



ARRL June VHF Contest 2019 Full Results

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

This year your FT8 and MSK144 Activity

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. While big antennas are much better — the Little Pistol was able to enjoy amazing success working new grids and new countries utilizing FT8.

Notes on FT8

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 go to SSB and CW to take advantage of the higher rates possible on those modes.

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 web page (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.

DX Activity

Although the June VHF Contest activity is primarily from North America, there are some faithful calls active from the DX side. There are a few Mexico and Caribbean stations to represent the South America and European Continents.

And like the 2018 June contest, only one log was received from Europe — the SOLP log from EA4DE. But other logs received indicated that there were other Europe stations active on 6 meters.

Veteran 6-meter Canary Islands station EA8DBM had the only entry from Africa – SOHP.

As before during the 2018 June contest weekend — from Mexico, XE2CQ had the high SOHP and XE2JS checked in with the top SOLP score from XE. XE1H, XE2OK, and XE2X round out the rest of the calls from Mexico.

Also from North America, there were two entries from Cuba – CM2RSV and CO8ZZ, both SOLP operations. Finally, from North America both TG9ADQ and VP9/K6KLY submitted SOLP and SO3B logs respectively.

South America was represented with three logs from Brazil – PU2UHO and PY2GTA providing the SOLP entries and PU2USK as SOFM.

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

Thanks to all for being active and submitting logs.

Single Operator Results

Bob, K2DRH, has once again topped the SOLP list in 2019. Bob now has eight straight SOLP wins in a row, and now his 16th win overall — excellent for sure Bob! Mitch, W1SJ, at WB1GQR swapped positions with Dale, AF1T, moving from 2nd in 2018 to 3rd in 2019 with AF1T improving to 2nd in 2019. Wayne, N2WK, grabs the number 4 spot while Larry, NØLL, moves up nicely to 5th place from his 2018 finish at number 9. NØUR makes the 6th spot followed by KR1ST, W9GA, NF3R, and VE3DS. Ken, W9GA, and Dana, VE3DS, both returned to the SOLP Top Ten at the 8th and 10th spots respectively. Great job, everyone!

Single Operator, Low Power

K2DRH	186,172
WB1GQR (W1SJ, op)	156,156
AF1T	140,910
N2WK	94,908
NØLL	76,615
NØUR	72,063
KR1ST	54,320
W9GA	51,100
NF3R	45,195
VE3DS	42,840

Now for the SOHP results: Many of the same operators returned to the Top Ten – K9CT, WØUC, K1KG, K1TR, and K1RZ. After suffering a tower loss due to a weather storm, Jeff, K1TEO, has returned to claim the top SOHP spot for the 2019 event. Great job, Jeff, and welcome back! Craig, K9CT, lands the number 2 slot – moving up from 6th place last year. Also moving up a bit this year is Paul, WØUC, moving from 4th to 3rd!

Single Operator, High Power

K1TEO	449,334
K9CT	166,808
WØUC	136,600
N4QWZ	136,030
K1KG	121,752
WZ1V	118,184
N2YB	112,530
VA3ELE	105,230
K1TR	98,880
K1RZ	97,744

N4QWZ hits the 4th place position. K1KG lands in 5th up from his 8th spot in 2018. Rounding out the remaining Top Ten are WZ1V, N2YB, VA3ELE, K1TR, and K1RZ. A hearty congratulations to all!



Stormy conditions in western KS on Saturday during the June VHF Contest. This storm spawned three confirmed tornadoes. Static crashes from this and other storms in the area made it almost impossible to complete any contacts — AL1VE/R in DM99. Read about the AL1VE/R experiences later in the results article. (Photo courtesy Tim, AL1VE)

Single Operator Portable Results

Our SOP winner for the 2019 event is Stephen, VE3SMA, with a score of 27,470. Bruce, WA2TMC, has landed in the number 2 position down from his 2018 win. Third place goes to Earl, N3EG. In the fourth slot we have Chuck, N1SPX. And rounding out the first five positions is Axel, N8XA. And finally, the remaining slots 6 through 10 were achieved by N4DLA, WX3P, W4ZZK, K7ATN, and WB2AMU respectively. Both K7ATN and

WB2AMU made the SOP Top Ten in 2018, but returned once again this year. Great job and congrats to all!

Single Operator, Portable

VE3SMA	27,470
WA2TMC	22,048
N3EG	11,132
N1SPX	10,332
N8XA	3,312
N4DLA	3,150
WX3P	2,016
W4ZZK	1,891
K7ATN	1,624
WB2AMU	1,312

Single Operator, 3 Band Results

2019 now makes the 4th year for the very popular categories of SO3B and SOFM. This year's winner for SO3B is Jim, KO9A. Jim is a very accomplished HF contest operator who has operated from many different call signs. Congrats, Jim! Number 2 belongs to Tor, N4OGW. Tor was 4th in 2018. Mike, AD5A, is in 3rd place moving up from the 8th spot in 2018. KØNR is 4th – an improvement from his 10th spot in 2018. N7IR landed the 5th position. And the remaining Top Ten are K3TEF, K1HC, W1QK, K2PS, and KK4MA. A big congrats to all for great efforts!

Single Operator, 3 Band

KO9A	94,482
N4OGW	46,671
AD5A	45,804
KØNR	23,712
N7IR	22,659
K3TEF	21,805
K1HC	20,114
W1QK	19,754
K2PS	15,826
KK4MA	15,600

Single Operator, FM Only Results

This year's SOFM winner Matthew, K2NUD, had a fine showing with 1,800 points to easily head the rest by a nice margin. The number 2 spot belongs to Charlie, N7KN, from Washington state. Great job from out West. Mark, W6IA, is the 3rd place finisher. Mark had the top score last year. Eric, KI7LTT, landed in the 4th position and Chip, W7AIT, was number 5. The rest of the Top Ten are N9VM operated by N1VM, W2BSN, N6NFB, WAØKXO, and KE6PLA. Congratulations to all! To make the Top Ten box, every QSO became quite important!

Single Operator, FM Only

K2NUD	1,800
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N7KN	860
W6IA	660
KI7LTT	568
W7AIT	520
N9VM (N1VM, op)	180
W2BSN	108
N6NFB	105
WAØKXO	95
KE6PLA	78

Unlimited Multioperator

W2SZ	670,432
W3CCX	321,818
VE3WCC	170,066
WQØP	138,656
W9XA	118,038
N8GA	103,000
K2BAR	102,065
W1XM	67,670
KD2LGX	64,308
KE1LI	63,480

Multiop Results – Limited and Unlimited

How about those Limited Multioperator scores?

Marshall, K5QE's, big station has again landed at the top of the Limited Multioperator group from his South Texas station. This now makes 7 in a row for the K5QE group in the LM category. Great job to Marshall's operators. Back again to finish in 2nd place is the crew of N2NT, N2NC, K6DAJ, and WW2Y operating from the well-built N2NT station. Great job guys! In the number 3 slot for 2019 we have the Delmarva VHF and Microwave Society group operating K8GP. Repeating in the Top Ten in the 4th spot is Paul, AA4ZZ. The W3SO crew from Central PA placed in position 5, down just slightly from their 4th place last year. The remaining Top Ten spots are NV9L, NN7AZ, NØEO, K3CT, and W9RVG. Congrats to all!

Limited Multioperator

K5QE	252,170
N2NT	231,313
K8GP	218,828
AA4ZZ	149,250
W3SO	135,378
NV9L	94,656
NN7AZ	75,400
NØEO	64,529
K3CT	51,414
W9RVG	51,168

And how about those Unlimited Multioperator scores?

The W2SZ crew racked up another win in the UM category with an amazing win streak of 29! Wow! Amazing! Repeating with their 2nd place finish is the Mt. Airy VHF Radio Club (aka Pack Rats), W3CCX. The group at VE3WCC moved to 3rd from their 9th place finish last year. The WQØP crew are in the 4th spot up from their 6th place finish in 2018. Back again in the Top Ten UM is the crew from W9XA landing in the 5th position. The ops at W9XA pushed to the number 4 position in 2018 — up from number 7 in 2017. And rounding out the remaining Top Ten we have N8GA, K2BAR, W1XM, KD2LGX, and KE1LI. Congratulations to all crews!

And then 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, Russ, VE3OIL/R, once again held down the number 1 slot. A very FB to you Russ! Tom, N7GP/R, cemented his rover effort into 2nd place! In 3rd place we have the Wyatt & Dave VHF Expedition to 7 Land effort using the call W7D/R (cool call guys!). Jeff, N2MKT/R, ended up in the 4th position. Murray, VE3WJ/R, landed firmly at number 5. The remaining five slots are K2QO/R, AG4V/R, W2EV/R, WØZQ/R, and NN3Q/R. Both NN3Q/R and AG4V/R made the Top Ten last year in the Classic Rover category. Great job to all!

Classic Rover

VE3OIL/R	109,136
N7GP/R	71,700
W7D/R	45,298
N2MKT/R	44,400
VE3WJ/R	41,750
K2QO/R	41,600
AG4V/R	39,396
W2EV/R	37,800
WØZQ/R	36,150
NN3Q/R	30,784

Limited Rover

KK6MC/R	29,488
AL1VE/R	27,336
KJ2G/R	26,488
KØDAS/R	25,070
N6J/R	18,600
AE5P/R	17,850
K8JH/R	15,312
KT5TE/R	14,550
N6RH/R	14,250
W3DHJ/R	12,375

Unlimited Rover

KG9DUK/R	116,112
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NØLD/R	99,004
KA5D/R	48,015
KA2LIM/R	31,204
KG6CIH/R	25,275
KD5IKG/R	23,912
NØHZO/R	12,879
KCØP/R	12,636
WØZF/R	12,528
N6UTC/R	8,924

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, Multi-op, and Rovers. They give a detailed look at what the contest was like in their area and in their categories.

