI | 404,505 |
| N2NT | 318,052 |
| KZ9O | 240,816 |
| AA4ZZ | 225,806 |
| K5QE | 220,640 |
| N4SVC | 171,360 |
| N4WW | 151,048 |
| K3CT | 104,988 |
| WD9EXD | 82,593 |
| W1QK | 77,558 |

The new winner for UM is K8GP. K8GP and crew were 3rd in 2019 as LM entry. Excellent job for sure! Holding onto 2nd place is W2AAU followed by KE1LI landing in the 3rd spot. KE1LI was 10th in 2019. Bettering their 9th place showing in 2019 and landing in 4th is the group at KD2LGX. The ops at W9XA held onto number 5 just as they did last year. And completing the Top Ten UM are W4IY, N3NGE, KV1J, N8GA and AG4V. N8GA was 6th last year and again returning to the Top Ten and AG4V was 7th Classic Rover last year and decided on doing UM this year. Congratulations for some very big efforts!

### Unlimited Multioperator

| | |
|---|---|
| K8GP | 212,925 |
| W2AAU | 202,080 |
| KE1LI | 131,005 |
| KD2LGX | 122,170 |
| W9XA | 107,217 |
| W4IY | 98,450 |
| N3NGE | 61,759 |
| KV1J | 60,711 |
| N8GA | 59,444 |
| AG4V | 41,454 |

## And there were Rovers...

Classic Rovers (R) can haul equipment for as many bands as the multi-ops to multiple locations. By doing so they help fixed stations through the lean hours with new grid multipliers from running the bands.

For the Classic Rovers, Andrea K2EZ/R landed in the top position – a very fine effort Andrea! Andrea has mainly operated Limited Rover but made the change this year. Be sure to read Andrea's summary elsewhere in this article. Jarred, KF2MR/R landed in this year's number 2 position. And securing 3rd this year is KA2LIM/R. N7GP/R is 4th sliding from his 2nd place showing in 2019 but with an improved score. Number 5 is Russ VE3OIL/R. Russ was tops in the Classic Rover category last year. Rounding out the Top Ten is K2QO/R (who was also 6th last year), VA3ELE/R, W3ICC/R, W4EO/R and W9FZ/R. Super efforts everyone!

### Classic Rover

| | |
|---|---|
| K2EZ/R | 209,916 |
| KF2MR/R | 121,032 |
| KA2LIM/R | 110,815 |
| N7GP/R | 97,440 |
| VE3OIL/R | 84,640 |
| K2QO/R | 76,912 |
| VA3ELE/R | 64,296 |
| W3ICC/R | 56.070 |
| W4EO/R | 55,088 |
| W9FZ/R | 46,942 |

### Limited Rover

| | |
|---|---|
| K9PW/R | 70.680 |
| KA5D/R | 42,160 |
| W5TN/R | 40,917 |
| NU4E/R | 40,293 |
| K5ND/R | 39,072 |
| KEØMHJ/R | 35,836 |
| NV4B/R | 30,804 |
| N6GP/R | 20,256 |
| N2DXT/R | 19,110 |
| KI5FIQ/R | 15,930 |

**Unlimited Rover**

| | |
|---|---|
| NØLD/R | 143,773 |
| KBØYHT/R | 64,295 |
| KD5IKG/R | 62,524 |
| K6MI/R | 39,039 |
| K9JK/R | 28,980 |
| KG6CIH/R | 7,923 |
| K3RW/R | 2,508 |
| VE7AFZ/R | 1,449 |
| K7ATN/R | 114 |
| KD2KAG/R | 66 |

**In-depth Stories and Features**

Be sure to read the detailed discussions and blow-by-blow reports of the contest provided by several of the top stations; Single Op, Multiop, and Rovers. They give a detailed look at what the contest was like in their area and in their categories.

For the Limited Rover (RL) category none of the 2020 Top Ten were in the Top Ten last year. K9PW/R outdistanced the competition and took the top position this year. Kyle KA5D/R is 2nd this year. W5TN/R, NU4E/R and K5ND/R landed in spots 3, 4 and 5 respectively. And rounding out the Top Ten we have KEØMHJ/R, NV4B/R, N6GP/R, N2DXT/R and KI5FIQ/R. Great job everyone!

And finally, for those that rove- the Unlimited Rover (RU). Moving up from his 2nd place finish last year and cementing the number 1 spot this year is Russ, NØLD/R. With KBØYHT/R taking 2nd place. Postions 3, 4 and 5 belong to KD5IKG/R, K6MI/R and K9JK/R respectively. And the bottom five of the Top Ten are KG6CIH/R, K3RW/R, VE7AFZ/R, K7ATN/R and KD2KAG/R. Congrats to all!

## Club Competition was fierce as usual

The Affiliated Club Competition for the 2020 June VHF Contest has several position changes from ups and downs to repeat winners.

**Affiliated Club Competition**

| *Club* | *Score* | *Entries* |
|---|---|---|
| **Unlimited** | | |
| Mt Airy VHF Radio Club | 1,939,838 | 56 |
| Society of Midwest Contesters | 1,759,546 | 78 |
| Potomac Valley Radio Club | 1,572,300 | 101 |
| The Ontario VHF Association | 1,379,218 | 56 |
| **Medium** | | |
| Yankee Clipper Contest Club | 1,129,529 | 46 |
| North East Weak Signal Group | 904,836 | 19 |
| Northern Lights Radio Society | 845,924 | 25 |
| Frankford Radio Club | 552,837 | 29 |
| Roadrunners Microwave Group | 422,900 | 7 |
| Florida Contest Group | 369,035 | 21 |
| Florida Weak Signal Society | 350,724 | 5 |
| Badger Contesters | 336,439 | 21 |
| Arizona VHF Society | 331,831 | 12 |
| DFW Contest Group | 309,240 | 12 |
| Carolina DX Association | 307,747 | 10 |
| Arizona Outlaws Contest Club | 293,963 | 36 |
| Minnesota Wireless Assn | 253,971 | 22 |
| Alabama Contest Group | 242,635 | 9 |
| Grand Mesa Contesters of Colorado | 218,499 | 12 |
| New Mexico VHF Society | 196,632 | 9 |
| Pacific Northwest VHF Society | 164,826 | 37 |
| North Texas Microwave Society | 162,033 | 4 |
| Michigan VHF-UHF Society | 158,402 | 6 |
| Northern California Contest Club | 158,277 | 36 |
| Tennessee Contest Group | 155,128 | 17 |
| Southern California Contest Club | 133,690 | 28 |
| Great Places Contest Club | 114,642 | 5 |
| Northeast Maryland Amateur Radio Contest Society | 114,242 | 11 |
| Central Texas DX and Contest Club | 108,920 | 10 |
| South East Contest Club | 107,088 | 7 |
| Texas DX Society | 100,877 | 8 |
| North Coast Contesters | 94,762 | 5 |
| Kentucky Contest Group | 93,456 | 8 |
| Contest Club Ontario | 64,839 | 9 |
| South Jersey Radio Assn | 60,218 | 6 |
| Mad River Radio Club | 55,130 | 8 |
| Hudson Valley Contesters and DXers | 39,050 | 6 |
| **Local** | | |
| Orleans County Amateur Radio Club | 275,324 | 8 |
| Eastern Connecticut ARA | 187,776 | 4 |
| CTRI Contest Group | 180,681 | 9 |
| Chippewa Valley VHF Contesters | 163,208 | 5 |
| The Villages Amateur Radio Club | 68,466 | 4 |
| Bristol (TN) ARC | 51,377 | 6 |

In 2020 the Unlimited category has the Mt Airy VHF Radio Club barely edging out the Society of Midwest Contesters by only about 200K. The Mt Airy VHF Radio Club had the top spot in the Medium category in 2019 but 10 more entries allowed them to move to Unlimited. Congrats once again to both of these highly competitive contest clubs. The SMC and the Mt Airy group totals are both up from 2019 taking advantage of the better conditions this year. Nice efforts to both clubs.

The Medium Club category winner is the Yankee Clipper Contest Club – moving up from the number 6 position

achieved in 2019. The club's point total was up a whopping 5X over their last year's totals. Congrats to your members! Repeating as the 2nd place club is the North East Weak Signal Group. The Northern Lights Radio Society moved into the number 3 slot up from their 4th place finish in 2019. The Frankford Radio Club landed in 4th up from their 14th place finish last year. And rounding out the Top Five we have the Roadrunners Microwave improving from their 7th finish last year.

The Local Club winner is the Orleans County Amateur Radio Club. The Eastern Connecticut ARA lands in the second place for 2020. The CTRI Contest Group is up from 4th in 2019 to 3rd this year. In 4th is the Chippewa Valley VHF Contesters. And rounding out the Local Club finals are The Villages Amateur Radio Club and the Bristol (TN) ARC. A great job by all.

Congratulations to all for excellent jobs in the various club categories. It's always great to see clubs rallying the members to be active and make some QSOs regardless of which contest it is.

## The main goal is to have fun!

Being competitive and winning and/or making the Top Ten or Top Five is a great goal and aspiration but the time on the air while actually operating is what it is all about. When the contest finishes and you see how well you did, be sure to always reflect back to what it was like during the contest while operating. Too many times we feel as though the contest effort may seem wasted if we did not win or make whatever top spot goals we had. Let's enjoy the moments of working that new grid, that new country, that new state or that new meteor scatter QSO, etc.

## Station Contest Reports

These stations contributed stories, photos, graphics, and memories of their contest experiences. We are glad to have them — maybe we'll see yours next year! – *Ed.*

## KL4E "Semi-Permanent" Antenna Array

These three photos show my "semi-permanent" antenna array as mounted on my rooftop in Eagle River, Alaska. I use the term "semi-permanent" because our home was severely damaged in the November 7.1 earthquake and will have to be torn down in the near future. Therefore everything that you see is easily removable in an afternoon and can be broken down and transported to my new QTH hopefully without damage. Since a rotor was not available, I used parachute cord pulling on a steering tiller to access the shack through a scrap plywood window replacement panel. The cord then passes immediately above the operating position to a bungee-tensioned laundry pulley. Small color-coded zipties attached to the parachute cord are used as directional indicators: blue (cold) for north, green for due west, and red (hot) for south. [Craig Bledsoe, KL4E, photos]

## In Their Own Words...

### K2EZ/R June 2020 Rove Report – Winner of Classic Rover

By Andrea K2EZ *(Reprinted with permission from the Pack Rats July 2020 issue of "Cheese Bits")*

Here is how my rove went.

