ARRL September VHF QSO Party 2011 Results

by Jeff Klein, K1TEO (wa2teo@aol.com)

"It was all guts!" - KBØHH/R

After terrific activity and band conditions in the 2011 June VHF contest, the hope was that Mother Nature would help create some more excitement in the September contest. Alas, band conditions were mostly rather bland and activity was lower than in prior years. However, with some help from rovers the contest was still a great deal of fun and very competitive across North America. In particular, congratulations are due to Bruce, W9FZ who once again organized Midwest Mania with a slew of rovers operating across the Great Plains. **Figure 1** shows his success in keeping things hopping even under normal band conditions.

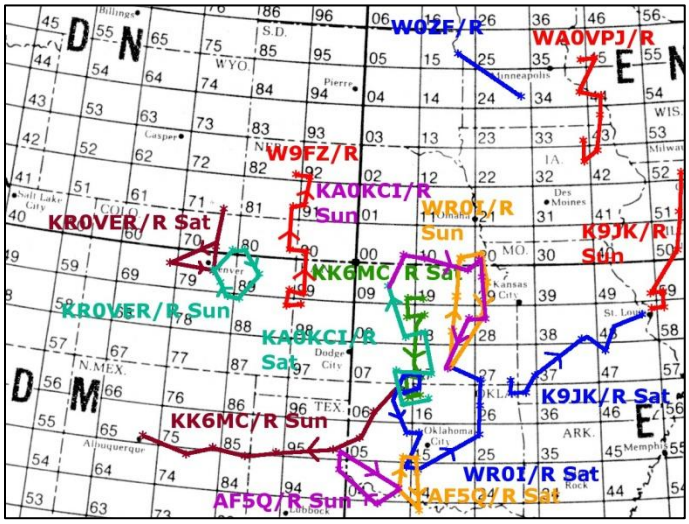

Figure 1 – Midwest Mania rover stations were pretty busy!

By The Numbers

Log submissions were down this year with a total of 434 entries. However, log submissions only tell a part of the story. Checking all of the submitted logs indicates that a total of about 2800 stations made at least one contact with one of the 434 entrants. Thus, only 15% of the contest participants actually sent in a log. No doubt many were stations that just happened to find a contest station and worked them while not actively seeking contacts. It does indicate the challenge of encouraging contest participants to submit their logs. W2SZ, for example, worked a total of 517 unique calls, more than the total number of official entries in the contest!

Unique Calls and Total Contacts

Station	*Category*	*Unique Calls worked*	*Total QSOs*	*QSOs per unique call*
W2SZ	MM	517	1599	3.2
K1WHS	LM	416	869	2.1
W3SO	LM	294	690	2.4
K1TEO	SOHP	290	920	3.2
K2BAR	LM	274	438	1.7
AA4ZZ	LM	255	437	1.7
N3NGE	MM	247	765	3.1
WA2FGK	SOHP	197	699	3.5
WB1GQR	SOLP	195	549	2.9
K1RZ	SOHP	184	669	3.7
K5QE	MM	176	332	1.9
K2DRH	SOLP	141	491	3.5
W1RT/R	R	102	740	7.5
W3PAW	SOLP	101	381	3.9
KBØHH	MM	84	434	5.2

This information also gives us some insights into the different operating techniques employed. Among the Limited Multioperator (LM) stations in the table, W3SO managed to work the most on multiple bands, averaging 2.4 QSOs with each unique call. With LM stations allowed to operate on up to four bands, 'SO did a great job of pushing each station to run the bands with them. I know from direct experience that as soon as you work 'SO regardless of band the operator will encourage you to move to the other three bands with them immediately.

Likewise, Single Operator K1RZ averages 3.7 QSOs with each call worked. Dave does a great job of taking the time to work those difficult microwave contacts that others might pass on. He demonstrated his patience for making that last QSO with my station on Sunday afternoon of the contest. With severe thunderstorms between us, Dave encouraged me to try different dish headings to see which storm cells we could use to work via rain scatter for a 10 GHz contact. It took a good ten minutes or so but we finally succeeded, adding a new multiplier for both of us.

KBØHH operates in an area of the country with relatively low local activity. To do well – and they did with a high finish in the Multioperator category – they

need to work every station available on as many bands as possible.

Bruce W9FZ and his rover taking an afternoon break at an overlook in DN82. Bruce organized and participated in the contest as part of Midwest Mania - a group of several rovers activating hard-to-work grids. (Photo by W9FZ)

The table of unique contacts shows their success as they only worked 84 different stations but had the highest number of QSOs with each unique call of any fixed station. Given the Midwest Mania rovers and several others equipped with many bands, they made sure to work each station on as many frequencies as possible, averaging an outstanding 5.2 QSOs with every unique station they found.

Another factor in contesting success is operating on as many bands as possible as illustrated by **Figures 2 and 3**. Often in the June contest quite a few of the high-scoring stations will make the bulk of their contacts on six meters. In fact, when six is open the other bands often are somewhat inactive. To score well in the September contest it is important to be active on as many bands as possible. Virtually all of the top Single Operator and Multioperator stations were on several microwave bands and many had all bands through 10 GHz.

