ARRL September VHF Contest

2023 Full Results

By Ralph "Gator" Bowen, N5RZ (wb5aar@gmail.com)

Another Tough Year

The general word is that conditions were pretty flat for the 2023 running of the September VHF Contest. Also, there were a lot of storms in the North East part of the county. Yours truly was able to get on (from Central Texas) for about three hours Sunday afternoon and evening to some decent E-Skip on 6M, mainly to the Midwest.

Activity Levels

Entries were up a bit this year - 706 in 2023, from 672 in 2022. Most of the categories were close to or marginally increased from last year. The sharpest drop was in the Limited Rover category -from 32 to 18. Perhaps the price of gas? Thanks to all for your participation!

ARRL September VHF Contest	
Total Logs submitted by Year	
Year	**Number of Logs**
2016	504
2017	473
2018	569
2019	691
2020	833
2021	745
2022	672
2023	706

Single Operator, Low Power remains the most popular category, with Single Operator, High Power and Single Operator, 3 Band right behind. Participation in the Analog Only categories is rather flat in their second year of existence. See Table 1.

Total QSOs generated this year were 53,934, up over 10% from 2022. Six meters saw an increase of over 7,300 QSOs. 144, 222, and 432 MHz QSOs are still declining. 902 and 1296 were up slightly, and 2304+ QSOs were up significantly. See Table 2.

ARRL September VHF Contest				
Entries By Category				
Category	**2023**	**2022**	**2021**	**2020**
SOLP	210	198	272	300
SO-ALG-LP	61	65	---	---
SOHP	138	116	186	197
SO-ALG-HP	27	28	---	---
SO3B	117	97	143	174
SO-ALG-3B	24	27	---	---
SOFM	18	20	25	26
LM	20	22	16	21
UM	14	15	12	12
SOP	11	7	21	22
SOP-ALG	11	11	---	---
Classic Rover	24	26	23	34
Limited Rover	18	32	32	35
Unlimited Rover	8	5	10	10
Checklogs	5	3	5	2
Total:	**706**	**672**	**745**	**833**

Table 1- Entries By Category

ARRL September VHF Contest				
Total QSO's by Band				
Band	**2023**	**2022**	**2021**	**2020**
50	27,047	19,698	22,557	31,587
144	15,720	17,116	17,338	22,230
222	2,786	3,369	4,681	4,245
432	5,092	5,790	6,752	7,483
902	893	836	1,333	971
1296	1,343	1,309	1,653	1,665
2304+	1,053	785	1,661	894
Total	**53,934**	**48,903**	**55,975**	**69,075**

Table 2- Total QSOs by Band

As expected, the percentage of Digital mode QSOs has increased; this year. 65.50% of the QSOs were made via digital modes. 85.5% of the 6M QSOs were digital. CW QSOs really declined, and there were more CW QSOs on 1296 than any other band. Time will tell, but I believe the poorer conditions are, the fewer analog QSOs there will be.

Right or wrong, the general consensus appears to be that digital QSOs are more possible to complete when conditions are marginal. The analog operators have a valid point that moving folks to other bands is almost impossible to do with digital QSOs. Is there a happy medium???

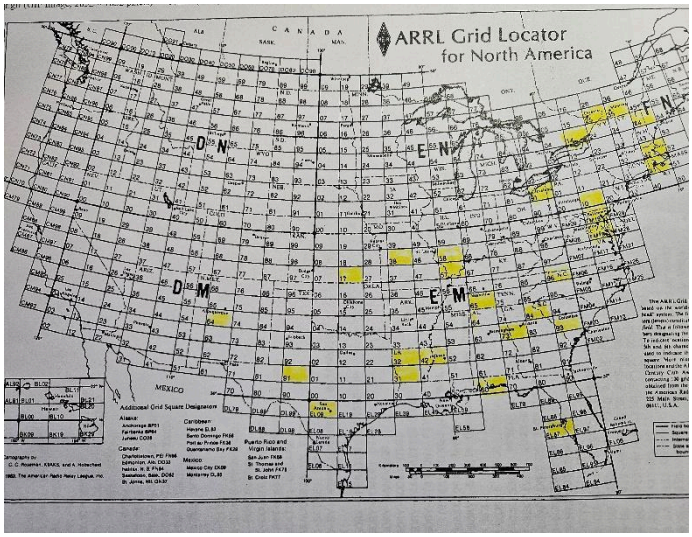
2023 ARRL September VHF Contest							
Bands by Mode							
Band	Legacy % (CW,FM.PH)	Digital %	CW	FM	Phone	Digi	Total
50	14.49%	85.51%	205	35	3,680	23,127	**27,047**
144	36.32%	63.68%	182	757	4,770	10,011	**15,720**
222	84.31%	15.69%	130	248	1,971	437	**2,786**
432	68.13%	31.87%	172	353	2,944	1,623	**5,092**
902	97.98%	2.02%	142	10	723	18	**893**
1.2G	92.33%	7.67%	240	28	972	103	**1,343**
2.3G	98.97%	1.03%	100	2	282	4	**388**
3.4G	100.00%	0.00%	55	0	98	0	**153**
5.7G	99.51%	0.49%	32	0	172	1	**205**
10G	99.26%	0.74%	60	0	210	2	**272**
24G	100.00%	0.00%	3	0	11	0	**14**
47G	100.00%	0.00%	0	0	2	0	**2**
75G	100.00%	0.00%	0	0	1	0	**1**
123G	100.00%	0.00%	2	0	8	0	**10**
Light	100.00%	0.00%	1	0	7	0	**8**
All	34.50%	65.50%	1,324	1,433	15,851	35,326	53,934

Accuracy

There are several occurrences where places in the standings were changed due to accuracy rates. You can download your LCR (Log Checking Report) at: https://contests.arrl.org/logcheckreports.php
FT8 appears to be one of the largest contributors to lost QSOs. From personal experience, a number of contacts are thought to be completed when they really were not. Be sure before you log that QSO!

DX Entries

There were a number of DX stations worked, especially by the stations utilizing EME. Logs were received from eight DX stations. Six from Mexico, CO2QU, and PY5CC.



USA Grid Squares worked by PY5CC from Grid Square GG54re

Thanks!

I would like to take this opportunity to thank those who make the logs and data available for analysis: John K9JK; Trey, N5KO and Paul, N1SFE - Contest Program Manager at the League and my "boss".

RESULTS AUTHORS WANTED!

If you are interested in writing a results article for ARRL, or know someone who might be interested, we have several opportunities for authors. Currently, we are looking for authors for the following results articles:

- ARRL International Digital Contest
- ARRL September VHF Contest
- ARRL 222 and Up Distance Contest

For more details, please contact the ARRL Contest Program Manager, Paul Bourque, N1SFE at n1sfe@arrl.org.

Single Operator Category Results

Again, Single Operator Low Power categories are the most popular, with 271 entries, 61 of which are in the Analog Only category. Single Operator High Power had 165 total entries, 27 of which chose Analog only. Single Op 3 Band had 141 entries, 24 of which were Analog Only.

Single Operator, Low Power			
Call	Score	QSOs	Mults
K2DRH	123,384	436	212
N2WK	83,000	350	125
NR2C	81,736	382	136
WB1GQR (W1SJ, op)	72,720	453	120
K9MU	49,407	270	129
K9KLD	43,043	267	143
KA2ENE	41,934	336	87
N2OA	30,149	220	73
KA9UVY	28,860	205	130
WM5L	27,776	222	124

Bob, K2DRH in NW Illinois moved up from #2 last year to lead the pack in the Single Operator Low Power category. N2WK moved up to second from #3, with NR2C a close third. WM5L placed #10 from West Texas.

Single Operator, Analog Only, Low Power			
Call	Score	QSOs	Mults
AF1T	71,853	292	129
VE3DS	24,880	170	80
WB2JAY	19,108	175	68
KAØPQW	5,376	91	48
AC1J	5,254	97	37
W4RAA	5,016	84	38
VA7SC	4,060	96	29
KØSM	3,675	69	25
K2GMY	3,422	83	29
KD2HZI	3,267	87	27

Dale, AF1T, easily took top spot in the Single Operator, Analog Only, Low Power category. In fact, the top 5 from last year were the same, except VE3DS and WB2JAY swapped places. VA7SC and K2GMY from the Left Coast placed 7th and 9th respectively.

Single Operator, High Power			
Call	Score	QSOs	Mults
K1TEO	306,606	745	274
N2JMH	165,066	474	183
N2NT (N2NC, op)	79,846	394	166
W3IP	52,302	302	138
WØAUS (WØZQ, op)	47,088	276	108
K1KG	46,620	254	111
K9CT	40,320	270	140
WA3DRC	37,520	247	112
W5PR	30,960	243	129
K1HTV	24,012	247	92

Jeff, K1TEO, again took the top spot in the Single Operator High Power category. N2JMH again took second. N2NT is usually a Multi Op, but one the ops, WW2Y, took a crew to FN24, so John, N2NC, piloted N2NT to a third place showing, setting a new Hudson Division record in the process. W5PR placed 9th from South Texas utilizing only Six Meters.

Single Operator, Analog Only, High Power			
Call	Score	QSOs	Mults
W2FU	94,612	338	124
WZ1V	49,450	298	115
K1TR	26,896	218	82
K2YAZ	15,232	128	64
WA1PBU	14,720	150	64
N9LB	11,766	114	53
KR1ST	8,750	122	50
WØGHZ	5,664	102	32
K6MI	4,320	66	36
W1GHZ	3,772	51	41

Jeff, W2FU, (6th place in 2022) won first place in the Single Operator, Analog Only, High Power category, besting last year's winner, Ron, WZ1V. Jeff set a new overall record for the category. K1TR moved up to third

place from 5th place last year. N6MI placed 9th from SJV, setting a new Pacific Division record. Other new division records were set by W4HLR (Delta), K2YAZ (Great Lakes), WB4WXE (Southeastern) and VE7AFZ (Canada).

Single Operator, 3 Band			
Call	Score	QSOs	Mults
KO9A	59,714	363	146
W5TRL	39,182	284	137
KK4MA	20,768	173	118
KO4ECD	13,950	204	62
K9PW	13,203	162	81
NF3R	11,256	171	67
W3FAY	11,220	186	60
NS4T	10,349	129	79
KA9FOX	9,052	124	73
KD2CDV	8,848	143	56

Jim, KO9A, set a new overall record while placing first in the Single Operator, 3 Band category. Tim, W5TRL, from STX was able to make use of some good 6M Es openings to place second and setting a new West Gulf Division record. Other division records were set by WD5HJF (Delta), NA2NY (Hudson) and KK4NA (Roanoke).

