

ARRL June VHF Contest 2013 Results By Bob Streigl, K2DRH

This wasn't January...so where did all the propagation go?

After several years of above average propagation during the June VHF Contest, it was almost inevitable that we were due for a down year. While conditions on 6 meters were relatively good the week before the contest, for most participants it did not carry through to the weekend of June 15-17. Tropospheric ducting or other enhanced modes on 2 meters and above did not seem to play a major role for the majority of stations either. Ryan, KB9OWD, in EN53 IL may have overstated things slightly by comparing it to a recent root canal, but he was not the only one feeling frustrated; Mike, K7ULS, in DN41 (UT) also mentioned "pulling teeth."

Most other stations voiced similar perceptions of poor band conditions and slow QSO rates in their post contest comments. Bobby, N3LL, in EL86 (FL) claimed these were the worst June VHF Contest conditions he has experienced in over 35 years of operating. Jeff, K1TEO, in FN31 (CT) made only 17 6 meter sporadic E (Es) contacts in the whole contest, fewer than he did in September or even January. Bill, K3WA, in EN50 (IL) summed it up: "A long, slow slog. Read a good book. Watched the grass grow. Mowed the grass. Watched the grass grow again. Worked out on my treadmill. And worked the desultory sparse openings to get very few QSOs and 9 new grids. Just wait 'til next year."

Logs

1010 logs were submitted — significantly fewer than the 1222 that were submitted in 2012 —but that's not surprising considering the lack of exciting propagation in most areas. As always, the number of logs submitted was far less than the total number of participants. Overall QSO and grid totals were significantly lower this year. The number of Classic Rovers has also continued to drop — down from 49 in 2011 and 34 in 2012, to 25 in 2013.

Based on a review of the submitted logs against the June contest records published on the ARRL website (except for one multiop record noted below) no existing section or division scoring records were broken. However, initial record scores for the new SO3B (Single Operator, Three-Band) and SOFM (Single Operator, FM-Only) categories and the new Canadian sections were established. One longstanding record for the Mississippi section was

2013 Web Results Template

broken when Unlimited Multioperator (UM) WN2E scored 21,008 points to break the record of 8804 points set in 1988 by N5KDA. K8DOG posted the first Unlimited Rover (RU) score for the Michigan section and Great Lakes division. The previous contest score records are available for review on the ARRL website at www.arrl.org/contest-records and will be updated to reflect the new records set in 2013.



The AB5EB 3-element 6 meter OWL Yagi array. (Photo by AB5EB)

DX

Fewer DX stations sent in their logs than last year because 6 meter conditions did not favor much in the way of DX. Canadian participation was also lower than last year — 70 logs submitted in 2012, but only 42 in 2013. Nine stations in Mexico submitted their logs. Jorge, XE2X, mounted a respectable 6 meter-only effort, as did Julian, XE2JS, and Javier, XE2CQ. Three stations submitted logs from Cuba including Limited Multioperator (LM) T43S. Three stations from Alaska; KL7YK, KL7AIR, KL7UW, as well as KH7Y from Hawaii all submitted multi-band efforts. Finally, Pedro, HI8PJP, submitted a log with one QSO for the SO3B category.

On the Bands

Despite the majority of stations experiencing only short Es openings with sharply defined footprints, some sections had much better luck with 6 meter propagation - notably Colorado, Texas, New Mexico, and Arizona. During the past few years 6 meter QSO and grid totals have significantly boosted the scores of stations in these areas, and this year was no exception. Jay, W9RM, at his soon-to-be-permanent QTH in DM58 (CO) had constantly shifting 6 meter openings both days, often in multiple directions at once. He took full advantage of them by logging the most 6 meter QSOs of anyone in the contest while using only a single 5-el Yagi on a push-up pole at 25 feet. Perennial STX 6 meter powerhouses George, K5TR in EM00, and George, NR5M in EM10, also made good use of their more impressive antenna farms to mine the band. And despite reporting poor 6 meter conditions in EM31 (STX) the gang at K5QE was still able to log more 6 meter multipliers than any other station.



Dave, NN1N, dodged some weather in DN65 near Wyola, WY to make some 6 meter QSOs. (Photo by NN1N)

Other notable 6 meter totals were logged by Pete, WA7JTM, in DM33 (AZ) and Mark, K5AM, in DM62 (NM), and the operators at WØKVA, in DM89 (CO). The multiops at W2SZ and K8GP also made high QSO numbers despite the lack of sustained Es apparent in their much lower grid count. But unlike last year, with six stations reporting more than 1000 QSOs and another 51 with more than 500 contacts on the band, only Keith, W9RM, came anywhere close to the thousand QSO mark with 920; only 17 stations made it over 500.