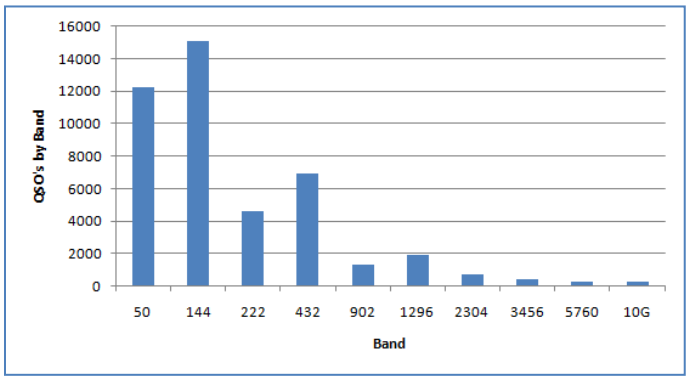

Figure 2 – QSOs made by band

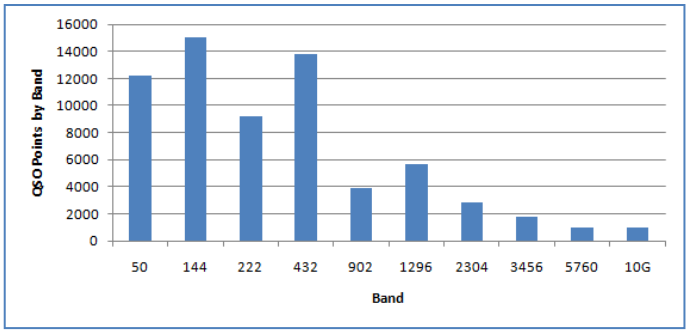

Figure 3 – QSO points made by band

The charts show that two meters is the most popular band for contacts in the September contest followed by six meters. However, when QSO points are taken into account 432 MHz is the second "most valuable" band, not far behind two meters. 1296 MHz accounts for about half as many points as six meters, which is impressive given far fewer stations operate on the band. While grid totals on six meters are still an important factor in September, they are not much higher than the totals that can be worked on 222 and 432 MHz. These are far different charts than similar ones for the 2011 June VHF QSO Party in which conditions allowed huge QSO and grid totals on six meters.

Another factor in contesting success and enjoyment is how to allocate whatever time is available for operating. **Figure 4** shows that not surprisingly the first few hours have the most contacts with activity slowing down about ten hours into the contest. There are several overnight hours with very few contacts followed by a large jump at around 9 AM local time on the East Coast. Activity peaks again in the Sunday morning hours and then falls off until a small peak about two to four hours before the finish. If you have limited time and want to make the most contacts it pays to be active in the first few hours and again on Sunday morning. A different view might be that as QSOs get fewer and further between, taking a break and getting back on the air on Sunday afternoon as "fresh meat" might be a good way to go.

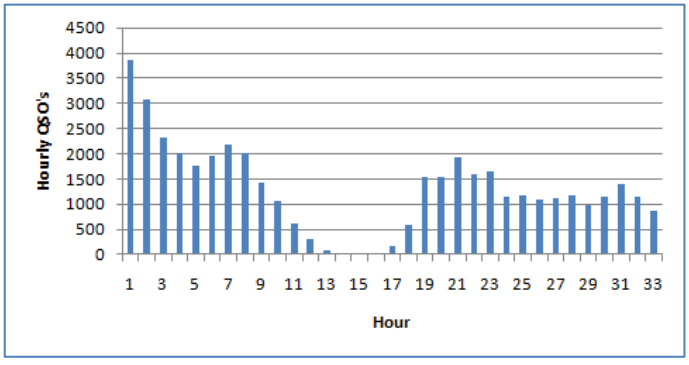

Figure 4 – QSOs made by hour

Band Conditions

September contests can see a wide range of conditions including tropo, meteor scatter, aurora, and even sporadic E on six meters. 2011 brought little extra excitement from enhanced conditions though some astute operators were able to make use of a weak aurora opening on Saturday evening to work extra grids. For example, WA2FGK noted working five otherwise unworkable grids on six meters from northeast Pennsylvania. Single Operator, Low Power overall winner K2DRH made a number of aurora contacts and even Single Operator, QRP station W9SZ was able to work a few stations using the aurora. A few Midwestern stations reported some tropo enhancement on Sunday morning but most of it was gone before the bulk of the activity showed up. Otherwise 2011 was a year for average conditions on the bands.

The W1RT rover van was active on quite a few bands as this photo shows. Keeping all those antennas working just right occasionally takes some "hands-on" attention! [Photo by Andy, K1RA]

Single-Operator Categories

The Single-Operator Low Power (SOLP) category remains the most popular with over half of all log submissions. Frequent top scorer K2DRH returned to the top spot this year with over 186k points. Bob's key was working terrific grid totals on the bottom four bands combined with impressive totals on the microwaves. On 50 through 222 MHz he was either second or third in grid totals on each band for all categories including multi-operator stations. His well appointed station in the middle of the country (EN41) allows him to work in all directions making up for fewer stations available versus his competitors in the Northeast. Bob made good use of the minor aurora opening Saturday evening and some early morning tropo to help boost his multiplier totals.

The rest of the Top Ten was made up of competitors from the Northeast US. WB1GQR operating portable from Mount Equinox in Vermont was in second followed closely by W3PAW in Maryland. 'PAW has been steadily moving up in the SOLP September results having finished 8th, 5th and 4th the three prior years. Other top scorers in the category included K1KG, K2KIB, N2YMS and AF1T.

Top Regional results included a trio of excellent scores from the Midwest from NØLL, KØSIX and WØZQ. On the West Coast, the leading SOLP results were from KD7UO, AF6RR, W6OMF, VE7FYC and KG7P. In the Southeast N4QWZ had 15k points to lead the competition followed by KX4R and K4FJW who were separated by only 8 points!