Single Operator, Analog Only, 3 Band			
Call	Score	QSOs	Mults
N7QOZ	3,087	115	21
K7CX	2,340	96	20
K3SFX	1,430	52	22
N1ZN	1,232	49	22
KN7Y	884	42	17
W1SRH	867	50	17
N1JD	680	29	20
WA3SRU	559	43	13
WB7FJG	550	42	11
KG7D	360	22	15

Bob, N7QOZ, from WWA, placed #1 in the Single Operator, Analog Only, 3 Band category, setting a new overall record. Another WWA entrant, K7CX placed second. There was lots of activity in the Pacific Northwest VHF Society to keep both these folks busy. The remainder of the Top Ten came from various parts of the country. Other new division records: K3SFX (Atlantic), N9OBB (Central), NØUI (Midwest), KG7D (Pacific), KW4SW (Southeastern) and KN7Y (Southwestern).

Single Operator, Portable			
Call	Score	QSOs	Mults
W4RXR	9,570	127	58
WX3P	960	29	24
NØJK	703	36	19
W2QL	432	39	12
N2MAK	264	18	12
NØSUW	243	25	9
WQ6D	230	17	10
K3GD	210	18	15
KC3UKC	52	13	4
XE2YWB	35	8	7

Tom, W4RXR, easily won first place from EM65 in the Single Operator Portable category. Other Top Ten operations were scattered across the States. XE2YWB placed #10 from grid square DL82rs in Mexico.

N2MAK placed 5th nationwide in the Single Op Portable category from this setup at 1600' in the Bare Hill Unique Area, near Canandaigua Lake in the Finger Lakes region of Western New York (Photo by Mike Kennerknecht, N2MAK)

Single Operator, Portable, Analog Only			
Call	Score	QSOs	Mults
W7IMC	4,095	174	15
WD5AGO	3,168	58	24

W7JET	1,360	46	17
WB2AMU	988	39	19
K2AXX	700	32	10
AA6XA	116	22	4
N7JA	68	10	4
KG7RQJ	36	13	3
NU2H	18	5	3
KO6BCW	8	3	2

Operating from Notellum Butte in Idaho, Scott, W7IMC, set a new overall record in placing #1 in the Single Operator Portable, Analog Only category. Tom, WD5AGO, a long time VHF hilltopper, placed second from Oklahoma, establishing a new West Gulf Division record. Other New Division Records: K2AXX (Atlantic), N3AWS (Delta) and W7JET (Southwestern).

Single Operator, FM Only			
Call	Score	QSOs	Mults
K6RJF	1,056	45	16
K1CT	728	38	13
AF6GM	660	40	12
N6DRE	456	23	12
KG5UNK	392	35	8
KB1YNT	306	29	9
N6MX	261	22	9
W6JBR	119	11	7
KI4POT	102	12	6
WX4DAT	78	12	6

Robert, K6RJF, from the San Diego section, led the pack of 18 participants in the Single Op FM category using 50, 144, 222, and 440 MHz. KG5UNK placed 5th from South Texas, setting the only new Division Record (West Gulf) in the category.

Multioperator Categories

Limited Multioperator entries were down by two to twenty. Unlimited Multioperator entries were down by one to fourteen.

Limited Multioperator			
Call	Score	QSOs	Mults
AA4ZZ	184,646	650	242
K5QE	107,124	366	237
W2EA	84,064	494	148
W4AD	67,398	434	141
WW2Y	35,046	262	118
W9VW	34,638	250	138
WA3EKL	22,356	266	81
W3SO	22,272	236	96
N9HF	14,792	136	86
W1XM	9,776	170	52

The AA4ZZ crew was again the top finisher in the Limited Multi Op category. K5QE placed 2nd and W2EA moved up to 3rd. WW2Y took a hiatus from N2NT and set up with a crew in FN24 to place 5th.

The W2EA (#3 Limited Multi Operator) Team Picture – with lightning! L-R KD2OIL, K2DD, KF4NC, N8MP, AD8N, N3RG, W2SJ, AA3RT, W2MC, KB3SIG, N3AVT, KD2JPV, KD2MPC, K2WB, KE2D (Photo Courtesy W2EA Crew)

Unlimited Multioperator			
Call	Score	QSOs	Mults
W2SZ	368,896	885	262
WD9EXD	75,174	305	187
N8GA	72,268	365	178
KD2LGX	52,824	307	124
W4NH	49,138	289	158
KV1J	48,688	311	136
WE1P	48,076	346	119
VE3MIS	47,880	255	120
WQØP	25,800	176	100
N2BJ	25,615	216	109

W2SZ again placed #1 in the Unlimited Multi Operator category. WD9EXD moved up to second spot from #8 last year just edging out N8GA. KD2LGX repeated at #4. Eighth place VE3MIS set a new Canadian Division record. Places 5-8 were only separated by only 1,258 points.

This crew made many folks happy operating KN6UWK (Unlimited Multioperator) from San Clemente Island in rare DM02. L-R: Heather KM6ZQB, Marty AF5T, Jack KK6YWG, Austin W4PBL (Photo Courtesy San Clemente Island Radio Club)

The Rovers

The Classic Rovers decreased by two to 24 in 2023. Limited Rovers dropped from 32 to 18, and Unlimited Rovers increased by three to eight.

Classic Rover				
Call	Score	QSOs	Mults	Grids
VE3OIL/R	97,966	348	146	8
K2QO/R	78,516	392	108	6
KF2MR/R	73,341	373	87	5
KA9VVQ/R	34,914	273	69	8
W9FZ/R	33,728	269	68	8
AG4V/R	15,128	144	61	6
KV2X/R	14,196	220	39	6
KCØP/R	11,417	125	49	4
NØHZO/R	9,064	110	44	4
KE2BUY/R	9,009	112	33	3

There were many familiar calls in the Classic Rover category this go-around. Last year's second placer VE3OIL/R and winner K2QO/R swapped places with OIL taking the top spot.

AA2SD/R, #4 Limited Rover, set up at Camelback, Penn State in Hazleton PA and also the 100 mile overlook located at Jim Thorpe. It was a challenge to keep ahead of the thunderstorms and weather conditions. (Photo courtesy Scott Dantis,AA2SD)

Limited Rover				
Call	Score	QSOs	Mults	Grids
KG9OV/R	28,391	251	89	7
KM4OZH/R	10,976	175	49	8
N6GP/R	6,902	184	29	4
AA2SD/R	6,680	145	40	4
KA7RRA/R	2,268	107	18	5
KØLTC/R	1,863	66	24	4
KE5HDE/R	1,809	59	27	4
WE7X/R	1,648	61	27	3
NN6U/R	1,406	85	16	4
ABØYM/R	1,333	59	19	4

In the Limited Rover category, Tony, KG9OV/R moved up from second place last year to win the category in

2023, setting a new Central Division record in the process. No other Division records were broken. KM4OZH/R moved up to second from 7th last year. Out West, N6GP/R moved up to third this year.

Gil, KM4OZH/R, #2 Limited Rover ready to put on 8 grids. (Photo courtesy Gil Thompson, Jr , KM4OZH)

Unlimited Rover				
Call	Score	QSOs	Mults	Grids
NØLD/R	135,888	540	114	10
ABØRX/R	99,862	435	98	10
NV4B/R	63,142	358	131	7
KI5VZJ/R	27,712	251	64	10
N2SLN/R	17,884	182	68	5
K4CNY/R	7,257	125	41	7
W8BRY/R	4,284	102	34	4
N2XRE/R	3,306	50	29	4

NØLD/R, no stranger to the Unlimited Rover category, took the number one spot, setting a new overall record. ABØRX/R, who ran along with NØLD/R placed second. Last year's Limited Rover winner, NV4B/R, changed categories to place third and set a new Southeastern Division record. Seventh Place W8BRY/R set a new Roanoke Division Record.

Affiliated Club Competition

Total Club Competition entries were up to 39 from 27 last year. The Mt. Airy Pack Rats were the lone Unlimited category entrant and had the highest club score.

Thirty-two clubs entered the Medium category. The Rochester (NY) VHF Group maintained their #1 position from 2022. The Arizona VHF Society, with 13 entries placed #2.

Six clubs entered the Local category. Last year's winner, Chippewa Valley VHF Contesters (from Wisconsin) barely nosed out top spot from close second place Stoned Monkey VHF ARC out of NW Illinois.

Club	*Score*	*Entries*
Unlimited		
Mt Airy VHF Radio Club (Pack Rats)	1,246,618	53
Medium		
Rochester (NY) VHF Group	683,227	24
Arizona VHF Society	430,341	13
Ontario VHF Association	230,624	20
North East Weak Signal Group	200,286	17
Society of Midwest Contesters	172,142	16
Potomac Valley Radio Club	167,281	44
Fourlanders Contest Team	88,629	6
Contest Club Ontario	86,581	10
Roadrunners Microwave Group	60,901	5
Northern Lights Radio Society	58,001	16
Pacific Northwest VHF Society	57,777	26
Yankee Clipper Contest Club	50,866	17
Kentucky Contest Group	45,959	5
Arizona Outlaws Contest Club	42,267	14
Badger Contesters	35,036	12
Michigan VHF-UHF Society	28,349	4
Frankford Radio Club	26,364	6
Florida Weak Signal Society	18,965	3
Northern California Contest Club	15,540	9
Mad River Radio Club	10,458	4
Carolina DX Association	8,440	6
South East Contest Club	8,011	4
Wayne County Amateur Radio Club	6,129	5
Minnesota Wireless Assn	4,020	8
Tennessee Contest Group	3,972	4
South Jersey Radio Assn	3,840	3
Florida Contest Group	3,308	4
Western Canada Weak Signal Assoc	1,992	3
Hudson Valley Contesters and DXers	1,712	5
Texas DX Society	1,348	4
Grand Mesa Contesters of Colorado	1,051	3
Southern California Contest Club	1,024	3
Local		
Chippewa Valley VHF Contesters	46,912	3
Stoned Monkey VHF ARC	45,356	5
Hilltop Transmitting Assn	24,500	3
Bristol (TN) ARC	5,225	3
Meriden ARC	2,916	3
Central Virginia Contest Club	1,412	3

Summary and 73

Thanks to all who participated in the 2023 running of the September VHF Contest.

This will be my last write up for this event. It has been an interesting and eye opening experience. After six years it is time to pass the torch. Thanks to all for your input and for indulging me. We have yet to find a replacement. Anyone interested please contact Paul, N1SFE, ARRL Contest Program Manager at n1sfe@arrl.org Hope to see everyone on the bands.

Onto the stories now - the best part!