In June, 2 meters is the go-to band when 6 meters closes and is most often a springboard for multiple band runs. Despite significantly less 6 meter propagation, the number of stations working more than 100 QSOs on 2 meters remained about the same with 27 this year versus 29 in 2012. But it's no surprise that 7 out of the 10 highest 2 meter QSO totals were made by multiops K8GP, W2SZ, K2LIM, W3SO, W3CCX, N6VI, and W2LV. Jeff, K1TEO, turned his lack of 6 meter Es into the 3rd highest 2 meter QSO total. Andy, K1RA, and Art, K1BX, operating at K1WHS filled out the rest. N6VI is notable as the only West Coast station among the top 2 meter QSO scorers. While most of the multiops also do WSJT meteor scatter and a few do EME contacts to boost their 2 meter grid totals, one really stands out. K5QE used both meteor scatter and EME to accumulate 102 grids on 2 meters, 1/3 more than K8GP at 68. As is true of most western stations. Marshall has many fewer 2 meter neighbors than you would find in other areas, so his pool of stations that are workable by terrestrial propagation is limited.

222 MHz is a great band but there is a limited amount of commercial equipment available since the "Big 3" Japanese rig manufacturers (Icom, Kenwood, and Yaesu) do not normally support it. Most of the time it has as good or better propagation than 2 meters and better immunity to manmade noise. QSOs score the same higher point value as 432 as well as providing additional multipliers. While competitive multiops, rovers, and single ops know they must have it, many stations justify not having a separate rig or transverter for this band because of increased cost and significantly lower OSO total than 2 meters (roughly 35%) or 432 (about 60%). Unfortunately this also tends to make rig unavailability and lower QSO totals on 222 a self-fulfilling prophecy. Only three stations in the June VHF contest had more than 100 QSOs on 222, all of them multiops. While it is more commercially available on multiband rigs, 432 generally has more difficult propagation characteristics and coax loss can be a significant factor. More attention to detail is required to be successful on this band. 6 stations in the June contest had 432 QSO totals over 100, four of them multiops.

QSOs on 902 MHz and above count for more points and additional multipliers; the technical complexity and difficulty rises with the frequency, and so does the cost to put together an effective station while the QSO total continues to go down. Adding SHF and microwave bands with their higher point values tends to be the province of the more technically minded as well as being a necessity for the more competitive stations. But diminishing returns come with low geographical population density where there are few, if any, other stations available to work. Generally rovers and portables have an easier time adding these bands than fixed stations since high-gain antennas are significantly smaller and coax runs are shorter. The ranks of the Classic and Unlimited Rovers who do carry them continues to dwindle, and along with that the number of QSOs other stations make on these bands.

Single Operators

The majority of contest activity originates with the Single Operators who take advantage of their station capabilities, ranging from a single band with modest antenna to a multiband station with stacked arrays. The Single Operator, Low Power (SOLP) category has had the most logs submitted since its inception and has seen successful portable as well as fixed station efforts. The Overall SOLP W3ZZ Memorial First Log Award has been sponsored by Tim, K3LR, and Dave, W9PA, for a second year and goes to KF7PSM in DM26 (NV). I'm proud to confirm I worked Pete! Good job and welcome to the ranks of SOLP VHF+ contesting!

Top Ten - Single Operator, Low Power

K2DRH	169,926
AB5EB	88,615
WB1GQR	84,249
NØPOH	80,088
N4QWZ	78,960
AF1T	69,156
NØLL	68,425
KC9BQA	63,840
N9DG	63,802
KKØQ	59,760

Bob, K2DRH, in EN41 (IL) built a single-tower multiband station with pairs of long boom antennas on each band that has helped him earn 1st in the SOLP category for 9 of the past 10 years. This year, with the help of a new 6 meter tower and array he attained a score of 169K using eight bands through 3456 MHz to put win number 10 in the books. In only his second June VHF Contest, Mike, AB5EB, added an Innovantenna 3-el OWL (Optimized Wideband Low-impedance) stack to his 7-el LFA (Loop-Fed Antenna) and took advantage of the STX 6 meter propagation with a single-band effort that took 2nd place with 88K. Frequent Top Ten finisher WB1GQR manned by Mitch, W1SJ moved up to 3rd this year with 84K, also using eight bands through 3456 MHz. NØPOH placed next with a seven-band effort of 80K and Todd, N4QWZ, completed the Top Five with a 78K six-band log.