Top Ten	
Single Operator, Low Power	
K2DRH	186,519
WB1GQR (W1SJ, op)	119,280
W3PAW	104,760
K1KG	83,750
K2KIB	82,432
N3YMS	74,015
AF1T	66,744
WB2SIH	53,972
W3SZ	39,237
WA2VNV	36,366
Single Operator, High Power	
K1TEO	461,370
WA2FGK (K2LNS, op)	315,600
K1RZ	240,975
K3TUF	224,885
WØUC	72,160
K8TQK	61,502
WB2RVX	57,536
VA3ST	44,908
K4QI	44,821
N3HBX	44,118
Single Operator, Portable	
W1MR	33,803
W9SZ	22,991
N6LB	4,526
N1PRW	2,574
WB2AMU	2,492
AB1MI	1,717
KB5WIA	1,311
NØJK	851
KD9KC	784
KC8KSK	112

K1TEO repeated as the top scorer in the Single-Operator High Power (SOHP) category. Jeff's score improved about twenty percent over 2010 despite similar conditions and activity. The big difference was finding and working rovers on the microwaves in rare grid squares helping to improve his multiplier and QSO point total over the prior year. WA2FGK was second once again with an excellent score over 300k followed by K1RZ. K3TUF was fourth as Phil was over the 200k point mark. Midwestern stations WØUC and K8TQK finished fifth and sixth in the SOHP competition,

followed by WB2RVX who was just ahead of the high Canadian scorer, VA3ST. K4QI was the top scorer from the Southeast finishing ninth just ahead of N3HBX who rounded out the Top Ten.

Other regional scores of note included WØGHZ who just missed making the national Top Ten from the Midwest region. He was followed closely by WQØP who also bested the 40k point mark. In the Southeast W3IP and KN4SM had a tight contest to finish second and third in the region for SOHP behind K4QI. The top West Coast Region score came from the Pacific Northwest as N7EPD scored 25k with KC6ZWT in second and W7FI in third for the SOHP category.

Single-Operator Portable Operation

Chris, W1MR (formerly KA1LMR) finished atop the Single-Operator Portable (SOP) category. He had some excellent competition from W9SZ in Illinois. Zack was actually able to make some aurora contacts even at the ten-watt level though he heard more than he could work during the opening. He noted some good microwave activity this time helping him to his fine finish.

West Coast top SOP station N6LB was third, followed by easterners N1PRW, WB2AMU, and AB1MI. 'PRW experienced some of the joys and challenges of portable operation as he enjoyed a nice surge of activity toward the end of the contest while at the same time experiencing strong wind gusts and low batteries forcing him to cut back his output power.

The rest of the top portable operators came from diverse areas of the country with KB5WIA in seventh, followed by NØJK, KD9KC and KC8KSK. Congratulations to the sixteen competitors in this category who went out and had a good time experiencing concurrently the great outdoors and VHF+ contesting.

Multioperator Categories

After winning the Multioperator (MO) category in 2010 for the first time, the K1WHS team moved into the Limited Multioperator (LM) category and gained another victory. While equipment problems with some of the microwave bands forced the move, the group did not let that deter them from having fun and being as competitive as ever. They enjoyed good weather and with several ops coming in from the Midwest made the most of the situation, finishing with 191k. On six meters they managed a contest-leading total of 63 grids, an impressive total given the overall flat conditions.

The K1WHS score beat out the Western Pennsylvania team at W3SO, always one of the top scorers in this category. K2LIM in Western New York moved up a notch this year to finish in third, followed by AA4ZZ and W4IY. Other familiar calls completed the top ten LMs with K2BAR, N1WK, W1QK, WØVB and K2TVI rounding out the top teams.

The MO team of W2SZ had a rare second-place finish in 2010 but came back to dominate the category this time around. Despite the conditions and activity level they still managed to exceed one million points. As is often the case, they had the top QSO and grid totals on all of the microwave bands in addition to impressive results on the bottom four bands. Perhaps 2012 will see another battle of the heavy weights between 'SZ and 'WHS?

Mid -Atlantic competitors N3NGE and W2EA finished next in line with 308k and 182k respectively. Making great use of the rovers participating in Midwest Mania, the bunkhouse gang at KBØHH managed to score over 100k from the Great Plains to take fourth place. They enjoyed working 20 different rovers, an impressive total given their location in western Oklahoma, and a testament to the success of W9FZ's efforts in organizing Midwest Mania. K3EOD finished just ahead of K5QE in Texas for fifth and sixth in the category. VE7DXG finished an impressive seventh from British Columbia, followed by N8KOl, N9UHF and W4NH.

Top Ten			
Limited Multioperator		**Rover**	
K1WHS	191,574	W1RT/R	245,804
W3SO	163,805	VE3OIL/R	119,634
K2LIM	101,060	VE3SMA/R	99,802
AA4ZZ	64,701	W9SNR/R	69,760
W4IY	57,404	WA3PTV	55,500
K2BAR	37,668	W1AUV/R	36,103
N1WK	25,063	KE3HT/R	27,360
W1QK	15,312	KØDAS/R	22,849
WØVB	6,384	W9FZ/R	19,437
K2TVI	5,576	WA2BTR/R	19,435
Multioperator		**Limited Rover**	
W2SZ	1,009,348	K2QO/R	65,968
N3NGE	308,186	WAØVPJ/R	22,200
W2EA	182,434	K6BRW/R	11,760
KBØHH	109,668	K9JK/R	11,172
K3EOD	97,760	WW7D	10,076
K5QE	91,096	AL1VE/R	4,181
VE7DXG	31,076	N6ORB/R	3,030
N8KOL	30,923	K8DOG/R	2,266
N9UHF	27,058	WØZF	1,325
W4NH	17,080	AB8M	1,265
		Unlimited Rover	
		NN3Q	52,041
		KRØVER/R	12,768
		KJ1K/R	8,320
		KD5IKG/R	1,738
		VE6KC	816

Rover Categories

A total of 54 rovers submitted logs this year with over half in the traditional Rover category that was won by a strong effort from W1RT. Operating with the assistance

of Andy, K1RA John piloted the "Jitney" through 7 grids amassing a total of 245k points. They made over 700 QSOs on their journey from Connecticut to Virginia and achieved their highest score ever. They managed some impressive QSO totals during relatively short stays in grids including 189 QSOs at their last stop on Hogback Mountain in FM08 and 180 more on Camelback Mountain in FN21.

