



ARRL January VHF Contest 2014 Results

By John (JK) Kalenowsky, K9JK <hamk9jk@gmail.com>

Was it the PØLAR VØRTX?

Version 1.04 adds the paragraph "Beyond Regions – Delta X-Ray"

The winter of 2013-2014 brought a new weather term to much of the United States and Canada, the Polar Vortex or, as I have taken the liberty to transform the term into call signs, PØLAR and VØRTX. The resulting shift in the path of the jetstream and other atmospheric dynamics brought extreme weather conditions to much of the country. With VHF+ propagation so dependent on atmospheric conditions, this surely had some effect on the January VHF Contest, from 18 through 20 January.

Is it possible that the effects of PØLAR and VØRTX were a factor in 2014's 622 logs being one of the lowest counts in recent years? Not only did the atmosphere "look different" to radio waves, but the aggressive weather in much of the country surely affected the willingness of potential participants. Regardless of the exact causes, the 622 logs represents a 13% drop from 2013's 721 entries and follows the trend after 2010's 820 logs with 2011 and 2012 also showing more than 700 logs submitted.



Were PØLAR and VØRTX in N2SLN/R's log? It sure looks like they must have been local in FN23! (Photo by N2SLN)

This year's reduced activity is also reflected in the total QSO count, just shy of 57,000 and falling short of last year's total of just over 63,000. The count of 'other' calls (for which logs were not received) among 2014's submitted logs dropped to just over 2500, down by about 1000 from last year's count.

Regions and Categories

Figure 1 illustrates the overall log submission count broken down by region over the past 5 years. Comparing

2014 to 2013, the West Coast is the one bright spot, with log submissions growing by 25%, 114 this year compared to 91 in 2013, while the log counts from the Northeast, Southeast, Central and Midwest regions shrunk anywhere from 12% (Northeast) to 31% (Midwest) with Southeast and Central dropping by 26% and 24%, respectively. The impact of PØLAR and VØRTX on this season's weather patterns were more pronounced east of the Rocky Mountains so there does seem to be some correlation.

Scanning across the categories, log counts in four of the ten categories actually bucked the trend of reductions. The Single Operator, High Power (SOHP) log count grew to 142 logs in 2014, eight more than last year. Sixteen logs in Single Operator Portable (SO-Portable) is a 60% increase over the ten from 2013. In the Classic Rover (R) category, 2014's log count swelled by one-third to 39, ten more than last year. The Unlimited Rover (RU) category log count was four, matching the count from 2013.

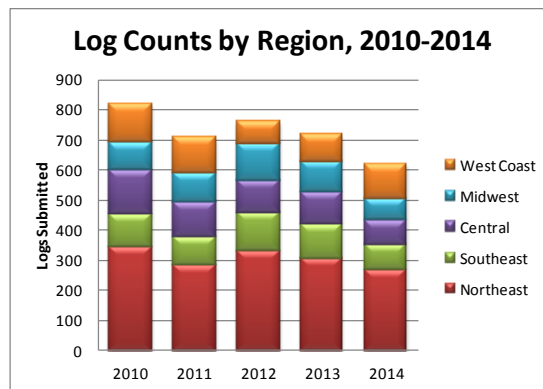


Figure 1 – Regional log totals by year

Other categories proved less popular. In Single Operator, Low Power (SOLP), the log count of 256 was a substantial drop of 77 (about 30%) from last year's count of 333. The new categories of Single Operator, Three Band (SO3B) and Single Operator, FM Only (SO-FM) each dropped by ten from 2013's counts, to 67 for SO3B and to 13 for SO-FM this year. Unlimited Multioperator (UM) and Limited Multioperator (LM) log counts also shrank; 2014's 48 UM and 20 LM category logs were eleven and two fewer, respectively, than the count of logs in those categories last year. The 17 logs in the Limited Rover (RL) category this year was barely half of the 30 that were submitted in 2013. The Category Activity table

below summarizes the 2013-2014 differences and shows additional category counts back to 2010 for comparison.

Category Activity – Number of Logs Submitted

Category	2010	2011	2012	2013	2014
SOLP	474	420	471	333	256
SOHP	182	154	148	134	142
SO-Portable	23	22	16	10	16
SO3B				77	67
SO-FM				23	13
MO-Limited	41	28	23	22	20
MO-Unlimited	24	32	46	59	48
Rover	50	30	39	29	39
Rover-Limited	24	19	22	30	17
Rover-Unlimited	2	5	2	4	4
Total logs	820	710	767	721	622

The West Coast region’s growth in log submissions was consistent across its three divisions, with the log totals from the Pacific, Northwestern, and Southwestern Divisions increasing by 12, 10 and 3, respectively. In the Northeast, the New England Division came close to bucking the trend, only dropping to 80 logs from the 82 received in 2013, while the Atlantic and Hudson Divisions dropped by 17 and 11, respectively. Log count shrinkage was present in all the divisions of the remaining regions, with the Delta Division and Central Division showing matching drops of thirteen each while the Rocky Mountain Division reported the largest percentage drop, 50% (10 in 2014 vs. 20 in 2013).

All 39 paper logs received for this year’s contest were transcribed to electronic format so the log checking process included all submitted logs, a first for the January VHF Contest.

Timing isn’t everything (or is it?)

Figure 2 shows the counts of QSOs by hour. The first hour of the contest, 1900-1959 UTC on Saturday, was the busiest with over 5600 QSOs reported, more than 9% of this year’s total QSOs. The second hour remained strong with more than 4600 QSOs and hourly QSO counts remained above 2000 per hour through the eighth hour (0200-0259 UTC Sunday, Saturday evening locally).

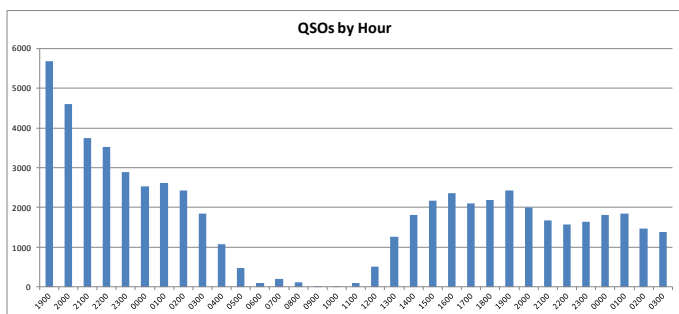


Figure 2 – QSOs made during each hour

The usual overnight lull in activity is shown as well, with hourly totals below 200 in the 12th through 17th hours (0600 -1159 UTC) before bumping up in the 18th hour as the participants in the Eastern Time Zone (7 AM Sunday morning EDT) started to wake up and get active. Activity continued to rise as sunrise stretched across the continent. The number of QSOs per hour cleared the 2000 hurdle again in the 21st hour (1500-1559 UTC) and remained over 2000 through the 26th hour with peaks in the 22nd and 25th hours.



Oh yes, timing *is* everything! Here’s Bruce, W9FZ, and Janice, KA9VVQ, just before the start of their [January VHF Contest trip](#). In a story of “true rove-mance”, Bruce proposed, Janice accepted, and the happy couple is now engaged – congratulations! (Photo by W9FZ)

Two Close Races

Single Operator, Low Power and Single Operator, Three Band were the categories with the closest races with small margins between the first and second place finishers in the categories. An extra QSO or two or a single multiplier could have reversed the final order of finish.

In SOLP, the score difference was 1,118 points, less than 1%. Bob, K2DRH, is very competitive in SOLP and he took advantage of his mid-continent location in Illinois to accumulate 178 multipliers to go with 651 QSO Points, from 402 QSOs across his eight bands (50 through 3456 MHz) to claim the top spot in the category. Bob was the multiplier leader (or tied) on six of his eight bands and

was among the QSO leaders in SOLP on several bands. Phil, WA3NUF, was hot on his tail but could not overcome Bob's multiplier advantage. Phil had twelve bands at his disposal (50 MHz through 24 GHz plus Light). Being in the activity-rich Northeast region's Eastern Pennsylvania Section, he capitalized on QSOs, completing 539 (one-third more than Bob), yielding 1208 QSO Points, almost doubling Bob's QSO point total. For the SOLP category, Phil was the QSO leader (or tied) on 10 of the 12 bands at his station. The following table compares Bob's and Phil's efforts.