Top Ten - Single Operator, High Power

K1TEO	373,250
W9RM	230,622
K1RZ	218,816
K5TR	200,999
NR5M	196,448
K1WHS	151,677
K5AM	148,890
WA2FGK	123,888
W3PAW	117,450
W6OAL	113,064

The Single Operator, High Power (SOHP) category is where the true heavyweights in the VHF world exercise their capabilities. Jeff, K1TEO, in FN31 (CT) has built a very effective 10-band station; his continuing success over more than a decade shows his dedication. Once again Jeff takes top honors with 373K, even after a 5760 MHz failure soon after the contest started. This is about half of his winning score in 2012, attesting to the generally poor conditions experienced in most places. The big news in SOHP was Jay's, W9RM, three-band effort from DM58 (CO) who moved up from 8th place last year to take 2nd place in his second June VHF outing from his soon-to-be new QTH. Using only Field Daystyle antennas with a temporary setup in a pole barn he racked up a great score of 230K, mostly on the merits of his 6 meter effort. Jay was a 6 meter operator at the now silent K9NS EN52 (IL) Limited Multiop and says to "watch out when I put up some real antennas." Dave, K1RZ, is also no stranger to the Top Ten and posted a nine-band effort of 218K to take third place. George, K5TR, came in 4th with 200K from respectable totals on the bottom four bands and George, NR5M, came in 5th with a 6 meter only effort of 196K.

Top Ten – Single Operator, Portable

N6NB	96,036
KJ5RM	32,384
W1MR	26,400
W9SZ	16,600
KB5WIA	15,650
K9AKS	8,496
N2SPI	4,773
AF6RR	3,103
WB9PNU	2,205
WB2AMU	1,675

The Single Operator, Portable (SOP) category limits stations to 10 W, which makes it more difficult to attract the attention of other stations. Wayne, N6NB, who is a living legend in VHF+ contesting and has built more tower trailers than most folks have erected towers, once again succeeded in this category. With his 96K score it is evident that conditions play a somewhat lesser part in his winning strategy than the pursuit of the Southern California Contest Club rover pack.

١



The K7ULS Mobile Dental Surgical Office (aka Single-Op Portable) in DN41. (Photo by K7ULS)

Jory, KJ5RM, found a great spot in EM12 to take advantage of the 6 meter propagation to TX and with three bands took second place with 32K. Chris, W1MR, (NH) took 3rd this time with his six-band station scoring 26K. Fourth place is held by Zack, W9SZ, with 16K who takes 10 bands to a hill in EN50 (IL) every year. It's definitely worth seeking out his 10 dB weaker signal on 2 meters since he and I can usually sweep on all of my eight bands. Dave, KB5WIA, in CA took the 5th spot with a 15K 4-band effort and over 100 more QSOs than Zack, but the additional multipliers and points on the microwaves

Two new single operator categories were added to this year's June VHF Contest. Single Operator, Three-Band (SO3B) is already looking like a big hit with 108 entries that mostly put a dent in the SOLP log totals. Single Op, FM-Only (SOFM) generated nine log submissions. The majority of these entries set the first section, division, and contest records for these categories.worked to Zack's advantage.

Top Ten - Single Operator Three Band

AA5AM	72,488
K7XC	63,510
KØNR	48,117
KO9A	41,944
KF7NP	23,532
N7IR	22,632
KI5YG	16,432
K6MI	16,402
W9PA	13,608
N9ISN	9,936

It was a battle of NTX stations for the initial first-place score in SO3B. Scott, AA5AM, in EM13 made the switch from SOLP and parlayed the 6 meter openings to edge out Tim, K7XC, with 72K. K7XC used his tower trailer for the first June VHF Contest at his new QTH in EM12 to score 2nd place with 63K. They were only separated by seven QSOs but Scott managed to find 20 more multipliers on 6 meters, pushing him well over the top. We hope to see many more battles like this with these two stations in the future! Bob, KØNR, in DM78 (CO) also used his operating skills to rack up good 6 meter totals and secure 3rd place with 48K. Jim, KO9A, in EN52 (IL) made the best of the meager Midwest 6 meter openings on Sunday and leveraged good results on 2 meters and 432 to take 4th place with 42K. Rounding out the Top Five was Burke, KF7NP, in AZ who also took advantage of 6 meters with 23K to barely squeak by Gary, N7IR, in an adjacent grid by less than 1K.



The K7XC SO3B antennas at his new QTH in TX. (Photo by K7XC)

While entries in the SOFM category were few, they did span both coasts and most included QSOs on all of the bottom four bands. The initial top score in the SOFM category was logged by Art, KBØLYL, from EN34 (MN) with 146 2 meter QSOs in 10 grids for 1460 points — congratulations! Art was closely followed by Terry, K6TDI, with 23 Qs and 12 grids for 360 points and Ev, W2EV, from the opposite coast with 312 points. Fourth place went to Bob, VE6CCL, from AB— the only Canadian to participate in this new category

Top Ten - Single Operator FM-Only

K6TDI	360
W2EV	312
VE6CCL	242
N9VM	216
KB1YNT	75
W7DMU	66
KD2DLL	27
AK2S	12

Multioperator

These stations and the crews dedicate much time and effort in finding just the right spot to operate; many carry and set up equipment and antennas in remote locations every year. The Limited Multiops (LM) can operate on as many bands as they wish but can only submit the results from four bands for scoring. Most acquire their best score from the bottom four bands (50, 144, 222, and 432 MHz). The Unlimited Multiops (UM) can score QSOs from practically DC to daylight. These stations are on the air all the time and they set the limits of what's possible for VHF+ contesting.