Overall, the Rover category was very competitive with VE3OIL and VE3SMA second and third with 119k and 100k respectively. This reversed last year's order from in another great battle between these two rovers. Midwest rover W9SNR took the next spot with WA3PTV changing categories from a first-place finish in Unlimited Rover (RU) last year to take fifth in the Rover category this year. Tommy, W1AUV did well from New England to finish sixth followed by KE3HT roving in Pennsylvania and New York, then came Midwest Mania participants KØDAS and W9FZ, and WA2BTR. The Rover category was dominated by pack rovers in 2010 but all of the 2011 top scores came from rovers following a more typical operating pattern of mainly working the non-rover stations and handing out much appreciated grid multipliers to the rest of the competitors. The top Rover station in the Southeast was AG4V while in the West Region KD7TS was the leader with 12k points.

The Limited Rover (RL) category had 18 competitors this year with K2QO leading the pack. Mark managed 65k points in his rove that started in New England and ended up close to home in Western New York. The 'QO team managed nearly 500 QSOs on four bands and noted making many contacts on CW to help the score. They noted that after declining scores the prior four years this contest marked a nice break in the pattern with a significant increase. Finishing next with an excellent score of 22k was Midwest Mania participant WAØVPJ. K6BRW was third in a close finish with K9JK. WW7D was next from the West along with AL1VE and N6ORB in fifth through seventh. Rounding out the top scorers were K8DOG, WØZF and AB8M.

The final rover category is Unlimited Rover (RU) and this year there were five entries. NN3Q roved in the Mid-Atlantic area and was first after several top scores in prior years in Rover. This time they racked up 52k points on 10 bands. KRØVER, who always gets my vote for best call sign in the category, pitched in to help Midwest Mania and achieved second place. KJ1K, KD5IKG and VE6KC were next in the RU results.

Club Competition

The September VHF QSO Party features an ARRL Affiliated Club Competition in addition to the individual categories. Club entries were down a bit this year with seventeen Medium Club and five Local Club entries. The Mt Airy VHF Club has a long history of wins in the January VHF Sweepstakes and has now extended that success to September. With seventeen log entries they ended up with over a million points to edge the North East Weak Signal Group by a little over 100k points. One of the best known contest clubs in the country, the Potomac Valley Radio Club, finished third followed the Contest Club of Ontario. A trio of Midwest clubs followed as the Northern Lights Radio Society, the Society of Midwest Contesters, and the Badger Contesters finished sixth through eighth. The top Western score came from the Pacific Northwest VHF Society as their twenty entries totaled over 100k points.

In the Local Club competition the Bergen Amateur Radio Association took the top spot in a close competition with the Stoned Monkey VHF Amateur Radio Club. Third place went to the Bristol Amateur Radio Club.

Affiliated Club Competition		
Medium Club		
Club	*Logs*	*Score*
Mt Airy VHF Radio Club	17	1,144,326
North East Weak Signal Group	21	1,003,386
Potomac Valley Radio Club	17	637,067
Contest Club Ontario	11	316,651
Northern Lights Radio Society	13	230,054
Society of Midwest Contesters	7	225,999
Badger Contesters	9	140,467
Pacific Northwest VHF Society	20	106,714
Cold Brook Contest Club	3	70,066
Yankee Clipper Contest Club	6	30,669
North Texas Microwave Society	5	21,671
Frankford Radio Club	3	7,744
Mad River Radio Club	3	5,394
Florida Contest Group	5	1,855
Northern California Contest Club	5	1,605
Grand Mesa Contesters of Colorado	4	922
Western New York DX Assn	4	790
Local Club		
Club	*Logs*	*Score*
Bergen ARA	4	37,870
Stoned Monkey VHF Amateur Radio Club	3	27,135
Bristol (TN) Amateur Radio Club	3	9,808
Western New York DX Assn	4	790
Portage County Amateur Radio Service	3	508

In Closing

The 2012 September VHF QSO Party is slated for September 8th through the 10th. It's a great end of the summer bash for those dedicated VHF+ operators looking forward to the possibility of good conditions, an opportunity to work some new grids, and the chance to say hello to old friends on the bands. Plan to get on and enjoy the fun and do not forget to submit a log so your score counts!

Regional Leaders

A - Single-Op Low Power, B - Single-Op High Power, Q - Single-Op Portable, L – Limited Multioperator, M - Multioperator, R - Rover, RL - Limited Rover, RU - Unlimited Rover

