



ARRL January VHF Contest

2013 Results

by John Kalenowsky, K9JK

“New Year, New Categories!”

The first ARRL VHF radiosport event of the New Year rang in with two new entry categories, Single-Operator, Three Band (SO3B) and Single-Operator, FM Only (SO-FM). Those new categories gathered a total of 100 log submissions, 77 and 23, respectively. While the total number of logs submitted for 2013 slipped slightly to 721 from 2012’s count of 767 (about 6 %), approximately the same percentage (about 60%) are made up of Single-Operator entries using low power. Congratulations to the first-time winners of the two new categories, **Rich, KV2R** for SO3B and **Ev, W2EV** for SO-FM!

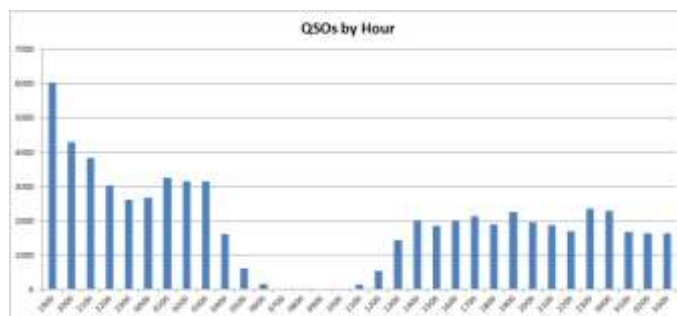
Logs submitted in the new categories contained numerous comments indicating that this was their first contest or first January contest, such as KBØKOA’s “First contest, all on my own, WOW”; KB1HYL’s “This has been my first contest. Quite a lot of fun and a great learning experience”; and N2SLO’s “My first January contest, now with 432 MHz operation. My new 15 element Yagi with 50 watts is a small footprint, but worked above my expectations. 6M opened up at 0200 on Saturday night, with KØHA worked in EN10 from Long Island.”



The 24 GHz QSO between rover K1DS and fixed-station K3TUF was made with the dish on the floor of the van as seen here. Due to winds, Rick K1DS couldn’t climb atop the van to mount the dish but reports solid 5-9 signals anyway!! (Photo by K1DS)

There were also a number of comments about the new categories, such as K6QCB’s “Thanks for the FM only

category”; K7VIT’s “Thanks for the creative contest categories to encourage new participation (e.g. VHF-3-band & FM). The varying low power limits for differing categories are puzzling. In the limited time I had, I tried to find some FM QSO’s on 2m. I was not able to find any. We did have more Rover activity. Thanks to all who answered my calls. 73, Jerry” and KC5FM’s “Had a little fun. Also monitored six-meter simplex but nothing heard, even though I got alerted to a six-meter opening. Loved the FM only aspect. 73”. Entrants in other categories also chimed in regarding the new categories, such as this excerpt from KC9BQA’s Soapbox “Heard many stations talking about -- and using -- the new 3-band category. There was decent FM activity in the Milwaukee area and very strong FM numbers in Chicagoland.” though N1API asked “Where were the FM Only stations?”



Category Activity

Category	2013 Logs	2012 Logs	2011 Logs
SOLP	333	471	420
SOHP	134	148	154
SO-Portable	10	16	22
SO3B	77		
SO-FM	23		
MO-Limited	22	23	28
MO-Unlimited	59	46	32
Rover	29	39	30
Rover-Limited	30	22	19
Rover-Unlimited	4	2	5

Not to ignore the other categories, congrats to **Roger, W3SZ** for topping the ‘classic’ Single-Operator, Low Power (SOLP) entrants, and to **Jeff, K1TEO**, in a very familiar spot for him as leading scorer among this year’s 134 Single-Operator, High Power category entrants. Single-Operator, Portable can be a challenge in January, especially in the northern latitudes, yet **Richard, N2SPI**

prevailed as the top scorer among the 10 SO-Portable category entries and from the Western New York section, no less. The teams at **N3NGE** and **W3SO** lead the competition in the Multioperator (MO) and Limited Multioperator (LM) categories (59 and 22 entries, respectively). Roving in January can also be a challenge, yet 63 rover logs were submitted in 2013. **Wayne, N6NB** topped the 29 ‘classic’ Rovers. **John, K9JK** teamed up with **Mike, WB8BZK** to lead the 30 Limited Rovers (RL) and **Harry, WØBL** bested the 4 Unlimited Rover (RU) entries.



John, KB4BKV and his father Stan, WA4DYD got out on a western PA mountain at 2400 ft elevation in grid FM19. Winds were significant, requiring many guy lines on the mast used for the higher bands. Overnight winds were strong enough to bend the 6 meter mast. (Photo by KB4BKV)

Besides the 721 call signs for which logs were submitted, over 3500 other call signs appeared in the more than 63,000 QSOs that were included in the submitted logs. Ten logs crossed the 500-QSO barrier with the N3NGE multi-op team actually topping 1000 QSOs with their effort. The N3NGE Multioperator effort was part of the Mt. Airy VHF Group Packrats overall club activities, which, with their location as well as many of the club members being in FN20, made FN20 the leading source of QSOs, with over 12,000 for the total count from that grid – almost 20% of all QSOs. Besides N3NGE, another 80 fixed stations reported FN20 as their grid and 7 Rovers reported QSOs from FN20. Grids adjacent to FN20 were also the source of many QSOs, with FM29 (about 5000), FM19 (about 3000), FN10 (about 1500) and FN21 (about 1300) falling in the Top 10 of grid QSO counts.