Top Ten - Limited Multioperator

K5QE	383,691
W3SO	214,140
K2LIM	165,725
WA7JTM	142,780
N5RZ	126,000
AA4ZZ	119,250
N8ZM	96,775
W2LV	78,648
W4NH	76,311
K4MM	35,632

Despite their disadvantageous distance from major population centers that have more stations to work, K5QE posted a score of 383K to win the LM category this year. Being in the area with some of the best 6 meter openings during a down year, and posting the highest 6 meter grid total certainly didn't hurt their score. But it was really their all-out efforts on 2 meters really put them over the top with the highest grid total of the contest on that band as well.

W3SO garnered 214K to take second place with much lighter 6 meter results but solid performances on the other three bands. K2LIM with 165K has a firm hold on 3rd place for the second year in a row with more QSOs then W3SO but fewer multipliers on 222 and 432. The crew at WA7JTM in AZ took advantage of conditions and had an excellent run on 6 meters that propelled them into 4th place with 42K. And Gator, N5RZ, with YL Deborah, N5RZA, turned their mostly 6 meter effort into a 5th place finish with 126K. Sadly, missing this year was the top 3 finisher efforts of K9NS in IL due to harsh winter ice storms taking out many of the antennas at veteran VHF+ contester Frank's, K9HMB, QTH. I know all of us in the Midwest miss their big signal and hope that things get back to normal soon



The EME array at K5QE is an array of 8 Yagis with 18 elements each (8x18) with custom elements for EME. The cross boom is 60 feet. (Photo by K5QE)

Top Ten - Unlimited Multioperator

W2SZ	940,416
K8GP	650,076
N6VI	475,200
W3CCX	315,668
W4IY	197,580
VE3WCC	194,575
WØKVA	183,359
K9CT	131,776
КВЙНН	119,780
AA7XT	93,786

The stalwart crew at W2SZ on Mt Greylock posted another win in the UM category. Despite significantly lower grid totals than last year on 6 and even 2 meters they were still able to log a score of 940K on the strength of their 902 and above efforts. This group has been in the June VHF Contest every year since 1983 and has claimed the top spot in this category 23 times. Their dedication year after year is admirable. The Grid Pirates, K8GP, relative upstarts since 1993, along with their sorely missed muse, Gene, W3ZZ (SK), are among the few who have also reached the top of this category. For the second excursion to their new spot in FM19 this year, they posted a 2nd-place finish of 650K with outstanding totals on 6 and 2 meters, but were unable to take the same command of the higher bands. N6VI on the West Coast moved up into the 3rd spot in this category with a solid performance on 10 bands. W3CCX also posted a solid performance of 315K including 15 QSOs on Light to take 4th and W4IY came in 5th with 197K narrowly beating VE3WCC by 3K.

Rovers

The rovers are invaluable to everyone's contest efforts but seem to be a vanishing breed. They are the only way I can even work my own grid and several adjacent grids on the microwave bands. Many have abandoned the Classic Rover (R) setup for the easier Limited Rover (RL) category. Some have given up roving all together and their absence hurts everyone. Not a contest goes by that we don't see comments advocating a change back to the old rules in which rovers also get a new grid from the stations they work every time they change grids as an incentive to building better rovers and working more bands. In the light of declining participation we really need to reevaluate these changes that were said to "improve" the rover experience for everyone.

Top Ten - Limited Rover

AL1VE/R	34,959
K2QO/R	33,562
WW7D/R	27,588
W9YOY/R	22,875
N6ORB/R	17,766
KK6MC/R	17,563
N6GP/R	15,768
KV2X/R	15,120
W5VY/R	13,272
N2ZBH/R	12,672

In the RL category Tim, AL1VE, once again captured the field with 3 bands and a score of 35K with good totals on 6 meters and by roving in seven grids in OK. Mark, K2QO, with Paul, W2TAU, by his side came in a close second with 33K by visiting eight grids in WNY. Darryl, WW7D roved in nine relatively rare grids in WWA and OR to amass a score of 27K to capture 3rd place. Rounding out the Top Five were Charles, W9YOY, who added eight grids in IL with a score of 23K and Dave, N6ORB, who activated three grids and logged a score of 17K