I was running 8 bands like in January, but this time no snow or ice. I only activated 15 grids this time. Due to some delays, my potential end of contests destinations became too iffy to reach. My rove started Southeast of San Antonio TX and finished just outside Tulsa OK.

A surprising amount of this rove was only loosely planned. I did plan to meet up with a few of the Texas rovers hence my starting location. And I planned to work my way up to where the OK Rovers were active. Pretty much nothing in between went anywhere close to how I thought it might. And as mentioned before, I had to scrap my final run chasing multipliers and fresh Qs which was either going to be towards Memphis, TN or St. Louis, MO.

Unlike other parts of the country, 6m seemed to be inert in the West Gulf region Saturday. The only stations heard on 6m were ones that I, or someone else, QSYed to the band. I heard some FT8, but I was unable to run that at the time.

Sunday, I heard some out of area 6m activity for a short bit mid-day when I was in Oklahoma. I also heard the occasional distant voice that faded in and out. Fortunately, for the last few hours of the contest, 6m opened very strongly and this allowed me to pile on multipliers and extra Qs that made up somewhat for having to cancel the final run. More on that later.

As for technical issues these were rather minor except for one incident that I was able to resolve. This occurred very early in the contest. I was using my air conditioning sparingly due to some problems with the AC compressor. This was only a small discomfort for me, but I started to realize there was a problem when the tablet for my logging system became sluggish and was running slow. A restart didn't help. It was just occurring to me that maybe the temperature had something to do with the slow performance. At that point I remembered I had a temperature problem before with both the Flex Radio and the tablet I use for its console. No sooner do I think this, the tablet for the Flex Radio console shuts off as if it read my mind. I go looking in the back and the Flex Radio starts to indicate over temperature shutdown as well. This had the effect of taking all four of my microwave bands off the air. To get it all cooled down, I was forced to run the AC continuously. My already unhappy compressor was screaming like a jet engine. This is Texas and what I could get away with up north with AC off, or running intermittently, just wasn't enough here. Despite all the noise, the air conditioning did work. After about 20 minutes, the tablet and Flex Radio cooled enough that I got the micros back up. The sluggishness in my logging system also went away with the cooler temps.

The other technical issue was minor. For some reason my little USB GPS module wouldn't sync again so I couldn't get time lock for digital modes. I could do a reasonable manual setting if my iPhone clock would show seconds but waiting for it to change to the next minute to manually sync is sloppy. I've done it but it takes multiple tries and it is never right on. That has been one irritation about this iPhone. I suppose I could get a third-party app to resolve it. Anyway, digital modes would have been nice to run on the otherwise dead 6m Saturday, especially while moving, but it was what it was. I was more focused on the micros.

For the start of the contest I met up with some of the TX rovers KA5D/R, KD5IKG/R and W5TN/R. These gentlemen were invaluable helping me with the local information about that part of Texas.

Tim KD5IKG had some new hardware for the microwave bands giving us both eight bands. Unfortunately, he had some teething pains, and this gave us some headaches early in the contest when trying to work each other. There seemed to be an intermittent in the switching. So, we ended up working thru those headaches which likely cost us opportunities to catch some other stations.

One of my favorite times during the contest was when there were four of us rovers headed towards a hilltop spot called the "Devil's Backbone" southwest of Austin. We were going to meet up there for dinner as well as some operating. We were proceeding at different times and some had different routes. I was very much the late one and somewhat lost. During this period, we ended up in some different grids in a piecemeal fashion so had opportunities to work each other as well as work a number of the fixed stations that were following us. It was a very active time for all of us.

Thanks to the rovers, I discovered that Texas (and later Oklahoma) does have some big hills.

Much of my time on that hilltop was socializing with the other rovers and some curiosity seekers. It was a bit hard for more than one of us to operate anyway and I was

ready for a break. I was the late one still up on the hill after 9pm while the other rovers were headed home for the overnight. Once they left the hilltop, I started my operation there seriously. It was close to 10 PM when I decided to roll off the hill. My idea that I might continue up the gridline on the west side of the DFW metroplex went out the window as I had a morning appointment in Oklahoma too far to the east. So, after rolling off the hill, I needed a more direct route. That appeared to be a run up I-35 thru Austin, then Waco, before branching on I-35E towards the Dallas side of the metroplex. This didn't let me optimize the number of grids I activated, but my goal for the night was already a solid 5 hours away. It wasn't looking like I would get too much sleep.

I worked a number of fixed stations during the first hour or so of that travel, but fixed stations were calling it a night. That included Ron K5LLL which would have been easy to get 7 or 8 bands for the next couple grids.

K5TR however was working late into the night and seemed to be tracking me on APRS. Not long after I would cross a grid, I could pretty much count on hearing CQ from K5TR on SSB in what otherwise was dead time for all but the diehard ops mostly running meteor scatter. The only other station I heard really late was K5QE. These two stations insured I was able to activate the grids I was passing through during those nighttime hours.

When I got into my desired overnight area, I discovered that some event had caused all the lodging to be booked. After killing a half hour with no luck and seeing my available sleep time dwindle to less than 3 hours, it just became impractical to get a room. Even if I found a place, by the time I checked in, got my stuff in a room, got to bed, and then the time I needed in the morning, my sleep time would be too little to make it worthwhile. At this point I decided it was best to go back to the ole sleep in the car routine. That would give me more sleep even if not as comfortable. I found a distant corner of a Buc-ee's parking lot where the lighting wasn't so bright.

The bad part of this plan was that it was hot. Yes hot, this is Texas. Outside temps had dropped down to mid-70s which was better than normal, but the vehicle was just hot from running all day. Even though the AC had been on, as soon as I turned the engine off, the interior temp climbed. I didn't want to sit parked with car running to keep the AC running. Keeping windows closed and doors locked for security quickly became a non-option if I wanted sleep.

I tried opening the windows and inch or two get some air flow while making it very difficult, if not impossible to reach in. This got a slight cross breeze, but it was still too hot. I opened the windows some more, but it was still was too hot. At this point I was still trying to justify that while the widows were open more, it still offered some degree of security. Yes, someone could reach in and unlock the door, but it would take some time and if they were just trying to grab something it would be a hard reach. Eventually fatigue and the heat took its toll. I decided that the risk of getting murdered or having stuff stolen while I slept was worth it if I could get just some sleep. I rolled the windows all the way down. This improved the cross breeze significantly and I finally got the temp down to a tolerable level. With one arm hang hanging out a window for extra cooling I finally fell asleep. I woke after dawn, about 6am not having been murdered. As far as I could tell, nothing was taken either. There was already a good amount of activity on 2m. I went into Buc- ee's where I quickly washed up as well as I could. I also changed into some fresh clothes and brushed my teeth. Then I was off again continuing north.

As is typical, the early morning time was fairly busy with lots of fresh stations to work. Even though I was on the north side of Dallas now, I still heard K5TR calling CQ regularly and we were able to work on a few bands. I caught up with two of the OK rovers, NØLD/R and KBØYHT/R, about 10:30am. I ended up sticking with them thru lunch and up to the grid corner in the Tulsa area. They showed me a couple of their hilltop locations where we were able to work a number of the fixed stations. Time just seemed to vanish, and it wasn't long before it was clear that I couldn't make my MO or TN targets without too much risk of falling short.

My last stop with them was a huge hilltop overlooking Tulsa. There was a bit less than 3 hours left in the contest. 6m had opened wide at this point. I never heard 6m open like this before. With so many stations coming in from so many areas, it actually made operation more difficult on SSB than less strong conditions. The Pacific Northwest, Midwest, and East coast were all coming in strong. The crowding was so bad I had very limited luck on SSB so I went to CW which was better. I appreciated Randy NØLD giving digital modes a break to let me work some multipliers. The constant carrier was completely blanking out 6m when they transmitted. I eventually moved off the hilltop to a spot about a half mile down the road to avoid the mutual interference.

With about 90 minutes left in the contest, and the band still hot, I interrupted operation for some photos as the OK rovers were starting their run back towards home. This ended up being about 40 minutes of chatting as curious public came up to ask questions. Public relations is something most every rover has to deal with at one

time or another. Be it answering the curiosity seeker's questions or trying to calm the nerves of the suspicious.

When I finally got back to operating the band had cooled. The southeast was now coming in a little, but much of the northeast was no longer being heard. The upside to this is that SSB became more productive and I alternated between SSB and CW for the last 45 minutes working stations as I found them.

Final score as a Classic Rover: 215,908. If I wanted to put myself in the Limited Rover Category my score would be just under 87K. Not going to do that, it is just a reference point to compare with my prior limited roves where my best score was 70K. Unfortunately, since I was outside of the Packrat's territory, none of my score will count towards the club score. One of these days I will be back in the northeast for a contest.

## N6MI – Operation from Grid Square DM15aa

*By N6MI*

For the June VHF contest (June 13-14, 2020), I drove the N6MI ham van to DM15aa. I camped in the open desert. For a few photos, visit n6mi.com. It was nice weather. Not too hot during the day and not too cold at night. On Friday, the wind peaked at about 50 miles per hour. However, the wind was usually 20 miles per hour or less. No, I don't use outriggers on the ham van. The Will-Burt pneumatic mast just sways a little... On 6 meters, I operated the Yaesu FTdx101D and ACOM A600S amplifier (about 500 watts on USB and CW). I used a five element yagi at 60 feet. The FTdx101D is a fine contest radio.

I used an ICOM-9700 for 2 (100 watts), 432 (75 watts), and 1.2 (10 watts). I attached an external Leo Bodner Precision GPS Reference Clock; I don't have any drift problems with this setup. On 2 meters, I used a 12 element yagi, mounted about four feet above the six-meter yagi. On 432, I used a mid-sized yagi, about 15 feet high, mounted on a push up mast from Will-Burt. On 1.2, I used a small Comet yagi, about 20 feet high, mounted on the top of the Will-Burt mast. This mast required an "arm strong" rotator. On 223.5 FM (only), I ran 5 watts to a whip on the van roof.