In the Limited Rover (RL) group, Duffey, KK6MC/R, bagged the win, racking up just under 30K in a close race to the top spot. Second place finisher is Tim, AL1VE/R. Be sure to read Tim's summary of his rove experience elsewhere in the write-up. Patrick, KJ2G/R, ended up 3rd. Rod, KØDAS/R, landed in the 4th spot. And for number 5 we have N6J/R with Jay, KE6GLA, as the operator and Nancy, KG6PNP, as driver – a great team! And finishing off the rest of the Top Ten in the LR category we have AE5P/R, K8JH/R, KT5TE/R, N6RH/R, and W3DHJ/R. Great job everyone!

And, finally, for those that Rove...the Unlimited Rover (RU) results. KG9DUK/R and NØLD/R find themselves as the number 1 and number 2 scores respectively. And the neat thing is that they both roved together in two separate vehicles. Read their great summary later in the write-up. A very hearty congratulations to you both! By the way, this makes three 2nd place finishes in a row for NØLD/R. Number 3 is Kyle, KA5D and numbers 4 and 5 are KA2LIM/R and KG6CIH/R, respectively. To round out the Top Ten we have KD5IKG/R, NØHZO/R, KCØP/R, WØZF/R, and N6UTC/R. Congrats to all.

And again, the Club Competition was fierce!

The Affiliated Club Competition for the 2019 June VHF Contest has several position changes, from ups and downs to repeat winners.

Affiliated Club Competition

<i>Club</i>	<i>Score</i>	<i>Entries</i>
Unlimited		
Rochester VHF Group	1,136,054	67
Potomac Valley Radio Club	916,846	64

Society of Midwest Contesters	836,052	56
Medium		
Mt Airy VHF Radio Club	991,868	27
North East Weak Signal Group	590,555	17
Arizona Outlaws Contest Club	365,766	31
Northern Lights Radio Society	292,165	10
Pacific Northwest VHF Society	215,456	35
Yankee Clipper Contest Club	212,904	25
Roadrunners Microwave Group	179,344	8
New Mexico VHF Society	174,032	13
Carolina DX Association	157,295	7
Grand Mesa Contesters of Colorado	142,899	7
Badger Contesters	140,671	12
Michigan VHF-UHF Society	127,991	6
Florida Contest Group	125,379	18
Frankford Radio Club	121,251	19
Alabama Contest Group	119,753	10
Minnesota Wireless Assn	111,119	12
Contest Club Ontario	105,636	9
Florida Weak Signal Society	97,155	4
Northern California Contest Club	82,881	24
Tennessee Contest Group	71,361	13
Southern California Contest Club	62,529	20
Texas DX Society	41,772	3
Northeast Maryland Amateur Radio Contest Society	32,597	6
Kentucky Contest Group	29,624	13
South Jersey Radio Assn	22,506	6
North Coast Contesters	16,983	4
Central Texas DX and Contest Club	14,126	5
North Texas Contest Club	12,640	3
Willamette Valley DX Club	6,527	5
Mad River Radio Club	5,867	7
South East Contest Club	5,702	4
Silver Comet Amateur Radio Society	3,831	3
Mother Lode DX/Contest Club	2,926	3
Local		
Chippewa Valley VHF Contesters	78,923	3
Meriden ARC	21,141	3
Bergen ARA	14,178	9
CTRI Contest Group	12,979	4
Niagara Frontier Radiosport	9,032	5
Vienna Wireless Society	5,755	3

This year after the dust had finally settled the Rochester VHF Group are on top in the Unlimited category with an outstanding 67 entries. This year marks the 70th anniversary for the club – truly amazing! The Potomac Valley Radio Club achieves the 2nd place spot which is what the group did last year. Great job once again! And in 3rd for 2019 we have the Society of Midwest Contesters (SMC). The SMC is always a major group to contend against. Congrats once again to all three of these highly competitive clubs.

Repeating as the Medium Club category's winner for 2019 we have the Mt Airy VHF Radio Club — also known as the Packrats. The number 2 position is the North East Weak Signal Group – moving up from 3rd place in 2018. The Arizona Outlaws Contest Club landed in the 3rd slot – moving up quite a bit from their 11th place finish in 2018. The Northern Lights Radio Society climbed from 5th place in 2018 to number 4 this year. And rounding out the top five places is the Pacific Northwest VHF Society – improving from their 13th slot last year. Great numbers, everyone.

And winning the Local Club competition is the Chippewa Valley VHF Contesters Club – moving up from 2nd place in 2018. Second place belongs to the Meriden ARC moving up from the 6th slot last year. And finally, to round out the top 3 positions is the Bergen ARA. They moved up from 5th in 2018.

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.

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*.

In Their Own Words...

K5ND/R June 2019 VHF Contest – Roving from the Texas Panhandle

Great weather and poor conditions on Saturday. Lousy weather and great conditions on Sunday. Both days, great fun.

Grid Activation Results

Overall, I scored 10,656 points with 139 contacts and 72 multipliers. Six meters wasn't that great on Saturday but rocked on Sunday. In total I had 115 contacts and 57 multipliers on 6, 15/5 on 2 meters, and 9/2 on 70 cm. On modes, 80 on FT8, 52 on SSB, and 7 on MSK.

Saturday Was Quiet

Saturday was a nice sunny day with temps in the 80s. I found all my preplanned grid spots just fine. However, I did elect to shift the first spot to a place that looked better. Unfortunately, I didn't realize that I didn't select it

on my planning trip because it had a big ditch that I couldn't see in June due to the growth of weeds. My drive through the ditch didn't do my bumper any good at all. Fortunately, it didn't tear it off. Such are the travails of a rover.

- DM93bx — 13 QSOs with the first to WØZF/R on FT8. This was a fleeting opening that soon went away.
- DM83xx — 5 QSOs, worked a few locals and W5AFY in Vernon, TX.
- DM84xq — 5 QSOs, same guys again from this spot. No 6-meter opening.
- DM94ab — 7 QSOs, same guys again and one rover that went by but didn't work him again during the contest. Tried to get him off FT8 but no luck. Also discovered that I could work W5AFY on 432 as well as 6 and 2.

Sunday was Good Conditions in Lousy Weather

After spending the night at my daughter's place in Amarillo, I headed north into 40 mph winds and light mist with temps in the 50s. The wind and road speed tested the rooftop antennas. But they held together and I found all my previously scouted grid spots.

- DM85xv — 18 QSOs mostly FT8 with a couple to K5TR on MSK. Six meters was starting to work.
- DM95aw — 40 QSOs most on SSB. Six was really open and I was able to run on SSB, making a high number of contacts.
- DM86xc — 43 QSOs all on FT8. The band was still open but I couldn't quite hold a CQ frequency and instead tried FT8. On this mode I was getting 4 to 5 responses to every CQ, so I worked them as quickly as I could.
- DM96ac — 8 QSOs FT8 and MSK. This spot was only about a mile down the road, but six meters went away before I got there.

Saturday I was able to activate all my grid spots on time. Sunday I was arriving just a little bit early and leaving early. I closed up shop about 4 PM on Sunday as the bands were dead, and there's little to no 2-meter or 70-centimeter activity in that area.

Division Winners

Classic Rover

Atlantic	N2MKT/R	44,400
Dakota	WØZQ/R	36,150

Delta	AG4V/R	39,396
Hudson	K2EZ/R	25,578
Northwestern	KE7MSU/R	7,524
Pacific	W7D/R	45,298
Roanoke	NG2E/R	126
Southwestern	N7GP/R	71,700
Canada	VE3OIL/R	109,136

Limited Rover

Atlantic	N5BNO/R	5,376
Central	K9JK/R	11,592
Delta	AE5P/R	17,850
Great Lakes	K8JH/R	15,312
Hudson	KD2BKD/R	833
Midwest	KØDAS/R	25,070
New England	KJ2G/R	26,488
Northwestern	K7BDB/R	6,895
Pacific	N6J/R	18,600
Roanoke	K4IZ/R	9,800
Rocky Mountain	KK6MC/R	29,488
Southwestern	N6GP/R	9,520
West Gulf	KT5TE/R	14,550
Canada	VE3RKS/R	3

Unlimited Rover

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Canada	VE7AFZ/R	1,449

Single Operator, High Power

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Southwestern	W6IT	23,002
West Gulf	AA5AM	30,000
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Roanoke	KK4BZ	224
Rocky Mountain	WA6BJH	48
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Southwestern	WA9TKK	4
Canada	VE3SMA	27,470

Single Operator, 3 Band

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New England	K1HC	20,114
Northwestern	N7QOZ	4,862
Pacific	AF6SA	9,405
Roanoke	KK4MA	15,600
Rocky Mountain	KØNR	23,712
Southeastern	K2PS	15,826
Southwestern	N7IR	22,659
West Gulf	AD5A	45,804
Canada	VE3SST	13,833

Single Operator, FM Only

Atlantic	W2BSN	108
Dakota	KDØYOZ	1
Delta	WB5RMG	8
Hudson	K2NUD	1,800
Midwest	KEØOGS	28
New England	N1SFE	8
Northwestern	N7KN	860
Pacific	W6IA	660
Rocky Mountain	WAØKXO	95
Southeastern	K3TW	14
Southwestern	KE6PLA	78
Canada	VA2DG	68

Limited Multioperator

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Midwest	WQØP	138,656
New England	W2SZ	670,432
Pacific	K6HS	17,172
Southeastern	W4NH	63,066
Southwestern	NI6E	23,162
West Gulf	KC5MVZ	16,929
Canada	VE3WCC	170,066

Overall Impressions

Dan, W5AFY, located in Vernon, TX, EM04, was my contest hero for working me in all 8 grids on 6 meters — a clean sweep. In most grids we also worked on 2 meters and later on 70 centimeters as well. Thank you, Dan.