Limited Rover AL1VE on the road in OK. (Photo by AL1VE)

Top Ten - Classic Rover

K6AH/R	208,254
KI6FGV/R	182,637
N6HD/R	164,780
VE3OIL/R	141,372
KJ5MSY/R	126,126
VE3SMA/R	116,775
NN3Q/R	55,776
W9SNR/R	54,908
VE3WJ/R	52,074
K1DS/R	43,706

The stalwart rovers of the Southern California Contest Club took the top three spots in the R category. Andre, K6AH, was the leader of the pack with 208K— amassed

2013 Web Results Template

on 10 bands through 10 grids. Jim, KI6FGV, took second place using 10 bands with 182K by visiting nine grids and Dave, N6HD, took 3rd also operating on 10 bands from nine grids. Perennial rover Russ, VE3OIL, ran 11 bands in nine grids around Ontario with a score of 141k to take 4th place. Mark, KJ5MSY, also ran with the SCCC rovers in nine grids to amass a score of 126K.

Top Ten - Unlimited Rover

W6TE/R	189,000
WA3PTV/R	47,044
W3HMS/R	19,520
KJ1K/R	12,696
KRØVER/R	10,416
WØBL/R	9,936
KCØP/R	4,401
NØHZO/R	3,575
K8DOG/R	3,042
NV6C/R	3,038

There were ten entries in the Unlimited Rover (RU) category. Dave, W6TE, roamed a whopping 11 grids in the SJV SCCC stomping grounds with 10 bands to dominate the field with 189K. Joe, WA3PTV, ran four grids in the hills of WPA with 10 bands to garner 47K for second place. John, W3HMS, also fielded 10 bands for a three-grid rove through EPA that netted him 19K. Sig, KJ1K, placed 4th with nine bands on a six-grid rove in WMA with 12K. In 5th Eric, KRØVER, roamed through six grids for 10K.

Affiliated Club Competition

Medium Club Category

Southern California Contest Club	23	1369498
Potomac Valley Radio Club	35	1339392
Contest Club Ontario	19	642152
Mt Airy VHF Radio Club	13	636754
Grand Mesa Contesters of Colorado	11	509534
North East Weak Signal Group	17	606322
Society of Midwest Contesters	47	547744
Central Texas DX and Contest Club	9	419111
DFW Contest Group	10	335230
Northern California Contest Club	22	308932
Badger Contesters	14	305211
Pacific Northwest VHF Society	20	269307
Arizona Outlaws Contest Club	27	232468
Northern Lights Radio Society	15	229000
Yankee Clipper Contest Club	20	202371
Carolina DX Association	5	139663
Florida Contest Group	13	127548
North Texas Contest Club	3	88434
Tennessee Contest Group	7	81800
Cold Brook Contest Club	5	49316
Frankford Radio Club	9	45049
Mad River Radio Club	7	44317
Alabama Contest Group	7	22274
CTRI Contest Group	4	20380
South Jersey Radio Assn	3	13301
Georgia Contest Group	4	5133
South East Contest Club	5	4969
Minnesota Wireless Assn	6	2655
Rochester (NY) DX Assn	3	2046
Willamette Valley DX Club	4	1864
Hudson Valley Contesters and DXers	3	632

Local Club Category		
Stoned Monkey VHF ARC	4	46333
Florida Weak Signal Society	4	31776
Chippewa Valley VHF Contesters	3	22028
Bristol (TN) ARC	8	21231
Kansas City DX Club	3	11887
Granite State ARA	3	9847
Hilltop Transmitting Assn	3	8302
Contoocook Valley Radio Club	3	5577
Portage County Amateur Radio Service	3	3790
Bergen ARA	3	2916
Raritan Bay Radio Amateurs	4	2713
10-70 Repeater Assn	3	279

A Historic Look at the June VHF Contest, by Curt Roseman, K9AKS

Many participants have noted poor conditions in the 2013 June VHF Contest, especially on 6 meters. How did the 2013 contest stack up against previous years? To partly answer this question, I compiled the highest QSO and grid totals for each of the June contests since grid squares were first used as multipliers in 1985. The data are shown in the two graphs.

The data for QSO totals only goes back to 1987 because the information is not available in the published results for the first two years. The high QSO and grid totals for a given year are certainly not perfect indicators of the overall conditions across the continent, but they are probably the two best single indicators.



The majority of high QSO totals were attained by stations in the northeast part of the United States, whereas the majority of the highest grid totals came from stations near the middle of the United States. Both graphs ignore location and emphasize the trends over time.