Several hams said, "I have never heard or worked a ham in DM15 on this band." Super! That is why I try to travel to amusing spots for the June VHF contest. This was my first contest with FT8. I like the FT8 activity, but I still prefer voice and CW modes on VHF. On Saturday morning, I received a surprise visit from K6VCR. Tom tracked my location on APRS. We shared (socially distant) cups of coffee and caught up on old times. My most difficult QSO was with N7DA in DM12. We worked at it until we received some airplane flutter assistance.

| Band | Mode | QSOs | Pts | Grd | Pt/Q |
|---|---|---|---|---|---|
| 50 | CW | 9 | 9 | 4 | 1.0 |
| 50 | FT8 | 51 | 51 | 13 | 1.0 |
| 50 | USB | 38 | 38 | 9 | 1.0 |
| 144 | CW | 2 | 2 | 0 | 1.0 |
| 144 | FM | 1 | 1 | 0 | 1.0 |
| 144 | USB | 24 | 24 | 9 | 1.0 |
| 222 | FM | 5 | 2 | 1 | 2.0 |
| 222 | USB | 4 | 8 | 3 | 2.0 |
| 420 | FM | 1 | 2 | 0 | 2.0 |
| 420 | USB | 16 | 32 | 7 | 2.0 |
| 1240 | USB | 4 | 12 | 4 | 3.0 |
| Total | Both | 151 | 181 | 50 | 1.2 |

N6MI and K6VCR in Grid DM15aa during the June 2020 VHF Contest [Scott Bovitz, N5MI, photo]

## KO9A June 2020 VHF – 3 Band Category Top Score

*By Jim, KO9A*

...and I thought last year was pretty good! Many thanks to K1JT, K9AN, G4WJS, and the entire WSJT dev team...this score just doesn't happen without their tool suite and innovation.

Mode breakdown (includes dupes):

SSB: 336
FT8: 257
FT4: 95
CW: 20
MSK144: 8
FM: 4

W9 was blessed again this year with good conditions both days. Lots of interesting openings and stations available to work. FT4 was great fun the final ~6 hours of the contest. FT4 rates were as good or better than what

I can typically generate off of CW. SSB is still rate king, but FT4/FT8 dominate when conditions are iffy. Hopefully more stations try and stay on FT4 in CQ VHF.

For typical single hop sporadic E FT4 seemed far superior than FT8 to me. Had what I am calling an FT8 only opening to W3 Sunday afternoon where all signals were <-10, many <-20. Great fun to work those stations where no other modes would make it. By the end of the weekend I think all of FN20 was worked, even down to the guys using paperclips for antennas!

Moving to SSB at the first sign of >+10 digital signals paid off again this year as it was easy to tear off a 100-200 hr rate burst before getting chased off frequency by high power stations. Still trying to find the limits of what is possible with a puny station. Sure feels like 225-250 grids might be feasible on 6m...great fun trying to push the envelope! 73 & hope to see you in CQ VHF!
Jim KO9A

## K5TR June 2020 Report – No. 5 Single Operator, High Power

*By George, K5TR*

I did not make many changes to the station since last year. I did get somewhat of a station going on 2304 this year and I made a few contacts on that band for the first time. I was not able to get the amp going on 2304 so that limited my range a bit and I am unsure how little power was coming out of the transverter. Something to work on before the next contest.

I have been doing the ARRL June VHF contest almost every year since sometime in the late 1980's. I first came to do 6 meters as I really enjoy the great Es openings that often come during this contest. Last year was one of the worst years for Texas - I only worked 240 contacts on 6m in the 2019 contest. This year was a bit better. The contest started with the band open into the EN grids to the north and signals on 6m were OK. There was also a group of four rovers here in Texas starting to my south at a grid corner.

I ran on 6 meters and picked off stations on the high bands on the second radio. The 6 meter opening only lasted for about the first hour of the contest and then 6 meters closed up a bit and I was working rovers and locals around Texas on the bands.
At 20Z I made my first pass at 6 meter digital working Texas stations that were on that mode - then it was back to 6m SSB for more CQing and the random contact here and there on a mostly 6 meter band. Through the afternoon and evening the rovers were working their way north and I was running them though the bands as they got to new grids. It was great to have them on as I was not working much on 6 meters during this time.

By 04Z the rovers that live in Austin had stopped at their homes for a good night's rest and I was left with K2EZ/R who was headed north. I started working some stations on 2m MS while keeping tabs on K2EZ's location. MSK on 2m and 6m was giving me some distant grids and contacts. I was on the radio until about 08Z. K2EZ/R was about an hour from the next grid and the MS contacts had slowed and I was tired. My last contact was a quick one with K9CT on 2m MS for a new grid at 0744z. I went to sleep for a few hours as was back up a little after 11Z and made my first contacts on 6m MSK at 11:23z.

By about 14Z 6 meters was showing some signs of life to the east and I started getting answers on SSB into some EM and FM grids. In the 15 and 16 hours I started working some FN grids in New England. By 17Z 6 meters had gotten spotty and poor with some contacts here and there but mostly a lot of CQing. It kept feeling like it would bust open but just never really did. It was not until 00Z that the band would finally open well for the fist time all weeeknd with the rate finally getting into the 100+/hr range at times. The band was open to Japan and China and other places - K5LLL worked China on FT8. I went up there briefly and worked one or two USA stations as well as getting a report out of BV6CC but not working him. I did not stay long as the rates on SSB were much better, so I was back down on SSB again until the end of the contest where I was getting good answers right up until the end.

And a big thanks to all the stations I worked and the rovers. It was great having K2EZ/R on late into the night and on the high bands - she knows the code and was easy to work on 1.2 and 2.3 even with my poor high band station. And a big thanks to a all the other local Texas rovers for all the contacts from all those grids. Always great to have all that activity.

Hope to see you all next time.

The station:

http://www.kkn.net/~k5tr/blanco/k5tr_station.html

50Mhz - Elecraft K3 - 2x 3-500z (1200 watts)
7 element yagi at 75'
7 element yagi at 30'
7 element yagi at 25' fixed Northeast
7 element yagi at 30' fixed Northwest

144Mhz - Elecraft K3 - Elecraft XV144 - W6PO 8877 (1000 watts) 17B2 17 element yagi at 35' Ringo 5/8 wave for FM contacts

222Mhz - Elecraft K3 - Elecraft XV222 - Larcan amp (1000 watts) Cushcraft 15 ele yagi at 30'

432Mhz - Elecraft K3 - Elecraft XV432 - W6PQL amp (1000 watts) 2 high stack M2 432-9WL 28 element yagis at about 40' DB-420 dipole array for FM

902Mhz - Elecraft K3 - DEMI transverter - 50 watt amp - 16 element loop yagi at 30' 1296Mhz - Elecraft K3 - DEMI transverter - 30 watt amp 24 element loop yagi at 30'

2304Mhz - Elecraft K3 - DEMI transverter - 2 watts or less 27 element loop yagi at 30'

10GHZ - Elecraft K3 -> 144 mhz UT5JCW transverter -> DEMI transverter - 3 watts 2 ft dish 30'

(144, 222, 432, 902, 1296, 2304 and 10GHz are all using the same K3)

## KG5CCI – Top Score Limited Multioperator

*By Dave KG5CCI, Wyatt ACØRA and Matt NJ4Y*

The original plan for us this year was to go to Santa Rosa Island, CA and activate CM93... Coronavirus however forced us to push that plan out til 2021. Since KG5CCI had a new QTH out in the mountains of the Ozarks with a somewhat respectable horizon and lots of space to spread, we decided to put on a limited multi-op instead.

Equipment was mostly Wyatt's (ACØRA), some of Dave's (KG5CCI) and 1 radio of Matt's (NJ4Y). Setup was as follows:

6M Station: 1x 6m7 at 45' 1x 6m5 at 35' Icom 7300 Acom 1200s (running mostly ~900w)

2M Station: 1x 12 Element Cushcraft LFA at 45' Icom 9700 LinearAmpUK (Running ~800w)

222mhz Station: 1x 7wl Homebrewed m2 imitation at 32' Yaesu 991 Demi Transverter Surplus Harris Amp (Running ~600w)

70cm Station: 1x 432 9WL m2 Yagi at 35' Icom 9700 (Running 75W)

Other Assorted Gear: 9200 W Champion Generator (Ran whole contest) Couple Pop up Tents 2 Tables (One actual table, one piece of plywood on sawhorses) 3 big old box fans running all the rpms Dedicated Laptops and computers on each band

Other Random Notes:

Wyatt & Dave managed to stay awake for the entire contest, and Matt took about a 3-hour nap between 2AM and 5AM. Wyatt recalls Dave was doing Yoga on a little cooler about 4AM when the EME wasn't going so well... things got a little loopy. W5VY/R and KEØMHJ/R were both super reliable and we ran the bands from numerous grids with them. It was also really cool to get K5ND/R from all bands when he was in EM24, which is a place Dave has operated from many times. Wyatt mostly ran the 6m station, including several very long runs on sideband, which is where most of the QSOs came from... if his voice sounded muffled it was because he was likely eating hotdog kolaches from the Shipley's donuts that is a mile down the road. The new QTH in addition to having a good view, is dangerous to our waistlines. Pretty sure we each gained at least 6 pounds.

All in all it was a super enjoyable contest, we think the score was respectable for our first time doing a multi-op, and we're making bigger and better plans for next year. 73 You Betcha. -Dave, Wyatt and Matt

## N5ITO June 2020 Report – SOHP from NTX

*By Dave N5ITO*

After not being active for pretty much a year, I spent the last 6 months doing my best to update the station and make a big bang this last contest..Re-tuned every antenna, updated main feed lines to LMR-600, New amps on 3 of the 4 bands. New radios to include an IC-7300 and an IC-9700. New Hy-Gain Rotor and digital control box.

Things I missed and cost me a few points. Rotor tails were not checked. I was focused to much on the main feed lines. This caused the antennas on 2M and 432 to fail the 2nd day. The 6M Cushcraft is not rated at 1KW, only 500 PEP and it started showing high SWR the 2nd days also. The 2nd day I was down to 1296 at 50W, a 6M loop at 40 feet, and 2M loop at 45 feet. Knowing these were not able to handle 1KW I backed down the amps power to just under 500 Watts. The new amps put out 2Xs the power as before and the lower rated items gave up after a constant 18 hours of 1KW being feed to them. Im thinking the Connectors were not up to stuff and I need to upgrade to much better versions. The SWR rises

as the power is increased and settles back down at lower power. Lesson learned. Don't cheap out on anything if your going QRO.

Overall I feel pretty good. 6M was open in one direction most of the time with a few direction changes through out the contest. 2M did not see an opening, but the M2-18XXX and 1KW while it lasted was reaching out and touching stations 5-600 Miles with ease. 432 Was reaching up to 300 miles, and 1296 was reaching 150 miles.