	<i>K2DRH</i>		<i>WA3NUF</i>	
Final Score	115,878		114,760	
Total	QSOs	Mults	QSOs	Mults
	402	178	539	95
<i>by Band</i>				
50 MHz	126	46	135	19
144 MHz	123	45	139	19
222 MHz	58	32	75	14
432 MHz	65	31	82	14
902 MHz	8	6	29	7
1.2 GHz	13	9	32	6
2.3 GHz	8	8	18	5
3.4 GHz	1	1	13	5
5.7 GHz			5	2
10 GHz			7	2
24 GHz			2	1
Light			2	1

Bold indicates top count of QSOs or Multipliers for the category.

The score difference between first and second place in Single Operator, Three Band was a mere 192 points, even though it was a slightly larger percentage difference (1.6%) than for SOLP. While the competing SOLP stations were in mid-continent and northeast regions, the competitors in SO3B were in West Coast and mid-continent locations.

	<i>K6MI</i>		<i>N9MU</i>	
Final Score	12,160		11,968	
Total	QSOs	Mults	QSOs	Mults
	244	40	153	64
<i>by Band</i>				
50 MHz	64	13	66	30
144 MHz	104	15	53	19
432 MHz	68	12	34	15

Bold indicates top count of QSOs or Multipliers for the category.

John, K6MI, prevailed in final score and total QSOs from his San Joaquin Valley Section QTH, but Justin, K9MU, did the Wisconsin Section proud with a slight edge on 50 MHz QSOs and had the top Multiplier counts for the three bands of the category. John was two QSOs shy of doubling Justin's QSO count on 144 MHz and did double Justin's QSOs on 432 MHz. With two points per 432 MHz QSO, that further helped John's QSO point total, bringing it to 304 compared to Justin's 187 QSO points, letting John claim the top spot despite Justin's margin of 24 multipliers. The table above compares John's and Justin's efforts.

Top Ten by Category

Call	QSO	Mult	Score	Bands	Sec
Single-Operator, Low Power					
K2DRH	402	178	115,878	ABCD9EFG	IL
WA3NUF	539	95	114,760	ABCD9EFGHIJP	EPA
N3RG	378	98	76,244	ABCD9EFGP	SNJ
WA3GFZ	418	86	70,434	ABCD9EFGHI	EPA
AF1T	381	86	57,448	ABCD9EFGHIJ	NH
N4QWZ	206	130	41,990	ABCD9E	TN
WB2JAY	254	69	34,155	ABCD9EFG	NLI
W3SZ	262	54	33,264	ABCD9EFGHIP	EPA
N9DG	247	93	31,248	ABCD	WI
N3FTI	289	56	21,560	ABCD	EPA
Single-Operator, High Power					
K1TEO	867	199	323,375	ABCD9EFGHI	CT
K1RZ	640	163	220,865	ABCD9EFGH	MDC
K3TUF	619	140	215,740	ABCD9EFGHI	EPA
WB2RVX	588	134	196,846	ABCD9EFGHIP	SNJ
WA2FGK (K2LNS, op.)	615	166	180,110	ABCD9EFG	EPA
K3IPM	504	80	73,920	ABCD9EFGIP	EPA
W3PAW	251	115	69,000	ABCD9EFGHI	WPA
WA3DRC	365	72	67,464	ABCD9EFGHIP	EPA
WØUC	276	127	61,341	ABCD9EFGHI	WI
N3HBX	470	95	59,090	ABCDE	MDC
Single-Operator Portable					
N6NB	344	86	123,324	ABCD9EFGHIJ	SJV
K7ATN	179	32	7,520	ABCD9	OR
K16QEL	49	19	1,216	ABCD	SJV
WØSTU	58	13	988	ABCD	CO
WB2AMU	44	12	648	ABCD	NLI
N2TEB	23	6	174	BCD	EPA
N1ØW	9	7	84	ABCD	MN
VA3RKM	8	4	44	ABD	ONE
N6WS	8	3	27	BD	SB
N4QX	5	2	10	AB	CT
Single-Operator, Three-Bands					
K6MI	236	40	12,160	ABD	SJV
K9MU	153	64	11,968	ABD	WI
KV2R	153	25	4,200	ABD	SNJ
NF2RS (K2QO, op.)	81	35	3,080	ABD	WNY
KD4AA	66	34	2,686	ABD	VA
K3YDX	82	24	2,208	ABD	MDC
N3LL	65	23	1,863	ABD	WCF
KC2TA	113	12	1,584	ABD	SNJ
NT9E	56	22	1,496	ABD	IL
AA5AM	58	24	1,392	AB	NTX
Single-Operator, FM Only					
KBØLYL	87	14	1,218	B	MN
K7NIT	45	4	232	ABD	OR
N9VM (N1VM, op.)	18	6	180	BCD	SJV
KB1YSK	24	3	90	BD	NH
N16G	8	5	60	BCD	SJV
KA6AMB	5	5	35	BCD	SCV
WD9GDB	10	2	20	B	IL
WD9DMM	10	2	20	B	IL
KH7CR	9	2	18	B	PAC
KD2CKO	3	3	12	BD	ORG
KK6DCM	3	3	12	ABD	EB
Limited Multioperator					
K2LIM	556	137	97,955	ABCD	WNY
W3SO	483	138	88,458	ABCD	WPA
K5QE	315	207	75,969	ABCD	STX
W1QK	319	56	20,720	ABCD	CT
N2NT	267	59	17,582	ABD	NNJ
K1HTV	219	57	14,364	ABCD	VA
W4NH	140	70	12,040	ABCD	GA
WY3P	135	48	8,496	ABCD	VA
W5CSC	46	42	3,276	ABDE	OK
N4BRF	91	25	2,975	ABCD	SFL
Unlimited Multioperator					
N3NGE	1206	221	524,654	ABCD9EFGHIP	EPA
WA3EHD	344	51	33,405	ABCD9EGP	EPA
W1XM	243	56	21,168	ABCD9EF	EMA
WB3IGR	194	68	20,808	ABCD9P	MDC
N1JEZ	126	61	11,285	ABCD9E	VT
KE1LI	182	37	8,029	ABCD	CT
KB7ME	152	38	7,486	ABCD	WWA
KBØHH	105	46	7,084	ABCD9E	OK
N2BJ	83	39	4,797	ABCDE	IL
K2PLF	114	36	4,104	A	MDC