The trend in highest QSO totals is unmistakable. Although the saw-tooth pattern indicates dramatic yearto-year changes, the number of QSOs has steadily climbed over the years. The introduction of HF rigs with 6 meters in the 1990s is one factor that has led to increased activity and associated increases in QSO totals. The change as shown on the Grid Total graph, however, is not as clear. 2010-2012 did show remarkably high totals. If you look at the graph for the entire pre-2010 period, the trend is almost level. Although it certainly helps, the dramatic increases in activity, as measured by QSO totals, do not automatically increase grid totals. Grid totals are probably more a result of how widespread sporadic-E propagation was in the contest and less influenced by levels of activity.



Epilog

A common observation among 6 meter operators who have been through a few sunspot cycles is that Es propagation is less prevalent during the peak sunspot years. When I've voiced this observation on the ON4KST chat page several very knowledgeable and respected stations who keep statistics on such things told me in no uncertain terms that it's without merit. True or not, you certainly won't disprove it from the QSO and grid totals reported during this June contest. Like K3WA said, "Just wait 'til next year." See you on June 21-23 in 2014!

Sponsored Plaque Winners

Plaque Category	Plaque Sponsor	Winner
Overall Single Operator High Power	Southeastern VHF Society	K1TEO
Overall Single Operator Low Power	Society of Midwest Contesters	K2DRH
Overall Single Operator 3-Band	Northern Lights Radio Society	AA5AM
Overall Single Op Low Power, First	Tim K3LR and Dave W9PA	KF7PSM
Log W3ZZ First Log Award —		
Memorial		
Overall Multioperator	Randy Stegemeyer, W7HR	W2SZ
Overall Limited Multioperator Gene	ARRL Contest Branch	K5QE
Zimmerman, W3ZZ Memorial		
Overall Rover	73 Tim KE3HT/SK, Microwave	K6AH/R
	DX Addict	
Atlantic Division Rover	Potomac Valley Radio Club	NN3Q/R
Dakota Division Single Operator Low	Northern Lights Radio Society	
Power	WA3EOQ	
Hudson Division Single Operator	NY2NY — In Memory Of Dick,	WB2SIH
Low Power	W2GFF	
Northwestern Division Single	Boring, OR Amateur Radio	W7EW
Operator High Power	Club	
Northwestern Division Multioperator	Randy Stegemeyer, W7HR	N7NW
Northwestern Division Rover	Pacific Northwest VHF Society	KD7DCR/F
Roanoke Division Rover	Potomac Valley Radio Club	W4STR/R
Southeastern Division Single	Southeastern VHF Society	K4PI
Operator High Power		
Southwestern Division Single	Bud Semon, N7CW	WJØF
Operator Low Power		
Canada Single Operator Low Power	Northern Lights Radio Society	VA3ZV

Division Winners

Single Operator Three Band		
Atlantic	KV2M	8,400
Central	KO9A	41,944
Dakota	ACØTA	1,736
Delta	N5QO	2,193
Great Lakes	AC8HU	6,902
Hudson	N2SLO	4,454
Midwest	KØJQA	1,092
New England		5,976
Pacific	KAMI	16 403
Roanoke	WAIDU	1 066
Rocky Mountain	KØNR	48 117
Southeastern	K1TO	9.636
Southwestern	KF7NP	23,532
West Gulf	AA5AM	72,488
Canada	VE7DAY	7,888
Single Operator Low Power		
Atlantic	WA3EOQ	28,531
Central	K2DRH	169,926
Dakota	WØJI	10,614
Delta	N4QWZ	78,960
Great Lakes		17,056
Midwost		51,012
New England	WBIGOR	84 240
Northwestern	KEØCO	14 706
Pacific	K6ATZ	14.384
Roanoke	K4FJW	6,600
Rocky Mountain	NØPOH	80,088
Southeastern	N3LL	44,388
Southwestern	WJØF	33,264
West Gulf	AB5EB	88,615
Canada	VA3ZV	16,985
Single Operator High Power		
Atlantic	K1RZ	218,816
Central	WØUC	95,765
Dakota	WØGHZ	44,776
Delta	W5MRB	42,075
Great Lakes	KAIQK	52,096
Midwost	WALCO	2,492
New England	K1TEO	373 250
Northwestern	W7FW	48 488
Pacific	K6KLY	73.168
Roanoke	W3IP	37,856
Rocky Mountain	W9RM	230,622
Southeastern	K4PI	37,050
Southwestern	W6PH	31,250
West Gulf	K5TR	200,999
Canada	VE3ZV	70,980
Single Operator FM Only		
Atlantic	W2EV	312
Hudson	KD2DLL	27
Nerthwestern		70
Pacific	NOV/M	216
Southwestern	KETDI	360
Canada	VE6CCL	242
Limited Multioperator		
Atlantic	W3SO	214.140
Central	W9RVG	9,796
Dakota	NØEO	19,758
Delta	K5KDX	23,517
Great Lakes	N8ZM	96,775
Hudson	W2LV	78,648
New England	WIQK	34,320
NorthWestern		9,398
Roanoko		110.050
Rocky Mountain		20 000
Southeastern	K4MM	35 632
Southwestern	WA7JTM	142.780
West Gulf	K5QE	383,691
Canada	VE3EG	1,275