I did switch between SSB/FT8/FT4, with some MSK meteor scatter on 6/2 when times were slow. Even got in a few JT65 on the higher bands. I wish we had more 432 and 1296 stations on the air for out out in the weeds grids to work.

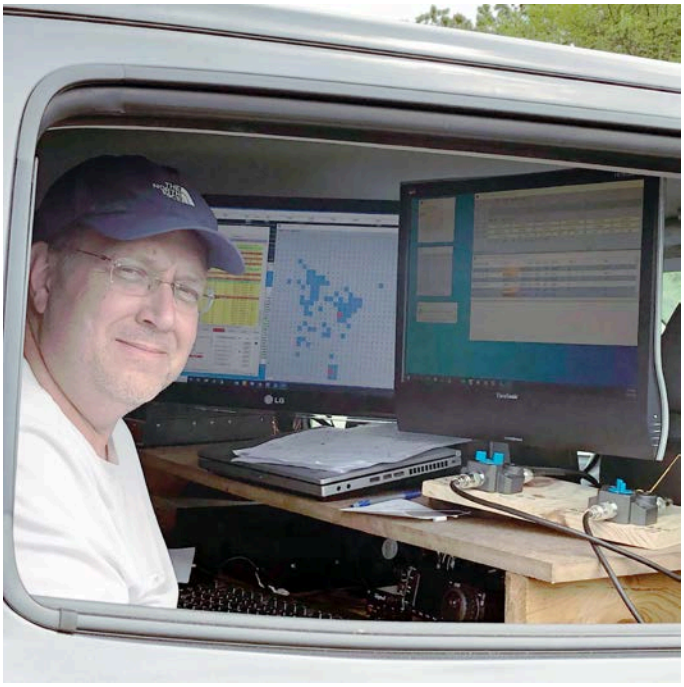
With that note... This contest was my best contest in 10 years. Hope to see a few of you in the next one!

50 Mhz : 216 Contacts / 110 Grids
144 Mhz : 42 Contacts / 25 Grids
432 Mhz : 5 Contacts / 5 Grids
1296 Mhz : 1 Contact / 1 grid

Totals 264 Contacts QSO Points: 271 Multipliers: 141 Score : 38,211

Dave N5ITO / EM23

Here is the very neat and compact station at N5ITO. Great job Dave! [Dave Vondrasek, N5ITO, photo]



KB4BKV takes a few moments (above) to pose for a photo opportunity, his operating location rewarded him with a spectacular sunset. [John Edwards, KB4BKV, photos]

My son, Jason (currently studying for his technician), and I headed up to the northwest corner of FM19 to a mountain in WPA on Saturday morning. The weather was perfect with temperatures in the mid-60's during setup. After making a few phone contacts on 6m, 2m and 70cm, I switched over to FT8 on 6m. It was almost nonstop from there on out on 6m, only taking a few breaks every once in a while to make a few contacts on 2m. Contacts were consistently made on 6m up until around 2am EDT when things slowed significantly and I decided to catch a few hours of sleep in the back of the truck. When starting again around 6am EDT, the action on 6m continued for the remainder of the contest. We only stopped to ensure we didn't have to disassemble and pack up in the dark. (Amazing view of the sunset! - Ed)

## Regional Leaders:

**Boxes list call sign, score, and class:**

**LM = Limited Multioperator**
**R = Classic Rover**
**RL = Limited Rover**
**RU = Unlimited Rover**
**SO3B = Single Operator, 3 Band**
**SOFM = Single Operator, FM Only**
**SOHP = Single Operator, High Power**
**SOLP = Single Operator, Low Power**
**SOP = Single Operator, Portable**
**UM = Unlimited Multioperator**

**West Coast Region**

**(Pacific, Northwestern and Southwestern Divisions; Alberta, British Columbia and NT Sections)**

| | | |
|---|---|---|
| N7GP/R | 97,440 | R |
| WB6HYD/R | 16,848 | R |
| KN6HQQ/R | 9,072 | R |
| AF6AV/R | 6,144 | R |
| AC7SG/R | 6,080 | R |
| | | |
| N6GP/R | 20,256 | RL |
| KE6QR/R | 13,320 | RL |
| K6LMN/R | 8,772 | RL |
| N7OW/R | 6,956 | RL |
| N7DA/R | 3,000 | RL |
| | | |
| K6MI/R | 39,039 | RU |
| K3RW/R | 2,508 | RU |
| VE7AFZ/R | 1,449 | RU |
| K7ATN/R | 114 | RU |
| | | |
| N1AV | 126,252 | SOHP |
| W7MRF | 69,642 | SOHP |
| WO7R | 29,631 | SOHP |
| K7CW | 23,859 | SOHP |
| AA7A | 23,484 | SOHP |
| | | |
| | | |
| VA6AN | 22,509 | SOLP |
| K6JO | 15,390 | SOLP |
| K2GMY | 15,318 | SOLP |
| W6TV | 14,976 | SOLP |
| WZ8T | 14,432 | SOLP |
| | | |
| W7JET | 3,164 | SOP |
| K7JSG | 2,052 | SOP |
| K7CNT | 777 | SOP |
| AA6XA | 540 | SOP |
| VE7JH | 387 | SOP |
| | | |
| N7IR | 26,611 | SO3B |
| N7AT | 12,782 | SO3B |
| NU6S | 12,408 | SO3B |
| W8AEF | 8,448 | SO3B |
| W6RW | 7,176 | SO3B |
| | | |
| KC6ZWT | 2,975 | SOFM |
| WB6ETY | 884 | SOFM |
| W7AIT | 294 | SOFM |
| AE6GR | 287 | SOFM |
| W6ESL | 264 | SOFM |
| K6QCB | 264 | SOFM |
| | | |
| W6TCP | 15,000 | LM |
| WO1S | 4,370 | LM |
| | | |
| NI6E | 11,858 | UM |
| WA6LE | 5,278 | UM |
| K6LRG | 3,780 | UM |

**Midwest Region**

**(Dakota, Midwest, Rocky Mountain and West Gulf Divisions; Manitoba and Saskatchewan Sections)**

| | | |
|---|---|---|
| K2EZ/R | 209,916 | R |
| WØZF/R | 18,560 | R |
| KØBBC/R | 3,892 | R |
| KCØP/R | 3,703 | R |
| NØHZO/R | 3,703 | R |
| | | |
| KA5D/R | 42,160 | RL |
| W5TN/R | 40,917 | RL |
| K5ND/R | 39,072 | RL |
| KEØMHJ/R | 35,836 | RL |
| KI5FIQ/R | 15,930 | RL |
| | | |
| NØLD/R | 143,773 | RU |
| KBØYHT/R | 64,295 | RU |
| KD5IKG/R | 62,524 | RU |
| | | |
| K5TR | 239,705 | SOHP |
| AA5AM | 149,160 | SOHP |
| KØSIX | 141,602 | SOHP |
| W9RM | 125,268 | SOHP |
| WDØT | 92,130 | SOHP |
| | | |
| NØUR | 150,017 | SOLP |
| WØZQ | 109,850 | SOLP |
| NØLL | 101,568 | SOLP |
| KAØPQW | 82,908 | SOLP |
| WØBH | 50,794 | SOLP |
| | | |
| NØJK | 7,242 | SOP |
| KCØSKM | 6,552 | SOP |
| WD5AGO | 2,535 | SOP |
| KD8RTT | 2,508 | SOP |
| NØSTP | 1,700 | SOP |
| | | |
| NØHJZ | 56,261 | SO3B |
| KØTI | 45,560 | SO3B |
| KEØSVL | 44,172 | SO3B |
| KØVG | 40,710 | SO3B |
| NØAT | 36,890 | SO3B |
| | | |
| KG7AZY | 1,177 | SOFM |
| KG5UNK | 522 | SOFM |
| KM5YX | 140 | SOFM |
| NØYH | 39 | SOFM |
| | | |
| K5QE | 220,640 | LM |
| AA5B | 75,504 | LM |

| | | |
|---|---|---|
| NJ8M | 38,253 | LM |
| NØLNO | 16,236 | LM |
| | | |
| KC5MVZ | 8,694 | UM |

**Central Region**
**(Central and Great Lakes Divisions; Ontario East, Ontario North, Ontario South, and Greater Toronto Area Sections)**

| | | |
|---|---|---|
| VE3OIL/R | 84,640 | R |
| VA3ELE/R | 64,296 | R |
| W9FZ/R | 46,942 | R |
| KA9VVQ/R | 44,838 | R |
| VE3WJ/R | 38,412 | R |
| | | |
| K9PW/R | 70,680 | RL |
| N6WJA/R | 5,616 | RL |
| W9YOY/R | 4,128 | RL |
| N9GH/R | 1,400 | RL |
| VE3RKS/R | 255 | RL |
| | | |
| K9JK/R | 28,980 | RU |
| | | |
| K9CT | 261,375 | SOHP |
| NØAKC | 99,900 | SOHP |
| K9IMM | 90,112 | SOHP |
| WE9V | 88,230 | SOHP |
| KB8U | 83,589 | SOHP |
| | | |
| K2DRH | 191,673 | SOLP |
| W9GA | 107,262 | SOLP |
| VE3DS | 74,571 | SOLP |
| W9XT | 50,424 | SOLP |
| N9ISN | 45,570 | SOLP |
| | | |
| VE3EG | 931 | SOP |
| VE3GMZ | 720 | SOP |
| VE3IPS | 286 | SOP |
| N9TTX | 90 | SOP |
| N8OSF | 63 | SOP |
| | | |
| KO9A | 139,332 | SO3B |
| VE3KI | 51,948 | SO3B |
| VE3SST | 47,813 | SO3B |
| VA3ASE | 46,269 | SO3B |
| NN1N | 38,419 | SO3B |
| | | |
| KC9PCP | 336 | SOFM |
| N9HRT | 160 | SOFM |
| KD9OIN | 14 | SOFM |
| | | |
| KZ9O | 240,816 | LM |
| WD9EXD | 82,593 | LM |
| WS9V | 56,840 | LM |
| N9JF | 56,721 | LM |
| VE3MIS | 29,812 | LM |
| | | |
| W9XA | 107,217 | UM |
| N8GA | 59,444 | UM |
| N2BJ | 33,222 | UM |