Also, be sure to check out the soapbox comments and photos at https://contests.arrl.org/sepvhf/soaps/2023/

Next year's ARRL September VHF Contest will be held September 14-16, 2024.

73, Gator, N5RZ

Stories From the Operators

W7IMC (#1 Single Operator Portable)
By Scott Burgess, W7IMC

W7IMC at the contest location "Notellum" Butte in DN14 (Idaho Section) at 5500 ft. elevation (Photo courtesy, Scott Burgess, W7IMC)

I'm primarily a portable operator and was the former SOTA W7I Association Manager and the current Idaho POTA Mapping Coordinator. At the urging of members from the Southwest Idaho ARC I became involved in ARRL contesting two years ago and have continuously been improving my portable station, especially my antennas. One of my strategies for VHF contesting is to review the division records for each contest and then pick a category where I can be competitive.

As my contesting skills and station improve I plan on competing in more challenging categories. I was able to earn several grid square multipliers by working several ham Forest Service lookout operators above 9000 ft. on multiple bands. We had contacts with them all summer long doing VHF SOTA and the Sep VHF contest date was the last week they were on duty.

Special thanks to KI0E for helping to explain the contest rules and KW2E for keeping my old radios alive. I would also like to thank all those Hams who have recently moved to our valley bringing their expertise and perspective from other parts of the US.

Equipment and Antennas:
Yaesu FT-891 for 6m
Yaesu FT-897d for 2m and 70cm
ICOM IC-37a for 1.25m
Kenwood TK-981 for 33cm
Kenwood TM-541a for 23cm
Par Electronics SM-50 Moxon for 6m SSB
Diamond CR8900A for 6m FM
Comet GP-9N for 2m and 70cm
Arrow Yagi for 1.25m
Arrow Satellite Yagi for 2m SSB
Comet verticals mounted on Amazon speaker stands for 33cm and 23cm
LMR 600 for 2m, 70cm, 33cm and 23cm
RG8/U for 6m FM
Bolton 400 for 1.25m and 6m SSB

73, Scott, W7IMC

W9KXI–Single Op High Power WNY Grid FN12ne
By Al Oldfield, W9KXI - from Pack Rats "Cheese Bits" September 2023 Newletter

Like everyone else, there were really poor conditions here. I'm certain that the storm that went through hampered things. All modes were used but the majority of the 6M and 2M contacts were FT8. 222 and 432 were all analog.

My 6M contacts were mainly NE regional contacts. Not many were much further South than Virginia. Having said that… late Sunday, I decoded stations attempting to work South America. I turned my small, 4-element beam that direction and worked, Argentina, Brazil, Paraguay

and Uruguay. Some of these stations appeared to want the classic exchange, with a signal report, and NOT the NA Contest mode. It appeared like they would "move on" if they didn't do the classic exchange. I have learned to be adept at the quick format change.

2M: A week before the contest, I took down my venerable, 15 year old, 15 element, Quagi and replaced it with a much lighter 12 element beam. So far, I have no regrets. It weighs less, has less wind loading and it works. My 2M contacts were mainly regional as well. Unfortunately, there were no spectacular openings. I did decode one station in EN96 but it was only one transmission and was gone.

23cm. I attempted only one contact. That was with my friend Herb - K2LNS. I heard only a brief moment of his CW and he was …gone.
73, Al - W9KXI

WW2Y Antennas. (Photo courtesy Peter Hutter, WW2Y)

WW2Y - #5 Limited Multi Op from EM24

By Peter Hutter, WW2Y

Dave, W2KV and I did a field day style operation at an off grid cabin on top of a ridge near Owls Head, NY, which is located approximately 18 miles south of the Canadian/US border.
We arrived at the cabin Thursday evening to assemble the station. It consists of two Yaesu FT991 transceivers, kilowatt amplifiers for the lower three bands, and a 100w brick for 70cm. We spent most of Friday setting up two rotating 35ft Penninger Tipper masts that supported two antennas each. The first mast supported a 3 element beam for 6m and 15el K1FO beam for 70cm. The second mast supported a 9 element beam for 2m and 10 element beam for 1.25m. The 6m/70cm station had another antenna for 6m, an 3 element stacked dipole array suspended between two tall trees by ropes plus pulleys at a height of 70ft. Desired azimuth bearing of the array was accomplished by tying off two tag lines at ground level. QSO right before contest close.

Dean, K2WW and newly licensed operator Nate, KE2BJJ joined us for a few hours. Saturday night and Nate worked a number of stations for his first contest experience. He's an EE graduate student at Clarkson University and we think he's now hooked on contesting.

We had a decent 6m sporadic Es opening with "double hop" conditions mixed in that spanned into Southwestern portion of the DM territory. Once I noticed multiple strong FT8 signals started to saturate the WSJT-X display, switched to the SSB mode, spun the VFO and found KA0PQW who had a decent signal, then worked him quickly. Went up a few KHz to call CQ, a loud caller, K2DRH answers for the new multiplier and my adrenaline kicks in.

In just a few minutes, we snagged three W9 rovers plus several other stations, the run abruptly vanished because of lack of activity and my hopes were dashed with disappointment. The band remained open well for quite a while longer and I had to go back to FT8 in order to make progress. The days of running stations on analog are long gone.

On the plus side of this contest, W2KV did a terrific job on 2m and 222 Mhz. I recall his excitement working WA3DRC for one of most distant terrestrial contacts using CW. He heard Ed's strong signal on 222MHz at first after moving up from 2m, but deep QSB kicked in taking Ed's signal into the noise. He made decent QSOs into FM19 territory as well.

For some reason meteor scatter activity on 2 and 6 meters was significantly down from normal, but worked a couple of new ones.

Overall, We had a successful and fun time being in the boondocks.

73, Peter and crew.

WW2Y Operating Position with W2KV at the controls (Photo courtesy Peter Hutter, WW2Y)

K9JK/R – Classic Rover from 4 Grids
By John Kalenowsky, K9JK from 3830scores.com

A low key effort, just for a few hours late afternoon on Sunday, partially motivated by trying to complete a contact from a 'favorite suburban mountain' (a public parking structure) to a new grid (EN42) on 10G with a rover team that was going to be there...success!

All contacts were 'analog only' - 5 CW and 16 SSB. Antennas for 6, 2 and 432 were mag-mounts but it was nice to catch some stations in Texas and one in New Mexico despite the suboptimal radiating capability.

Thanks to all who were on for the contest (ESPECIALLY those who used their microphones and keys) and to the ARRL for hosting this event.

73, JK

KG9OV/R #1 Limited Rover
By Tony Controtto, KG9OV from 3830scores.com

On the station improvement front, a Raspberry Pi with a custom OS image has been added to the rover. This will serve as the host for various station automation and general network services going forward. To start with, it has its own GPS with PPS output attached and is serving GPS disciplined time (NTP) and general gps data for clients on the network to consume as needed. A custom utility to automate grid changes in the WSJT-X instances was implemented as well. That removed a couple steps in config changes with every grid change. Thanks/credit goes to Jeff K9KLD for the nice custom designed and 3D printed case for the Pi and providing the WSJT-X grid change utility.

True to fashion it seems, I didn't have any grand plans for a route for this contest. So, when a fellow SMC club member reached out asking for help with his 90th grid on 432, working that into the route became the plan. Just so happens that EM49 was the grid he was after and I've been visiting that one fairly regularly. The EM49-EM59-EN40-EN50 grid corner is fairly close to home and there are several great spots to operate from at that corner. I also rather enjoyed operating from Taum Sauk Mountain in EM47 last year. So, I decided to do basically the same route from last year, just in reverse this time. Start in EM47 on Saturday and work my way up to the EM49-EM59-EN40-EN50 corner for Sunday.

Taum Sauk is relatively close to home as well, so there was no need to rush or even get up early on Saturday in order to get there with plenty of time to leisurely get setup and ready for the start of the contest. Turns out that like last year, the weather at Taum Sauk was absolutely beautiful. Being able to open all the windows/doors in the van and have a nice breeze is always a bonus. Also gives the poor engine a rest from running A/C on full blast trying to keep everything (especially the operator) cool.

The conditions were pretty much nil for the start of the contest, but the elevation at Taum Sauk tends to help out a bit. Being the highest point in MO at ~1700ft, the usual suspects in Chicago land, down into AR/TX, and even deep into the south east are all possibilities. So, with a nice breeze though the rover and the Qs fairly steadily going into the log, the six hours or so flew by. But, to be a rover, you do have to move once in a while and that was enough time in one place.

While in EM47, during a brief break, I noticed that somewhere between when I left the house and when I randomly looked up, the 6m moxon had broken. One of the "stressed" tubes on the "side" had broken again. It was still physically attached and the antenna was functional, but it wasn't holding on by much. Having had the same issue in the past and still having some spare parts at home, stopping by the house to fix it became part

of the route. Luckily that was only a couple miles out of the way on the trip north. So, after getting that fixed, I was finally up to the north end of EM48 for a short stop to throw a few more Qs in the log. Then, the late night drive up to the EM49-EM59-EN40-EN50 corner.

KG9OV/R Van and antennas after taking the failed 6M Moxon down (Photo courtesy Tony Controtto, KG9OV)

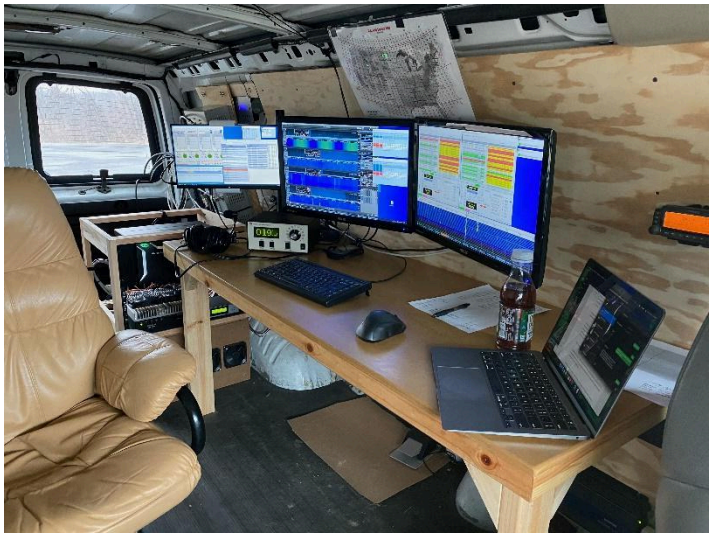
After a few ZZZs in the wee morning hours, I was up early looking for some rocks on 6 and 2. That seemed to be going OK right up until the 6m moxon went completely off the rails. SWR suddenly went to roughly infinity. So, that lead to spending the next little while troubleshooting that issue. For whatever reason I had left on this adventure without an antenna analyzer which I normally carry. I finally found the needed cable to remove everything between the radio and antenna to eliminate a lot of failure points. No joy, SWR still off the charts. So, that brought the contest to a screeching halt. It was early on Sunday morning and one of the money bands was dead in the water. The only thing left to do was tear the moxon off the mast so I didn't have to mess with it at every stop and move on. I was tempted at the time to throw it in a ditch, but opted to instead break it down and throw it in the corner of the van instead.