Unlimited Multioperator		
Atlantic	W3CCX	315,668
Central	K9CT	131,776
Dakota	WØVB	360
Delta	W5ZN	32,805
Great Lakes	K8MM	28,737
Hudson	W2JJ	2,900
Midwest	WQØP	62,556
New England	W2SZ	940,416
Northwestern	N/NVV	58,926
Pacific		74,375
Roahoke Rocky Mountain	KOGP WOKVA	000,070
Southoostorn		105,559
Southwestern		475 200
West Gulf	квонн	119 780
Canada	VE3WCC	194,575
Single Operator Portable		
Atlantic	N2SPI	4.773
Central	W9SZ	16,600
Delta	NV4B/5	770
Great Lakes	K9AKS	8,496
Hudson	WB2AMU	1,675
Midwest	WB9PNU	2,205
New England	W1MR	26,400
Pacific	KB5WIA	15,650
Roanoke	KC8KSK	35
Rocky Mountain	KD7WPJ	72
Southeastern	K3TW	1
Southwestern	N6NB	96,036
West Gulf	KJ5RM	32,384
Classic Rover		
Atlantic	NN3Q/R	55,776
Central	W9SNR/R	54,908
Dakota	KØMHC/R	12,648
Delta	AG4V/R	24,528
Great Lakes	KF8QL/R	5,184
Pacific	K6AH/P	4,092
Roanoke	WASTR/R	200,234
Rocky Mountain	W700/R	8 550
Southwestern	N6TEB/R	12 177
Canada	VE3OIL/R	141,372
Limited Rover		
Atlantic	K200/R	33 562
Central	W9YOY/R	22 875
Dakota	KØBBC/R	10.248
Delta	W5VY/R	13,272
Great Lakes	W8ISS/R	465
Hudson	N2ZBH/R	12,672
Midwest	WAØRKQ/R	156
New England	W1PL/R	1,387
Northwestern	WW7D/R	27,588
Pacific	N6ORB/R	17,766
Roanoke	WBØPOH/R	570
Rocky Mountain	KK6MC/R	17,563
Southwestern	N6GP/R	15,768
West Gulf	AL1VE/R	34,959
Canada	VE3GJ/R	3,240
Unlimited Rover		. . - · ·
Atlantic		47,044
		4,401
Great Lakes		3,042
		12,696
Facilic Rocky Mountain	VVOIE/K KRAVER/R	10 446
Southwestern	NV6C/R	10,410 2 020
Courimonon		5,050