My station worked well except for Sunday when the 6-meter balun I used opened up on the drive north in the wind. I replaced it with a coil of coax — which was tricky standing on top of the car in the wind, mist, and cold. The new power system worked well, as did the rig and the computer set up.

I also had a great deal of fun along the way. While the band conditions were not that great on Saturday, I still enjoyed myself. Sunday during the openings was a blast and I also gained perspective on what it's like working a pile up on FT8 and demonstrated that SSB can work fabulously as well when the conditions are good, and people are on the air in that mode.

Thanks to everyone who provided me with QSOs, and I hope I provided you with a multiplier or more along the way.



Jim, K5ND, utilized this Rover setup on his Texas Panhandle quest in the June 2018 VHF Test. (Photo courtesy Jim, K5ND)

In Their Own Words...

AL1VE Roves the 2019 June VHF Contest from Kansas and Colorado (By Tim, AL1VE)

Greetings All,

With all the rovers in Nevada, I opted for KS and CO. Part of the trip was to compare my newly built 3-element LFA to my old "TV aerial" 3-element Yagi. Unfortunately, severe weather that wasn't in the forecast when I left for my rove, made an unexpected appearance.

On Saturday, spotty band conditions and lightning QRN, from nearby thunderstorms, made most communications including digital, almost impossible. Neither antenna helped, but with the gusty conditions I had to keep the beefier LFA at about 15 ft. while I could get the lighter "regular" Yagi to 20 ft. Throughout the day I switched between antennas which produced no noticeable advantage to stations I could work. Never got to compare the rain detuning effect, as the nearby storms were now supercells and I decided to take everything off the mast to travel to my next grid corner.

It was dark as I began to head to CO, and there was no doubt I was in for a serious storm encounter. A local radio station was reporting several confirmed tornado sightings, ping-pong-ball-sized hail, 60 mph lateral winds and a county-wide "take shelter immediately" alert. All those "rover hints" I've ever read had never mentioned what to do if you have a severe thunderstorm bearing down on you. With 60 mph winds making driving impossible, I drove into a roadside depression on the leeward side of a stream gully.

Luckily, no hail, no torrential rains, just lightning and lots of wind. The Escape was jostled around, the stored antennas, mast, and roof rack screamed, but the SUV stayed upright. After the storm passed, I slowly made it 12 miles over slick mud to the nearest black-top road. The next day in CO went so much better, but with still gusty winds I stuck with the regular Yagi which I was able to get up to 25 ft.

Final thoughts on the LFA. For roving, the improvement over a regular Yagi wasn't there. BTW going down the highway mounted at a foot above the Escape the loop portion didn't oscillate at highway speeds but did get distorted. I was using 1/2 for the loop elements and 3/8 for the loop ends. While it easily tuned with a low SWR, I wondered if the mast mounted through the loop distorted the radiation pattern.

BTW, Rovers, you need to add these to the list of other things you need to do on a rove!

1. Know the names of all the small townships nearby, so the weather bulletins can alert you to which direction not to go.

2. Know local radio station frequency, just in case you can't get cell phone weather alerts

3. Tornadoes at night are almost impossible to see or hear. If they're nearby, hunker down. (Turns out there was at least four confirmed small tornadoes in the county that evening.)

4. That old adage about thunderstorms moving northeasterly is not true. The one that caught me came from the northwest.

And one last thought. I know several others have mentioned this, but If you're receiving lots of FT8 signals from stations at least 300 miles away with extremely strong signals, you know the solid red blotches with signals in the +10 to +20 range, maybe it's time to try the microphone!

Tim ALIVE/R

Sunday morning began with a drive from Woodland to Mowich Lake Road near Carbonado, WA, which permits me to hit CN87 at 2,160', CN86 at 3,000' and CN96 at 3,100'. Next, CN97 and CN87 are activated from Central Park, Issaquah, and then off to CN88 at a school parking lot (400') in Lake Stevens. The contest ends on the side of Mt. Pilchuck at about 3,000'.

First, I used to have a sweet spot in CN85 on an empty lot (with the owner's consent) that regularly got me into the Puget Sound and western Oregon on all four bands. Alas, the lot has been developed and there is a family living where I used to park my rove. I tried a spot at the same elevation slightly south of there. It gave me great reach to the South, but part of Green Mountain blocks me to the North. I'll look for something better for September.

The second change was Sunday afternoon. My CN98 spot is usually the side of Mt. Pilchuck on a national forest service road at about 3,000'. This year that forest service road was still gated shut by the start of the contest. Instead, I went to the Lime Kiln Trailhead (a Washington State park) at about 600' for CN98. It worked well, but not as well as sitting at 3,000'.



K7XC at Sunrise

In Their Own Words...

June VHF Test from Nevada – DM09jh (By Tim Marek, K7XC)

Not the best contest ever but it wasn't the worst either. Saturday 6-meter Es started out weak and almost unusable but as time past it slowly improved. Tropo on 144, 222, and 432 was pretty good but lacked activity. It was hard to get the W6's attention.

The new homebrew 16-element 222 Yagi worked very well as did the Ukrainian 222 xvtr. The recently resurrected Mil Surplus SS Amp modules performed well at 150 W out all weekend. Sunday morning, I was up very early and QRV on 6-meter MSK144 MS by 6:30 AM. The Random Rocks Screamed loudly to 10:30 AM when the Es on 6 meters made FT8 operation possible.

For the next 4 hours, I kept hopping from FT8 to SSB to CW, then repeat. Working anyone we could on 2, 222 and 432, activity died off by 2330Z. Swinging the 6-meter Yagi East in desperation for an opening, it quickly became clear my prayers for a loud double hop opening were answered.

The FT8 bandpass at 50.313 MHz was so congested, it was hard to find room to work anyone. So once more I cycled through the modes working, many folks on each until the contest ended. Many thanks to the 107 6-meter stations in 74 grids that put me in their log. 73s de Tim, K7XC, DM09jh.

In Their Own Words...

NØLD/R and KG9DUK/R – June VHF Contest Rove Report (By NØLD and KG9DUK)

We are a group of VHF/UHF/Microwave rovers in Oklahoma.

We use the website <http://WWW.OKROVER.INFO> for general team rove information, but to primarily share our planned route, as well as to provide tracking updates during the rove.

NØLD/R was operated by Randy Wing, NØLD and (daughter) Samantha Wing, KCØMTM. Samantha and her dad had operated in two contests a few years ago, with a much more limited set of just loops on the vehicle for 6 m, 2 m, and 70 cm. This year, we had 10-foot gain antennas on 2 m, 1.25 m, 70 cm, 33 cm, and 23 cm – with a vertical for 2 m and 70 cm FM and a vertical for 33 cm. We had a mast on the trailer hitch for the 6 m loop. Samantha held up the lion's share of the driving duties, which were considerable! A few times, Randy drove between grid square corners and Samantha logged contacts. Although Samantha is licensed, she prefers to drive and log.

KG9DUK/R was operated by Alex Naas, KG9DUK and Nick Farlow, KBØYHT. This is Alex's second rove. This was Nick's third year roving, but the first time outfitting and driving his personal rove vehicle! Nick borrowed loop antennas for 6 m, 2 m (dual), and 70 cm (dual) from NØLD and had a vertical antenna for 2 m and 70 cm. Power was run from the battery to the two primary radios FT-991 (a great radio borrowed from KG9DUK) And an older Yaesu FT-100 (borrowed from NØLD for 6 m voice), I had purchased a PAR Electronics 6-meter stressed Moxon antenna, but was unable to design a mount system to be able to use it during the rove. A few handheld radios were added to the mix as well as a handheld directional antenna (borrowed from WQØP) to help with the 900 mhz contacts. A laptop would be included to support digital contacts as well as logging support. NØLD and KG9DUK also helped with configuring the rove and preparing for the event. KG9DUK was designated as the primary call sign we would use and decided to have two of us in the RAV4, a mid-sized SUV.

The Route for this rove trip started in Nebraska, we spent the night at WQØP near St. Marys, KS. On Sunday, we continued south through Tulsa and then back home to OKC. We essentially circled grid corners at every opportunity in between. Tulsa has always been an

excellent location to make several ham radio contacts!! At the start of the contest, we made several contacts with local Nebraska hams and we did our grid dance. As usual, the day grew short fast. We opted to end a little earlier than planned, and replanned slightly to forgo one grid square corner on Saturday, but planned to pick it up on Sunday. The weather on Saturday was great and we made several contacts, including 6-meter digital! We had an excellent dinner Saturday evening with AAØMZ.

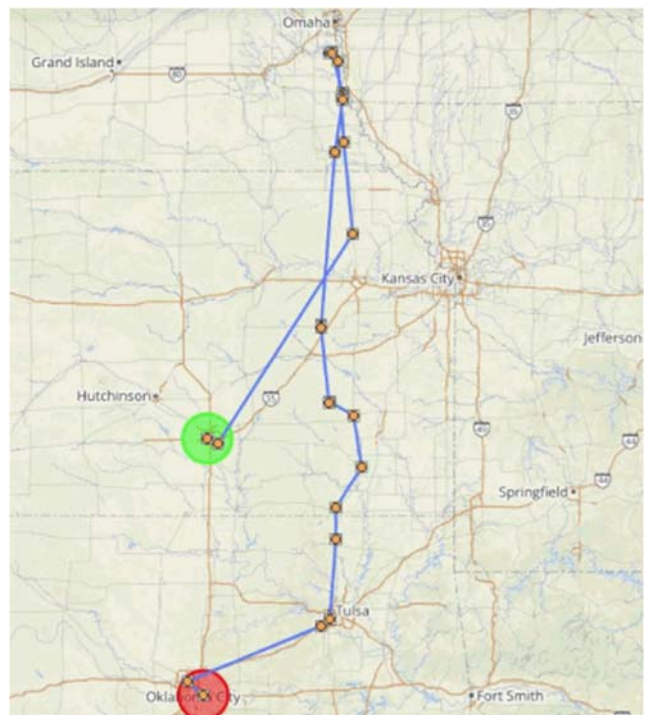
Close Encounters with the Public During most of our roves, people ask us what we are doing, and this trip was no exception. One of the more memorable interactions was on a gravel road in the middle of Kansas early Sunday morning. We had pulled to the side of the road and were making contacts. An old pickup pulled up next to us and we both rolled down windows. An elderly gentleman asked in a gruff voice, “Who ya spying on?” We told him it was a radio contest and we were just out having fun. He gave us a look of disbelief and rolled up his window. He pulled ahead and watched us for a few minutes before leaving. This seems to happen a lot.