There was still the 90th 432 grid for a fellow club member mission to complete and the gas money was already gone. So, the rest of the contest looked like a casual stroll through some grids to hand out some Qs and maybe a mult or two to the various folks that follow my escapades. As it turns out, 6m remained mostly dead so even the stations that still had 6m antennas were chomping at the bit to get those precious Qs on the upper bands instead of glued to 6m Es. All in all, it wasn't a bad rest of the day really. Somehow I even managed to beat my own score from last year by a hefty margin even without 6m for a large portion of the contest.

Even though it all seemed to work out OK, that was the 4th time that particular antenna has failed and the second time it took 6m out during a contest. I already had plans to replace the moxon with a 3el yagi, I just didn't get that project completed prior to Sept VHF. Now though, that particular antenna will be relegated to scrap aluminum status. When it works it seems to be a decent enough antenna, but not dependable at all. The 3el yagi will be in place by Jan VHF.

Until next time... thanks for the Qs!

Gear:
Flex 6600 / Q5 Signal 5BVUX
50 - 200w - Par Moxon @ 18’
144 - 200w - Directive Systems 6el Rover Yagi @ 12’
222 - 100w - Directive Systems 10el Rover Yagi @ 10’
432 - 100w - Directive Systems 15el Rover Yagi @ 8’



The KG9OV/R operating position in the van – nice! (Photo courtesy Tony Controtto, KG9OV)

K2UA - A 10 and 24 GHz Tune-Up in the September Contest *By Rus Healy, K2UA*

For the past several years I've focused my efforts in all of the major VHF contests on 10 GHz and up to drive more activity on those bands, and to take advantage of the number of active stations in the Rochester, Toronto, and Ohio regions. It has been fun. Then, after a hiatus of

about 25 years from 10-band roving, I returned to that in January 2023, building out my station again and hitting the road in the January and June VHF Contests. The September contest is too close to the 10 GHz and Up Contest's second weekend (just one week earlier) for me to make a full roving effort; I was still in the midst of preparing for that. But I had just upgraded my 10 GHz system to a 30-W PA and had made a number of improvements to 10 and 24 GHz systems to reduce noise figure and transmit-side losses, so I went to a good location near home and got on between rain cells to test things out.

In a rain-limited 30-minute outing around noon on Sunday, I was rewarded with eight QSOs in four grids on 10 GHz, including three over 200 km, and one QSO on 24 GHz in a neighboring grid. The flurry of activity on 10 GHz near the calling frequency was impressive, with random calls from N2JMH and NR2C in the same minute after I finished a QSO with N2WK, delaying our QSY to 24 GHz. Can't beat that kind of activity! My best DX was with VA3TO/R in EN93, at about 220 km. Very remarkable distance-wise, and signals were about S9 +10 dB. Hugh and I often work over a similar path with signals like this--easy SSB copy with very little fading.

I was also happy to make my first QSO with Dave, N2OA, who had just put his IC-905 on the air in June. Dave is one of about 20 active stations in the Rochester area (FN12/FN13/FN02/FN03), which is seeing growth of two or three stations each year thanks to a very active community in the Rochester VHF Group, Ontario VHF Association, and surrounding areas, with coordination on Slack and collaboration on groups.io groups, and the Amateur Radio Microwave Community Facebook page. We also run at least two annual tune-up clinics including an August event with a cookout and antenna range in FN12 that has become a popular event, covering gear for all bands from 902 MHz and up. It takes some effort to get it going, but the enthusiasm is contagious and the results have been fantastic. 73--Rus Healy, K2UA

A view on a dry day from K2UA's operating location for the September contest, showing his 10 and 24 GHz dual-band setup. The antenna was a 76-cm Winegard dish fed by a W1GHZ dual-band feed. The plastic container hanging to the left is used to protect the feed, T/R relays, and low-noise receive amplifiers during travel. (Photo Courtesy Rus Healy, K2UA)

WB2AMU - #4 Single Op Portable Analog Only from FN30IT *by Ken Neubec, WB2AMU*

As anyone who does QRP portable operations from remote locations during the ARRL VHF contest can tell you, there are many challenges to the operator. Besides the usual setup problems, there are other factors concerning the locations, particularly with regards to public parks. Especially for the Long Island area, some of the public parks are prone to illicit activities by park visitors that can be a distraction to the radio operator doing QRP portable operations. There are only two high points on Long Island, both around 250 feet ASL, and both are located inside public parks. The one that I operate from for the three yearly ARRL VHF contest has

had its issues over the 30 years that I have gone there, and various undercover police activities to curtail illegal activity have taken place as the result of public complaints. Two weeks prior to the 2023 September VHF contest, an undercover operation at the hill that I operate from, netted a former high-ranking police official involved in illegal activity.

I was a bit concerned that when the September VHF contest took place, there would be problems, but as it turned out, it was very quiet at the park as shown in the attached photo and I was able to focus entirely on the contest. There was much static on the bands during Saturday afternoon as the result of thunderstorms located to the west of me. However, on Sunday morning, there were some moderate tropo activity on the bands. I was able to hear W2SZ (FN32) on SSB at very loud signal strength on 432 MHz and able to work him easily. I was able to work into some upstate NY grids and into Eastern PA. The conditions lasted about one hour and then there was no more activity on any of the bands with regards to SSB and CW. It was still an enjoyable event!

WB2AMU Operating Location in FN30it. (Photo Courtesy Ken Neubeck, WB2AMU)

W4RXR - #1 Single Op Portable from EM65nj
by Tom Smith,W4RXR

I have always loved the outdoors -- hunting, skiing, camping, hiking, Boy Scouts, etc. Portable QRP operating is a natural outgrowth of these interests with ham radio added as a bonus. My first Port-QRP was 3 watts and a 5 element yagi, SSB, on 144 in the North Carolina Mountains. This was an eye opening introduction to what could be done with a small portable station. Since that initial operation I have continued to improve and build more effective stations.
I now run the max power (10 watts) on all bands. I have begged, borrowed, and built many more antennas, as this is one of the best ways to continue to improve my operation. I have also added band after band until I presently can operate on 50, 144, 222, 432, 902, 1296, and 10 GHz. Finally, I have kept current by expanding to most modes including SSB, CW, FM, and FT8. All of these improvements have led to a nearly mandatory need to operate throughout the contest with virtually no breaks. Also, all of this expansion of antennas, equipment, operating, and personal needs, has required that I set up a tent and carry food to support the operation.

Another on-going improvement is to find the best locations to set up the operation. I presently live in middle Tennessee (no mountains!), so I'm always searching for the best open ridge that I can find. This area of the country does not have as high a density of ham radio operators as other parts of the country, so all these improvements help me make up for that shortcoming of the area.
Portable QRP operation offers alternatives from what I can do from my lower land home QTH and fulfills a myriad of operating goals: (1) Getting outdoors. (2) Practicing portable EMCOMM setups. (3) Enjoying more QSOs than I could ever have from my residence.
I would like to send thanks to all the stations who exhibit the patience to dig out us weak signaled players in the contest.
73, Tom, W4RXR

W4RXR Operating Location in EM65nj in Central Tennessee. (Photo Courtesy Tom Smith, W4RXR)

KQ4GEX/R: First timer here, went up the side of the mountain with my HOA Antenna. Operated from FM08 and FM18. It what I have!!! It was fun. Thank you for having this contest. (Photo Courtesy Michael P Kohlbecker, KQ4GEX)

Regional Leaders

West Coast Region
(Pacific, Northwestern and Southwestern Divisions; Alberta, British Columbia and TER Sections)

WA6OEM/R	1,668	R
KD6EFQ/R	1,649	R
N7DA/R	546	R
N6VHF/R	468	R
N6GP/R	6,902	RL
KA7RRA/R	2,268	RL
WE7X/R	1,648	RL
NN6U/R	1,406	RL
K6LMN/R	1,105	RL
N7EPD	8,322	SOHP
N6UTC	7,018	SOHP
K6KLY	5,600	SOHP
N7KSI	3,774	SOHP
W7MEM	2,795	SOHP
N7IR	6,192	SOLP
AL1VE	5,920	SOLP
N6ZE	2,337	SOLP
N7DB	2,016	SOLP
KG7PD	1,368	SOLP
K6MI	4,320	SO-ALG-HP
KB7IOG	858	SO-ALG-HP
VE7AFZ	616	SO-ALG-HP
VA7SC	4,060	SO-ALG-LP
K2GMY	3,422	SO-ALG-LP
VE7HR	1,037	SO-ALG-LP
K6MUG	960	SO-ALG-LP
KE7UQL	800	SO-ALG-LP
WQ6D	230	SOP
W7IMC	4,095	SOP-ALG
W7JET	1,360	SOP-ALG
AA6XA	116	SOP-ALG
N7JA	68	SOP-ALG
KG7RQJ	36	SOP-ALG
WA7PVE	1,309	SO3B
KI6X	848	SO3B
AA7EA	450	SO3B
WA8ZID	372	SO3B
WA2KDL	264	SO3B
N7QOZ	3,087	SO-ALG-3B
K7CX	2,340	SO-ALG-3B
KN7Y	884	SO-ALG-3B
WB7FJG	550	SO-ALG-3B
KG7D	360	SO-ALG-3B
K6RJF	1,056	SOFM
K1CT	728	SOFM
AF6GM	660	SOFM
N6DRE	456	SOFM
N6MX	261	SOFM
WO1S	1,092	LM
KC6NKK	551	LM
W6SPR	70	LM
KN6UWK	5,859	UM

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

KCØP/R	11,417	R
NØHZO/R	9,064	R
N5ZY/R	4,182	R
AF4JF/R	1,460	R
WAØCNS/R	952	R
KØLTC/R	1,863	RL
ABØYM/R	1,333	RL
W5OC/R	986	RL
WA5AZQ/R	750	RL
NØLD/R	135,888	RU
ABØRX/R	99,862	RU
KI5VZJ/R	27,712	RU
WØAUS (WØZQ, op)	47,088	SOHP
W5PR	30,960	SOHP
K5ND	18,232	SOHP