Regional Leaders											
QRP/LP/HP/3B/FM = Single-Op Portable/Low Power/High Power/Three-Band/FM-Only; LM/UM = Limited/Unlimited Multioperator; R/RL/RU = Classic/Limited/Unlimited Rover											
Northeast Region	Sout	theast Region	C	entral Region		Mic	west Regio	on	West	Coast Regi	on
New England, Hudson and Atlantic Divisions; Maritime ar Quebec Sections	d Delt South	ta, Roanoke and neastern Divisions	Central a	Central and Great Lakes Divisions; Ontario Section		Dakot Moun Divisi Saska	a, Midwest, Ro tain and West ons; Manitoba atchewan Secti	ocky Gulf and ons	Pacific, Southwest British C	Northwestern a ern Divisions; A Columbia and N Sections	and Alberta, IWT
Call Score Ca	Call	Score Cat	Call	Score	Cat	Call	Score	Cat	Call	Score	Cat
WB1GQR 84,249 LP AF1T 69,156 LP WB2SIH 51,612 LP K1KG 48,654 LP K1KG 48,654 LP K1KG 38,658 LP K1TEO 373,250 HP K1RZ 218,816 HP K1WHS 151,677 HP WA2FGK 123,888 HP W3PAW 117,450 HP W1MR 26,400 QRF N2SPI 4,773 QRF WB2AMU 1,675 QRF N2SPI 4,773 QRF K2FR 1,638 QRF N1PRW 744 QRF KV2M 8,400 3B W1FW 5,976 3B N3UM 4,699 3B N2SLO 4,454 3B W3LL 3,948 3B W2EV 312 FM KD2DLL 27 FM <	N4QWZ N3LL KX4R N4TWX AA5AU W5MRB W3IP K4PI W42RZ KE2N NV4B/5 KC8KSK K3TW K1TO W4ATL K4UB N5QO N5BLY AA4ZZ W4NH K4MM K5KDX K5GDX K8GP W4IY W52N W12E N4JQQ AG4V/R W4STR/R K4YRK/R W4STR/R K4YRK/R W5VY/R	78,960 LP 44,388 LP 41,529 LP 15,810 LP 13,112 LP 42,075 HP 37,856 HP 37,050 HP 34,989 HP 31,995 HP 770 QRP 35 QRP 1 QRP 9,636 3B 6,110 3B 4,092 3B 2,193 3B 1,989 3B 119,250 LM 76,311 LM 35,632 LM 23,517 LM 23,517 LM 23,517 LM 23,517 LM 23,517 LM 23,517 LM 24,528 R 84 R 50 R 13,272 RL 558 RL 180 RL 133 RL	K2DRH KC9BQA N9DG K8GDT VA3ZV WØUC K9EA VE3ZV K8TQK W9GA W9SZ K9AKS K9PLS W9LGP K9TMS K09A W9PA N9ISN NT9E N9TF N8ZM W9RVG W9SNR/R VE3OIL/R W9CA W9CA W9CA W9CA W9CA W9CA W9CA W9CA	169,926 63,840 63,802 17,056 16,985 95,765 72,708 70,980 52,096 52,029 16,600 8,496 30 12 4 41,944 13,608 9,936 7,728 96,775 9,936 6,240 5,831 1,275 194,575 131,776 46,287 28,737 14,175 131,776 46,287 28,737 14,175 141,372 28,737 14,175 141,372 28,737 14,175 141,372 28,737 14,175 141,372 28,737 14,175 141,372 28,737 14,175 141,372 28,737 14,175 141,372 28,737 14,175 11,220 4,056 3,240 4,656 3,042	LP LP LP HP PP	AB5EB NØPOH NØLL KKØQ N5JR W9RM K5TR NR5M K5TR NØSM K5AM W6OAL KJ5RM W6OAL KJ5RM W6OAL KJ5RM W6OAL KJ5RM W700L N KD7WPJ AA5AM K7XC KØNR K15YG WBØGAZ K5QE N5RZ WØLSD WØFRC NØEO WØKVA K5QE NØFRC NØEO WØKVA K50 WØFRC NØEO WØKVA K50 KØHC/R K60 K7QQ/R N7QQ/R KRØVER/F WØBL/R KØVER/F WØBL/R KØVE/R KØVE/R KØVE/R NØHZO/R	88,615 80,088 68,425 59,760 37,760 230,622 200,999 196,448 148,890 113,064 32,384 2,205 110 72,488 63,510 48,117 16,432 5,035 383,691 126,000 29,008 21,620 19,758 183,359 119,780 93,786 62,556 29,302 12,648 8,550 500 34,959 17,563 10,248 8,550 500 34,959 17,563 10,248 8,550 500 34,959 17,563 10,248 8,550 500 34,959	ӕӕӕӕӕӕӥӡҡ҄ѧ҂ѧ҂҄ҫҁҁҁҁҁҕҧӡҡӹӝӝӝӥѽҏѻ҄ѻѻӊӊӊӊҧҧ ҽҫҫҫҡҡҧ҂	WJØF NQ7R KEØCO K6ATZ K2GMY K6KLY W7EW VE7JH N7EPD AJ6T N6NB KB5WIA AF6RR WA9STI KE7UQL KF7NP N7IR K6TU VE6CCL N9VM W7DMU WA7JTM K6MI K7BG VE7DAY K6TDI VE6CCL N9VM W7DMU WA7JTM KØDI N6ML K7NG AA7A N6VI W6TV N7NW W86W N7CW K6AH/R K16FGV/R N6HD/R K16FGV/R N6ORB/R K6LMN/R N6CP/R K6LMN/R N6CP/R K6LMN/R N6CP/R K6LMN/R N6CP/R	33,264 22,572 14,706 14,384 13,530 73,168 48,488 41,412 36,757 34,989 96,036 15,650 3,103 1,674 672 23,532 22,632 22,632 16,402 8,680 7,888 360 242 216 66 142,780 13,200 11,690 9,398 8,255 475,200 74,375 58,926 40,664 34,055 208,254 475,200 74,375 58,926 40,664 34,055 208,254 475,200 74,375 58,926 40,664 34,055 208,254 475,200 74,375 58,926 40,664 34,055 208,254 40,664 34,055 208,254 182,637 164,780 126,126 21,112 27,588 17,766 15,778 6,380 2,709	ჇჇႦႦჇႦႦႦႦႦႦჾჾჾ๛ႺႺႺႺႺႺႨႨႨႨႨႻႯႸႸჅჅჅჅჅႦႦႦႦႦႦႵႵႵႵႵႵႱႱ ჇჇႾႦႦႦႦႦႦႵႵႵႵႵႵႱႱ