Another instance was Saturday morning on the way to the start of the contest. We had breakfast in a fast food restaurant in Holton, KS. A whole group of 50 and 60 year old men from Texas came out and loudly asked us what this business was all about. After explaining, they seemed subdued, almost disappointed that we weren’t looking for UFOs!

Sunday travel was through good weather and through grid squares we have traversed in the past. The team was experienced, and we made good time. However, because of stopping a grid square short on Saturday, we just did a grid line shuffle instead of a full dance near Caney, KS — the EM26/EM27 border. We gave up very few points considering that corner is only a three-way corner and we were working the corner north and south of it. We made up all the time we had lost, and late afternoon found us near Tulsa. We made several contacts (long and short) as we usually do atop Turkey Mountain overlooking downtown Tulsa! We quickly ran the grid corner south of there. We were excited to be heading toward Oklahoma City while it was still light out! It was around 8:30 or 9 when we reached OKC, and unfortunately, we didn’t make many contacts when we arrived. We were able to make a few digital contacts before the end of the contest completed with a pretty good score.



NØLD/R and KG9DUK/R Rover (above) and Route (below)



Teardown: The modifications to Nick’s vehicle were easily undone in about 15 minutes. Randy’s Suburban took about 75 minutes to tear down. After spending the night at NØLD’s cabin in the woods, Nick prepared for his drive back to Wichita. A quick car wash on Monday, and back to Wichita he went.

Lessons Learned: 1) Three people in an unlimited rover is a lot more fun than two. Grid corners are hard work with only 2 people! 2) We enjoy making contacts with other fixed contesters, but it is hard to do when you are trying to grid corner your way into an unlimited rover first and second place. Look for us to return to limited and classic roving in the future. 3) NØLD/R 6-meter loop

underperformed — need to replace it in September. Too high an SWR. 4) There is a fine line between having fun and winning — always side with having fun.

Nick's Future Roving Plans: Nick has a few obligations that will take him away from roving for a spell, but he does intend to return in the future. — Randy, NØLD/R

In Their Own Words...

K2DRH - Single Op, Low Power Top Score (By Bob Striegl, K2DRH)

The half inch or more of radial ice that happened twice during some very unusual rainy February thaws followed by quick temperature drops and windy days didn't destroy much of the VHF stuff (HF was another story), though the falling ice did mash up a lot of the loops on the microwave loop yagis. And I finally got the 6-meter Stackmaster rebuilt and put back up, hopefully to leak no more after filling it up with water before the January test.

Array Solutions took over 3 months to get it back to me. It was originally a custom build and Jay didn't want to rebuild it, but rather sell me his new cascaded HF Stackmatch off-the-shelf solution for four antennas that would have had more than three times the loss of the old box on 6 meters. Needless to say, I didn't like that idea very much, so he quoted me a repair price equal to the new system cost and I guess he was surprised that I agreed to it, but I really had little choice to get the performance I needed unless I wanted to build my own. It does work perfectly, so I'm happy with it.

It never ceases to amaze me how everything can be working fine before the contests, then suddenly all go to hell. But 10 days before the test, the 902 antennas were hanging down after a stacking frame bracket broke in high winds. Had to fab a new one and somehow broke my preamp again when I put it all back together the Sunday before the test. My rotor for the tower top had been stopping randomly for no apparent reason, so I looked at that too, and when I opened the brush ports on the motor, greasy water poured out. It has been a very rainy and windy spring, so the motor was full of water. It was amazing that it worked at all. I was able to flush it all out with spray cleaner/degreaser and get it working well again. Took over 5 hours on the tower to fix those issues. But it all had to get done that day since we had to fly to NYC for a family funeral the next day and would not be back until the evening before the contest. Didn't get good sleep all week (a motel next to LI Expressway in Queens isn't like sleeping in the country) and of course we hit delays on the way back, so when I woke up early on

Saturday morning and started to get the station ready for the contest, I was still very tired.

Powering up, testing, and reconnecting all the stuff takes some time, but I hoped it would go quickly. No chance. Of course, all the computers needed updating, *NIMM* wanted to update and WSJT-X didn't work at all because I had the new FT4 release candidate loaded. To make things worse, the internet was bogged down and intermittent (they finally fixed it the Monday after the test). I had to reload programs, drivers and reprogram CAT ports and stuff, and it felt like I was drowning in computer madness. This radio hobby gets more like a computer hobby every day! But I got it all together (at least well enough so most of what I wanted was working) literally minutes before the test, feeling even more tired than when I went to bed the night before. Time to contest! Threw some water on my face and choked down some lunch. Can't say I was at my best. Luckily it started out slow, so I was able to warm up into it. The second hour had a little Es boost (EA8DBM came up in my pile) but the east coasters must have been DXing or FT8 droning because they didn't call in like I had hoped. Started looking for the rovers and staying off FT8, since it would likely put me to sleep. Most of the day was very slow with few stations on 2 meters calling, and I started to snipe some grids off 6-meter FT8 and move them the best I could to other bands. It's like pulling teeth! It used to be that stations would start tuning 2 meters when 6 was not open. Now they just stay on 6-meter FT8, hoping to catch some rare bubble and keep working each other 50-100 miles away while just ignoring the other bands. This is folly if you really want to do well in the contest. I've proven over and over that this is *not* a 6-meter contest and you can't win it by staying on 6 no matter how good it gets. Now they flock to 6 no matter how bad it gets!

It was mostly terrible Saturday afternoon here, with spotty Es openings to the northeast and east that would last a few minutes then die. Finally, at about 7 PM, it ripped open to the FN/FM grids and I got some decent rate for the next 2 hours. Too bad that's the evening time when stations would traditionally get on 2 meters and run the bands with you (but with FT8, who knows). When it died down, I really hit the wall of weariness from the past week. I started to do meteor scatter early since 2 meters was a wasteland and that seemed to pay off in multipliers, although by the time midnight rolled around and I had my skeds I was so tired I was fumbling. Seemed like my radios or computers kept jumping frequency and offsetting me a little (known Flex/WSJT bug). WSJT suddenly decided I needed a 50 Hz fto for some reason (known bug). WSJT also reverts to a default mode frequency if you change any settings. My DAX kept going south, deteriorating my

digital audio (another known Flex bug). It was windy and my power line noise to the west prevented me from running a lot of 2-meter skeds that way. Even got on the wrong 2-meter frequency for 5 minutes with K1TEO before I realized what I was doing. A nightmare! I stayed up until 1 AM with sked requests still pouring in on PJ, but I was a zombie and just couldn't handle any more.

Woke up at 6 AM better rested but still not nearly 100%. Did some more MSK-144 and got ready for my sked with KØAWU 400 miles away. We made it on 6-meter and 2-meter CW, then went to JT65b for 222 like we usually do. It was obvious he was not seeing me. I checked things out and there was a burnt smell coming from the transverter. Told him to quit and investigated, but couldn't see anything. Got a cable and a meter and had no output. Got a spare transverter that had been fixed and jacked it in. No output. Then investigated and realized the coax jumper I was using was bad. Now we have output! Was going to put the first one back in, but decided, hey, this works so leave it alone! Of course, the crystal was way off frequency, but that was easy to compensate for. Small but annoying equipment issues kept popping up all day and resolving themselves. At one point my FLEX 6700 locked up in the middle of a band run with a rover and had to be rebooted!

Sunday was slow pretty much all day long, but I was able to gain some ground on Sunday afternoon when folks finally got bored working each other 50 miles away on 6-meter FT8 and went to 2-meter SSB. There were some brief flashes of Es off and on all afternoon and a pretty short but decent one to FL, but hardly anyone was on SSB. I had to get on ON4KST and drag a couple of stations over to SSB but never really got anything going. Meanwhile 50.313 was lit up like a Christmas tree with 20 over stuff saturating receivers, and yet the slugs were so entrenched there they didn't react and never moved! Most of the time I was in and out of internet connectivity, so that didn't help me much either.

There was some to DM and DN and such for a while, and W9RM was huge from DM58. All the while, the FT8 drones stuck to their madness with the associated insane RX blocking. There was one short opening where TX came in, and true to form everyone in TX was loud and running, but nobody was answering my CQs. I still maintain that it must be illegal to search and pounce on 6 meters from TX! I wasn't paying attention, but I bet they won't even do it on FT8! I had to grid hunt and know that I missed some of the usual suspects since it was spotlight prop and moving around so much. Up to the last hour the SW was hot and it double-hop extended weakly to CA and the PNW at times, but really rapidly changing places all

the time. Not a lot of rate, but a lot of grids! Stations kept obliviously grinding on FT8, so I sniped several new grids there whenever it got slow and I saw them. I estimate I worked maybe 40-50 stations total on FT8 all day.

For the last couple of hours 6-meter Es died off into the weak bursts that FT8 is actually good for, and the last hour was actually pretty dead, but I did find a lot of multipliers on band runs — ones that should have been in the log already since they were pretty common grids out 200 miles or so, but the stations had apparently been too caught up with FT8. All evening it seemed really busy to me running bands, but the rate meter says otherwise, so I was probably beyond exhausted at that point. At the end I was absolutely amazed to see I had reached 200K, exactly! Never had that happen before! Pretty disgusted that found only 1 station on 2304 to even try with, and only one on 3456 that I could work!