K5GZR	16,830	SOHP
N5JS	12,702	SOHP
WM5L	27,776	SOLP
N5EKO	19,448	SOLP
WB5TUF	19,240	SOLP
AJ4F	10,033	SOLP
KM5RG	7,935	SOLP
WØGHZ	5,664	SO-ALG-HP
WA5LFD	320	SO-ALG-HP
KAØPQW	5,376	SO-ALG-LP
KAØCRO	1,140	SO-ALG-LP
KBØKQI	220	SO-ALG-LP
AEØEE	84	SO-ALG-LP
AEØG	30	SO-ALG-LP
NØJK	703	SOP
NØSUW	243	SOP
WD5AGO	3,168	SOP-ALG
W5TRL	39,182	SO3B
KFØLKJ	2,336	SO3B
N5UM	1,776	SO3B
KC7QY	1,530	SO3B
NØAT	1,456	SO3B
NØUI	42	SO-ALG-3B
KEØOR	2	SO-ALG-3B
KG5UNK	392	SOFM
K5QE	69,344	LM
NØLD	136	LM
WQØP	25,800	UM
KC5MVZ	5,856	UM

Central Region
(Central and Great Lakes Divisions; Ontario East, Ontario North, Ontario South, and Golden Horseshoe Sections)

VE3OIL/R	97,966	R
KA9VVQ/R	34,914	R
W9FZ/R	33,728	R
K9JK/R	444	R
KG9OV/R	28,391	RL
W8ISS/R	1,189	RL
K9CT	40,320	SOHP
VE3WY	20,298	SOHP
W9EWZ	16,000	SOHP
VA3IKE	14,924	SOHP
WA8MCD	14,678	SOHP
K2DRH	123,384	SOLP
K9MU	49,407	SOLP
K9KLD	43,043	SOLP
KA9UVY	28,860	SOLP
W9XT	7,345	SOLP
K2YAZ	15,232	SO-ALG-HP
N9LB	11,766	SO-ALG-HP
K8TQK	3,713	SO-ALG-HP
VE3KG	20	SO-ALG-HP
VE3DS	24,880	SO-ALG-LP
VE3RWJ	1,540	SO-ALG-LP
K8BB	1,125	SO-ALG-LP
N9GH	54	SO-ALG-LP
VE3RVZ	52	SO-ALG-LP
KO9A	59,714	SO3B
K9PW	13,203	SO3B
KA9FOX	9,052	SO3B
WB9TFH	6,360	SO3B
W9AV	4,032	SO3B
N9OBB	285	SO-ALG-3B
WO3X	20	SO-ALG-3B
VA3PHP	24	SOFM
VE3RGO	1	SOFM
W9VW	34,638	LM
K8AEP	108	LM
WD9EXD	75,174	UM
N8GA	72,268	UM
VE3MIS	47,880	UM
N2BJ	25,615	UM

Southeast Region
(Delta, Roanoke and Southeastern Divisions)

AG4V/R	15,128	R
W5VY/R	7,020	R
KQ4GEX/R	1,176	R

KM4OZH/R	10,976	RL
NV4B/R	63,142	RU
K4CNY/R	7,257	RU
W8BRY/R	4,284	RU

W3IP	52,302	SOHP
K1HTV	24,012	SOHP
K3SK	23,520	SOHP
WA4GPM	16,530	SOHP
N3MK	16,128	SOHP
W4TM	12,560	SOLP
AJ6T	10,400	SOLP
W2UA	10,224	SOLP
KY4G	5,252	SOLP
AA4DD	4,264	SOLP
WB4WXE	3,666	SO-ALG-HP
K4WI	1,312	SO-ALG-HP
W4HLR	850	SO-ALG-HP
N4RA	480	SO-ALG-HP
N1GC	450	SO-ALG-HP
W4RAA	5,016	SO-ALG-LP
KW4G	448	SO-ALG-LP
WA4WZQ	63	SO-ALG-LP
AD4IE	6	SO-ALG-LP
NJ4Q	1	SO-ALG-LP
N2BMN	1	SO-ALG-LP
W4RXR	9,570	SOP
W2QL	432	SOP
N3AWS	4	SOP-ALG
KK4MA	20,768	SO3B
KO4ECD	13,950	SO3B
NS4T	10,349	SO3B
KD4ADC	6,600	SO3B
K3FR	3,850	SO3B
KW4SW	49	SO-ALG-3B
KV4ZY	35	SO-ALG-3B
KI4POT	102	SOFM
WX4DAT	78	SOFM
KQ4CAX	6	SOFM
WB2FKO	6	SOFM
KG5FHU	6	SOFM

AA4ZZ	184,646	LM
W4AD	67,398	LM
N9HF	14,792	LM
NE5BO	6,138	LM
W4NH	49,138	UM

Northeast Region
(New England, Hudson and Atlantic Divisions; New Brunswick, Nova Scotia, Prince Edward Island and Quebec Sections)

K2QO/R	78,516	R
KF2MR/R	73,341	R
KV2X/R	14,196	R
KE2BUY/R	9,009	R
KJ1K/R	2,336	R
AA2SD/R	6,680	RL
KE5HDE/R	1,809	RL
N2SLN/R	17,884	RU
N2XRE/R	3,306	RU
K1TEO	306,606	SOHP
N2JMH	165,066	SOHP
N2NT (N2NC, op)	79,846	SOHP
K1KG	46,620	SOHP
WA3DRC	37,520	SOHP
N2WK	83,000	SOLP
NR2C	81,736	SOLP
WB1GQR (W1SJ, op)	72,720	SOLP
KA2ENE	41,934	SOLP
N2OA	30,149	SOLP
W2FU	94,612	SO-ALG-HP
WZ1V	49,450	SO-ALG-HP
K1TR	26,896	SO-ALG-HP
WA1PBU	14,720	SO-ALG-HP
KR1ST	8,750	SO-ALG-HP
AF1T	71,853	SO-ALG-LP
WB2JAY	19,108	SO-ALG-LP
AC1J	5,254	SO-ALG-LP
KØSM	3,675	SO-ALG-LP
KD2HZI	3,267	SO-ALG-LP
WX3P	960	SOP
N2MAK	264	SOP

K3GD	210	SOP
KC3UKC	52	SOP
KC2JRQ	9	SOP
WB2AMU	988	SOP-ALG
K2AXX	700	SOP-ALG
NU2H	18	SOP-ALG
NF3R	11,256	SO3B
W3FAY	11,220	SO3B
KD2CDV	8,848	SO3B
NA2NY	7,686	SO3B
W1DYJ	6,897	SO3B
K3SFX	1,430	SO-ALG-3B
N1ZN	1,232	SO-ALG-3B
W1SRH	867	SO-ALG-3B
N1JD	680	SO-ALG-3B
WA3SRU	559	SO-ALG-3B
KB1YNT	370	SOFM
W2EA	84,064	LM
WW2Y	35,046	LM
WA3EKL	22,356	LM
W3SO	22,272	LM
W1XM	9,776	LM
W2SZ	368,896	UM
KD2LGX	52,824	UM
KV1J	48,688	UM
WE1P	48,076	UM
KE1LI	20,000	UM

Division Winners

Classic Rover

Atlantic	K2QO/R	78,516
Central	KA9VVQ/R	34,914
Dakota	KCØP/R	11,417
Delta	AG4V/R	15,128
Hudson	KD2TAI/R	1,560
Midwest	N5ZY/R	4,182
New England	KJ1K/R	2,336
Northwestern	WA6OEM/R	1,668
Roanoke	KQ4GEX/R	1,176
Southwestern	KD6EFQ/R	1,649
Canada	VE3OIL/R	97,966

Limited Rover

Atlantic	AA2SD/R	6,680
Central	KG9OV/R	28,391
Dakota	KØLTC/R	1,863
Great Lakes	W8ISS/R	1,189
Northwestern	KA7RRA/R	2,268
Pacific	NN6U/R	1,406
Roanoke	KM4OZH/R	10,976
Rocky Mountain	ABØYM/R	1,333
Southwestern	N6GP/R	6,902
West Gulf	W5OC/R	986
Canada	VA7USD/R	340

Unlimited Rover

Atlantic	N2SLN/R	17,884
Midwest	NØLD/R	135,888
Roanoke	W8BRY/R	4,284
Southeastern	NV4B/R	63,142

Single Operator, High Power

Atlantic	N2JMH	165,066
Central	K9CT	40,320
Dakota	WØAUS (WØZQ)	47,088
Delta	W5ZN	5,504
Great Lakes	WA8MCD	14,678
Hudson	N2NT (N2NC,op)	79,846
Midwest	KFØM	6,141
New England	K1TEO	306,606
Northwestern	N7EPD	8,322
Pacific	K6KLY	5,600
Roanoke	W3IP	52,302
Rocky Mountain	KBØNAV	4,180
Southeastern	WA4GPM	16,530
Southwestern	N6UTC	7,018
West Gulf	W5PR	30,960
Canada	VE3WY	20,298

Single Operator, Low Power

Atlantic	N2WK	83,000
Central	K2DRH	123,384
Dakota	KØJJR	1,972
Delta	AJ6T	10,400
Great Lakes	AA8MA	4,416
Hudson	WA2VNV	12,696
Midwest	NØLL	6,097
New England	WB1GQR (W1SJ, op)	72,720
Northwestern	AL1VE	5,920
Pacific	N6ORB	972
Roanoke	K4FJW	3,465
Rocky Mountain	KD5XB	2,904
Southeastern	W4TM	12,560
Southwestern	N7IR	6,192
West Gulf	WM5L	27,776
Canada	VA2IW	8,850

Single Operator, Analog Only, High Power

Atlantic	W2FU	94,612
Central	N9LB	11,766
Dakota	WØGHZ	5,664
Delta	W4HLR	850
Great Lakes	K2YAZ	15,232
Hudson	K2XA	364
New England	WZ1V	49,450
Northwestern	KB7IOG	858
Pacific	K6MI	4,320
Roanoke	N4RA	480
Southeastern	WB4WXE	3,666
West Gulf	WA5LFD	320
Canada	VE7AFZ	616

Single Operator, Analog Only, Low Power

Atlantic	KØSM	3,675
Central	N9GH	54
Dakota	KAØPQW	5,376
Great Lakes	K8BB	1,125
Hudson	WB2JAY	19,108
Midwest	AEØG	30
New England	AF1T	71,853
Northwestern	N7VGO	336
Pacific	K2GMY	3,422
Roanoke	WA4WZQ	63
Rocky Mountain	KBØKQI	220
Southeastern	W4RAA	5,016
Southwestern	K6MUG	960
Canada	VE3DS	24,880