**Southeast Region**
**(Delta, Roanoke and Southeastern Divisions)**

| | | |
|---|---|---|
| W4EO/R | 55,088 | R |
| W5VY/R | 25,970 | R |
| KK4BZ/R | 10,140 | R |
| W4NF/R | 3,264 | R |
| N4DKF/R | 629 | R |
| | | |
| NU4E/R | 40,293 | RL |
| NV4B/R | 30,804 | RL |
| AE5P/R | 15,500 | RL |
| WB8LYJ/R | 9,588 | RL |
| W5TV/R | 7,680 | RL |
| | | |
| W5ZN | 205,700 | SOHP |
| KC4PX | 165,438 | SOHP |
| N4QWZ | 150,656 | SOHP |
| W3IP | 143,988 | SOHP |
| WA4GPM | 95,613 | SOHP |
| | | |
| N4IS | 48,178 | SOLP |
| N4LAZ | 36,180 | SOLP |
| WG8S | 33,027 | SOLP |
| WB5JJJ | 26,460 | SOLP |
| W4SPR | 24,178 | SOLP |
| | | |
| W4RXR | 12,416 | SOP |
| KN4ZKT | 903 | SOP |
| K4KPW | 861 | SOP |
| N4QX | 245 | SOP |
| KC8KSK | 100 | SOP |
| | | |
| N4OGW | 106,023 | SO3B |
| K2PS | 68,040 | SO3B |
| NS4T | 66,912 | SO3B |
| AG4W | 58,680 | SO3B |
| KK4MA | 48,513 | SO3B |
| | | |
| WG4I | 6,183 | SOFM |
| K3TW | 153 | SOFM |
| W5WGF | 65 | SOFM |
| K4CNY | 36 | SOFM |
| KV4OD | 14 | SOFM |
| | | |
| KG5CCI | 404,505 | LM |
| AA4ZZ | 225,806 | LM |
| N4SVC | 171,360 | LM |
| N4WW | 151,048 | LM |
| WB4WXE | 40,020 | LM |
| | | |
| K8GP | 212,925 | UM |
| W4IY | 98,450 | UM |
| AG4V | 41,454 | UM |

**Northeast Region**
**(New England, Hudson and Atlantic Divisions; Maritime and Quebec Sections)**

| | | |
|---|---|---|
| KF2MR/R | 121,032 | R |
| KA2LIM/R | 110,815 | R |
| K2QO/R | 76,912 | R |
| W3ICC/R | 56,070 | R |
| K2ET/R | 40,828 | R |
| | | |
| N2DXT/R | 19,110 | RL |
| WB2SIH/R | 15,908 | RL |
| KJ2G/R | 14,938 | RL |
| AF1R/R | 14,630 | RL |
| KØBAK/R | 3,960 | RL |
| | | |
| KG6CIH/R | 7,923 | RU |
| | | |
| K1TEO | 506,989 | SOHP |
| K1RZ | 290,830 | SOHP |
| K1BX | 282,746 | SOHP |
| N2YB | 178,088 | SOHP |
| K1KG | 159,378 | SOHP |
| | | |
| WB1GQR | 213,060 | SOLP |
| AF1T | 210,532 | SOLP |
| N2WK | 136,040 | SOLP |
| WA3NUF | 114,696 | SOLP |
| NN1D | 79,380 | SOLP |
| | | |
| WA2TMC | 24,780 | SOP |
| K3HW | 4,558 | SOP |
| WB2AMU | 4,232 | SOP |
| VE2NCG | 1,479 | SOP |
| K2TAS | 264 | SOP |
| | | |
| K3TEF | 29,120 | SO3B |
| N1JD | 28,462 | SO3B |
| N3AAA | 27,477 | SO3B |
| W1BS | 25,452 | SO3B |
| WN3A | 23,229 | SO3B |
| | | |
| KB1YNT | 207 | SOFM |

| | | |
|---|---|---|
| VA2DG | 87 | SOFM |
| KB6EE | 56 | SOFM |
| KC2RTE | 36 | SOFM |
| VE2HEW | 33 | SOFM |
| | | |
| N2NT | 318,052 | LM |
| K3CT | 104,988 | LM |
| W1QK | 77,558 | LM |
| WA1Z | 67,134 | LM |
| W3SO | 67,044 | LM |
| | | |

| | | |
|---|---|---|
| W2AAU | 202,080 | UM |
| KE1LI | 131,005 | UM |
| KD2LGX | 122,170 | UM |
| N3NGE | 61,759 | UM |
| KV1J | 60,711 | UM |

## QSO and Multiplier Leaders by Category

| **Classic Rover** | |
|---|---|
| **50 MHz QSOs** | |
| K2QO/R | 330 |
| W4HFZ/R | 312 |
| KA2LIM/R | 275 |
| W5VY/R | 193 |
| W3ICC/R | 178 |
| | |
| **50 MHz Mults** | |
| KA2LIM/R | 115 |
| W4HFZ/R | 113 |
| K2QO/R | 110 |
| W5VY/R | 71 |
| W3ICC/R | 66 |
| | |
| **144 MHz QSOs** | |
| N7GP/R | 145 |
| K2EZ/R | 106 |
| W4EO/R | 95 |
| KA2LIM/R | 83 |
| KF2MR/R | 79 |
| | |
| **144 MHz Mults** | |
| KA2LIM/R | 26 |
| VA3ELE/R | 20 |
| K2EZ/R | 16 |
| VE3OIL/R | 16 |
| W4EO/R | 14 |
| | |
| **222 MHz QSOs** | |
| N7GP/R | 98 |
| K2EZ/R | 95 |
| KF2MR/R | 63 |
| W2HRY/R | 52 |
| KV2X/R | 51 |
| | |
| **222 MHz Mults** | |
| K2EZ/R | 15 |
| VA3ELE/R | 13 |
| VE3OIL/R | 12 |
| KA2LIM/R | 11 |
| K2QO/R | 10 |
| KF2MR/R | 10 |
| | |
| **432 MHz QSOs** | |
| N7GP/R | 139 |
| K2EZ/R | 117 |
| KF2MR/R | 71 |
| K2ET/R | 63 |
| KV2X/R | 54 |
| | |
| **432 MHz Mults** | |
| K2EZ/R | 15 |
| KA2LIM/R | 15 |
| VA3ELE/R | 12 |
| K2QO/R | 11 |
| VE3OIL/R | 11 |
| | |
| **902 MHz QSOs** | |
| N7GP/R | 79 |
| K2EZ/R | 71 |
| KF2MR/R | 53 |
| K2ET/R | 39 |
| KA9VVQ/R | 38 |
| W9FZ/R | 38 |
| | |
| **902 MHz Mults** | |
| K2EZ/R | 12 |
| VE3OIL/R | 11 |
| KA9VVQ/R | 8 |
| KF2MR/R | 8 |
| VA3ELE/R | 8 |
| VE3WJ/R | 8 |
| W9FZ/R | 8 |
| | |
| **1.2 GHz QSOs** | |
| N7GP/R | 97 |
| K2EZ/R | 73 |
| KF2MR/R | 60 |
| K2ET/R | 39 |
| W2EV/R | 35 |
| | |
| **1.2 GHz Mults** | |
| K2EZ/R | 14 |
| VA3ELE/R | 11 |
| VE3OIL/R | 11 |
| KF2MR/R | 10 |
| VE3WJ/R | 8 |
| | |
| **2.3 GHz QSOs** | |
| K2EZ/R | 43 |
| KF2MR/R | 24 |
| KJ7JC/R | 21 |
| N7GP/R | 20 |
| W3ICC/R | 19 |
| | |
| **2.3 GHz Mults** | |
| K2EZ/R | 12 |

| | |
|---|---|
| VE3OIL/R | 10 |
| VE3WJ/R | 8 |
| KF2MR/R | 7 |
| N7GP/R | 5 |
| VA3ELE/R | 5 |
| | |
| **3.4 GHz QSOs** | |
| K2EZ/R | 36 |
| W4EO/R | 8 |
| KF2MR/R | 7 |
| KJ7JC/R | 4 |
| N7GP/R | 4 |
| VA3ELE/R | 4 |
| | |
| **3.4 GHz Mults** | |
| K2EZ/R | 11 |
| KF2MR/R | 4 |
| W2EV/R | 3 |
| KA2LIM/R | 2 |
| KF8QL/R | 2 |
| NN3Q/R | 2 |
| VA3ELE/R | 2 |
| VE3OIL/R | 2 |
| W4EO/R | 2 |
| | |
| **5.7 GHz QSOs** | |
| VE3OIL/R | 11 |
| VE3TFU/R | 10 |
| KF2MR/R | 9 |
| NR2C/R | 7 |
| VE3WJ/R | 7 |
| W4EO/R | 7 |
| | |
| **5.7 GHz Mults** | |
| VE3OIL/R | 8 |
| VE3WJ/R | 7 |
| KF2MR/R | 4 |
| NR2C/R | 4 |
| VA3ELE/R | 4 |
| VE3TFU/R | 4 |
| | |
| **10 GHz QSOs** | |
| VA3ELE/R | 17 |
| WB6HYD/R | 12 |

| | |
|---|---|
| VE3TFU/R | 11 |
| VE3OIL/R | 10 |
| KF2MR/R | 8 |
| W4EO/R | 8 |
| | |
| **10 GHz Mults** | |
| VE3OIL/R | 9 |
| VA3ELE/R | 7 |
| VE3WJ/R | 7 |
| KA9VVQ/R | 6 |
| W9FZ/R | 6 |
| WB6HYD/R | 6 |
| | |
| **24 GHz QSOs** | |
| WB6HYD/R | 12 |
| VA3ELE/R | 5 |
| VE3TFU/R | 5 |
| AB4CR/R | 1 |
| KF8QL/R | 1 |
| WB8TGY/R | 1 |
| | |
| **24 GHz Mults** | |
| WB6HYD/R | 6 |
| VA3ELE/R | 4 |
| VE3TFU/R | 3 |
| AB4CR/R | 1 |
| KF8QL/R | 1 |
| WB8TGY/R | 1 |
| | |
| **Light QSOs** | |
| VE3OIL/R | 8 |
| VE3WJ/R | 8 |
| | |
| **Light Mults** | |
| VE3OIL/R | 8 |
| VE3WJ/R | 8 |
| | |
| **Limited Rover** | |
| **50 MHz QSOs** | |
| K9PW/R | 390 |
| NU4E/R | 385 |
| NV4B/R | 256 |
| K5ND/R | 231 |
| KEØMHJ/R | 217 |