In Their Own Words...

K1TEO - Single Op, High Power Top Score FN31/CT (By Jeffrey Klein, K1TEO)

This was my first full effort contest since January 2018. I was on with very limited capabilities last June and September, rebuilding the towers and antennas after tornado damage. In January I was limited to a few hours when ice shut me down. So first off, it was great to be back on the air! Overall activity seemed fairly good, condx on 2 meters and above were okay. with the only enhancement noted being very local Sunday (N2NT reported I was loud there in his report, and they were the same here!) with louder than normal signals but only out to say 150 miles. 6 meters had two openings that I got into on Saturday, with the first being in the afternoon being okay, and the second being fairly strong for about 2 hours Saturday night. Sunday had some scattered Es in the morning for a brief time, and was much more limited than the Saturday openings, while in the evening there was weak but workable (mostly FT8) double hop. I know the band was open to EU Sunday early evening, but I was busy running on other bands so never got on to try.

A few observations: My 6,2,432, 902 and 10 G stuff seems to be working as well as before I lost everything last year. 222 and 1296 seem a bit down. 2304 is way down. 3G and 5G probably are okay, but rig problems (the PTT line stopped working on 3G, and my new 5G xvtr is deaf) didn't allow a good assessment. So, it was a lot of work to get things back on 10 bands — and some more to do.

There was a good group of rovers out, but what is missing for me is the 8-10 band well-equipped rovers I used to work in many grids. That really limits the microwave grid

totals in particular, and misses some rare grids on 144 - 432 too. Still great to work K2EZ, K2LDT, VE3OIL, KJ1K, KG6CIH, and KJ2G a bunch of times. Tnx guys! I did not use FT8 at all until Sunday on 6 meters. When the band opened, I just went to SSB. During the two openings I found I was working 60-100 per hour on SSB, so I did not see a reason to move over. I caught about 3 hours of Es on Saturday. The band was open longer, but the challenge for a 10-band single op is to balance 6 meters with the other nine bands, and I spent at least 1.5 hours off of 6 during the openings. Hindsight says I might have been better off staying on 6, but at the time I had no idea if the band would be open all day on Sunday, so I went for 2 and up at times, especially when trying to get rovers.

I did make a few FT8 contacts on 144 and 432. I worked two new grids on each band there, that were easily worked and never heard on SSB/CW. So it does work well for some DX on those bands. I never called CQ on 432.174 and only spent perhaps 10 minutes calling CQ on 144.174. Just not enough time to stay put and do that. But if I was single band or a multi-op I can see where it would be beneficial to do so.

I did work 6-meter FT8 on Sunday. It was most beneficial Sunday night for double hop where I added perhaps 10

grids. Some were easily loud enough for SSB but calling there and on CW only yielded two double-hop QSOs while the band was open. As with 2 and 432, I only spent a very short time on 6-meter FT8 when the band wasn't open, even though quick checks showed lots of locals not worked on SSB. I was just running around too much to spend more time. The shame is, there were at least a dozen contest regulars on 6-meter FT8 that I never worked, who have multiple bands. But it is just too hard to get them to QSY to the others from FT8 (I tried a few times with guys after the RR message, but none moved...sigh). So the challenge moving forward with this fascinating mode is to figure out a way to work guys with other bands who are now mostly or fully FT8. One last observation on the mode: I never felt sleepy or tired when I was on SSB/CW this weekend. I had two 15-minute or so stints on 6-meter FT8 on Sunday. Both times, I was nodding off. You need to pay attention of course, but not speaking/sending/tuning made me nod off, hi! Tnx to NN1N, I did get one new grid (DN51) this weekend. I did hear KG6 in DM18 Sunday night quite a bit, but he was busy, and I didn't have time to DX. That would have been a good (new) one. Tnx for all the Qs and especially to the rovers that make it more fun for everyone. See you in the next one. — Jeff, K1TEO

Entries by Year

LM = Limited Multioperator

R = Classic Rover

RL = Limited Rover (2008 and after)

RU = Unlimited Rover (2008 and after)

SO3B = Single Operator, 3 Band (2013 and after)

SOFM = Single Operator, FM Only (2013 and after)

SOHP = Single Operator, High Power

SOLP = Single Operator, Low Power

SOP = Single Operator, Portable

UM = Unlimited Multioperator

CAT	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004	2003	2002
R	33	32	27	46	39	36	25	34	49	42	59	62	98	96	92	90	92	84
RL	57	52	45	34	31	43	43	42	40	43	37	26						
RU	14	8	9	10	11	6	10	8	10	10	6	8						
SOHP	293	259	278	293	249	175	180	194	214	199	206	200	162	184	165	155	157	157
SOLP	509	505	542	530	465	420	433	695	715	771	695	659	477	609	468	412	445	319
SOP	31	29	41	29	32	41	36	46	37	20	31	33	23	39	31	28	30	27
SO3B	292	280	221	136	131	118	107											
SOFM	25	23	27	15	23	17	8											
LM	27	42	38	36	35	53	54	64	64	52	56	52	62	79	46	43	55	49
UM	20	31	37	40	42	133	113	140	103	63	44	32	37	39	37	37	38	36
Total	1301	1261	1265	1169	1058	1042	1009	1223	1232	1200	1134	1072	859	1046	839	765	817	672

Statistically speaking.

Above we've noted logs received counts of the past 17 years for the June VHF Contest. 2013 to 2019 include all current categories; 2008 to 2012 did not include SO3B or SOFM; 2002 through 2007 did not include Limited or Unlimited Rovers or SO3B or SOFM. As you can see, each of these category modifications have contributed to growth in activity, and 2019 was the highest number of logs received since 2002. While the operating habits and strategies of our participants continue to change, interest in VHF contesting remains strong.

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 on 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.

June 2020 isn't that far away.

The next running of this event is June 13-15, 2020, and it's not that far away! It's never too late to begin strategizing (and paying homage to the propagation gods) for a prosperous 2020 June VHF Contest. If you are a Single Operator fixed station, are you adding any new bands, or revamping your arrays? If you are a Portable or FM op, do you have a new hilltop or plateau in mind (or maybe a rare grid – or both)? And if you are a Rover, no doubt you going yet to new, and perhaps even rare locations (Rovers, you continue to be the lifeblood of our VHF contest events, and we – all participants – appreciate the time, effort, and sweat equity you invest into keeping these events exciting). For everyone who joins us in these exciting events, thank you! Come join me and all VHF+ aficionados in the 2020 ARRL June VHF Contest! [*With special thanks to Bob, K2DRH, for his guidance and to John, N2NC, for advice in developing this summary.*]

Regional Leaders

Boxes list call sign, score, and class:

LM = Limited Multioperator

R = Classic

Rover

RL = Limited

RU = Unlimited Rover

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SOP = Single Operator, Portable

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West Coast Region		
(Pacific, Northwestern and Southwestern Divisions; Alberta, British Columbia and NT Sections)		
N7GP/R	71,700	R
W7D/R	45,298	R
KE7MSU/R	7,524	R
AC7SG/R	3,850	R
N6J/R	18,600	RL
N6GP/R	9,520	RL
KE6QR/R	7,112	RL
K7BDB/R	6,895	RL
AG6EE/R	4,350	RL
N6UTC/R	8,924	RU
VE7AFZ/R	1,449	RU
KJ7JSC/R	928	RU
AC7FF/R	690	RU
N1AV	68,688	SOHP
N7CW	38,086	SOHP
K7CW	28,380	SOHP
KE7SW	23,927	SOHP
W7FI	23,124	SOHP
W6IT	23,002	SOLP
VA6AN	16,168	SOLP
WZ8T	11,427	SOLP
KC6ZWT	10,492	SOLP
K2GMY	7,828	SOLP

N3EG	11,132	SOP
N4DLA	3,150	SOP
K7ATN	1,624	SOP
AI6US	1,160	SOP
VE6IXD	84	SOP
N7IR	22,659	SO3B
AF6SA	9,405	SO3B
AA7V	5,356	SO3B
N7QOZ	4,862	SO3B
N7RK	4,553	SO3B
N7KN	860	SOFM
W6IA	660	SOFM
KI7LTT	568	SOFM
W7AIT	520	SOFM
N9VM (N1VM, op)	180	SOFM
NN7AZ	75,400	LM
K7XC	10,668	LM
NA7TB	7,236	LM
W7TZ	1,947	LM
W6YNO	1,935	LM
N16E	23,162	UM
K6HS	17,172	UM
K7UAZ	2,052	UM
Midwest Region		
(Dakota, Midwest, Rocky Mountain and West Gulf Divisions; Manitoba and Saskatchewan Sections)		
WØZQ/R	36,150	R

KK6MC/R	29,488	RL
AL1VE/R	27,336	RL
KØDAS/R	25,070	RL
KT5TE/R	14,550	RL
N6RH/R	14,250	RL
KG9DUK/R	116,112	RU
NØLD/R	99,004	RU
KA5D/R	48,015	RU
KD5IKG/R	23,912	RU
NØHZO/R	12,879	RU
W9RM	95,648	SOHP
WDØT	95,634	SOHP
K5TR	92,638	SOHP
WØGHZ	60,048	SOHP
KØSIX	57,664	SOHP
NØLL	76,615	SOLP
NØUR	72,063	SOLP
AA5AM	30,000	SOLP
AI5I	20,496	SOLP
N5ITO	15,916	SOLP
N1SPX	10,332	SOP
WA6BJH	48	SOP
AD5A	45,804	SO3B
KØNR	23,712	SO3B
KØTI	14,608	SO3B
KØNEB	11,696	SO3B
KØVG	10,080	SO3B
WAØKXO	95	SOFM
KEØOGS	28	SOFM