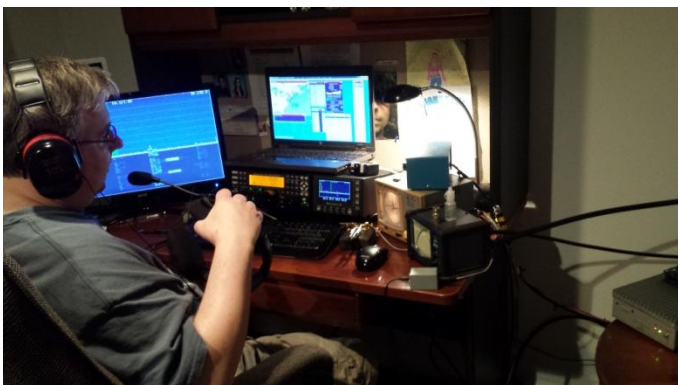
Call	QSO	Mult	Score	Bands	Sec	Grid
Classic Rover						
N6TEB/R	618	130	335,140	ABCD9EFGHIJ	SJV	10
K9JK/R	568	123	318,078	ABCD9EFGHIJ	SJV	10
K8GP/R	900	131	293,178	ABCD9EFGHI	VA	8
W6TE/R	515	118	286,504	ABCD9EFGHIJ	SJV	10
W6TTF/R	400	120	226,440	ABCD9EFGHIJ	SJV	10
WA6WTF/R	400	120	226,440	ABCD9EFGHIJ	SJV	10
NN3Q/R	440	58	74,008	ABCD9EFGHIP	EPA	4
VE3OIL/R	167	76	30,932	ABCD9EFGHIJP	ONS	7
N2CEI/R	187	55	29,205	ABCD9EFGHI	NFL	5
K4SME/R	154	51	25,245	ABCD9EGHI	NFL	4
Limited Rover						
W6YLZ/R	421	70	42,490	ABCD	SJV	10
ACØRA/R	328	78	36,270	ABCD	IA	10
WW7D/R	476	46	28,612	ABCD	WWA	10
N2SLN/R	286	70	26,040	ABCD	WNY	8
N2ZBH/R	254	40	13,360	ABCD	ENY	9
KE7IHG/R	149	42	7,896	ABCD	OR	9
K5GJ/R	138	39	6,747	ABD	STX	10
N6ORB/R	155	32	5,856	ABCD	EB	3
K7BWH/R	72	29	2,610	ABD	OR	6
WØJT/R	44	33	1,980	ABCD	STX	7
Unlimited Rover						
KM3G/R	179	47	15,416	ABCD9E	EPA	6
KJ1K/R	78	37	5,217	ABCD9EF	WMA	8
AH6RH/R	45	8	504	BCDE	PAC	2
AF5CC/R	19	12	240	ABD	OK	3

A table of band abbreviations can be found at the end of this article. For Rover scores, "Grid" denotes number of grids activated.

Regional Top Category Finishers

Northeast Region

The Northeast Region remained the log submission leader with 267 logs submitted, more than 40 percent of this year's logs. The 80 logs from the Eastern Pennsylvania Section matched the count of logs from the New England Division. With that concentration of VHF+ activity, the Northeast was the source of 65 of the 142 Single Operator, High Power entrants in the contest including eight of the top ten finishers in the category. Jeff, K1TEO, led the way with 847 QSOs and 199 multipliers across 10 bands from his Connecticut QTH. Matching the trend of overall QSO timing, Jeff's highest QSO rates were in the first two hours, with 61 and 68 QSOs, respectively, 15% of his total QSOs.



John, N2NC, enjoyed operating from Andy, N2NT's VHF+ basement shack. Andy added 3-band capability to his station this year. (Photo by N2NT)

Northeast's top SOLP scorer, Phil, WA3NUF, was among 126 SOLP logs from the region, almost half of the total logs in the category. Seven of the category's Top Ten scores were from the Northeast. Ken, WB2AMU, claimed the top Single Operator Portable score among six SO-Portable logs from the region. Last year's overall Single Operator, Three Band top scorer, Rich, KV2R, reclaimed the top spot in the region but slipped to third spot overall in 2014. A total of 24 SO3B logs (more than 1/3 of the overall total) were received from the Northeast. In Single Operator, FM Only the log from Stan, KB1YSK, was the leading and only entry from the Northeast, and in fourth place overall.

Multioperator categories were big in the Northeast. The team at N3NGE racked up over 1200 contacts (almost 25% of those in the first two hours) and 221 multipliers on eleven bands from their perch in Eastern Pennsylvania to claim the overall top score in Unlimited Multioperator by quite a margin. The 27 UM category logs received from the Northeast in 2014 were more than half of the overall total. The region was also the source of eight Limited Multioperator logs including the top two overall scorers in the category. Western New York's LIM Amateur Radio Group, K2LIM, made a few more QSOs from their favorite high spot to edge ahead of Western Pennsylvania's Wopsononock Mountaintop Operators, W3SO.

In Unlimited Rover, the Northeast was also well represented with the top two overall scores in the category. Tyler, KM3G/R, visited six grids around Eastern Pennsylvania with a six-band station while Sig, KJ1K/R, and Buck, KC2HIZ, piloted their seven-band rover vehicle through eight grids around Western Massachusetts. Classic Rover and Limited Rover activity was light in the Northeast with only four entries from the region in each of those categories. Russ, NN3Q/R, teamed up with Al, K3WGR to traverse 4 grids around Eastern Pennsylvania with 11 bands (50 MHz through 10 GHz and Light) to lead the region in Classic Rover and finish seventh overall. In Limited Rover, Lu, N2SLN/R, partnered with Tom, KC2SFU, to visit eight grids around Western New York using the bottom four bands to claim the top spot in the region and fourth place overall. Roving in January in the Northeast, or anywhere with wintry conditions, is "highly non-trivial" at times and a tip of the contesting cap is due those who venture out in adverse conditions.

West Coast Region

The bump of West Coast activity stepped the region up to second place for log count. Among overall category leaders from the West Coast, Wayne, N6NB, towed his tower trailer up to Madera, California. Near a grid corner,

Wayne set up in CM96 to compile the overall top score in Single Operator Portable by a substantial margin. Wayne had 11 bands at his command (50 MHz through 24 GHz) and logged 344 QSOs from his San Joaquin Valley location.



Congratulations to Rachel, K7NIT, leader of the West Coast region in Single Operator, FM Only and for claiming the second spot overall from her Oregon QTH. (Photo by K7ATN)

The West Coast region was also home to the overall top scorer in Single Operator, Three Band; John, K6MI, with further detail in the Two Close Races section above. The region was the source of 37 SOLP and 26 SOHP logs. Bob, AF6RR, from the Santa Clara Valley Section, used six bands to claim the region's top spot in SOLP and Eric, N7EPD, did the same for SOHP with eight bands from his Western Washington station. Single Operator, FM Only was very popular in the West Coast Region, particularly in the Pacific Division. Of the thirteen SO-FM logs received in 2014, nine were from the West Coast with six of those from the Pacific Division but the region's best score was from the Northwestern Division.

West Coast Multioperator activity was light with four Unlimited Multioperator and two Limited Multioperator logs received (half of the eight UM logs and one more LM log than received in 2013). Mike, KB7ME, utilized spotting network information for his region-leading UM effort from the Western Washington Section. Dave, KØDI, also reported "net" as his second operator to lead the region in LM from the Los Angeles Section.

Classic Rover and Limited Rover operations proliferated in the West Coast as well, being the source of 1/3 of this year's logs in those two categories; 13 of 39 in Classic Rover and 6 of 17 in Limited Rover. Five of the top six Classic Rover scores and two of the top three Limited Rover scores were achieved in the region. Dave, N6TEB/R, and Kent, K6WCI, amassed 618 contacts among the 11 bands at their disposal to claim the overall top spot in Classic Rover. Mike, W6YLZ/R, reported 421 QSOs among his four bands for an overall top-scoring effort in Limited Rover. Both Dave and Mike submitted

their logs from SJV which is where they made the majority of their contacts although the ten grids they each visited also included the LAX and ORG sections. The third overall spot in Limited Rover was claimed by Darryl, WW7D/R, who bettered Mike's QSO total with 476 but only reached two-thirds of the multipliers that Mike contacted from his four-banded travels through ten grids in Western Washington.



SOTA enthusiast K7ATN operated Single-Op Portable from Bald Peak near Hillsboro, Oregon (CN85) in his first VHF+ contest. See the photos of his outdoor operations around the Pacific Northwest on his QRZ.com web page. (Photo courtesy K7ATN)

Southeast Region

With 85 log submissions, the Southeast claimed the third spot among the regions but didn't yield any overall category top scorers. Notable, however, were the roving Grid Pirates, K8GP/R, operated by Terry, W8ZN, and Andy, K1RA, who claimed the third spot in the Classic Rover category overall. Andy prepared and posted quite an interesting travelogue of their efforts on his website: www.k1ra.us/roving/k1ra-k8gp-rover-arri-jan-vhf-ss-2014 including some online videos showing some of the challenges of roving in wintry conditions. Terry and Andy compiled 900 QSOs across ten bands in the rover vehicle of Rich, N3UW. They log was submitted from the Virginia Section but the eight grids they visited included Maryland and Pennsylvania. There were a total of nine Classic Rovers in the Southeast but no Limited or Unlimited Rovers this year.