| | |
|---|---|
| | |
| **50 MHz Mults** | |
| K5ND/R | 96 |
| KEØMHJ/R | 89 |
| AA5PR/R | 88 |
| K9PW/R | 82 |
| NU4E/R | 82 |
| | |
| **144 MHz QSOs** | |
| N6GP/R | 150 |
| KA5D/R | 102 |
| KE6QR/R | 100 |
| N2DXT/R | 99 |
| W5TN/R | 90 |
| | |
| **144 MHz Mults** | |
| WB8LYJ/R | 21 |
| KEØMHJ/R | 15 |
| K9PW/R | 14 |
| NU4E/R | 13 |
| N7DA/R | 12 |
| | |
| **222 MHz QSOs** | |
| KA5D/R | 126 |
| W5TN/R | 95 |
| KI5FIQ/R | 88 |
| KT5TE/R | 88 |
| N6RH/R | 86 |
| | |
| **222 MHz Mults** | |
| KA5D/R | 10 |
| W5TN/R | 10 |
| K9PW/R | 8 |
| K5ND/R | 7 |
| AE5P/R | 6 |
| K6LMN/R | 6 |
| KI5FIQ/R | 6 |
| KJ2G/R | 6 |
| KT5TE/R | 6 |
| N6RH/R | 6 |
| WB2SIH/R | 6 |
| | |
| **432 MHz QSOs** | |
| KA5D/R | 128 |

| | |
|---|---|
| N6GP/R | 115 |
| W5TN/R | 102 |
| KI5FIQ/R | 89 |
| KT5TE/R | 87 |
| | |
| **432 MHz Mults** | |
| K9PW/R | 11 |
| KA5D/R | 10 |
| W5TN/R | 10 |
| K5ND/R | 9 |
| N6GP/R | 8 |
| | |
| **Unlimited Rover** | |
| 50 MHz QSOs | |
| NØLD/R | 168 |
| K9JK/R | 107 |
| KD5IKG/R | 93 |
| KBØYHT/R | 80 |
| K6MI/R | 78 |
| | |
| **50 MHz Mults** | |
| NØLD/R | 56 |
| KG6CIH/R | 34 |
| K9JK/R | 33 |
| K6MI/R | 19 |
| KD5IKG/R | 16 |
| | |
| **144 MHz QSOs** | |
| KD5IKG/R | 114 |
| NØLD/R | 103 |
| KBØYHT/R | 85 |
| K6MI/R | 60 |
| K3RW/R | 51 |
| | |
| **144 MHz Mults** | |
| K6MI/R | 13 |
| NØLD/R | 12 |
| KBØYHT/R | 11 |
| KD5IKG/R | 11 |
| K9JK/R | 8 |
| | |
| **222 MHz QSOs** | |
| KD5IKG/R | 105 |
| NØLD/R | 71 |

| | |
|---|---|
| KBØYHT/R | 67 |
| K9JK/R | 36 |
| K6MI/R | 30 |
| | |
| **222 MHz Mults** | |
| KBØYHT/R | 11 |
| NØLD/R | 11 |
| KD5IKG/R | 10 |
| K6MI/R | 7 |
| K9JK/R | 7 |
| | |
| **432 MHz QSOs** | |
| KD5IKG/R | 102 |
| NØLD/R | 78 |
| KBØYHT/R | 69 |
| K6MI/R | 43 |
| K9JK/R | 37 |
| | |
| **432 MHz Mults** | |
| KBØYHT/R | 11 |
| NØLD/R | 11 |
| KD5IKG/R | 10 |
| K6MI/R | 7 |
| K9JK/R | 7 |
| | |
| **902 MHz QSOs** | |
| NØLD/R | 70 |
| KBØYHT/R | 66 |
| K9JK/R | 32 |
| K6MI/R | 20 |
| KD5IKG/R | 19 |
| | |
| **902 MHz Mults** | |
| KBØYHT/R | 11 |
| NØLD/R | 10 |
| K6MI/R | 6 |
| KD5IKG/R | 6 |
| K9JK/R | 4 |
| | |
| **1.2 GHz QSOs** | |
| NØLD/R | 70 |
| KBØYHT/R | 67 |
| K6MI/R | 24 |
| KD5IKG/R | 17 |

| | |
|---|---|
| K3RW/R | 3 |
| KG6CIH/R | 3 |
| | |
| **1.2 GHz Mults** | |
| KBØYHT/R | 11 |
| NØLD/R | 10 |
| K6MI/R | 7 |
| KD5IKG/R | 5 |
| K3RW/R | 2 |
| KG6CIH/R | 2 |
| | |
| **2.3 GHz QSOs** | |
| NØLD/R | 22 |
| KD5IKG/R | 18 |
| KG6CIH/R | 2 |
| | |
| **2.3 GHz Mults** | |
| NØLD/R | 6 |
| KD5IKG/R | 5 |
| KG6CIH/R | 1 |
| | |
| **3.4 GHz QSOs** | |
| NØLD/R | 20 |
| KD5IKG/R | 14 |
| KG6CIH/R | 2 |
| | |
| **3.4 GHz Mults** | |
| NØLD/R | 6 |
| KD5IKG/R | 4 |
| KG6CIH/R | 1 |
| | |
| **10 GHz QSOs** | |
| K6MI/R | 12 |
| K9JK/R | 8 |
| | |
| **10 GHz Mults** | |
| K6MI/R | 6 |
| K9JK/R | 1 |
| | |
| **24 GHz QSOs** | |
| K6MI/R | 12 |
| | |
| **24 GHz Mults** | |
| K6MI/R | 6 |

| | |
|---|---|
| **Light QSOs** | |
| KG6CIH/R | 2 |
| | |
| **Light Mults** | |
| KG6CIH/R | 1 |
| | |
| **Single Operator, High Power** | |
| **50 MHz QSOs** | |
| K1BX | 1306 |
| K9CT | 992 |
| KC4PX | 918 |
| WA1T | 817 |
| AB4B | 790 |
| | |
| **50 MHz Mults** | |
| K9CT | 223 |
| K1BX | 218 |
| AA5AM | 195 |
| W9RM | 195 |
| K1HTV | 180 |
| K5TR | 180 |
| | |
| **144 MHz QSOs** | |
| K1TEO | 212 |
| W3XTT (KA1ZE, op) | 166 |
| W3IP | 134 |
| K1RZ | 125 |
| W2KV | 116 |
| | |
| **144 MHz Mults** | |
| W3XTT (KA1ZE, op) | 70 |
| W5ZN | 66 |
| KAØRYT | 50 |
| K1TEO | 48 |
| W1VD | 46 |
| | |
| **222 MHz QSOs** | |
| K1RZ | 59 |
| N2YB | 53 |
| K1TEO | 41 |
| K5TR | 41 |
| K5LLL | 35 |
| | |

| **222 MHz Mults** | |
|---|---|
| K1RZ | 22 |
| K1TEO | 20 |
| W2ODH | 18 |
| K2UA | 12 |
| K5LLL | 12 |
| K5TR | 12 |
| | |
| **432 MHz QSOs** | |
| K1TEO | 93 |
| K1RZ | 77 |
| K5TR | 65 |
| N2YB | 60 |
| K2UA | 56 |
| | |
| **432 MHz Mults** | |
| K1TEO | 31 |
| K1RZ | 22 |
| W2ODH | 18 |
| K2UA | 14 |
| K5TR | 12 |
| | |
| **902 MHz QSOs** | |
| K1RZ | 29 |
| WØGHZ | 24 |
| N2YB | 21 |
| K1TEO | 19 |
| N1AV | 16 |
| | |
| **902 MHz Mults** | |
| K1RZ | 15 |
| K1TEO | 15 |
| WØGHZ | 10 |
| K5TR | 8 |
| K1KG | 6 |
| N1AV | 6 |
| | |
| **1.2 GHz QSOs** | |
| K1RZ | 43 |
| K1TEO | 40 |
| N1AV | 28 |
| N2YB | 19 |
| WA3DRC | 15 |
| | |

| **1.2 GHz Mults** | |
|---|---|
| K1RZ | 18 |
| K1TEO | 16 |
| N1AV | 13 |
| W3IP | 7 |
| WA3DRC | 7 |
| | |
| **2.3 GHz QSOs** | |
| K1RZ | 23 |
| K1TEO | 14 |
| N1AV | 12 |
| N2YB | 12 |
| WA3DRC | 10 |
| | |
| 2.3 GHz Mults | |
| K1RZ | 13 |
| K1TEO | 9 |
| K1KG | 6 |
| N1AV | 6 |
| N2YB | 5 |
| W2SJ | 5 |
| W3SZ | 5 |
| WA3DRC | 5 |
| | |
| **3.4 GHz QSOs** | |
| K1RZ | 9 |
| K1TEO | 9 |
| N1AV | 8 |
| N2YB | 7 |
| K1KG | 5 |
| | |
| **3.4 GHz Mults** | |
| K1TEO | 8 |
| K1RZ | 6 |
| N1AV | 6 |
| K1KG | 5 |
| N2YB | 5 |
| | |
| **5.7 GHz QSOs** | |
| K1RZ | 6 |
| K1TEO | 5 |
| N2YB | 5 |
| K1KG | 4 |
| W3SZ | 3 |

| | |
|---|---|
| WA3DRC | 3 |
| | |
| **5.7 GHz Mults** | |
| K1TEO | 5 |
| K1KG | 4 |
| K1RZ | 4 |
| N2YB | 4 |
| W3SZ | 3 |
| | |
| **10 GHz QSOs** | |
| K1RZ | 13 |
| N2YB | 7 |
| K1TEO | 5 |
| K5LLL | 4 |
| N9LB | 4 |
| | |
| **10 GHz Mults** | |
| K1RZ | 9 |
| K1TEO | 5 |
| N2YB | 4 |
| K1KG | 3 |
| K5LLL | 3 |
| W3SZ | 3 |
| | |
| **24 GHz QSOs** | |
| KB7ME | 2 |
| | |
| 24 GHz Mults | |
| KB7ME | 1 |
| | |
| Light QSOs | |
| W2SJ | 1 |
| | |
| Light Mults | |
| W2SJ | 1 |
| | |
| **Single Operator, Low Power** | |
| **50 MHz QSOs** | |
| WB1GQR (W1SJ, op) | 747 |
| NØUR | 740 |
| K2DRH | 687 |
| AF1T | 603 |
| NN1D | 545 |
| | |