KDØYOZ	1	SOFM
K5QE	252,170	LM
NØEO	64,529	LM
WØVB	7,482	LM
K5LRW	196	LM
WQØP	138,656	UM
KC5MVZ	16,929	UM
Central Region (Central and Great Lakes Divisions; Ontario East, Ontario North, Ontario South, and Greater Toronto Area Sections)		
VE3OIL/R	109,136	R
VE3WJ/R	41,750	R
VE3CRU/R	7,260	R
VE3TFU/R	2,616	R
VE2VAB/R	756	R
K8JH/R	15,312	RL
K9JK/R	11,592	RL
W9YOY/R	4,324	RL
WD9HBF/R	2,565	RL
W9FZ/R	1,947	RL
K9CT	166,808	SOHP
WØUC	136,600	SOHP
VA3ELE	105,230	SOHP
KB8U	91,188	SOHP
VE3ZV	56,712	SOHP
K2DRH	186,172	SOLP
W9GA	51,100	SOLP
VE3DS	42,840	SOLP
N8LRG	28,441	SOLP
K9GX	11,286	SOLP
VE3SMA	27,470	SOP
N8XA	3,312	SOP
VA3CW	816	SOP
W8KJ	697	SOP
N9AGC	432	SOP

KO9A	94,482	SO3B
VE3SST	13,833	SO3B
WB9TFH	12,354	SO3B
W9AV	12,201	SO3B
N9TF	6,540	SO3B
NV9L	94,656	LM
W9RVG	51,168	LM
W9VW	18,721	LM
VE3WCC	170,066	UM
W9XA	118,038	UM
N8GA	103,000	UM
Southeast Region (Delta, Roanoke and Southeastern Divisions)		
AG4V/R	39,396	R
W5VY/R	24,168	R
NG2E/R	126	R
KJ4CYM/R	88	R
AE5P/R	17,850	RL
K4IZ/R	9,800	RL
W5TV/R	6,700	RL
NC5AX/R	6,360	RL
KM4OZH/R	1,166	RL
N4QWZ	136,030	SOHP
W3IP	90,168	SOHP
KE8FD	77,145	SOHP
N3MK	51,185	SOHP
K1HTV	35,424	SOHP
N4EEB	17,976	SOLP
AC4G	14,688	SOLP
KD5J	10,295	SOLP
WV4P	10,293	SOLP
N4OX	9,088	SOLP
W4ZZK	1,891	SOP
KK4BZ	224	SOP

N4OGW	46,671	SO3B
K2PS	15,826	SO3B
KK4MA	15,600	SO3B
WA4GPM	14,529	SO3B
AJ6T	12,089	SO3B
K3TW	14	SOFM
WB5RMG	8	SOFM
WA4JA	1	SOFM
K8GP	218,828	LM
AA4ZZ	149,250	LM
N4SVC	49,545	LM
N9LHS	22,491	LM
WB4WXE	17,112	LM
W4NH	63,066	UM
Northeast Region (New England, Hudson and Atlantic Divisions; Maritime and Quebec Sections)		
N2MKT/R	44,400	R
K2QO/R	41,600	R
W2EV/R	37,800	R
NN3Q/R	30,784	R
KV2X/R	26,488	R
KJ2G/R	26,488	RL
W1RGA/R	11,151	RL
N5BNO/R	5,376	RL
NR2C/R	4,260	RL
AF1R/R	1,700	RL
KA2LIM/R	31,204	RU
KG6CIH/R	25,275	RU
KJ1K/R	6,160	RU
K1TEO	449,334	SOHP
K1KG	121,752	SOHP
WZ1V	118,184	SOHP
N2YB	112,530	SOHP
K1TR	98,880	SOHP

WB1GQR (W1SJ, op)	156,156	SOLP
AF1T	140,910	SOLP
N2WK	94,908	SOLP
KR1ST	54,320	SOLP
NF3R	45,195	SOLP
WA2TMC	22,048	SOP
WX3P	2,016	SOP
WB2AMU	1,312	SOP
N3KCM	884	SOP
KQ2RP	595	SOP

K3TEF	21,805	SO3B
K1HC	20,114	SO3B
W1QK	19,754	SO3B
K3TC	15,323	SO3B
N1API	13,125	SO3B
K2NUD	1,800	SOFM
W2BSN	108	SOFM
VA2DG	68	SOFM
KX1W	30	SOFM
N1SFE	8	SOFM

N2NT	231,313	LM
W3SO	135,378	LM
K3CT	51,414	LM
WA3EKL	28,662	LM
N1SOH	9,840	LM
W2SZ	670,432	UM
W3CCX	321,818	UM
K2BAR	102,065	UM
W1XM	67,670	UM
KD2LGX	64,308	UM

QSO and Multiplier Leaders by Category

Classic Rover	
50 MHz QSOs	
W7D/R	317
N7GP/R	149
N2MKT/R	98
K2QO/R	92
K2EZ/R	90
50 MHz Mults	
W7D/R	138
K2QO/R	45
AG4V/R	37
W5VY/R	37
VE3OIL/R	35
144 MHz QSOs	
N7GP/R	128
W2EV/R	115
K2QO/R	84
KE7MSU/R	69
N2MKT/R	66
144 MHz Mults	
W5VY/R	20
K2QO/R	18
NN3Q/R	18
VE3OIL/R	17
W3ICC/R	15

222 MHz QSOs	
N7GP/R	60
K2QO/R	57
KF2MR/R	56
KV2X/R	56
W2EV/R	56
222 MHz Mults	
K2QO/R	15
VE3OIL/R	13
W5VY/R	13
AG4V/R	11
VE3WJ/R	9
432 MHz QSOs	
N7GP/R	123
W2EV/R	80
K2QO/R	63
N2MKT/R	57
KF2MR/R	56
432 MHz Mults	
W5VY/R	16
K2QO/R	15
VE3OIL/R	14
AG4V/R	13
VE3CRU/R	11

902 MHz QSOs	
N7GP/R	45
KF2MR/R	40
W2EV/R	37
K2DV/R	32
N2MKT/R	28
VE3OIL/R	28
902 MHz Mults	
VE3OIL/R	10
VE3WJ/R	9
W5VY/R	7
AG4V/R	6
K2DV/R	6
N2MKT/R	6
W2EV/R	6
1.2 GHz QSOs	
N7GP/R	50
KF2MR/R	38
W2EV/R	31
VE3OIL/R	28
K2DV/R	27
WØZQ/R	27
1.2 GHz Mults	
VE3OIL/R	10
VE3WJ/R	9

W5VY/R	7
AG4V/R	6
K2DV/R	6
N7GP/R	6
W2EV/R	6
2.3 GHz QSOs	
KF2MR/R	25
VE3OIL/R	19
W3ICC/R	12
N2MKT/R	9
VE3WJ/R	9
2.3 GHz Mults	
VE3OIL/R	9
VE3WJ/R	9
N2MKT/R	5
W3ICC/R	5
KF2MR/R	4
NN3Q/R	4
3.4 GHz QSOs	
KF2MR/R	12
NN3Q/R	8
VE3OIL/R	7
WA3PTV/R	4
KV2X/R	3
3.4 GHz Mults	
KF2MR/R	4
NN3Q/R	4
KV2X/R	3
N2MKT/R	2
VE3OIL/R	2
WA3PTV/R	2
5.7 GHz QSOs	
VE3OIL/R	10
VE3WJ/R	9
NN3Q/R	7
WØZQ/R	4
VE2NR/R	1
VE3JGL/R	1

WA3PTV/R	1
5.7 GHz Mults	
VE3OIL/R	9
VE3WJ/R	9
NN3Q/R	3
VE2NR/R	1
VE3JGL/R	1
WA3PTV/R	1
WØZQ/R	1
10 GHz QSOs	
NN3Q/R	11
WØZQ/R	11
VA3TO/R	7
VE3OIL/R	7
VE3WJ/R	5
10 GHz Mults	
VE3OIL/R	6
VE3WJ/R	5
NN3Q/R	3
VA3TO/R	3
WØZQ/R	2
24 GHz QSOs	
VE3OIL/R	9
VE3WJ/R	9
24 GHz Mults	
VE3OIL/R	9
VE3WJ/R	9
Light QSOs	
VE3OIL/R	10
VE3WJ/R	9
K1DS/R	1
N1XKT/R	1
Light Mults	
VE3OIL/R	9
VE3WJ/R	9
K1DS/R	1

N1XKT/R	1
Limited Rover	
50 MHz QSOs	
AL1VE/R	264
KØDAS/R	200
KK6MC/R	172
KJ2G/R	155
AA5PR/R	150
50 MHz Mults	
AL1VE/R	93
KØDAS/R	82
K8JH/R	69
KK6MC/R	69
AA5PR/R	68
144 MHz QSOs	
AE5P/R	92
KT5TE/R	85
N6RH/R	84
N6J/R	74
KE6QR/R	64
144 MHz Mults	
N6J/R	16
KJ2G/R	12
K7BDB/R	10
K8JH/R	10
K9JK/R	9
KK6MC/R	9
KØDAS/R	9
W1RGA/R	9
W3DHJ/R	9
W9YOY/R	9
222 MHz QSOs	
AE5P/R	87
KT5TE/R	84
N6RH/R	81
W5TV/R	59
N5BNO/R	43

222 MHz Mults	
KJ2G/R	8
AE5P/R	6
KT5TE/R	6
N6J/R	6
N6RH/R	6
W1RGA/R	6
432 MHz QSOs	
AE5P/R	89
KT5TE/R	85
N6RH/R	84
W5TV/R	57
N5BNO/R	45
432 MHz Mults	
N6J/R	13
KJ2G/R	9
KE6QR/R	7
W1RGA/R	7
AE5P/R	6
K9JK/R	6
KK6MC/R	6
KT5TE/R	6
KØDAS/R	6
N6RH/R	6
Unlimited Rover	
50 MHz QSOs	
WØZF/R	134
KA5D/R	129
KG9DUK/R	118
KA2LIM/R	85
NØLD/R	78
50 MHz Mults	
WØZF/R	75
KA2LIM/R	55
KA5D/R	47
KG9DUK/R	39
KG6CIH/R	30