Northeast Region			Southeast Region			Central Region			Great Plains Region			West Coast Region		
New England, Hudson and Atlantic Divisions; Maritime and Quebec Sections			Delta, Roanoke and Southeastern Divisions			Central and Great Lakes Divisions; Ontario Section			Dakota, Midwest, Rocky Mountain and West Gulf Divisions; Manitoba and Saskatchewan Sections			Pacific, Northwestern and Southwestern Divisions; Alberta, British Columbia and NWT Sections		
Call	**Score**	**Cat**	**Call**	**Score**	**Cat**	**Call**	**Score**	**Cat**	**Call**	**Score**	**Cat**	**Call**	**Score**	**Cat**
WB1GQR (W1SJ, op)	119,280	A	N4QWZ	15,272	A	K2DRH	186,519	A	NØLL	34,884	A	KD7UO	9,020	A
W3PAW	104,760	A	KX4R	5,568	A	KC9BQA	18,648	A	KØSIX	25,628	A	AF6RR	8,772	A
K1KG	83,750	A	K4FJW	5,560	A	WZ8T	17,854	A	WØZQ	23,166	A	W6OMF	5,764	A
K2KIB	82,432	A	W2BZY	3,827	A	VE3KZ	14,555	A	KØMHC	15,450	A	VE7FYC	5,092	A
N3YMS	74,015	A	WK4P	3,335	A	KF8QL	10,384	A	WB5ZDP	11,592	A	KG7P	4,587	A
K1TEO	461,370	B	K4QI	44,821	B	WØUC	72,160	B	WØGHZ	43,890	B	N7EPD	25,830	B
WA2FGK (K2LNS, op)	315,600	B	W3IP	41,952	B	K8TQK	61,502	B	WQØP	40,460	B	KC6ZWT	10,528	B
K1RZ	240,975	B	KN4SM	31,270	B	VA3ST	44,908	B	KØAWU	10,647	B	W7FI	10,258	B
K3TUF	224,885	B	NT4RT	4,365	B	K8MD	34,776	B	K9MK	8,477	B	W7CE	7,755	B
WB2RVX	57,536	B	AA4DD	4,218	B	K9EA	28,704	B	KFØM	4,387	B	K7AWB	4,028	B
W1MR	33,803	Q	KC8KSK	112	Q	W9SZ	22,991	Q	NØJK	851	Q	N6LB	4,526	Q
N1PRW	2,574	Q	N3AWS	6	Q	KC9MMM	32	Q	KD9KC	784	Q	KB5WIA	1,311	Q
WB2AMU	2,492	Q				KD8LDX	4	Q	NA5O (AA5JG, op)	6	Q	W6MDH	6	Q
AB1MI	1,717	Q										VA7GNR	6	Q
K1WHS	191,574	L	AA4ZZ	64,701	L	N2BJ	3,920	L	WØVB	6,384	L	W7BI	3,132	L
W3SO	163,805	L	W4IY	57,404	L	W9RVG	3,276	L	WBØBQV	2,440	L	WW7LW	1,140	L
K2LIM	101,060	L	NE5BO	96	L				WD5IYF	1,566	L	N7KN	798	L
K2BAR	37,668	L							NØLD	819	L	VE6AO	128	L
N1WK	25,063	L												
	1,009,34													
W2SZ	8	M	W4NH	17,080	M	N8KOL	30,923	M	KBØHH	109,668	M	VE7DXG	31,076	M
N3NGE	308,186	M	WY3P	10,553	M	N9UHF	27,058	M	K5QE	91,096	M	W6TV	14,322	M
W2EA	182,434	M	W4PK	306	M	KO9A	7,672	M	KC5MVZ	1,220	M	W6AB	7,480	M
K3EOD	97,760	M	K4QE	180	M				WØRIC	273	M	KC7I	6,201	M
W3KWH	2,625	M	KD2JA	136	M							VE6NQ	1,617	M
W1RT	245,804	R	AG4V	3,400	R	VE3OIL	119,634	R	KØDAS	22,849	R	KD7TS	12,264	R
WA3PTV	55,500	R				VE3SMA	99,802	R	W9FZ	19,437	R	K7HPT	4,110	R
W1AUV	36,103	R				W9SNR	69,760	R	KAØKCI	12,852	R	K7MDL	867	R
KE3HT	27,360	R				VE3CRU	17,215	R	ACØVQ	7,095	R	VE7BQQ	216	R
WA2BTR	19,435	R				VE3MSC	481	R	KK6MC	6,683	R			
K2QO	65,968	RL	K6PFA	816	RL	K9JK	11,172	RL	WAØVPJ	22,200	RL	K6BRW	11,760	RL
WØBL	182	RL				K8DOG	2,266	RL	WØZF	1,325	RL	WW7D	10,076	RL
WB2AIV	70	RL				AB8M	1,265	RL	KØNR	40	RL	AL1VE	4,181	RL
W1PL	56	RL				VE3RKS	1,152	RL				N6ORB	3,030	RL
												K6LMN	468	RL
NN3Q	52,041	RU							KRØVER	12,768	RU	VE6KC	816	RU
KJ1K	8,320	RU							KD5IKG	1,738	RU			

Division Winners

Single-Operator, Low Power

Atlantic	W3PAW	104,760
Central	K2DRH	186,519
Dakota	KØSIX	25,628
Delta	N4QWZ	15,272
Great Lakes	WZ8T	17,854
Hudson	K2KIB	82,432
Midwest	NØLL	34,884
New England	WB1GQR (W1SJ, op)	119,280
Northwestern	KD7UO	9,020
Pacific	AF6RR	8,772
Roanoke	K4FJW	5,560
Rocky Mountain	KCØSQK	1,190
Southeastern	KX4R	5,568
Southwestern	W6WE	1,450
West Gulf	WB5ZDP	11,592
Canada	VE3KZ	14,555

Limited Multioperator

Atlantic	W3SO	163,805
Central	N2BJ	3,920
Dakota	WØVB	6,384
Delta	NE5BO	96
Hudson	K2BAR	37,668
Midwest	WBØBQV	2,440
New England	K1WHS	191,574
Northwestern	W7BI	3,132
Roanoke	AA4ZZ	64,701
West Gulf	WD5IYF	1,566
Canada	VE6AO	128

Rover

Atlantic	WA3PTV	55,500
Central	W9SNR/R	69,760
Dakota	KCØP/R	3,841
Delta	AG4V	3,400
Hudson	AA1I/R	11,076
Midwest	KØDAS/R	22,849
New England	W1RT/R	245,804
Northwestern	KD7TS/R	12,264
Rocky Mountain	ACØVQ/R	7,095
West Gulf	KC5TA	645
West Gulf	K5MRA	645
Canada	VE3OIL/R	119,634