Single Operator, Portable

Atlantic	N2MAK	264
Dakota	NØSUW	243
Delta	W4RXR	9,570
Hudson	WX3P	960
Midwest	NØJK	703
Roanoke	W2QL	432
Southwestern	WQ6D	230

Single Operator, Portable, Analog Only

Atlantic	K2AXX	700
Delta	N3AWS	4
Hudson	WB2AMU	988
Northwestern	W7IMC	4,095
Pacific	AA6XA	116
Southwestern	W7JET	1,360
West Gulf	WD5AGO	3,168

Single Operator, 3 Band

Atlantic	NF3R	11,256
Central	KO9A	59,714
Dakota	KFØLKJ	2,336
Delta	WD5HJF	1,287
Great Lakes	KA8CNI	3,600
Hudson	NA2NY	7,686
Midwest	WØDTM	416
New England	W1DYJ	6,897
Northwestern	WA7PVE	1,309
Pacific	N5KO	189
Roanoke	KK4MA	20,768
Rocky Mountain	KC7QY	1,530
Southeastern	NS4T	10,349
Southwestern	KI6X	848
West Gulf	W5TRL	39,182
Canada	VA2CY	1,848

Single Operator, 3 Band, Analog Only

Atlantic	K3SFX	1,430
Central	N9OBB	285
Dakota	KEØOR	2
Great Lakes	WO3X	20
Hudson	WV2C	112
Midwest	NØUI	42
New England	N1ZN	1,232
Northwestern	N7QOZ	3,087
Pacific	KG7D	360
Roanoke	KV4ZY	35
Southeastern	KW4SW	49
Southwestern	KN7Y	884

Single Operator, FM Only

Delta	KE5WMA	2
New England	KB1YNT	306
Roanoke	KI4POT	102
Southeastern	KG5FHU	6
Southeastern	WB2FKO	6
Southwestern	K6RJF	1,056
West Gulf	KG5UNK	392
Canada	VA3PHP	24

Limited Multioperator

Atlantic	W2EA	84,064
Central	W9VW	34,638
Dakota	NØEO	2,840
Delta	NE5BO	6,138
Great Lakes	K8AEP	108
New England	W1XM	9,776
Roanoke	AA4ZZ	184,646
Rocky Mountain	WØVB	3,640
Southeastern	N9HF	14,792
Southwestern	WO1S	1,092
West Gulf	K5QE	107,124

Unlimited Multioperator

Atlantic	KD2LGX	52,824
Central	WD9EXD	75,174
Great Lakes	N8GA	72,268
Hudson	WE1P	48,076
Midwest	WQØP	25,800
New England	W2SZ	368,896
Southeastern	W4NH	49,138
Southwestern	KN6UWK	5,859
West Gulf	KC5MVZ	5,856
Canada	VE3MIS	47,880

QSO and Mult Leaders

Classic Rover

50 MHz QSOs	
K2QO/R	93
VE3OIL/R	77
KA9VVQ/R	53
W9FZ/R	52
KF2MR/R	51

50 MHz Mults	
N5ZY/R	26
VE3OIL/R	22
K2QO/R	20
KA9VVQ/R	17
W9FZ/R	16

144 MHz QSOs	
VE3OIL/R	98
K2QO/R	81
KF2MR/R	64
KA9VVQ/R	58
W9FZ/R	56

144 MHz Mults	
VE3OIL/R	32
K2QO/R	22
KF2MR/R	20
KA9VVQ/R	15
W9FZ/R	14

222 MHz QSOs	
K2QO/R	55
KF2MR/R	47
KV2X/R	45
KA9VVQ/R	41
W9FZ/R	41

222 MHz Mults	
K2QO/R	14
VE3OIL/R	11
W5VY/R	10
AG4V/R	9
KF2MR/R	9

432 MHz QSOs	
K2QO/R	64
KV2X/R	52
KA9VVQ/R	51
W9FZ/R	51
KF2MR/R	48

432 MHz Mults	
K2QO/R	14
VE3OIL/R	11
KA9VVQ/R	10
W9FZ/R	10
KF2MR/R	9

902 MHz QSOs	
KF2MR/R	40
KA9VVQ/R	33
W9FZ/R	32
K2QO/R	29
VE3OIL/R	24

902 MHz Mults	
K2QO/R	9
KF2MR/R	8
VE3OIL/R	8
KA9VVQ/R	7
W9FZ/R	7

1.2 GHz QSOs	
KF2MR/R	41
K2QO/R	37
KA9VVQ/R	34
W9FZ/R	34
KV2X/R	26

1.2 Ghz Mults	
K2QO/R	10
KF2MR/R	8
VE3OIL/R	8
KA9VVQ/R	6
KCØP/R	6
NØHZO/R	6
W5VY/R	6
W9FZ/R	6

2.3 GHz QSOs	
KF2MR/R	31
K2QO/R	17
VE3OIL/R	12
KE2BUY/R	10
KD2TAI/R	6

2.3 GHz Mults	
VE3OIL/R	7
K2QO/R	6
KF2MR/R	5
KE2BUY/R	3
AG4V/R	2
KJ1K/R	2

3.4 GHz QSOs	
KF2MR/R	17
K2QO/R	14
KE2BUY/R	8
KD2TAI/R	6
VE3OIL/R	4

3.4 GHz Mults	
K2QO/R	5
KF2MR/R	4
KE2BUY/R	3
VE3OIL/R	3
AF4JF/R	1
KD2TAI/R	1
KJ1K/R	1
WAØCNS/R	1

5.7 Ghz QSOs	
KF2MR/R	15
VE3OIL/R	12
KD2TAI/R	6
KE2BUY/R	6
AF4JF/R	1
K2QO/R	1
KJ1K/R	1
WAØCNS/R	1

5.7 Ghz Mults	
VE3OIL/R	8
KF2MR/R	4
KE2BUY/R	3
AF4JF/R	1
K2QO/R	1
KD2TAI/R	1
KJ1K/R	1
WAØCNS/R	1

10 Ghz QSOs	
KF2MR/R	19
VE3OIL/R	7
KE2BUY/R	6
K9JK/R	4
AF4JF/R	3
KA9VVQ/R	3
N7DA/R	3
W9FZ/R	3
WAØCNS/R	3

10 Ghz Mults	
VE3OIL/R	7
KE2BUY/R	3
KF2MR/R	3
AF4JF/R	2
K9JK/R	2
KA9VVQ/R	2
N7DA/R	2
W9FZ/R	2

24 Ghz QSOs	
VE3OIL/R	7

24 Ghz Mults	
VE3OIL/R	7

123 GHz QSOs	
VE3OIL/R	7

123 GHz Mults	
VE3OIL/R	7
Light QSOs	
VE3OIL/R	7
Light Mults	
VE3OIL/R	7
Limited Rover	
50 MHz QSOs	
AA2SD/R	75
N6GP/R	63
KM4OZH/R	62
KG9OV/R	46
ABØYM/R	34
50 MHz Mults	
KG9OV/R	24
ABØYM/R	20
W5OC/R	18
AA2SD/R	16
KM4OZH/R	16
144 MHz QSOs	
KG9OV/R	133
N6GP/R	63
KM4OZH/R	61
KE5HDE/R	55
KA7RRA/R	48
144 MHz Mults	
KG9OV/R	33
KE5HDE/R	21
KM4OZH/R	13
W8ISS/R	13
AA2SD/R	10
222 MHz QSOs	
KG9OV/R	27
N6GP/R	26
KM4OZH/R	23
AA2SD/R	16

K6LMN/R	14
222 MHz Mults	
KG9OV/R	10
KM4OZH/R	6
N6GP/R	6
AA2SD/R	5
K6LMN/R	4
432 MHz QSOs	
KG9OV/R	45
N6GP/R	32
KM4OZH/R	29
WE7X/R	23
KA7RRA/R	22
432 MHz Mults	
KG9OV/R	15
KM4OZH/R	6
N6GP/R	6
AA2SD/R	5
KA6KEN/R	5
VA7OTC/R	5
Unlimited Rover	
50 MHz QSOs	
NV4B/R	152
NØLD/R	106
ABØRX/R	57
N2SLN/R	48
KI5VZJ/R	44
50 MHz Mults	
NV4B/R	56
NØLD/R	24
N2SLN/R	17
K4CNY/R	14
ABØRX/R	11
144 MHz QSOs	
NV4B/R	91
NØLD/R	78

ABØRX/R	64
N2SLN/R	50
W8BRY/R	50
144 MHz Mults	
NV4B/R	24
N2SLN/R	18
NØLD/R	12
W8BRY/R	11
ABØRX/R	10
222 MHz QSOs	
NØLD/R	64
ABØRX/R	57
NV4B/R	50
KI5VZJ/R	43
N2SLN/R	40
222 MHz Mults	
NV4B/R	16
N2SLN/R	14
ABØRX/R	10
NØLD/R	10
KI5VZJ/R	9
432 MHz QSOs	
NØLD/R	70
ABØRX/R	57
NV4B/R	51
N2SLN/R	44
KI5VZJ/R	41
432 MHz Mults	
NV4B/R	15
N2SLN/R	14
ABØRX/R	10
NØLD/R	10
KI5VZJ/R	9
902 MHz QSOs	
NØLD/R	61
ABØRX/R	52
KI5VZJ/R	40

NV4B/R	7
N2XRE/R	6
902 MHz Mults	
ABØRX/R	10
NØLD/R	10
KI5VZJ/R	9
NV4B/R	6
N2XRE/R	2
1.2 GHz QSOs	
NØLD/R	68
ABØRX/R	56
KI5VZJ/R	37
NV4B/R	7
N2XRE/R	6
1.2 GHz Mults	
ABØRX/R	10
NØLD/R	10
KI5VZJ/R	9
NV4B/R	7
N2XRE/R	2
W8BRY/R	2
2.3 GHz QSOs	
ABØRX/R	36
NØLD/R	36
N2XRE/R	3
2.3 GHz Mults	
ABØRX/R	9
NØLD/R	9
N2XRE/R	1
3.4 GHz QSOs	
N2XRE/R	3
3.4 GHz Mults	
N2XRE/R	1
5.7 GHz QSOs	
ABØRX/R	34