144 MHz QSOs	
NØLD/R	95
KA5D/R	94
KG9DUK/R	88
KD5IKG/R	81
KA2LIM/R	73
144 MHz Mults	
KA2LIM/R	27
KA5D/R	15
NØLD/R	15
KG9DUK/R	14
KD5IKG/R	11
KG6CIH/R	11
222 MHz QSOs	
NØLD/R	79
KG9DUK/R	73
KA5D/R	53
KD5IKG/R	46
KG6CIH/R	31
222 MHz Mults	
KA5D/R	14
KG9DUK/R	14
NØLD/R	14
KCØP/R	8
KD5IKG/R	8
KG6CIH/R	8
NØHZO/R	8
432 MHz QSOs	
NØLD/R	84
KG9DUK/R	80
KA5D/R	78
KD5IKG/R	60
KA2LIM/R	38
432 MHz Mults	
KA2LIM/R	18
KA5D/R	15
KG9DUK/R	14
NØLD/R	14
KD5IKG/R	9

902 MHz QSOs	
KG9DUK/R	73
NØLD/R	73
KCØP/R	14
NØHZO/R	12
KD5IKG/R	10
902 MHz Mults	
KG9DUK/R	14
NØLD/R	14
KA2LIM/R	6
KCØP/R	6
NØHZO/R	6
1.2 GHz QSOs	
NØLD/R	72
KG9DUK/R	71
KCØP/R	19
NØHZO/R	18
KD5IKG/R	11
1.2 GHz Mults	
KG9DUK/R	14
NØLD/R	14
KCØP/R	8
NØHZO/R	7
KA2LIM/R	5
2.3 GHz QSOs	
KG6CIH/R	5
KJ1K/R	3
KCØP/R	2
NØHZO/R	2
KA2LIM/R	1
2.3 GHz Mults	
KA2LIM/R	1
KCØP/R	1
KG6CIH/R	1
KJ1K/R	1
NØHZO/R	1

3.4 GHz QSOs	
KJ1K/R	4
KG6CIH/R	2
KA2LIM/R	1
3.4 GHz Mults	
KJ1K/R	2
KA2LIM/R	1
KG6CIH/R	1
5.7 GHz QSOs	
KG6CIH/R	2
KJ1K/R	2
5.7 GHz Mults	
KG6CIH/R	1
KJ1K/R	1
10 GHz QSOs	
KG6CIH/R	5
KJ1K/R	2
10 GHz Mults	
KG6CIH/R	2
KJ1K/R	1
Light QSOs	
KG6CIH/R	3
Light Mults	
KG6CIH/R	2
Single Operator, High Power	
50 MHz QSOs	
K9CT	620
K1TEO	470
WDØT	467
N4QWZ	462
WA1T	457
50 MHz Mults	
K5CM	181
K9CT	180

WDØT	168
W9RM	161
N4QWZ	150
144 MHz QSOs	
K1TEO	234
W3IP	137
N3HBX	120
N2YB	106
WZ1V	92
144 MHz Mults	
W1VD	51
K1TEO	45
KB8U	43
W3IP	40
K5TR	38
KAØRYT	38
222 MHz QSOs	
K1TEO	76
N2YB	46
K1RZ	37
WZ1V	32
WØUC	31
222 MHz Mults	
K1TEO	28
K1RZ	19
VE3ZV	19
W3IP	18
K5TR	17
432 MHz QSOs	
K1TEO	122
N2YB	68
W3IP	56
VA3ELE	55
N1AV	48
432 MHz Mults	
K1TEO	37
VE3ZV	24

VA3ELE	22
K1RZ	21
W3IP	21
902 MHz QSOs	
K1TEO	36
K1RZ	21
N2YB	21
WØUC	17
WØGHZ	15
902 MHz Mults	
K1TEO	22
K1RZ	13
VE3ZV	10
WØGHZ	10
VA3ELE	9
1.2 GHz QSOs	
K1TEO	41
VA3ELE	32
K1RZ	24
N1AV	23
WØUC	23
1.2 GHz Mults	
K1TEO	20
VA3ELE	20
K1RZ	14
VE3ZV	12
WØUC	12
2.3 GHz QSOs	
K1RZ	14
K1TEO	14
VA3ELE	11
N2YB	10
K1KG	9
2.3 GHz Mults	
K1RZ	12
K1TEO	11
K1KG	8
VA3ELE	8

N1AV	7
3.4 GHz QSOs	
K1KG	9
K1RZ	8
N2YB	8
W3SZ	6
K1GX	4
VA3ELE	4
W2SJ	4
3.4 GHz Mults	
K1KG	8
K1RZ	7
W3SZ	5
K1GX	4
K1TEO	4
5.7 GHz QSOs	
K1KG	6
K1RZ	4
K1TEO	4
WØGHZ	4
N2YB	3
W3SZ	3
5.7 GHz Mults	
K1KG	5
K1RZ	4
K1TEO	4
WØGHZ	4
N2YB	3
W3SZ	3
10 GHz QSOs	
VA3ELE	14
WØGHZ	9
K1RZ	6
KØAWU	6
K1KG	5
10 GHz Mults	
WØGHZ	9

VA3ELE	6
K1RZ	5
KØAWU	5
K1KG	4
K1TEO	4
Light QSOs	
W2SJ	1
Light Mults	
W2SJ	1
Single Operator, Low Power	
50 MHz QSOs	
NØUR	463
K2DRH	454
WB1GQR (W1SJ, op)	432
NØLL	337
NF3R	283
50 MHz Mults	
NØLL	174
NØUR	147
K2DRH	138
AA5AM	125
NF3R	108
144 MHz QSOs	
WB1GQR (W1SJ, op)	139
N2WK	87
AF1T	84
WB2CUT	84
K2DRH	83
144 MHz Mults	
K2DRH	39
N8LRG	39
WB1GQR (W1SJ, op)	27
WA3EQQ	26
KR1ST	23
222 MHz QSOs	
N2WK	72

AF1T	38
WB1GQR (W1SJ, op)	38
KC6ZWT	27
WB2JAY	27
222 MHz Mults	
K2DRH	19
AF1T	15
WA3EQQ	14
WB1GQR (W1SJ, op)	14
N2WK	13
432 MHz QSOs	
N2WK	80
AF1T	50
K2DRH	47
WZ8T	46
WB1GQR (W1SJ, op)	44
432 MHz Mults	
K2DRH	26
N8LRG	18
WA3EQQ	18
VE3DS	16
WØJT	15
902 MHz QSOs	
N2WK	19
AF1T	17
K2DRH	12
VE3DS	12
WB1GQR (W1SJ, op)	10
902 MHz Mults	
K2DRH	9
VE3DS	9
AF1T	8
N2WK	8
WB1GQR (W1SJ, op)	7
1.2 GHz QSOs	
N2WK	24
AF1T	19

WB1GQR (W1SJ, op)	19
W6IT	17
WB2JAY	17
1.2 GHz Mults	
K2DRH	12
WB1GQR (W1SJ, op)	10
AF1T	8
N2WK	8
WB2JAY	8
2.3 GHz QSOs	
AF1T	14
N2WK	10
W6IT	7
VE3DS	6
WB1GQR (W1SJ, op)	4
WB2JAY	4
2.3 GHz Mults	
AF1T	7
N2WK	6
W6IT	4
WB1GQR (W1SJ, op)	4
VE3DS	3
WB2JAY	3
3.4 GHz QSOs	
AF1T	7
W6IT	7
WB1GQR (W1SJ, op)	5
WB2JAY	5
N2WK	4
3.4 GHz Mults	
AF1T	5
WB1GQR (W1SJ, op)	5
W6IT	4
N2WK	3
WB2JAY	3
5.7 GHz QSOs	
AF1T	8

W6IT	6
W1MKY	2
W3EKT	2
VE3DS	1
W1RGA	1
5.7 GHz Mults	
AF1T	6
W6IT	4
W3EKT	2
VE3DS	1
W1MKY	1
W1RGA	1
10 GHz QSOs	
AF1T	8
W6IT	7
W1MKY	3
VE3FHM	2
W3EKT	2
10 GHz Mults	
AF1T	5
W6IT	4
W1MKY	2
W3EKT	2
K5TRA	1
KD7UO	1
N6TEB	1
VE3DS	1
VE3FHM	1
W1RGA	1
W7GLF	1
24 GHz QSOs	
AF1T	1
W1MKY	1
24 GHz Mults	
AF1T	1
W1MKY	1

Light QSOs	
AF1T	2
W1MKY	2
W1RGA	1
Light Mults	
AF1T	1
W1MKY	1
W1RGA	1
Single Operator, Portable	
50 MHz QSOs	
N1SPX	126
N3EG	80
WA2TMC	71
VE3SMA	61
N8XA	60
50 MHz Mults	
N1SPX	82
N8XA	37
WX3P	34
VE3SMA	31
W4ZZK	29
WB2AMU	29
144 MHz QSOs	
WA2TMC	90
A16US	80
N3EG	60
VE3SMA	50
K7ATN	37
N4DLA	37
144 MHz Mults	
VE3SMA	14
WA2TMC	12
N3EG	9
N8XA	9
A16US	7
N4DLA	7

222 MHz QSOs	
WA2TMC	60
N3EG	23
VE3SMA	22
K7ATN	12
N4DLA	12
222 MHz Mults	
VE3SMA	11
N3EG	6
WA2TMC	6
N4DLA	4
K7ATN	3
432 MHz QSOs	
WA2TMC	64
VE3SMA	32
AI6US	18
K7ATN	17
N3EG	16
432 MHz Mults	
VE3SMA	11
VA3CW	7
N3EG	5
N4DLA	5
WA2TMC	5
902 MHz QSOs	
VE3SMA	10
N3EG	3
N4DLA	2
WA2TMC	1
902 MHz Mults	
VE3SMA	5
N3EG	2
N4DLA	2
WA2TMC	1
1.2 GHz QSOs	
VE3SMA	6
N3EG	5