Single-Operator, High Power

Atlantic	WA2FGK (K2LNS, op)	315,600
Central	WØUC	72,160
Dakota	WØGHZ	43,890
Delta	AA4DD	4,218
Great Lakes	K8TQK	61,502
Hudson	W2JJ (WA2VUN, op)	2,071
Midwest	WQØP	40,460
New England	K1TEO	461,370
Northwestern	N7EPD	25,830
Pacific	KC6ZWT	10,528
Roanoke	K4QI	44,821
Rocky Mountain	K7ICW	1,560
Southeastern	K1KC	969
Southwestern	KC6SEH	1,125
West Gulf	K9MK	8,477
Canada	VA3ST	44,908

Multioperator

Atlantic	N3NGE	308,186
Central	N9UHF	27,058
Great Lakes	N8KOL	30,923
Hudson	KC2WUF	2,117
New England	W2SZ	1,009,348
Northwestern	KC7I	6,201
Pacific	W6TV	14,322
Roanoke	WY3P	10,553
Rocky Mountain	WØRIC	273
Southeastern	W4NH	17,080
Southwestern	W6AB	7,480
West Gulf	KBØHH	109,668
Canada	VE7DXG	31,076

Limited Rover

Atlantic	K2QO/R	65,968
Central	K9JK/R	11,172
Dakota	WAØVPJ/R	22,200
Great Lakes	K8DOG/R	2,266
Hudson	WØBL/R	182
New England	W1PL	56
Northwestern	WW7D	10,076
Pacific	K6BRW/R	11,760
Roanoke	K6PFA/R	816
Rocky Mountain	KØNR/R	40
Southwestern	K6LMN/R	468
Canada	VE3RKS/R	1,152

QRP Portable

Central	W9SZ	22,991
Delta	N3AWS	6
Great Lakes	KD8LDX	4
Hudson	WB2AMU	2,492
Midwest	NØJK	851
New England	W1MR	33,803
Northwestern	N6LB	4,526
Pacific	KB5WIA	1,311
Roanoke	KC8KSK	112
West Gulf	KD9KC	784
Canada	VA7GNR	6

Unlimited Rover

Atlantic	NN3Q	52,041
New England	KJ1K/R	8,320
Rocky Mountain	KRØVER/R	12,768
West Gulf	KD5IKG/R	1,738
Canada	VE6KC	816

QSO Leaders By Band

Single Operator Low Power

50 MHz	
WB1GQR (W1SJ, op)	150
K2DRH	136
KB1RXA	126
AF1T	95
N3YMS	80
N3ALN	79
KØSIX	71
VE3KZ	69
WB2SIH	65
K2KIB	63
K1KG	63
WA2VNV	63
K1TR	61
W3PAW	59
KD7UO	57
144 MHz	
WB1GQR (W1SJ, op)	170
N3YMS	149
K2DRH	146
WB2CUT	120
K2KIB	118
AF1T	118
WB2SIH	118
W3PAW	99
K1KG	96
VE3KZ	86
WA2VNV	86
KØSIX	77
N3ALN	72
NØLL	66
KV2M	61
KB3TC	61
222 MHz	
WB1GQR (W1SJ, op)	74
K2DRH	67
N3YMS	55
WB2SIH	55
W3PAW	52
AF1T	51
K1KG	38
K2KIB	37
WA2VNV	36
N3ALN	31

Multioperator (-L denotes Limited)

50 MHz	
W2SZ	424
K1WHS -L	343
W2EA	270
K2BAR -L	205
N3NGE	199
W3SO -L	188
K2LIM -L	161
W4IY -L	140
K3EOD	133
N1WK -L	130
W1QK -L	122
AA4ZZ -L	115
VE7DXG	92
K5QE	88
KBØHH	75
144 MHz	
W2SZ	379
K1WHS -L	294
W3SO -L	287
W2EA	229
AA4ZZ -L	206
K2LIM -L	205
N3NGE	195
K2BAR -L	155
KBØHH	138
K5QE	137
K3EOD	128
W4IY -L	126
VE7DXG	100
N1WK -L	83
N8KOL	80
222 MHz	
W2SZ	171
N3NGE	92
K1WHS -L	89
W3SO -L	87
KBØHH	83
W2EA	64
K2LIM -L	64
K3EOD	58
W4IY -L	41
AA4ZZ -L	34
N1WK -L	33

Multiplier Leaders By

Single Operator Low Power

50 MHz	
K2DRH	55
KØSIX	29
VE3KZ	27
WB1GQR (W1SJ, op)	27
N3YMS	21
NØLL	21
KØMHC	20
KC9BQA	20
K2KIB	19
W2CCC (K2CS, op)	19
N4QWZ	19
WA2VNV	19
K1KG	18
AF1T	18
WB2SIH	18
144 MHz	
K2DRH	57
NØLL	32
W3PAW	31
VE3KZ	31
WAØARM	29
K2KIB	28
WB1GQR (W1SJ, op)	27
W6ZI	25
N3YMS	24
KØSIX	24
K1KG	24
N4QWZ	24
WB2SIH	23
KØMHC	22
KX4R	22
ABØRX	22
222 MHz	
K2DRH	40
WB1GQR (W1SJ, op)	22
N3YMS	21
NØLL	21
WB2SIH	20
K1KG	20
W3PAW	20
KØSIX	17
AF1T	17
WA2VNV	16

Single Operator Portable

50 MHz	
W1MR	18
N6LB	10
WB2AMU	10
AB1MI	8
KB5WIA	7
N1PRW	7
KD9KC	4
KC8KSK	3
N3AWS	2
144 MHz	
W1MR	19
W9SZ	19
NØJK	16
WB2AMU	11
N1PRW	10
N6LB	9
KB5WIA	9
AB1MI	6
KD9KC	6
KC8KSK	3
KD8LDX	2
NA5O (AA5JG, op)	1
W6MDH	1
VA7GNR	1
KC9MMM	1
222 MHz	
W1MR	16
W9SZ	16
N6LB	5
WB2AMU	2
KC9MMM	1
432 MHz	
W9SZ	14
W1MR	14
N1PRW	9
KB5WIA	7
NØJK	7
WB2AMU	5
N6LB	5
AB1MI	3
KD9KC	2
KC8KSK	2
NA5O (AA5JG, op)	1