The Southeast's Single Operators were numerous, with 28 Low Power, 22 High Power, 1 Portable and 13 Three Band logs received from the region. No logs were received for the FM-Only category from the Southeast. The region's SOLP category leader was Todd, N4QWZ, who claimed the sixth spot overall from his Tennessee QTH with six bands. Chuck, KØVXM, led the SOHP category for the region, reporting QSOs on ten bands

from his QTH in the Southern Florida Section's Space Coast area. Keith, KB4IRR, operated SO-Portable from North Carolina and reported a single contact on 50 MHz in his paper log but that was all it took to net the top spot for the region in the category. In SO3B, Tom, KD4AA was the region's top scorer from his Virginia QTH in addition to finishing fifth overall.

Seven Unlimited Multioperator and five Limited Multioperator logs were received from the Southeast region. George, W1LVL, used spotting network information in his five-band effort from the Northern Florida section for the region's top UM score. Rich, K1HTV, was also "assisted" but kept to four bands for Limited Multi-op to net the top score for the region from his Virginia QTH and sixth place overall in the category.

Central Region

The Central Region was the source of 81 logs and home to the overall Single Operator, Low Power leader, Bob, K2DRH. Bob shared the story of the many challenges he had for this January's contest in the online soapbox at www.arrl.org/soapbox/view/8857. Bob lead the 39 SOLP category entrants from the region. Also notable was the effort of Justin, K9MU, in Single Operator, Three Band. Justin claimed the top score among Central's 13 SO3B logs to finish in second place overall, less than 200 points behind the overall top scorer. See the preceding section "Two Close Races" for more details of Bob's and Justin's efforts.

The region's other Single Operator log counts were 12 for SOHP, 1 for SO-Portable and 2 for SO-FM; led by Paul, WØUC, from Wisconsin in SOHP; Bob, VA3RKM, from Eastern Ontario in SO-Portable; and to Matthew, WD9DMM, and Gail, WD9GDB, who tied for the region's top score in SO-FM, both from Illinois.

Central's Multioperator activity was quite diminished – only three in Unlimited Multioperator; two from Illinois and one from Michigan and just two in Limited Multioperator, both of those from Illinois. Did PØLAR and VØRTX keep operators from even thinking about going to other stations? Congratulations to the Illinois Section stations of Barry, N2BJ, and his wife Paula, K2PAC who claimed the top UM spot for the region (ninth spot overall) and to Marshall, W9RVG and son Marshall, WD9EXD, to claim the top LM spot in Central.

Despite PØLAR and VØRTX, the Rover activity in Central held steady with last year's total of 9 but 2014's mix was 7 Classic Rovers and 2 Limited Rovers. Bruce, W9FZ/R, teamed up with now-fiancé Janice, KA9VVQ, to navigate their way along the 88th meridian in the

Wisconsin section. They made contacts from seven of the eight grids they traversed from with Bruce's seven-banded rover-mobile to amass the top Classic Rover score for the region. Central's leading score for Limited Rover was submitted by Dave, W9DAV/R, who used only three bands (144 through 432 MHz) while visiting two grids in the Illinois section.

Midwest Region

The Midwest region is the largest of the five regions, consisting of four ARRL Divisions (fourteen total Sections and two provinces of Canada, though no logs were received from these provinces) so the 71 logs received from the region covered quite a large land area. Kudos to Art, KBØLYL, for his persistence in completing 87 contacts from his Minnesota Section location. Art stretched his FM signal across 14 grids to claim the top spot in the Single Operator, FM Only category. Art used only one of the four bands allowed, 144 MHz, for his leading effort. Art was also the ONLY entrant in the SO-FM category from the Midwest but what a way to be the "only" entrant!

Log counts for the other Single Operator categories were 24 in SOLP, 16 in SOHP, 4 in SO-Portable and 5 in SO3B, accounting for 50 of the region's 71 logs. Vince, KØSIX, lead the region from his Minnesota QTH for SOLP. Midwest's best in SOHP was Gary, WØGHZ, also from Minnesota. From Colorado, Stu, WØSTU, hauled his equipment up to Mt. Herman in the front range of the Rockies to claim the region's top score and fourth place overall in the SO-Portable category. In the SO3B sub-division, Scott, AA5AM, led the region from his North Texas QTH, winding up tenth overall in SO3B.



Wayne, N6NB's mobile tower system, described in the June 2013 issue of QST, made a lot of QSOs from a location near Madera in California's Central Valley. (Photo by N6NB)

Multioperator activity in the Midwest Region was better than in Central with six in Unlimited Multioperator and three in Limited Multi-op. Congrats to the team of operators at K5QE, who led the region in the Limited Multioperator category and claimed the third spot overall from their East Texas location in the South Texas Section. The crew at Marshall's station really hustled, making effective use of digital modes for MS and EME, to rack up 207 multipliers, so almost two-thirds of their 315 contacts resulted in a unique multiplier for them. In Unlimited Multioperator, the operators at KBØHH bested the region from Gary's radio bunkhouse in the Oklahoma Section which was also eighth overall in UM.

The northern part of the Midwest was also less than hospitable to rovers but Wyatt, ACØRA, teamed up with Brian, KDØLRG, to brave the cold and challenging road conditions. They piloted their four-band station through 10 grids (including some grids in the Central Division/Region just to the east) to complete 328 QSOs, achieve this year's top multiplier count of 78 among Limited Rovers, finish second overall in the category and in the top spot for the region's five entrants in the category.



Pete, N6ZE, and Woodie, KJ6VZC, traveled 804 miles during the contest and tried 902 MHz for the first time. (Photo courtesy N6ZE)

Of the region's six Classic Rover entrants, Midwest's leader was Gregg, KCØSKM, who teamed up with Bill, NØLNO, to achieve their goal of activating 11 grids (in two ARRL Divisions, Midwest and Central), get the new rover station tested out, and make contacts on 2304 MHz (their fifth band along with 50 through 432 MHz). One log was received from the Midwest region for Unlimited Rover, that being from John, AF5CC/R, who visited three grids in the Oklahoma section. The South Texas section was a slight hotbed of rover activity for the

region with four rovers (one-third of the region's twelve) active from there; KØMHC/R in classic Rover and three Limited Rovers; K5GJ/R, WØJT/R and KD5EUO/R.

Beyond the Regions – Delta X-Ray

Participation by DX stations, including those just "South of the Border" is always welcome and appreciated in the VHF Contests. Logs were received this year from four stations in Mexico: two SOLP – XE1H from DL80 and XE2JS from DL68; one in SOHP – XE2CQ from DM12; and one Multi-op – XE2X from EL06. In addition, there were many stations contacted on other continents, such as by EME and other radio pathways.

Affiliated Club Competition

Of the 394 logs (63% of the total) that listed a club name (excluding the "NONE" club), more than 80 different club names were listed. Thirty-one of those club names met the minimum requirement of three logs to be included in the battle for the highly coveted gavels. The details are found in the table of Club Competition results.