N4DLA	2
K7ATN	1
VE2NCG	1
VE6IXD	1
1.2 GHz Mults	
VE3SMA	3
N3EG	2
N4DLA	2
K7ATN	1
VE2NCG	1
VE6IXD	1
2.3 GHz QSOs	
VE3SMA	5
WA2TMC	1
2.3 GHz Mults	
VE3SMA	2
WA2TMC	1
3.4 GHz QSOs	
VE3SMA	4
3.4 GHz Mults	
VE3SMA	2
5.7 GHz QSOs	
VE3SMA	1
5.7 GHz Mults	
VE3SMA	1
10 GHz QSOs	
VE3SMA	6
VE3EG	3
10 GHz Mults	
VE3EG	1
VE3SMA	1
Light QSOs	
VE3SMA	1

Light Mults	
VE3SMA	1
Single Operator, 3 Band	
50 MHz QSOs	
KO9A	440
N4OGW	286
W1QK	224
K3TEF	223
AD5A	207
50 MHz Mults	
KO9A	151
N4OGW	115
KK4MA	98
AD5A	96
KØNEB	86
KØNR	86
KØTI	86
144 MHz QSOs	
AD5A	66
N7QOZ	55
N7RK	47
KO9A	42
N7IR	40
144 MHz Mults	
N4OGW	22
KO9A	21
AD5A	19
KA2BPP	19
K3SFX	16
222 MHz QSOs	
N9TF	3
KC2JRQ	1
KM6HB	1
222 MHz Mults	
KC2JRQ	1
KM6HB	1
N9TF	1

432 MHz QSOs	
AD5A	37
N7RK	37
N7IR	36
N7QOZ	25
KO9A	20
432 MHz Mults	
AD5A	17
K3SFX	10
N7IR	10
KO9A	9
N7RK	9
Single Operator, FM Only	
50 MHz QSOs	
W6IA	5
K2NUD	2
N9VM (N1VM, op)	2
AG6JA	1
K7IMA	1
KI7LTT	1
KX1W	1
VA2DG	1
50 MHz Mults	
N9VM (N1VM, op)	2
W6IA	2
AG6JA	1
K2NUD	1
K7IMA	1
KI7LTT	1
KX1W	1
VA2DG	1
144 MHz QSOs	
N7KN	54
K2NUD	40
KI7LTT	36
W7AIT	21
W6IA	17

144 MHz Mults	
K2NUD	6
N7KN	6
KI7LTT	5
KE6PLA	4
KEØOGS	3
N6NFB	3
N6ZDH	3
N9VM (N1VM, op)	3
W6IA	3
222 MHz QSOs	
K2NUD	12
W7AIT	11
W6IA	7
N9VM (N1VM, op)	3
W2BSN	2
222 MHz Mults	
K2NUD	6
N9VM (N1VM, op)	3
W7AIT	3
W2BSN	2
W6IA	2
432 MHz QSOs	
K2NUD	17
KI7LTT	17
N7KN	16
W6IA	12
W7AIT	11
432 MHz Mults	
K2NUD	5
N6NFB	4
N7KN	4
W6IA	4
W7AIT	3
WAØKXO	3
Limited Multioperator	
50 MHz QSOs	
N2NT	535

K5QE	496
K8GP	465
AA4ZZ	453
K3CT	451
50 MHz Mults	
K5QE	196
NØEO	151
K8GP	149
NV9L	137
AA4ZZ	134
144 MHz QSOs	
N2NT	240
AA4ZZ	203
K8GP	199
W3SO	180
K5QE	179
144 MHz Mults	
K5QE	106
NN7AZ	82
AA4ZZ	51
N2NT	49
W3SO	48
222 MHz QSOs	
N2NT	55
K8GP	39
NV9L	14
K5QE	11
AA4ZZ	9
222 MHz Mults	
N2NT	20
K8GP	19
NV9L	12
K5QE	11
NØEO	6
W9RVG	6
432 MHz QSOs	
K8GP	83

W3SO	73
N2NT	67
AA4ZZ	38
K5QE	29
432 MHz Mults	
W3SO	31
K8GP	30
N2NT	25
K5QE	21
NV9L	13
Unlimited Multioperator	
50 MHz QSOs	
W2SZ	745
W3CCX	461
W9XA	452
WQØP	428
K2BAR	376
50 MHz Mults	
WQØP	160
W2SZ	145
VE3WCC	134
W9XA	133
N8GA	121
144 MHz QSOs	
W2SZ	257
W3CCX	171
K2BAR	143
N8GA	101
VE3WCC	93
144 MHz Mults	
W2SZ	46
N8GA	43
W9XA	34
VE3WCC	33
W3CCX	30
222 MHz QSOs	
W2SZ	66

W3CCX	53
VE3WCC	35
KD2LGX	31
K2BAR	29
222 MHz Mults	
W3CCX	24
W2SZ	21
N8GA	14
WQØP	14
VE3WCC	12
432 MHz QSOs	
W2SZ	114
W3CCX	89
K2BAR	54
KD2LGX	48
VE3WCC	48
432 MHz Mults	
W2SZ	31
W3CCX	25
N8GA	20
VE3WCC	14
WQØP	14
902 MHz QSOs	
W2SZ	36
W3CCX	17
WQØP	12
KD2LGX	11
K6HS	7
902 MHz Mults	
W2SZ	17
W3CCX	14
WQØP	7
KD2LGX	6
K6HS	3
1.2 GHz QSOs	
W2SZ	42
W3CCX	28

W1XM	22
VE3WCC	18
WQØP	13
1.2 GHz Mults	
W2SZ	18
W1XM	17
W3CCX	17
WQØP	8
KD2LGX	7
VE3WCC	7
2.3 GHz QSOs	
W2SZ	32
W3CCX	17
VE3WCC	15
KD2LGX	5
KV1J	2
W1XM	2
2.3 GHz Mults	
W2SZ	15
W3CCX	12
KD2LGX	4
KV1J	2
VE3WCC	2
W1XM	2
3.4 GHz QSOs	
W2SZ	28
W3CCX	10
VE3WCC	4
3.4 GHz Mults	
W2SZ	13
W3CCX	7
VE3WCC	1
5.7 GHz QSOs	
W2SZ	20
VE3WCC	12
W3CCX	11

5.7 GHz Mults	
W2SZ	9
W3CCX	8
VE3WCC	1
10 GHz QSOs	
W2SZ	19
VE3WCC	12
W3CCX	8
10 GHz Mults	
W2SZ	8
W3CCX	6
VE3WCC	3
24 GHz QSOs	
W2SZ	13
VE3WCC	1

24 GHz Mults	
W2SZ	5
VE3WCC	1
Light QSOs	
W3CCX	8
VE3WCC	4
Light Mults	
W3CCX	2
VE3WCC	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 Branch at contests@arrl.org. For 2019, plaques are priced at \$75 (plaque rates will increase to \$80 each in 2020), which includes all shipping and handling costs to the winner. Send your \$75 (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	K2DRH	Jeffrey Klein, K1TEO
Overall Single Operator QRP Portable	VE3SMA	Andrea Slack, K2EZ
Overall Single Operator, 3-Band	KO9A	Northern Lights Radio Society
Overall Single Operator, FM Only	K2NUD	Andrea Slack, K2EZ
Overall Single Operator, Low Power, Rookie	NØGTO	W3ZZ First Log Award — Memorial by Tim, K3LR and Dave, W9PA
Overall Multioperator	W2SZ	Directive Systems and Engineering — In memory of W3ZZ and K3CB
Overall Limited Multioperator	K5QE	Gene Zimmerman, W3ZZ, Memorial — ARRL Contest Branch
Overall Rover	VE3OIL/R	In Memory of Tim Ertl, KE3HT, Microwave DX Addict
Overall Limited Rover	KK6MC/R	Rochester VHF Group
Overall Unlimited Rover	KG9DUK/R	Andrea Slack, K2EZ
Atlantic Division Single Operator High Power	N2YB	Potomac Valley Radio Club
Atlantic Division Single Operator Low Power	N2WK	Potomac Valley Radio Club
Atlantic Division Single Operator, 3-Band	K3TEF	Rochester VHF Group
Atlantic Division Multioperator	W3CCX	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 Multioperator	W9XA	Society of Midwest Contesters
Central Division Single Operator, 3-Band	KO9A	Society of Midwest Contesters

Central Division Limited Rover	K9JK/R	Ham Radio Rovers Facebook Group
Dakota Division Single Operator Low Power	NØUR	Northern Lights Radio Society
Delta Division Single Operator High Power	N4QWZ	Memorial to Mike Bruck, W5MRB, from his friends
New England Division Single Operator Low Power	WB1GQR (W1SJ, op)	Northern Lights Radio Society
Northwestern Division Single Operator, 3-Band	N7QOZ	Pacific Northwest VHF Society
Northwestern Division Single Operator High Power	K9CW	David Palmrose, NY7C
Northwestern Division Limited Multioperator	W7TZ	“W7TZ and K7NG of The Grid Busters”
Roanoke Division Single Operator High Power	W3IP	Potomac Valley Radio Club
Roanoke Division Single Operator Low Power	KR4NO	Potomac Valley Radio Club
Southeastern Division Multioperator	W4NH	Southeastern VHF Society
Southeastern Division Limited Multioperator	N4SVC	Southeastern VHF Society
Canada Single Operator Low Power	VE3DS	Neil Macklem, VE3SST
Canada Rover	VE3OIL/R	Neil Macklem, VE3SST
Canada Unlimited Rover	VE7AFZ/R	Neil Macklem, VE3SST
DX Single Operator High Power	XE2CQ	Bill Tynan, W3XO, Memorial — ARRL Contest Branch