NØLD/R	34
N2XRE/R	3
5.7 GHz Mults	
ABØRX/R	9
NØLD/R	9
N2XRE/R	2
10 GHz QSOs	
NØLD/R	10
ABØRX/R	9
W8BRY/R	1
10 GHz Mults	
NØLD/R	10
ABØRX/R	9
W8BRY/R	1
Single Operator High Power	
50 MHz QSOs	
K1TEO	269
W5PR	243
K5GZR	172
K9CT	157
N2NT (N2NC, op)	154
50 MHz Mults	
W5PR	129
K5GZR	99
K5ND	91
K1TEO	84
K3DNE	76
K9CT	76
K9OM	76
144 MHz QSOs	
W3XTT	243
K1TEO	197
N2NT (N2NC, OP)	145
W9EWZ	127
VE3WY	123

144 MHz Mults	
W3XTT	79
W9EWZ	53
N2JMH	52
VE3WY	50
K1TEO	49
222 MHz QSOs	
K1TEO	75
N2JMH	53
N2NT (N2NC, op)	43
WØAUS (WØZQ,op)	29
N6UTC	28
222 MHz Mults	
K1TEO	37
N2NT (N2NC, op)	29
N2JMH	18
K3SK	16
N1JEZ	15
432 MHz QSOs	
K1TEO	107
N2JMH	57
N2NT (N2NC, op)	52
W7JW	43
W3IP	40
432 MHz Mults	
K1TEO	39
W7JW	32
N2NT (N2NC, op)	26
W9EWZ	23
VA3IKE	21
W3IP	21
902 MHz QSOs	
K1TEO	31
N2JMH	31
WØAUS(WØZQ, op)	22
K1KG	7
KC3BVL	6

N1JEZ	6
902 MHz Mults	
K1TEO	21
N2JMH	11
WØAUS (WØZQ, op)	11
N1JEZ	6
K1KG	5
1.2 GHz QSOs	
K1TEO	43
N2JMH	39
WØAUS (WØZQ, op)	21
K1KG	13
N1JEZ	11
1.2 GHz Mults	
K1TEO	25
N2JMH	12
WØAUS (WØZQ, op)	9
K1KG	8
W3CJK	8
2.3 GHz QSOs	
K1TEO	15
N2JMH	12
K1KG	11
WA3DRC	6
KC3BVL	5
N1JEZ	5
2.3 GHz Mults	
K1TEO	12
K1KG	8
KC3BVL	5
N1JEZ	5
N2GHR	4
N2JMH	4
WA3DRC	4
3.4 GHz QSOs	
N2JMH	18
K1KG	5
K2TER	4

WA3DRC	1
3.4 GHz Mults	
N2JMH	7
K1KG	4
K2TER	3
WA3DRC	1
5.7 GHz QSOs	
N2JMH	16
K1KG	6
K1TEO	5
K2TER	3
KC3BVL	1
WØAUS (WØZQ, op)	1
5.7 GHz Mults	
N2JMH	7
K1KG	5
K1TEO	5
K2TER	2
KC3BVL	1
WØAUS (WØZQ, op)	1
10 GHz QSOs	
N2JMH	17
K2TER	5
K1KG	4
K1TEO	3
W3IP	2
10 GHz Mults	
N2JMH	5
K1KG	4
K2TER	3
K1TEO	2
W3IP	2
Single Operator Low Power	
50 MHz QSOs	
WM5L	203
K2DRH	196
WB5TUF	181
WB1GQR (W1SJ, op)	170

N5EKO	167
50 MHz Mults	
WM5L	110
WB5TUF	99
K2DRH	91
N5EKO	91
AJ4F	79
144 MHz QSOs	
WB1GQR (W1SJ,op)	158
NR2C	120
K2DRH	119
K9KLD	105
KA2ENE	94
144 MHz Mults	
K2DRH	56
K9KLD	50
NR2C	45
KA9UVY	40
AJ6T	33
N2WK	33
222 MHz QSOs	
KA2ENE	41
WB1GQR (W1SJ, op)	41
K2DRH	38
N2WK	36
N2OA	24
NR2C	24
222 MHz Mults	
K2DRH	21
WB1GQR (W1SJ, op)	16
AJ6T	14
N2WK	11
K9MU	10
432 MHz QSOs	
K2DRH	51
N2WK	48
WB1GQR (W1SJ, op)	48

KA2ENE	44
N2OA	33
432 MHz Mults	
K2DRH	26
K9KLD	19
N2WK	17
WB1GQR (W1SJ, op)	17
KA9UVY	14
902 MHz QSOs	
N2WK	22
NR2C	19
KA2ENE	18
K9MU	17
K2DRH	9
N2OA	9
WB1GQR (W1SJ, op)	9
N2WK	22
902 MHz Mults	
K9MU	9
WB1GQR (W1SJ, op)	8
KA2ENE	7
N2WK	7
NR2C	6
1.2 GHz QSOs	
N2WK	24
K2DRH	23
KA2ENE	22
NR2C	20
N2OA	19
1.2 GHz Mults	
K2DRH	13
WB1GQR (W1SJ, op)	10
K9MU	9
KA2ENE	7
N2WK	6
NR2C	6
VA2IW	6

2.3 GHz QSOs	
N2WK	16
NR2C	15
N2OA	11
WB1GQR (W1SJ, op)	7
W3GAD	4
2.3 GHz Mults	
WB1GQR (W1SJ, op)	7
N2WK	6
NR2C	6
N2OA	4
W3GAD	3
3.4 GHz QSOs	
N2WK	11
N2OA	7
WB1GQR (W1SJ, op)	4
WA3NUF	1
3.4 GHz Mults	
N2WK	5
N2OA	4
WB1GQR (W1SJ, op)	4
WA3NUF	1
5.7 GHz QSOs	
N2WK	11
NR2C	6
N2OA	2
5.7 GHz Mults	
N2WK	5
NR2C	3
N2OA	1
10 GHz QSOs	
NR2C	16
N2WK	13
N2OA	11
N2MKT	1
NØUK	1
W2CCC (K2CS, op)	1

10 GHz Mults	
NR2C	7
N2OA	5
N2WK	5
N2MKT	1
NØUK	1
W2CCC (K2CS, op)	1
24 GHz QSOs	
N2WK	2
24 GHz Mults	
N2WK	1
Single Op High Power Analog Only	
50 MHz QSOs	
WZ1V	92
K1TR	60
WA1PBU	54
WB4WXE	50
W2FU	49
50 MHz Mults	
K4WI	32
WB4WXE	32
WZ1V	30
W4HLR	25
K1TR	21
144 MHz QSOs	
WZ1V	89
K1TR	67
W2FU	59
KR1ST	35
WA1PBU	33
144 MHz Mults	
WZ1V	28
W2FU	23
K1TR	19
K8TQK	17
K2YAZ	13

222 MHz QSOs	
W2FU	48
WZ1V	45
K1TR	32
KR1ST	20
N9LB	20
222 MHz Mults	
WZ1V	23
W2FU	17
K1TR	16
KR1ST	11
K2YAZ	10
W1GHZ	10
432 MHz QSOs	
WZ1V	55
W2FU	50
K1TR	40
WA1PBU	28
K2YAZ	26
432 MHz Mults	
WZ1V	23
W2FU	17
K1TR	14
K2YAZ	13
N9LB	10
902 MHz QSOs	
W2FU	30
K2YAZ	15
N9LB	15
WØGHZ	9
WA1PBU	6
902 MHz Mults	
W2FU	11
N9LB	8
K2YAZ	7
WA1PBU	6
W1GHZ	4
WØGHZ	4

1.2 GHz QSOs	
W2FU	33
K2YAZ	19
WZ1V	17
K1TR	16
N9LB	16
1.2 GHz Mults	
W2FU	13
WZ1V	11
K1TR	10
K2YAZ	9
N9LB	8
2.3 GHz QSOs	
W2FU	26
WA1PBU	4
K1TR	3
K6MI	1
KB7IOG	1
WØGHZ	1
2.3 GHz Mults	
W2FU	10
WA1PBU	4
K1TR	2
K6MI	1
KB7IOG	1
WØGHZ	1
3.4 GHz QSOs	
W2FU	16
3.4 GHz Mults	
W2FU	5
5.7 GHz QSOs	
W2FU	9
K6MI	1
WØGHZ	1
5.7 GHz Mults	
W2FU	5

K6MI	1
WØGHZ	1
10 GHz QSOs	
W2FU	18
N9LB	2
VE7AFZ	2
WØGHZ	2
K6MI	1
10 GHz Mults	
W2FU	6
K6MI	1
N9LB	1
VE7AFZ	1
WØGHZ	1
24 GHz QSOs	
K6MI	1
24 GHz QSOs	
K6MI	1
123 GHz QSOs	
K6MI	1
123 GHz QSOs	
K6MI	1
Single Op Low Power Analog Only	
50 MHz QSOs	
AF1T	55
KAØPQW	47
WB2JAY	32
AC1J	24
W4RAA	23
50 MHz Mults	
KAØPQW	25
AF1T	23
W4RAA	14
WB2JAY	12

K2GMY	10
144 MHz QSOs	
AF1T	69
VE3RWJ	63
WB2JAY	56
VE3DS	52
WB2CUT	45
144 MHz Mults	
VE3DS	22
AF1T	21
WB2JAY	15
WB2CUT	14
KAØPQW	11
KD2HZI	11
222 MHz QSOs	
AF1T	43
VE3DS	28
WB2JAY	26
AC1J	15
VA7SC	13
222 MHz Mults	
AF1T	21
VE3DS	16
WB2JAY	12
AC1J	7
KC1V	7
432 MHz QSOs	
AF1T	53
WB2JAY	39
VE3DS	36
VE3RWJ	35
K2GMY	20
W4RAA	20
432 MHz Mults	
AF1T	20
VE3DS	16
WB2JAY	12

AC1J	7
VA7SC	7
W4RAA	7
902 MHz QSOs	
AF1T	16
VE3DS	11
W4RAA	7
WB2JAY	6
KAØCRO	3
WB2VVV	3
902 MHz Mults	
AF1T	10
VE3DS	5
WB2JAY	5
W4RAA	3
WB2VVV	3
1.2 GHz QSOs	
AF1T	23
VE3DS	14
WB2JAY	12
AC1J	9
W4RAA	7
1.2 GHz Mults	
AF1T	10
WB2JAY	8
VE3DS	7
AC1J	5
K2GMY	3
KD2HZI	3
VA7SC	3
2.3 GHz QSOs	
AF1T	12
VE3DS	8
WB2JAY	4
KØSM	2
WB2VVV	1