Affiliated Club Competition

Unlimited Category		
Mt Airy VHF Radio Club	68	2,184,377
Medium Category		
Southern California Contest Club	10	1,571,240
Potomac Valley Radio Club	24	810,614
North East Weak Signal Group	20	593,373
Florida Weak Signal Society	17	154,026
Pacific Northwest VHF Society	25	152,455
Society of Midwest Contesters	12	138,705
Northern Lights Radio Society	15	137,417
Badger Contesters	8	99,363
Contest Club Ontario	11	57,993
Yankee Clipper Contest Club	11	43,637
Frankford Radio Club	6	31,756
CTRI Contest Group	4	21,411
Roadrunners Microwave Group	5	15,860
Six Meter Club of Chicago	9	14,317
Bristol (TN) ARC	11	11,425
Central Texas DX and Contest Club	3	11,267
Hudson Valley Contesters and DXers	3	8,324
Northern California Contest Club	6	7,868
Rochester VHF Group	5	6,841
Arizona Outlaws Contest Club	8	5,755
Florida Contest Group	4	4,194
Local Category		
Stoned Monkey VHF ARC	6	36,225
Chippewa Valley VHF Contesters	3	19,106
Bergen ARA	8	16,332
Rappahannock ARA	3	14,969
Nashoba Valley ARC	8	12,074
Granite State ARA	5	10,344
Ventura County Amateur Radio Society	3	7,499
Contoocook Valley Radio Club	3	6,025
10-70 Repeater Assn	3	4,952

Congratulations to the six members of the Stoned Monkey VHF ARC for finishing atop the ten clubs in the Local category! Ten logs from the Southern California

Contest Club cemented their claim to the Medium Club gavel among the 21 clubs vying for it. The Mt. Airy VHF Radio Club Packrats continued their streak of topping the 51-log hurdle to reach the Unlimited Club category and earn that gavel. Their log count grew to 68, three more than last year, but their aggregate total score dropped by a little over 400,000 from 2013.

Wait until next year...

While the presence of PØLAR and VØRTX may have subdued this year's level of activity, all the participation is welcome and appreciated. Let's see if we can bounce back next year. We can hope that the bad effects of PØLAR and VØRTX will stay away and maybe some mid-winter sporadic E fireworks will surprise us as they did in 2012 and 2013.

With the weather showing wide swings away from historical norms, it is likely that conditions will be unusual in the years ahead. Sometimes that may be a good thing and in other years, like 2014, it may be detrimental to VHF+ contesting. Propagation prediction, like forecasting the weather, is an inexact science, so the only way to be sure of what is possible is to turn on the radio and find out!

The dates for 2015 are set for the third weekend of January; 1900 UTC on the 17th will be here soon enough. Get the contest on your calendars, do the antenna work while the weather is nice this summer, tune up the rover-mobiles, and we'll see you on the bands in the new year!

Abbreviations used to designate VHF+ bands in

ARRL contests

<i>Band</i>	<i>Designator</i>
6 meters	A
2 meters	B
222 MHz	C
432 MHz	D
902 MHz	9
1.2 GHz	E
2.3 GHz	F
3.4 GHz	G
5.7 GHz	H
10 GHz	I
24 GHz	J
47 GHz	K
75 GHz	L
119 GHz	M
142 GHz	N
241 GHz	O
Light	P

Regional Leaders

Northeast Region			Southeast Region			Central Region			Midwest 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 Sections			Dakota, Midwest, Rocky Mountain and West Gulf Divisions; Manitoba and Saskatchewan Sections			Pacific, Northwestern and Southwestern Divisions; Alberta, British Columbia and NWT Sections		
WA3NUF	114,760	A	N4QWZ	41,990	A	K2DRH	115,878	A	KØSIX	6,720	A	AF6RR	16,240	A
N3RG	76,244	A	WB8TFV	10,556	A	N9DG	31,248	A	WBØYWW	5,916	A	KEØCO	11,925	A
WA3GFZ	70,434	A	K4FJW	6,800	A	VA3ZV	13,601	A	KCØAKU	5,504	A	K6TSK	10,472	A
AF1T	57,448	A	N4TWX	6,345	A	N9LB	12,032	A	KD5KC	4,465	A	K2GMY	8,600	A
WB2JAY	34,155	A	KX4R	2,812	A	VE3SMA	10,272	A	NØLL	1,512	A	K7YDL	4,844	A
K1TEO	323,375	B	KØVXM	33,960	B	WØUC	61,341	B	WØGHZ	30,514	B	N7EPD	26,660	B
K1RZ	220,865	B	W4ZRZ	28,028	B	K8TQK	58,487	B	WØZQ	14,040	B	KC6ZWT	20,191	B
K3TUF	215,740	B	N4HB	12,096	B	W9GA	30,132	B	K5AND	8,866	B	KE7SW	12,408	B
WB2RVX	196,846	B	NG4C	6,149	B	K9EA	15,900	B	W5PR	6,307	B	K7ND	11,835	B
WA2FGK (K2LNS, op.)	180,110	B	W5MRB	5,778	B	WA8RJF	13,568	B	W5LUA	4,280	B	K17JA	8,184	B
WB2AMU	648	Q	KB4IRR	1	Q	VA3RKM	44	Q	WØSTU	988	Q	N6NB	123,324	Q
N2TEB	174	Q						NIØW	84	Q	K7ATN	7,520	Q	
N4QX	10	Q						W5RST	4	Q	KI6QEL	1,216	Q	
WA3WUL	8	Q						NØJK	3	Q	N6WS	27	Q	
W3MEO	4	Q												
KV2R	4,200	3B	KD4AA	2,686	3B	K9MU	11,968	3B	AA5AM	1,392	3B	K6MI	12,160	3B
NF2RS (K2QO, op.)	3,080	3B	N3LL	1,863	3B	NT9E	1,496	3B	KØJQA	442	3B	N7RK	1,378	3B
K3YDX	2,208	3B	N4NGZ	560	3B	AC8HU	1,378	3B	KBØHNN	406	3B	KP4MD	1,224	3B
KC2TA	1,584	3B	KG5MD	176	3B	WA9PWP	1,071	3B	KØVG	152	3B	WB7FJG	1,026	3B
KW2T	910	3B	KM4ID	162	3B	KO9A	1,037	3B	WBØTGE	6	3B	K7VIT	915	3B
KB1YSK	90	FM						WD9DMM	20	FM	K7NIT	232	FM	
								WD9GDB	20	FM	N9VM (N1VM, op.)	180	FM	
											NI6G	60	FM	
											KA6AMB	35	FM	
											KH7CR	18	FM	
N3NGE	524,654	M	W1LVL	602	M	N2BJ	4,797	M	KBØHH	7,084	M	KB7ME	7,486	M
WA3EHD	33,405	M	AJ4GC	598	M	W8RU	750	M	WØMR	840	M	W6QAR	1,342	M
W1XM	21,168	M	KE4WBO	369	M	K9ZM	450	M	KC5MVZ	364	M	W6RKC	675	M
WB3IGR	20,808	M	KU1T	85	M				ADØH	70	M	KL7XJ	12	M
N1JEZ	11,285	M	N1LF	78	M				K3TD	25	M			
K2LIM	97,955	L	K1HTV	14,364	L	W9RVG	2,835	L	K5QE	75,969	L	KØDI	1,825	L
W3SO	88,458	L	W4NH	12,040	L	N9TF	2,075	L	W5CSC	3,276	L	AE7DW	40	L
W1QK	20,720	L	WY3P	8,496	L				WØVB	2,541	L			
N2NT	17,582	L	N4BRF	2,975	L									
W3RFC	1,344	L	W4PH	435	L									
NN3Q/R	74,008	R	K8GP/R	293,178	R	VE3OIL/R	30,932	R	ACØRA/R	36,270	R	N6TEB/R	335140	R
K3IUV/R	9,675	R	N2CEI/R	29,205	R	W9FZ/R	25,069	R	KCØSKM/R	10,622	R	K9JK/R	318078	R
AA11/R	4,800	R	K4SME/R	25,245	R	K9TMS/R	13,440	R	KØMHC/R	9,558	R	W6TE/R	286504	R
K3EGE/R	1,422	R	WB2ONA/R	21,942	R	K9BTW/R	12,264	R	KCØP/R	5,376	R	WA6WTF/R	226440	R
			N2CYM/R	21,677	R	KC9QZO/R	4,660	R	NØHZO/R	4,876	R	W6TTF/R	226440	R
N2SLN/R	26,040	RL				W9DAV/R	869	RL	K5GJ/R	6,747	RL	W6YLZ/R	42,490	RL
N2ZBH/R	13,360	RL				VE3RKS/R	25	RL	WØJT/R	1,980	RL	WW7D/R	28,612	RL
WB2SIH/R	1,200	RL							KD5EUO/R	1,659	RL	KE7IHG/R	7,896	RL
N2DCH/R	432	RL							ABØYM/R	910	RL	N6ORB/R	5,856	RL
												K7BWH/R	2,610	RL
KM3G/R	15,416	RU							AF5CC/R	240	RU	AH6RH/R	504	RU
KJ1K/R	5,217	RU												