W3SZ	29
NØLL	29
KØSIX	28
AC1J	24
WB3IGR	24
432 MHz	
WB1GQR (W1SJ, op)	93
K2DRH	73
N3YMS	69
WB2SIH	63
AF1T	62
K1KG	60
W3PAW	55
K2KIB	52
WA2VNV	47
KØSIX	47
N3ALN	44
NØLL	39
AC1J	37
KD7UO	34
WØZQ	32
902 MHz	
W3PAW	29
N3YMS	24
WB1GQR (W1SJ, op)	23
K2DRH	22
K1KG	21
K2KIB	20
AF1T	17
W3SZ	16
WB2SIH	15
WB3IGR	14
WA2VNV	13
KC9BQA	11
N3ALN	10
KØMHC	9
WØZQ	9
1296 MHz	
W3PAW	31
K2DRH	29
K1KG	29
WB1GQR (W1SJ, op)	27
N3YMS	26
NØLL	24
AF1T	22
WA2VNV	20

N8KOL	32
VE7DXG	31
K5QE	30
N9UHF	25
432 MHz	
W2SZ	227
K1WHS -L	143
W3SO -L	128
N3NGE	111
KBØHH	98
AA4ZZ -L	82
K2LIM -L	79
W2EA	76
VE7DXG	64
K3EOD	59
K2BAR -L	56
W4IY -L	52
K5QE	47
N8KOL	38
N1WK -L	37
902 MHz	
W2SZ	79
N3NGE	41
K3EOD	21
W2EA	20
KBØHH	13
K5QE	12
N9UHF	9
VE7DXG	8
KO9A	5
W6TV	4
W6AB	2
W4NH	1
1296 MHz	
W2SZ	90
N3NGE	49
W2EA	36
K3EOD	26
KBØHH	19
N9UHF	15
K5QE	15
VE7DXG	13
W6TV	6
KO9A	6
W6AB	5
N8KOL	4

K2KIB	16
WZ8T	15
ABØRX	15
WØZQ	14
KC9BQA	14
KØMHC	14
N4QWZ	14
WB3IGR	14
432 MHz	
K2DRH	33
WB1GQR (W1SJ, op)	24
NØLL	22
K1KG	22
WB2SIH	21
N3YMS	20
N4QWZ	20
W3PAW	19
K2KIB	19
WAØARM	17
KØSIX	16
WA2VNV	16
WZ8T	15
W6ZI	15
AF1T	14
KC9BQA	14
902 MHz	
K2DRH	17
WB1GQR (W1SJ, op)	15
K1KG	13
K2KIB	11
W3PAW	11
WB2SIH	10
N3YMS	10
KC9BQA	9
AF1T	9
WA2VNV	8
KØMHC	8
WB3IGR	7
W3SZ	6
K1TR	6
WZ8T	6
WØZQ	6
1296 MHz	
NØLL	18
K2DRH	18
K1KG	15

KC9MMM	1
VA7GNR	1
W6MDH	1
902 MHz	
W9SZ	8
W1MR	5
1296 MHz	
W9SZ	8
W1MR	5
N6LB	2
KD9KC	2
KC9MMM	1

Multioperator (-L denotes Limited)

50 MHz	
K1WHS -L	63
K5QE	54
W2SZ	47
W3SO -L	42
W4IY -L	42
N3NGE	41
K2LIM -L	40
W2EA	35
AA4ZZ -L	29
K2BAR -L	28
KBØHH	27
N8KOL	26
W4NH	25
K3EOD	23
N1WK -L	22
144 MHz	
K5QE	79
W3SO -L	58
K1WHS -L	49
K2LIM -L	49
AA4ZZ -L	48
W2SZ	46
KBØHH	41
N3NGE	40
W4IY -L	40
W2EA	37
N8KOL	32
WØVB -L	31
K3EOD	25
K2BAR -L	23
WBØBQV -L	22
222 MHz	