2.3 GHz Mults	
AF1T	7
VE3DS	4
WB2JAY	4
KØSM	1
WB2VVV	1
3.4 GHz QSOs	
VE3DS	6
AF1T	5
KØSM	2
3.4 GHz Mults	
AF1T	4
VE3DS	4
KØSM	1
5.7 GHz QSOs	
AF1T	5
KØSM	1
5.7 GHz Mults	
AF1T	4
KØSM	1
10 GHz QSOs	
KØSM	10
K2UA	8
AF1T	7
VA7SC	2
VE7HR	2
10 GHz Mults	
AF1T	5
K2UA	4
KØSM	4
VA7SC	1
VE7HR	1
24 GHz QSOs	
AF1T	1
K2UA	1
KØSM	1

24 GHz Mults	
AF1T	1
K2UA	1
KØSM	1
47 GHz QSOs	
AF1T	1
47 GHz Mults	
AF1T	1
123 GHz QSOs	
AF1T	1
123 GHz Mults	
AF1T	1
Light QSOs	
AF1T	1
Light Mults	
AF1T	1
Single Op Portable	
50 MHz QSOs	
W4RXR	64
NØJK	35
W2QL	26
WX3P	18
NØSUW	15
50 MHz Mults	
W4RXR	34
NØJK	18
WX3P	13
K3GD	7
W2QL	7
XE2YWB	7
144 MHz QSOs	
W4RXR	23
W2QL	13
WQ6D	11

K3GD	8
N2MAK	8
144 MHz Mults	
W4RXR	9
K3GD	8
N2MAK	5
W2QL	5
WQ6D	5
222 MHz QSOs	
W4RXR	15
WX3P	3
N2MAK	1
222 MHz Mults	
W4RXR	6
WX3P	3
N2MAK	1
432 MHz QSOs	
W4RXR	22
N2MAK	3
NØSUW	3
WX3P	3
KC2JRQ	1
NØJK	1
WQ6D	1
432 MHz Mults	
W4RXR	8
N2MAK	3
WX3P	3
NØSUW	2
KC2JRQ	1
NØJK	1
WQ6D	1
902 MHz QSOs	
W4RXR	3
902 MHz Mults	
W4RXR	1

1.2 GHz QSOs	
WQ6D	3
WX3P	1
1.2 GHz Mults	
WQ6D	2
WX3P	1
Light QSOs	
WX3P	1
Light Mults	
WX3P	1

Single Operator Portable, Analog Only

50 MHz QSOs	
W7IMC	16
WB2AMU	12
WD5AGO	11
W7JET	9
KG7RQJ	2
N3AWS	2
NU2H	2
50 MHz Mults	
WB2AMU	6
W7IMC	4
WD5AGO	4
W7JET	3
N3AWS	2
144 MHz QSOs	
W7IMC	72
AA6XA	15
K2AXX	13
WB2AMU	13
KG7RQJ	11
WD5AGO	11

144 MHz Mults	
WB2AMU	7
W7IMC	4
WD5AGO	4
K2AXX	3
W7JET	3
222 MHz QSOs	
W7IMC	21
W7JET	7
WB2AMU	5
N7JA	1
222 MHz Mults	
W7JET	3
W7IMC	2
WB2AMU	2
N7JA	1
432 MHz QSOs	
W7IMC	49
WD5AGO	12
W7JET	10
K2AXX	9
WB2AMU	9
432 MHz Mults	
WB2AMU	4
WD5AGO	4
K2AXX	3
W7IMC	3
W7JET	3
902 MHz QSOs	
W7IMC	8
W7JET	3
902 MHz Mults	
W7IMC	2
W7JET	1

1.2 GHz QSOs	
W7IMC	8
WD5AGO	8
W7JET	7
N7JA	1
1.2 GHz Mults	
WD5AGO	4
W7JET	3
N7JA	1
W7IMC	1
2.3 GHz QSOs	
WD5AGO	8
2.3 GHz Mults	
WD5AGO	4
5.7 GHz QSOs	
WD5AGO	8
5.7 GHz Mults	
WD5AGO	4
10 GHz QSOs	
K2AXX	10
10 GHz Mults	
K2AXX	4

Single Operator 3 Band

50 MHz QSOs	
W5TRL	248
KO9A	187
KK4MA	132
NS4T	103
W3FAY	103
50 MHz Mults	
W5TRL	119
KK4MA	82
KO9A	75

NS4T	61
KA9FOX	52
144 MHz QSOs	
KO9A	125
KO4ECD	91
K9PW	85
NF3R	73
W3FAY	69
144 MHz Mults	
KO9A	47
K9PW	38
KK4MA	28
KO4ECD	28
NA2NY	25
NF3R	25
432 MHz QSOs	
KO9A	51
KD2CDV	24
KO4ECD	22
WB9TFH	21
VE3IMU	16
432 MHz Mults	
KO9A	24
KD2CDV	13
KO4ECD	13
WB9TFH	13
W3FAY	9

Single Operator 3 Band, Analog Only

50 MHz QSOs	
K7CX	34
N7QOZ	29
N1ZN	26
W1SRH	20
K3SFX	18
WA3SRU	18

50 MHz Mults	
N1ZN	10
N1JD	9
W1SRH	8
K3SFX	7
K7CX	7
KW4SW	7
N7QOZ	7
144 MHz QSOs	
N7QOZ	52
K7CX	40
W1SRH	29
WA3SRU	24
WB7FJG	22
144 MHz Mults	
K3SFX	9
W1SRH	8
WA3SRU	8
K7CX	7
KG7D	7
KN7Y	7
N1JD	7
N1ZN	7
N7QOZ	7
N9OBB	7
432 MHz QSOs	
N7QOZ	34
K7CX	22
K3SFX	13
KN7Y	10
WB7FJG	8
432 MHz Mults	
N7QOZ	7
K3SFX	6
K7CX	6
KN7Y	5
N1ZN	5

Single Op FM Only	
50 MHz QSOs	
KG5UNK	5
AF6GM	3
KB1YNT	3
K6RJF	2
WX4DAT	1
50 MHz Mults	
AF6GM	2
K6RJF	2
KB1YNT	2
KG5UNK	1
WX4DAT	1
144 MHz QSOs	
K6RJF	22
AF6GM	21
KB1YNT	19
KG5UNK	16
K1CT	15
144 MHz Mults	
AF6GM	5
K6RJF	5
KB1YNT	5
N6MX	5
K1CT	4
KI4POT	4
N6DRE	4
W6JBR	4
WX4DAT	4
222 MHz QSOs	
K1CT	10
K6RJF	10
N6DRE	8
KG5UNK	3
KO6BT	2

222 MHz Mults	
K1CT	4
K6RJF	4
N6DRE	4
KG5UNK	2
KO6BT	2
432 MHz QSOs	
AF6GM	16
K1CT	13
K6RJF	11
KG5UNK	11
N6MX	9
432 MHz Mults	
AF6GM	5
K1CT	5
K6RJF	5
N6DRE	4
N6MX	4
Limited MultiOperator	
50 MHz QSOs	
AA4ZZ	285
W4AD	239
W2EA	228
K5QE	189
WA3EKL	135
50 MHz Mults	
AA4ZZ	110
K5QE	104
W4AD	82
W9VW	74
W2EA	65
144 MHz QSOs	
AA4ZZ	239
W2EA	176
W4AD	139
K5QE	122
W3SO	121

144 MHz Mults	
K5QE	82
AA4ZZ	59
W3SO	49
W9VW	47
W2EA	42
222 MHz QSOs	
AA4ZZ	53
W2EA	27
W4AD	25
WW2Y	20
KC6NKK	2
222 MHz Mults	
AA4ZZ	35
W2EA	18
WW2Y	14
W4AD	10
KC6NKK	2
432 MHz QSOs	
AA4ZZ	73
W2EA	63
W4AD	31
W9VW	23
WA3EKL	23
432 MHz Mults	
AA4ZZ	38
W2EA	23
K5QE	20
W9VW	15
WW2Y	14
1.2 GHz QSOs	
K5QE	34
N9HF	22
WO1S	7
W1XM	5
W9VW	2

1.2 GHz Mults	
K5QE	31
N9HF	21
WO1S	5
W1XM	2
W9VW	2

Unlimited Multioperator

50 MHz QSOs	
W2SZ	316
W4NH	198
KV1J	179
N8GA	176
KE1LI	150

50 MHz Mults	
W4NH	110
W2SZ	83
N8GA	82
WD9EXD	81
KV1J	78

144 MHz QSOs	
W2SZ	243
WE1P	162
N8GA	145
KE1LI	91
KV1J	89

144 MHz Mults	
N8GA	66
W2SZ	48
WE1P	41
WD9EXD	38
KD2LGX	37

222 MHz QSOs	
W2SZ	64
WD9EXD	26
KD2LGX	25
WE1P	22
KN6UWK	19
WQØP	19

222 MHz Mults	
W2SZ	25
WD9EXD	22
WE1P	15
N8GA	12
KV1J	11
WQØP	11

432 MHz QSOs	
W2SZ	119
VE3MIS	47
WD9EXD	42
KD2LGX	38
WE1P	26

432 MHz Mults	
W2SZ	30
WD9EXD	29
VE3MIS	23
KD2LGX	18
N8GA	14
WE1P	14

902 MHz QSOs	
W2SZ	37
KD2LGX	12
WQØP	10
WD9EXD	8
KV1J	5
VE3MIS	5

902 MHz Mults	
W2SZ	20
WD9EXD	8
KD2LGX	6
KV1J	4
VE3MIS	4
WQØP	4

1.2 GHz QSOs	
W2SZ	38
KD2LGX	14
WD9EXD	9
WE1P	9
KN6UWK	7
WQØP	7

1.2 GHz Mults	
W2SZ	17
WD9EXD	9
WE1P	9
KD2LGX	5
KV1J	5

2.3 GHz QSOs	
W2SZ	25
KD2LGX	5
KV1J	2
VE3MIS	1

2.3 GHz Mults	
W2SZ	14
KD2LGX	4
KV1J	2
VE3MIS	1

3.4 GHz QSOs	
W2SZ	23
VE3MIS	1

3.4 GHz Mults	
W2SZ	12
VE3MIS	1

5.7 GHz QSOs	
W2SZ	19
VE3MIS	1

5.7 GHz Mults	
W2SZ	12
VE3MIS	1

10 GHz QSOs	
VE3MIS	17
WQØP	6
KN6UWK	5
W2SZ	1

10 GHz Mults	
VE3MIS	8
KN6UWK	4
WQØP	4
W2SZ	1

24 GHz QSOs	
VE3MIS	1

24 GHz Mults	
VE3MIS	1

47 GHz QSOs	
VE3MIS	2

47 GHz Mults	
VE3MIS	1

75 GHz QSOs	
VE3MIS	1

75 GHz Mults	
VE3MIS	1

123 GHz QSOs	
VE3MIS	2

123 GHz Mults	
VE3MIS	1