| | |
|---|---|
| **50 MHz Mults** | |
| NØUR | 190 |
| NØLL | 173 |
| K2DRH | 166 |
| AB1OC | 160 |
| WØJW | 154 |
| | |
| **144 MHz QSOs** | |
| WB1GQR (W1SJ, op) | 120 |
| N2WK | 102 |
| K2GMY | 92 |
| WZ8T | 84 |
| K6FGV | 83 |
| | |
| **144 MHz Mults** | |
| K2DRH | 36 |
| N8LRG | 33 |
| N2WK | 25 |
| WA3NUF | 22 |
| VE3DS | 21 |
| | |
| **222 MHz QSOs** | |
| N2WK | 54 |
| WB1GQR (W1SJ, op) | 37 |
| AF1T | 34 |
| VE3DS | 31 |
| K2GMY | 28 |
| | |
| **222 MHz Mults** | |
| WB1GQR (W1SJ, op) | 15 |
| VE3DS | 14 |
| WA3EOQ | 13 |
| AF1T | 11 |
| K2DRH | 10 |
| N2WK | 10 |
| W9GA | 10 |
| WØZQ | 10 |
| | |
| **432 MHz QSOs** | |
| K6FGV | 80 |
| WZ8T | 59 |
| N2WK | 54 |
| N6TEB | 50 |
| K2GMY | 48 |

| | |
|---|---|
| | |
| **432 MHz Mults** | |
| N8LRG | 17 |
| VE3DS | 15 |
| WB1GQR (W1SJ, op) | 15 |
| W9GA | 14 |
| WA3EOQ | 13 |
| | |
| **902 MHz QSOs** | |
| WØZQ | 25 |
| VE3DS | 18 |
| W6TV (W6YEP, op) | 18 |
| N2WK | 15 |
| AF1T | 14 |
| | |
| **902 MHz Mults** | |
| WØZQ | 10 |
| AF1T | 8 |
| VE3DS | 8 |
| W9GA | 7 |
| W6TV (W6YEP, op) | 6 |
| | |
| **1.2 GHz QSOs** | |
| N2WK | 22 |
| AF1T | 18 |
| W6TV (W6YEP, op) | 18 |
| VE3DS | 17 |
| N7RK | 15 |
| WA3NUF | 15 |
| | |
| **1.2 GHz Mults** | |
| N2WK | 8 |
| WB1GQR (W1SJ, op) | 8 |
| AF1T | 7 |
| VE3DS | 7 |
| W6TV (W6YEP, op) | 6 |
| | |
| **2.3 GHz QSOs** | |
| N2WK | 10 |
| AF1T | 8 |
| WA3NUF | 8 |
| K5TRA | 6 |
| KA3FQS | 5 |
| VE3DS | 5 |

| | |
|---|---|
| WA3GFZ | 5 |
| | |
| **2.3 GHz Mults** | |
| AF1T | 5 |
| WA3NUF | 5 |
| N2WK | 4 |
| K5TRA | 3 |
| WA3GFZ | 3 |
| | |
| **3.4 GHz QSOs** | |
| AF1T | 7 |
| WA3NUF | 4 |
| KA3FQS | 3 |
| VE3DS | 3 |
| WB2JAY | 2 |
| | |
| **3.4 GHz Mults** | |
| AF1T | 6 |
| VE3DS | 2 |
| WA3NUF | 2 |
| WB2JAY | 2 |
| KA3FQS | 1 |
| W3EKT | 1 |
| WA3GFZ | 1 |
| WB1GQR (W1SJ, op) | 1 |
| | |
| **5.7 GHz QSOs** | |
| AF1T | 7 |
| N2WK | 6 |
| W3EKT | 1 |
| WA3NUF | 1 |
| | |
| **5.7 GHz Mults** | |
| AF1T | 6 |
| N2WK | 4 |
| W3EKT | 1 |
| WA3NUF | 1 |
| | |
| **10 GHz QSOs** | |
| W6TV (W6YEP, op) | 12 |
| AF1T | 6 |
| N2WK | 6 |
| K5TRA | 3 |
| NJ7A | 2 |

| | |
|---|---|
| VA3TO | 2 |
| VE2UG | 2 |
| W3EKT | 2 |
| WJ7L | 2 |
| | |
| **10 GHz Mults** | |
| W6TV (W6YEP, op) | 6 |
| AF1T | 5 |
| N2WK | 4 |
| K5TRA | 2 |
| VA3TO | 2 |
| VE2UG | 2 |
| W3EKT | 2 |
| WJ7L | 2 |
| | |
| **24 GHz QSOs** | |
| W6TV (W6YEP, op) | 12 |
| AF1T | 1 |
| K7SMA | 1 |
| W6RSS | 1 |
| | |
| **24 GHz Mults** | |
| W6TV (W6YEP, op) | 6 |
| AF1T | 1 |
| K7SMA | 1 |
| W6RSS | 1 |
| | |
| **134 GHz QSOs** | |
| K1FJM (N6ZE, op) | 1 |
| | |
| **134 GHz Mults** | |
| K1FJM (N6ZE, op) | 1 |
| | |
| **Light QSOs** | |
| AF1T | 2 |
| WB3IGR | 1 |
| | |
| **Light Mults** | |
| AF1T | 1 |
| WB3IGR | 1 |
| | |
| **Single Operator, Portable** | |
| **50 MHz QSOs** | |
| KCØSKM | 118 |

| | |
|---|---|
| NØJK | 105 |
| K3HW | 90 |
| W4RXR | 90 |
| WA2TMC | 85 |
| | |
| **50 MHz Mults** | |
| NØJK | 71 |
| KCØSKM | 56 |
| K3HW | 53 |
| W4RXR | 47 |
| WA2TMC | 41 |
| | |
| **144 MHz QSOs** | |
| K7JSG | 38 |
| WA2TMC | 37 |
| W4RXR | 32 |
| VE7KPM | 30 |
| KN4ZKT | 28 |
| | |
| **144 MHz Mults** | |
| K2TAS | 10 |
| K4KPW | 10 |
| KN4ZKT | 10 |
| W7JET | 7 |
| K7CNT | 6 |
| VE7JH | 6 |
| WD5AGO | 6 |
| | |
| **222 MHz QSOs** | |
| WA2TMC | 31 |
| W4RXR | 17 |
| W7JET | 7 |
| AA6XA | 5 |
| K7JSG | 5 |
| | |
| **222 MHz Mults** | |
| W4RXR | 5 |
| WA2TMC | 5 |
| W7JET | 4 |
| AA6XA | 3 |
| K7JSG | 2 |
| VE2NCG | 2 |
| WB2AMU | 2 |
| | |

| **432 MHz QSOs** | |
|---|---|
| WA2TMC | 42 |
| W4RXR | 19 |
| W7JET | 16 |
| VE7JH | 10 |
| AA6XA | 9 |
| KK6MJG | 9 |
| | |
| **432 MHz Mults** | |
| W4RXR | 5 |
| W7JET | 5 |
| K7CNT | 4 |
| WA2TMC | 4 |
| WD5AGO | 4 |
| | |
| **902 MHz QSOs** | |
| WA2TMC | 7 |
| W7JET | 5 |
| W4RXR | 4 |
| VE2NCG | 1 |
| | |
| **902 MHz Mults** | |
| WA2TMC | 4 |
| W7JET | 3 |
| W4RXR | 2 |
| VE2NCG | 1 |
| | |
| **1.2 GHz QSOs** | |
| W7JET | 6 |
| WA2TMC | 5 |
| K4KPW | 1 |
| KN4ZKT | 1 |
| VE6IXD | 1 |
| | |
| **1.2 GHz Mults** | |
| W7JET | 4 |
| WA2TMC | 3 |
| K4KPW | 1 |
| KN4ZKT | 1 |
| VE6IXD | 1 |
| | |
| **2.3 GHz QSOs** | |
| WA2TMC | 5 |
| | |

| **2.3 GHz Mults** | |
|---|---|
| WA2TMC | 3 |
| | |
| **5.7 GHz QSOs** | |
| WA2TMC | 4 |
| | |
| **5.7 GHz Mults** | |
| WA2TMC | 3 |
| | |
| **10 GHz QSOs** | |
| WA2TMC | 6 |
| VE3EG | 1 |
| | |
| **10 GHz Mults** | |
| WA2TMC | 3 |
| VE3EG | 1 |
| | |
| **Single Operator, 3 Band** | |
| **50 MHz QSOs** | |
| KO9A | 589 |
| K2PS | 562 |
| N4OGW | 548 |
| NS4T | 512 |
| AG4W | 500 |
| | |
| **50 MHz Mults** | |
| KO9A | 168 |
| KK4MA | 148 |
| VE3KI | 148 |
| N4OGW | 145 |
| KØTI | 134 |
| KØVG | 134 |
| VA3ASE | 134 |
| | |
| **144 MHz QSOs** | |
| NU6S | 114 |
| WN3A | 98 |
| W7OTL | 87 |
| KO9A | 75 |
| N3AAA | 65 |
| | |
| **144 MHz Mults** | |
| KO9A | 30 |
| N3AAA | 30 |

| N4OGW | 24 |
|---|---|
| N9DR | 21 |
| WN3A | 21 |
| | |
| **432 MHz QSOs** | |
| NU6S | 91 |
| N7IR | 43 |
| W7OTL | 41 |
| N7QOZ | 27 |
| KO9A | 17 |
| VE3SST | 17 |
| | |
| **432 MHz Mults** | |
| N4OGW | 8 |
| NU6S | 8 |
| N7IR | 7 |
| KO9A | 6 |
| WA4LDU | 6 |
| | |
| **Single Operator, FM Only** | |
| **50 MHz QSOs** | |
| WG4I | 27 |
| KC6ZWT | 11 |
| KG7AZY | 9 |
| KB1YNT | 8 |
| K3TW | 6 |
| | |
| **50 MHz Mults** | |
| WG4I | 6 |
| K3TW | 5 |
| KB1YNT | 5 |
| KC6ZWT | 3 |
| N9HRT | 3 |
| | |
| **144 MHz QSOs** | |
| WG4I | 95 |
| KC6ZWT | 50 |
| KG7AZY | 40 |
| K6QCB | 30 |
| KK6VIX | 28 |
| | |
| **144 MHz Mults** | |
| WG4I | 11 |
| KG7AZY | 6 |