Categories: A - Single Operator, Low Power; B - Single Operator, High Power; Q - Single Operator, Portable; 3B - Single Operator, Three Band; FM - Single Operator, FM Only; M - Multioperator (Unlimited); L - Limited Multioperator; R-Rover; RL - Limited Rover; RU - Unlimited Rover

Division Winners

Single Operator, Low Power

Atlantic	WA3NUF	114,760
Central	K2DRH	115,878
Dakota	KØSIX	6,720
Delta	N4QWZ	41,990
Great Lakes	N8WNA	1,725
Hudson	WB2JAY	34,155
Midwest	WBØYWW	5,916
New England	AF1T	57,448
Northwestern	KEØCO	11,925
Pacific	AF6RR	16,240
Roanoke	WB8TFV	10,556
Rocky Mountain	KKØQ	1,120
Southeastern	N4TWX	6,345
Southwestern	K6TSK	10,472
West Gulf	KD5KC	4,465
Canada	VA3ZV	13,601

Single Operator, High Power

Atlantic	K1RZ	220,865
Central	WØUC	61,341
Dakota	WØGHZ	30,514
Delta	W5MRB	5,778
Great Lakes	K8TQK	58,487
Hudson	W2BVH	18,144
Midwest	KFØM	1,792
New England	K1TEO	323,375
Northwestern	N7EPD	26,660
Pacific	KC6ZWT	20,191
Roanoke	N4HB	12,096
Rocky Mountain	W6OAL	258
Southeastern	KØVXM	33,960
Southwestern	KC6SEH	6,136
West Gulf	K5AND	8,866
Canada	VA7FC	731

Single Operator, Portable

Atlantic	N2TEB	174
Dakota	NIØW	84
Hudson	WB2AMU	648
Midwest	NØJK	3
New England	N4QX	10
Northwestern	K7ATN	7,520
Pacific	N6NB	123,324
Roanoke	KB4IRR	1
Rocky Mountain	WØSTU	988
Southwestern	N6WS	27
West Gulf	W5RST	4
Canada	VA3RKM	44

Single Operator, 3-Band

Atlantic	KV2R	4,200
Central	K9MU	11,968
Dakota	KBØHNN	406
Delta	KG5MD	176
Great Lakes	AC8HU	1,378
Hudson	W2ID	150
Midwest	KØJQA	442
New England	KW2T	910
Northwestern	WB7FJG	1,026
Pacific	K6MI	12,160
Roanoke	KD4AA	2,686
Rocky Mountain	WBØTGE	6
Southeastern	N3LL	1,863
Southwestern	N7RK	1,378
West Gulf	AA5AM	1,392
Canada	VE7DAY	850

Single Operator, FM Only

Central	WD9DMM	20
	WD9GDB	20
Dakota	KBØLYL	1,218
New England	KB1YSK	90
Northwestern	K7NIT	232
Pacific	N9VM	180
Southwestern	KD2CKO	12

Multioperator

Atlantic	N3NGE	524,654
Central	N2BJ	4,797
Dakota	WØMR	840
Great Lakes	W8RU	750
Hudson	W2JJ	1,862
Midwest	ADØH	70
New England	W1XM	21,168
Northwestern	KB7ME	7,486
Pacific	W6RKC	675
Roanoke	KU1T	85
Southeastern	W1LVL	602
Southwestern	W6QAR	1,342
West Gulf	KBØHH	7,084

Limited Multioperator

Atlantic	K2LIM	97,955
Central	W9RVG	2,835
Dakota	WØVB	2,541
Hudson	N2NT	17,582
New England	W1QK	20,720
Roanoke	K1HTV	14,364
Southeastern	W4NH	12,040
Southwestern	KØDI	1,825
West Gulf	K5QE	75,969

Rover

Atlantic	NN3Q/R	74,008
Central	W9FZ/R	25,069
Dakota	KCØP/R	5,376
Delta	AG4V/R	10,902
Midwest	ACØRA/R	36,270
New England	AA1I/R	4,800
Northwestern	WE7X/R	2,088
Pacific	N6TEB/R	335,140
Roanoke	K8GP/R	293,178
Southeastern	N2CEI/R	29,205
Southwestern	N6ZE/R	6,878
West Gulf	KØMHC/R	9,558
Canada	VE3OIL/R	30,932

Limited Rover

Atlantic	N2SLN/R	26,040
Central	W9DAV/R	869
Hudson	N2ZBH/R	13,360
Northwestern	WW7D/R	28,612
Pacific	W6YLZ/R	42,490
Rocky Mountain	ABØYM/R	910
West Gulf	K5GJ/R	6,747
Canada	VE3RKS/R	25