W3SZ	20	KC5MVZ	4	WB1GQR (W1SJ, op)	15	W2SZ	41
WB2SIH	20	KC7I	3	W3PAW	12	W3SO -L	36
K2KIB	19	VE6NQ	2	N3YMS	12	K2LIM -L	34
WB3IGR	14	W3HZU -L	2	WB2SIH	11	N3NGE	32
WØZQ	13	**Single Operator Portable**		K2KIB	10	K1WHS -L	31
AC1J	12	**50 MHz**		KC9BQA	9	KBØHH	28
N3ALN	12	W1MR	107	AF1T	8	W2EA	26
KC9BQA	12	AB1MI	42	WB3IGR	8	K3EOD	24
Single Operator High Power		N6LB	41	KØMHC	8	N8KOL	23
50 MHz		WB2AMU	30	W1TR	8	W4IY -L	22
K1TEO	174	N1PRW	20	WØZQ	8	K5QE	20
WA2FGK (K2LNS, op)	162	KB5WIA	16	W3SZ	7	N1WK -L	16
K1RZ	140	KD9KC	10	WA2VNV	7	AA4ZZ -L	16
W2JJ (WA2VUN, op)	109	KC8KSK	4	WZ8T	7	N9UHF	15
N3HBX	99	N3AWS	3	**Single Operator High Power**		W1QK -L	12
K2HZN	97	**144 MHz**		**50 MHz**		VE7DXG	12
WØUC	96	W1MR	86	WØUC	53	WY3P	12
K3ZO	95	N6LB	38	WA2FGK (K2LNS, op)	48	**432 MHz**	
K3TUF	95	W9SZ	37	K1TEO	39	W3SO -L	45
W3IP	87	N1PRW	33	K8TQK	37	W2SZ	41
K1IIG	65	WB2AMU	31	K4QI	35	N3NGE	34
WA3F	64	AB1MI	29	K3TUF	31	K2LIM -L	32
K8MD	62	KB5WIA	21	K1RZ	31	K1WHS -L	31
K4QI	61	KD9KC	21	K3ZO	30	KBØHH	29
K8TQK	61	NØJK	19	K8MD	29	W2EA	24
144 MHz		KC8KSK	4	KN4SM	29	AA4ZZ -L	24
K1TEO	288	KD8LDX	2	K3ISH	27	W4IY -L	23
K1RZ	184	W6MDH	1	W3IP	24	K3EOD	22
WA2FGK (K2LNS, op)	176	VA7GNR	1	K2HZN	23	N8KOL	21
N3HBX	175	NA5O (AA5JG, op)	1	WA4GPM	23	K5QE	21
K3TUF	148	KC9MMM	1	VE3ZV	22	N1WK -L	13
K3ZO	110	**222 MHz**		**144 MHz**		WY3P	13
W3IP	104	W1MR	35	K1TEO	48	K2BAR -L	13
WØUC	96	W9SZ	23	K8TQK	47	W6TV	13
VA3ST	94	N6LB	11	WØUC	45	**902 MHz**	
K1IIG	81	WB2AMU	3	K3TUF	41	W2SZ	31
K8TQK	81	KC9MMM	1	WA2FGK (K2LNS, op)	40	N3NGE	17
K2HZN	78	**432 MHz**		K1RZ	39	KBØHH	11
K4QI	77	W1MR	49	K4QI	38	K3EOD	9
W7FI	74	W9SZ	24	KN4SM	36	W2EA	9
K7CW	73	N1PRW	23	WQØP	35	N9UHF	8
222 MHz		N6LB	15	VA3ST	32	K5QE	7
K1TEO	108	AB1MI	15	WA4GPM	31	VE7DXG	5
WA2FGK (K2LNS, op)	81	WB2AMU	11	K3ZO	30	KO9A	5
K3TUF	78	KB5WIA	10	K9EA	30	W6AB	2

K1RZ	70
VA3ST	44
N3HBX	39
WØUC	36
K1IIG	36
N1JEZ	35
K8TQK	33
WB2RVX	33
KN4SM	33
K3MD	30
K4QI	29
K9EA	28
432 MHz	
K1TEO	135
WA2FGK (K2LNS, op)	108
K1RZ	105
K3TUF	100
W3IP	54
WØUC	53
K1IIG	51
N3HBX	49
VA3ST	49
K4QI	45
WB2RVX	45
WQØP	43
N7EPD	42
WØGHZ	42
K8TQK	41
902 MHz	
K1TEO	55
WA2FGK (K2LNS, op)	43
K3TUF	40
K1RZ	36
W3IP	20
WB2RVX	19
WQØP	17
W9GA	16
K1IIG	14
WA3EHD	12
WØGHZ	12
K8MD	11
WØUC	10
K8TQK	10
N7EPD	10
1296 MHz	
K1TEO	63
K3TUF	54
NØJK	9
KD9KC	5
KC8KSK	3
NA5O (AA5JG, op)	1
KC9MMM	1
VA7GNR	1
W6MDH	1
902 MHz	
W1MR	11
W9SZ	10
1296 MHz	
W1MR	15
W9SZ	12
KD9KC	5
N6LB	5
KC9MMM	1
W3IP	29
WØGHZ	26
N3HBX	26
222 MHz	
K1TEO	37
K3TUF	34
WA2FGK (K2LNS, op)	32
K1RZ	27
KN4SM	25
K8TQK	24
WØUC	22
VA3ST	22
K4QI	20
K9EA	19
N1JEZ	18
WB2RVX	18
WA4GPM	18
K1IIG	18
WQØP	17
432 MHz	
K1TEO	36
K3TUF	35
WA2FGK (K2LNS, op)	34
K1RZ	29
KN4SM	28
K4QI	28
K8TQK	27
WØUC	25
W3IP	24
WQØP	24
VA3ST	23
WB2RVX	20
WA4GPM	18
K9EA	18
WØGHZ	18
902 MHz	
K1TEO	26
WA2FGK (K2LNS, op)	20
K3TUF	17
WQØP	14
W9GA	12
K1RZ	11
K8TQK	10
WB2RVX	9
K8MD	9
K1IIG	9
W3IP	8
W6TV	2
W4NH	1
1296 MHz	
W2SZ	34
N3NGE	18
W2EA	15
KBØHH	12
K3EOD	11
K5QE	10
N9UHF	8
VE7DXG	7
W6AB	5
W6TV	5
N8KOL	5
KO9A	5
KC7I	2
KC5MVZ	2
VE6NQ	2

WA2FGK (K2LNS, op)	46
K1RZ	43
WB2RVX	24
W3IP	24
WQØP	22
N3HBX	21
VA3ST	20
K8TQK	18
K4QI	17
WØGHZ	16
K8MD	14
K1ZZ	13
W9GA	13
K7ND	13
K1IIG	13

WØUC	8
K9EA	8
K2YAZ	8
WØGHZ	8
1296 MHz	
K1TEO	27
K3TUF	23
WA2FGK (K2LNS, op)	22
WQØP	15
K8TQK	14
K1RZ	13
K4QI	12
K8MD	11
WB2RVX	10
WØUC	10
WØGHZ	10
VA3ST	10
N3HBX	9
W9GA	9
K3MD	9
W3IP	9