| | |
|---|---|
| KC6ZWT | 5 |
| K6QCB | 4 |
| KC9PCP | 4 |
| KG5UNK | 4 |
| KK6VIX | 4 |
| N9VM (N1VM, op) | 4 |
| W5WGF | 4 |
| W6UGA | 4 |
| WB6ETY | 4 |
| | |
| **222 MHz QSOs** | |
| KC6ZWT | 27 |
| WG4I | 20 |
| WB6ETY | 7 |
| VA2DG | 6 |
| AE6GR | 3 |
| KC9PCP | 3 |
| VE2HEW | 3 |
| W6ESL | 3 |
| | |
| **222 MHz Mults** | |
| KC6ZWT | 4 |
| WB6ETY | 4 |
| WG4I | 3 |
| W6ESL | 2 |
| AE6GR | 1 |
| KC9PCP | 1 |
| KG5UNK | 1 |
| KM5YX | 1 |
| KN6FKQ | 1 |
| N1TEN | 1 |
| VA2DG | 1 |
| VE2HEW | 1 |
| W7AIT | 1 |
| | |
| **432 MHz QSOs** | |
| WG4I | 41 |
| KC6ZWT | 31 |
| KG7AZY | 29 |
| KG5UNK | 16 |
| WB6ETY | 15 |
| | |
| **432 MHz Mults** | |
| WG4I | 7 |

| | |
|---|---|
| KC6ZWT | 5 |
| WB6ETY | 4 |
| KG5UNK | 3 |
| KG7AZY | 3 |
| KK6OTK | 3 |
| N6NFB | 3 |
| NT6X | 3 |
| | |
| **Limited Multioperator** | |
| **50 MHz QSOs** | |
| KG5CCI | 1149 |
| KZ9O | 1014 |
| N4WW | 967 |
| N2NT | 767 |
| AA4ZZ | 707 |
| | |
| **50 MHz Mults** | |
| KZ9O | 212 |
| KG5CCI | 206 |
| AA4ZZ | 189 |
| K5QE | 186 |
| N2NT | 178 |
| | |
| **144 MHz QSOs** | |
| N2NT | 259 |
| W3SO | 163 |
| N4SVC | 100 |
| AA4ZZ | 99 |
| WA3EKL | 93 |
| | |
| **144 MHz Mults** | |
| K5QE | 62 |
| WD9EXD | 57 |
| KG5CCI | 52 |
| N2NT | 43 |
| W3SO | 42 |
| | |
| **222 MHz QSOs** | |
| N2NT | 54 |
| KG5CCI | 31 |
| AA4ZZ | 18 |
| K5QE | 18 |
| N2JQR | 18 |
| | |

| | |
|---|---|
| **222 MHz Mults** | |
| KG5CCI | 23 |
| N2NT | 19 |
| K5QE | 15 |
| AA4ZZ | 13 |
| N4SVC | 13 |
| | |
| **432 MHz QSOs** | |
| N2NT | 58 |
| N4SVC | 44 |
| AA4ZZ | 32 |
| WO1S | 30 |
| KG5CCI | 28 |
| | |
| **432 MHz Mults** | |
| KG5CCI | 22 |
| N4SVC | 20 |
| N2NT | 19 |
| K5QE | 17 |
| AA4ZZ | 16 |
| | |
| **1.2 GHz QSOs** | |
| WO1S | 2 |
| N4HB | 1 |
| | |
| **1.2 GHz Mults** | |
| N4HB | 1 |
| WO1S | 1 |
| | |
| **Unlimited Multioperator** | |
| **50 MHz QSOs** | |
| KE1LI | 505 |
| W2AAU | 505 |
| W9XA | 477 |
| K8GP | 452 |
| KD2LGX | 408 |
| | |
| **50 MHz Mults** | |
| K8GP | 161 |
| KE1LI | 161 |
| W2AAU | 145 |
| KD2LGX | 132 |
| W9XA | 125 |
| | |

| **144 MHz QSOs** | |
|---|---|
| W2AAU | 165 |
| W4IY | 132 |
| K8GP | 107 |
| KE1LI | 104 |
| KD2LGX | 93 |
| | |
| **144 MHz Mults** | |
| W4IY | 42 |
| W2AAU | 41 |
| KD2LGX | 33 |
| K8GP | 32 |
| N8GA | 32 |
| | |
| **222 MHz QSOs** | |
| K8GP | 37 |
| KD2LGX | 23 |
| NI6E | 21 |
| WA6LE | 21 |
| N3NGE | 14 |
| | |
| **222 MHz Mults** | |
| K8GP | 17 |
| W2AAU | 9 |
| AG4V | 8 |
| W9XA | 8 |
| KD2LGX | 7 |
| W2RME | 7 |
| | |
| **432 MHz QSOs** | |
| KD2LGX | 34 |
| K8GP | 30 |
| W2AAU | 27 |
| NI6E | 25 |
| W9XA | 23 |
| WA6LE | 23 |
| | |
| **432 MHz Mults** | |
| W2AAU | 18 |
| K8GP | 12 |
| W4IY | 10 |
| KD2LGX | 9 |
| AG4V | 8 |
| | |

| **902 MHz QSOs** | |
|---|---|
| K8GP | 9 |
| W2AAU | 8 |
| KD2LGX | 7 |
| N3NGE | 6 |
| W9XA | 3 |
| WA6LE | 3 |
| | |
| **902 MHz Mults** | |
| K8GP | 6 |
| W2AAU | 6 |
| N3NGE | 5 |
| KD2LGX | 4 |
| AG4V | 2 |
| W9XA | 2 |
| WA6LE | 2 |
| | |
| **1.2 GHz QSOs** | |
| K8GP | 12 |
| W2AAU | 7 |
| WA6LE | 7 |
| KD2LGX | 6 |
| N3NGE | 6 |
| NI6E | 6 |
| W4IY | 6 |
| | |
| **1.2 GHz Mults** | |
| K8GP | 7 |
| W2AAU | 6 |
| KD2LGX | 5 |
| N3NGE | 5 |
| W4IY | 4 |
| WA6LE | 4 |
| | |
| **2.3 GHz QSOs** | |
| K8GP | 6 |
| W2AAU | 5 |
| N3NGE | 4 |
| AG4V | 1 |
| | |
| **2.3 GHz Mults** | |
| K8GP | 5 |
| W2AAU | 5 |
| N3NGE | 4 |

| AG4V | 1 |
|---|---|
| | |
| **3.4 GHz QSOs** | |
| K8GP | 6 |
| W2AAU | 5 |
| | |
| **3.4 GHz Mults** | |
| K8GP | 5 |
| W2AAU | 5 |
| | |
| **5.7 GHz QSOs** | |
| K8GP | 6 |
| W2AAU | 5 |
| | |
| **5.7 GHz Mults** | |
| K8GP | 5 |
| W2AAU | 5 |
| | |
| **10 GHz QSOs** | |
| KØSM | 10 |
| K8GP | 7 |
| W9XA | 1 |
| | |
| **10 GHz Mults** | |
| K8GP | 5 |
| KØSM | 5 |
| W9XA | 1 |

## Sponsored Plaque Winners

**Congratulations to all category winners listed below and THANK YOU to these gracious plaque sponsors!**

There are numerous contest plaques that go unsponsored each year. If you or your club is interested in sponsoring a plaque, please contact the ARRL Contest Program at contests@arrl.org or by phone at 860-594-0232. For 2020, plaques are priced at $80, which includes all shipping and handling costs to the winner. Send your $80 (US) payment by check (make payable to ARRL) and mail to ARRL — Contest Plaques, 225 Main St., Newington, CT 06111 USA.

| Plaque Category | Winner | Plaque Sponsor |
|---|---|---|
| Overall Single Operator High Power | K1TEO | Charles Dietz, W5PR |
| Overall Single Operator Low Power | WB1GQR (W1SJ, op) | Jeffrey Klein, K1TEO |
| Overall Single Operator QRP Portable | WA2TMC | Andrea Slack, K2EZ |
| Overall Single Operator, 3-Band | KO9A | Northern Lights Radio Society |
| Overall Single Operator, Low Power, Rookie | K9SPH | W3ZZ First Log Award - Memorial by Tim, K3LR and Dave, W9PA |
| Overall Single Operator, FM Only | WG4I | Andrea Slack, K2EZ |
| Overall Rover | K2EZ/R | Andrea Slack, K2EZ |
| Overall Limited Rover | K9PW/R | Andrea Slack, K2EZ |
| Overall Unlimited Rover | NØLD/R | Andrea Slack, K2EZ |
| Atlantic Division Single Operator High Power | K1RZ | Potomac Valley Radio Club |
| Atlantic Division Single Operator Low Power | N2WK | Potomac Valley Radio Club |
| Atlantic Division Multioperator | KD2LGX | Al Oldfield, W9KXI and Ken Kent, KA2LIM |
| Central Division Single Operator High Power | K9CT | Society of Midwest Contesters |
| Central Division Single Operator Low Power | K2DRH | Society of Midwest Contesters |
| Central Division Single Operator QRP Portable | N9TTX | Society of Midwest Contesters |
| Central Division Rover | W9FZ/R | Society of Midwest Contesters |
| Dakota Division Single Operator Low Power | NØUR | Northern Lights Radio Society |
| Delta Division Single Operator High Power | W5ZN | Memorial to Mike Bruck, W5MRB, from his friends |
| Hudson Division Single Operator High Power | W2IRT | Jay Buscemi, NY2NY, in memory of Dick Knadle, K2RIW |
| Hudson Division Single Operator Low Power | NO2EL | Matthew Ryffel, K2NUD |
| Northwestern Division Single Operator Low Power | WZ8T | Northern Lights Radio Society |
| Roanoke Division Single Operator High Power | W3IP | Potomac Valley Radio Club |
| Roanoke Division Single Operator Low Power | N4LAZ | Potomac Valley Radio Club |
| Roanoke Division Rover | W4EO/R | George Molnar, KF2T |
| Canada Single Operator Low Power | VE3DS | Neil Macklem, VE3SST |
| Canada Rover | VE3OIL/R | Neil Macklem, VE3SST |
| Canada Unlimited Rover | VE7AFZ/R | Neil Macklem, VE3SST |
| Northwestern Division Single Operator, 3-Band | KA6BIM | Pacific Northwest VHF Society |
| Central Division Single Operator, 3-Band | KO9A | Society of Midwest Contesters |