Unlimited Rover

Atlantic	KM3G/R	15,416
New England	KJ1K/R	5,217
West Gulf	AF5CC/R	240

**QSO Band Leaders
By Category**

Single Operator, Low Power

50 MHz	
WA3NUF	135
K2DRH	126
AF1T	117
N8RA	114
N3FTI	108

144 MHz	
WA3NUF	139
WB2CUT	129
K2DRH	123
WA3GFZ	117
AF1T	107

222 MHz	
WA3NUF	75
WA3GFZ	63
K2DRH	58
AF1T	50
N3RG	46

432 MHz	
WA3GFZ	82
WA3NUF	82
AF1T	66
K2DRH	65
N3RG	63

902 MHz	
WA3NUF	29
WA3GFZ	22
N3RG	20
W3SZ	13
WB2JAY	12

1.2 GHz	
WA3NUF	32
N3RG	28
WA3GFZ	26
WB2JAY	19
AF1T	18

2.3 GHz	
WA3NUF	18
WA3GFZ	13
N3RG	11
K2DRH	8
W3SZ	8

3.4 GHz	
WA3NUF	13
N3RG	9
W3SZ	8
WB2JAY	4
W2BZY	3

5.7 GHz	
W3SZ	7
WA3NUF	5
AF1T	1
VE3SMA	1
WA3GFZ	1

10 GHz	
WA3NUF	7
W3SZ	6
AF1T	2
K3DMA/3	1
NØYE	1
NJ7A	1
NN4AA	1
W2BZY	1
WA3GFZ	1
WJ7L	1

24 GHz	
WA3NUF	2
AF1T	1
K3DMA/3	1
VE3SMA	1

Light	
W2MC	5
K3DMA/3	3
WA3NUF	2
KB1JEY	1
N3RG	1
VE3SMA	1
W3SZ	1

Single Operator, High Power

50 MHz	
K1TEO	221
K3OO	185
KO2OK	172
K3IPM	167
WA2FGK (K2LNS, op.)	164

144 MHz	
K1TEO	282
WA2FGK (K2LNS, op.)	213
N3HBX	206
K1RZ	189
W3IP	171

222 MHz	
K1TEO	110
K1RZ	88
K3TUF	88
WB2RVX	83
WA2FGK (K2LNS, op.)	77

432 MHz	
K1TEO	137
WB2RVX	104
K1RZ	100
K3TUF	100
WA2FGK (K2LNS, op.)	87

902 MHz	
K1RZ	38
K3TUF	37
WB2RVX	36
K1TEO	26
WA3DRC	23

1.2 GHz	
K1TEO	51
K3TUF	49
WB2RVX	46
K1RZ	42
WA2FGK (K2LNS, op.)	33

2.3 GHz	
WB2RVX	24
K3TUF	21
K1TEO	19
K1RZ	17
WA3DRC	16

3.4 GHz	
K3TUF	21
WB2RVX	20
K1TEO	13
WA3DRC	13
K1RZ	11

5.7 GHz	
K3TUF	16
K1RZ	13
WB2RVX	13
KØVXM	8
W3PAW	8

10 GHz	
K3TUF	10
KØVXM	8
WA3DRC	6
WB2RVX	5
K1TEO	4

24 GHz	
WØZQ	1

Light	
WB2RVX	2
WA3DRC	1
K3IPM	1
K3JJZ	1
WA3SRU	1
W2SJ	1
W3GAD	1

Single Operator, Portable

50 MHz	
K7ATN	60
N6NB	32
WB2AMU	24
KI6QEL	14
WØSTU	12

144 MHz	
K7ATN	67
N6NB	46
WØSTU	28
KI6QEL	20
N2TEB	17

222 MHz	
N6NB	44
K7ATN	13
KI6QEL	8
WB2AMU	4
N2TEB	3
WØSTU	3

432 MHz	
N6NB	46
K7ATN	37
WØSTU	15
KI6QEL	7
WB2AMU	6

902 MHz	
N6NB	31
K7ATN	2

1.2 GHz	
N6NB	27

2.3 GHz	
N6NB	30

3.4 GHz	
N6NB	24

5.7GHz	
N6NB	24

10 GHz	
N6NB	22

24 GHz	
N6NB	18

Light	
WA3WUL	1

Single Operator, Three Band

50 MHz	
K9MU	66
K6MI	64
KV2R	63
AA5AM	52
KW2T	47
K1EEE	47

144 MHz	
K6MI	104
KV2R	75
KC2TA	60
K9MU	53
NF2RS (K2QO, op.)	51

432 MHz	
K6MI	68
K9MU	34
KC2TA	19
N3LL	16
KV2R	15

Single Operator, FM Only

50 MHz
K7NIT 10
KK6DCM 1

144 MHz
KBØLYL 87
K7NIT 22
KB1YSK 18
WD9GDB 10
WD9DMM 10

222 MHz
N9VM (N1VM, op.) 5
KA6AMB 1
NI6G 1

432 MHz
K7NIT 13
N9VM (N1VM, op.) 7
KB1YSK 6
NI6G 3
KA6AMB 1
KD2CKO 1
KK6DCM 1

**Multioperator
(-L Limited Multioperator)**

50 MHz
N3NGE 344
K2LIM-L 183
W1QK-L 174
W3SO-L 161
K5QE-L 136

144 MHz
N3NGE 340
K2LIM-L 214
W3SO-L 164
N2NT-L 147
K5QE-L 127

222 MHz
N3NGE 138
K2LIM-L 74
W3SO-L 67
WA3EHD 56
WB3IGR 34

432 MHz
N3NGE 209
W3SO-L 91
K2LIM-L 85
WA3EHD 64
W1XM 44

902 MHz
N3NGE 44
WA3EHD 20
WB3IGR 7
KBØHH 5
N1JEZ 3
W1XM 3

1.2 GHz
N3NGE 57
WA3EHD 18
W1XM 12
W5CSC-L 7
KBØHH 5
N2BJ 5

2.3 GHz
N3NGE 28
W1XM 3

3.4 GHz
N3NGE 17
WA3EHD 9

5.7 GHz
N3NGE 14

10 GHz
N3NGE 11

Light
N3NGE 4
WB3IGR 3
WA3EHD 2

Rover

50 MHz
K8GP/R 154
ACØRA/R 77
W9FZ/R 61
N6TEB/R 51
NN3Q/R 47

144 MHz
K8GP/R 234
NN3Q/R 121
ACØRA/R 114
N6TEB/R 103
W9FZ/R 94

222 MHz
K8GP/R 142
N6TEB/R 70
K9JK/R 67
NN3Q/R 64
W6TE/R 64

432 MHz
K8GP/R 157
N6TEB/R 82
ACØRA/R 76
K9JK/R 70
W9FZ/R 68

902 MHz
K8GP/R 51
K9JK/R 47
W6TE/R 46
N6TEB/R 46
NN3Q/R 42

1.2 GHz
K8GP/R 62
K9JK/R 48
N6TEB/R 48
W6TE/R 45
NN3Q/R 39

2.3 GHz
K9JK/R 47
W6TE/R 46
N6TEB/R 45
K8GP/R 36
W6TTF/R 36
WA6WTF/R 36

3.4 GHz
K9JK/R 47
W6TE/R 45
N6TEB/R 44
W6TTF/R 34
WA6WTF/R 34

5.7 GHz
K9JK/R 44
N6TEB/R 43
W6TE/R 37
WA6WTF/R 32
W6TTF/R 32

10 GHz
K9JK/R 46
W6TE/R 44
N6TEB/R 43
WA6WTF/R 34
W6TTF/R 34

24 GHz
K9JK/R 44
W6TE/R 44
N6TEB/R 43
WA6WTF/R 32
W6TTF/R 32

Light
K3IUV/R 10
K3EGE/R 6
NN3Q/R 6
VE3OIL/R 2

Limited Rover

50 MHz
WW7D/R 167
W6YLZ/R 103
N2ZBH/R 94
N2SLN/R 81
N6ORB/R 63

144 MHz
WW7D/R 163
W6YLZ/R 132
N2SLN/R 119
N2ZBH/R 80
KE7IHG/R 77

222 MHz
W6YLZ/R 89
WW7D/R 78
N2SLN/R 47
N2ZBH/R 45
KE7IHG/R 24

432 MHz
W6YLZ/R 97
WW7D/R 68
N2SLN/R 39
K5GJ/R 35
N2ZBH/R 35

Unlimited Rover

50 MHz
KM3G/R 36
KJ1K/R 20
AF5CC/R 6

144 MHz
KM3G/R 46
AH6RH/R 29
KJ1K/R 23
AF5CC/R 12

222 MHz
KM3G/R 37
KJ1K/R 11
AH6RH/R 3

432 MHz
KM3G/R 34
KJ1K/R 14
AH6RH/R 12
AF5CC/R 1

902 MHz
KM3G/R 12
KJ1K/R 3

1.2 GHz
KM3G/R 14
KJ1K/R 5
AH6RH/R 1

2.3 GHz
KJ1K/R 2

**Multiplier Band Leaders
By Category**

Single Operator, Low Power

50 MHz

K2DRH	46
AF1T	20
WA3NUF	19
N8RA	18
N3FTI	16

144 MHz

K2DRH	45
N4QWZ	33
N9DG	28
VA3ZV	20
WB2CUT	20

222 MHz

K2DRH	32
N4QWZ	23
N9DG	20
N3RG	16
AF1T	15
WA3GFZ	15

432 MHz

K2DRH	31
N4QWZ	24
N9DG	21
N3RG	17
WA3GFZ	17
WBØYWW	17

902 MHz

N4QWZ	9
WB2JAY	7
WA3NUF	7
WA3GFZ	7
K2DRH	6

1.2 GHz

K2DRH	9
WB2JAY	9
WA3GFZ	7
N4QWZ	6
WA3NUF	6
AF6RR	6
AF1T	6
N3RG	6

2.3 GHz

K2DRH	8
WA3GFZ	5
WA3NUF	5
AF1T	4
N3RG	4
WB2JAY	4

3.4 GHz

WA3NUF	5
N3RG	4
WB2JAY	4
W2BZY	2
W3SZ	2

5.7 GHz

W3SZ	2
WA3NUF	2
AF1T	1
VE3SMA	1
WA3GFZ	1

10 GHz

AF1T	2
W3SZ	2
WA3NUF	2
K3DMA/3	1
NØYE	1
NJ7A	1
NN4AA	1
W2BZY	1
WA3GFZ	1
WJ7L	1

24 GHz

AF1T	1
K3DMA/3	1
VE3SMA	1
WA3NUF	1

Light

K3DMA/3	1
KB1JEY	1
N3RG	1
VE3SMA	1
W2MC	1
W3SZ	1
WA3NUF	1

Single Operator, High Power

50 MHz

K1TEO	40
K3OO	34
WA2FGK (K2LNS, op.)	34
KO2OK	21
K3IPM	20

144 MHz

K8TQK	47
WA2FGK (K2LNS, op.)	44
WA3QPX	44
K1TEO	43
K1JT	36
NTØV	36

222 MHz

K1TEO	30
WA2FGK (K2LNS, op.)	28
K1RZ	25
K8TQK	25
K3TUF	23

432 MHz

K1TEO	31
WA2FGK (K2LNS, op.)	29
K8TQK	26
K3TUF	24
K1RZ	22

902 MHz

K1RZ	13
K1TEO	12
N1DPM	11
K3TUF	9
W3PAW	9
W9GA	9
WB2RVX	9

1.2 GHz

K1TEO	17
K1RZ	13
WA2FGK (K2LNS, op.)	12
K3TUF	11
WB2RVX	11

2.3 GHz

K1TEO	11
W3PAW	9
K1RZ	8
WB2RVX	8
K3TUF	6
WA2FGK (K2LNS, op)	6

3.4 GHz

K1TEO	8
WB2RVX	8
K1RZ	7
W3PAW	7
K3TUF	6
WA3DRC	6

5.7 GHz

K1RZ	7
W3PAW	6
K3TUF	5
WB2RVX	5
KØVXM	4
K1TEO	4

10 GHz

K3TUF	5
KØVXM	4
K1TEO	3
WØGHZ	3
N3OC	2
W3PAW	2
W5LUA	2
WA3DRC	2
WA3PTV	2
WB2RVX	2

24 GHz

WØZQ	1
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Light

K3IPM	1
K3JJZ	1
W2SJ	1
W3GAD	1
WA3DRC	1
WA3SRU	1
WB2RVX	1

Single Operator, Portable

50 MHz

K7ATN	10
N6NB	10
KI6QEL	6
WB2AMU	6
WØSTU	4

144 MHz

K7ATN	12
N6NB	11
KI6QEL	7
WØSTU	5
N2TEB	4

222 MHz

N6NB	10
KI6QEL	4
K7ATN	4
WB2AMU	2
N2TEB	1
WØSTU	1
NIØW	1

432 MHz

N6NB	11
K7ATN	5
WØSTU	3
KI6QEL	2
NIØW	2
WB2AMU	2

902 MHz

N6NB	7
K7ATN	1

1.2 GHz

N6NB	7
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2.3 GHz

N6NB	7
------	---

3.4 GHz

N6NB	7
------	---

5.7 GHz

N6NB	5
------	---

10 GHz

N6NB	6
------	---

24 GHz

N6NB	4
------	---

Light

WA3WUL	1
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Single Operator, Three Band**50 MHz**

K9MU	30
AA5AM	21
K6MI	13
KV2R	11
K1EEE	7
KW2T	7

144 MHz

NF2RS (K2QO, op.)	23
K9MU	19
K6MI	15
WA9PWP	15
KD4AA	13

432 MHz

K9MU	15
K6MI	12
KD4AA	8
N3LL	8
AC8HU	6
N4NGZ	6
NT9E	6

Single Operator, FM Only**50 MHz**

K7NIT	1
KK6DCM	1

144 MHz

KBØLYL	14
KA6AMB	3
K6QCB	2
K7NIT	2
KB1YSK	2
KD2CKO	2
KH7CR	2
N9VM (N1VM, op.)	2
NI6G	2
WD9DMM	2
WD9GDB	2

222 MHz

N9VM (N1VM, op.)	2
KA6AMB	1
NI6G	1

432 MHz

N9VM (N1VM, op.)	2
NI6G	2
K7NIT	1
KA6AMB	1
KB1YSK	1
KD2CKO	1
KK6DCM	1

Multioperator

(-L Limited Multioperator)

50 MHz

K5QE-L	81
N3NGE	55
W3SO-L	40
K2PLF	36
K2LIM-L	34

144 MHz

K5QE-L	87
N3NGE	46
K2LIM-L	45
W3SO-L	42
WØVB-L	27

222 MHz

N3NGE	33
K2LIM-L	30
W3SO-L	26
WB3IGR	15
K5QE-L	13

432 MHz

N3NGE	34
W3SO-L	30
K2LIM-L	28
K5QE-L	26
WB3IGR	15

902 MHz

N3NGE	12
WB3IGR	5
KBØHH	4
WA3EHD	4
N1JEZ	3
W1XM	3

1.2 GHz

N3NGE	14
W5CSC-L	7
KBØHH	5
W1XM	4
WA3EHD	4

2.3 GHz

N3NGE	9
W1XM	3

3.4 GHz

N3NGE	7
WA3EHD	3

5.7 GHz

N3NGE	5
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10 GHz

N3NGE	6
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Light

N3NGE	1
WA3EHD	1
WB3IGR	1

Rover**50 MHz**

ACØRA/R	17
K8GP/R	15
N6TEB/R	15
W9FZ/R	8
NN3Q/R	5

144 MHz

ACØRA/R	19
K8GP/R	19
W7QQ/R	19
VE3OIL/R	18
N6TEB/R	14

222 MHz

K8GP/R	18
ACØRA/R	15
VE3OIL/R	14
K9JK/R	10
N6TEB/R	10
W6TE/R	10
W6TTF/R	10
WA6WTF/R	10

432 MHz

K8GP/R	18
ACØRA/R	17
VE3OIL/R	15
N6TEB/R	11
W9FZ/R	11

902 MHz

K8GP/R	10
K9JK/R	10
N6TEB/R	10
W6TE/R	10
W6TTF/R	10
WA6WTF/R	10

1.2 GHz

K8GP/R	10
K9JK/R	10
N6TEB/R	10
W6TE/R	10
W6TTF/R	10
WA6WTF/R	10

2.3 GHz

K9JK/R	10
N6TEB/R	10
W6TE/R	10
W6TTF/R	10
WA6WTF/R	10

3.4 GHz

K9JK/R	10
N6TEB/R	10
W6TE/R	10
W6TTF/R	10
WA6WTF/R	10

5.7 GHz

K9JK/R	10
N6TEB/R	10
W6TTF/R	10
WA6WTF/R	10
K8GP/R	8
W6TE/R	8

10 GHz

K9JK/R	10
N6TEB/R	10
W6TE/R	10
W6TTF/R	10
WA6WTF/R	10

24 GHz

K9JK/R	10
N6TEB/R	10
W6TE/R	10
W6TTF/R	10
WA6WTF/R	10

Light

K3EGE/R	3
NN3Q/R	3
K3IUV/R	2
VE3OIL/R	2

Limited Rover**50 MHz**

N2SLN/R	17
W6YLZ/R	16
WW7D/R	11
N6ORB/R	10
N2ZBH/R	8

144 MHz

N2SLN/R	18
W6YLZ/R	16
K5GJ/R	14
WB2SIH/R	13
KE7IHG/R	12

222 MHz

N2SLN/R	14
W6YLZ/R	14
N2ZBH/R	8
WW7D/R	7
KE7IHG/R	6

432 MHz

W6YLZ/R	14
N2SLN/R	13
K5GJ/R	9
N2ZBH/R	7
N6ORB/R	7
WØJT/R	7
WW7D/R	7

Unlimited Rover**50 MHz**

KM3G/R	8
KJ1K/R	8
AF5CC/R	3

144 MHz

KJ1K/R	9
KM3G/R	9
AF5CC/R	5
AH6RH/R	2

222 MHz

KM3G/R	7
KJ1K/R	4
AH6RH/R	1

432 MHz

KM3G/R	8
KJ1K/R	5
AH6RH/R	2
AF5CC/R	1

902 MHz

KM3G/R	4
KJ1K/R	1

1.2 GHz

KM3G/R	5
AH6RH/R	1
KJ1K/R	1

2.3 GHz

KJ1K/R	1
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