New England had two others of the Top 10 busy grids with FN31 stations reporting just shy of 4000 QSOs and FN42 with more than 2000. The 6th busiest grid, with just under 1600 QSOs reported was CN87 in the Pacific Northwest which includes Seattle and suburbs stretching down to Tacoma and Olympia. FM18, which includes Washington, DC and suburbs surrounding from east

through west and points farther south, was the 9th place finisher in grid QSO counts, being the source of just over 1100 QSOs. To finish the Top 10 of busiest grids, stations in EN61, mostly Chicago and some near western suburbs but also northwest Indiana and extreme southwestern Michigan also broke the 1000 QSOs reported threshold. Besides this Top 10, QSOs were reported from more than 200 other grid locators in January.

Looking at the “other end” of QSOs, that is, the grid that was received from the other station, over 400 grids were reported as being active. That’s an additional 200 grids that were part of this year’s activity. Considering only the field or major grid (the first two characters of the grid locator), QSOs were reported with 33 different fields. With this being a North American focused contest, it shouldn’t be a surprise that “EM” in the heart of North America was the most popular field that was worked, having QSOs reported from 94 of the 100 grids within the field. The other active fields in North America were: BP, CM, CN, CO, DK, DL, DM, DN, EL, EN, FM and FN. The fields of GF and GG in South America and BK (Hawaii) were each represented by contacts from a single grid within each of those fields. Stretching across the Atlantic, Europe and western Asia were represented by fields IM, IN, IO, JM, JN, JO, KM, KN, KO, KP, LN and MO with JO being the busiest of those 12, having contacts reported from 25 different grids in the field. The remaining five fields contacted were in the Far East and Australia, with two grids contacted in PM and one grid in each of PF, QF, QG and QM.

Fireworks in 2013?

While not as widespread or lengthy as in 2012, there was enhanced 50 MHz propagation this year.

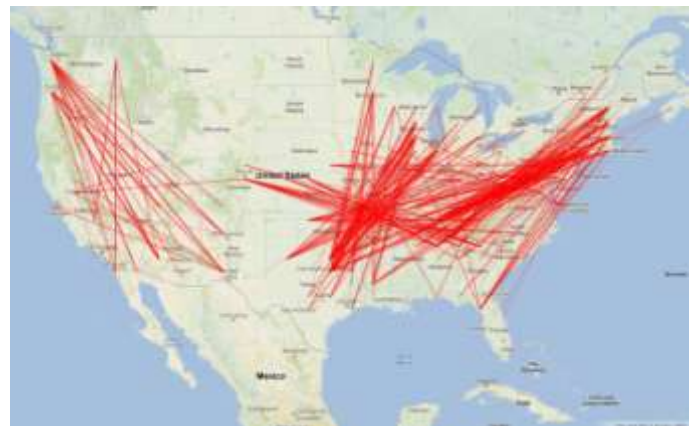


Figure 1 – Map showing 6 meter propagation enhancement on Saturday of the contest.

On Saturday, the count of 50 MHz QSOs exceeding 600 km from about 0100 through 0500 UTC (even though it

was Sunday in UTC) was almost 2900 with the peak of over 1200 QSOs in the 0300-0400 hour. Figure 1 shows that Saturday's enhancement included much of the country. As promised in the *QST* version of this article, four additional maps for Saturday are included here, showing the paths as reported in the four separate hours. The first hour (0100-0200 UTC) shows a focus of propagation paths from the Tennessee River valley and northern Florida to the northeast along with paths between the mid-Atlantic and the Midwest.

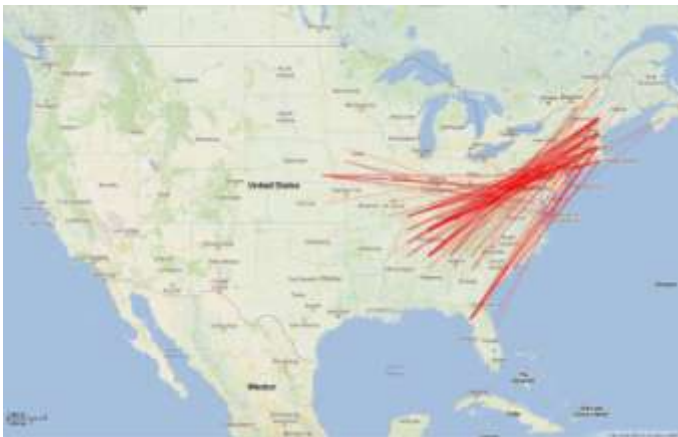


Figure 2 – Propagation on 6 meters from 0100-0200 UTC.

The enhancement continued in the second hour (0200-0300 UTC) but not as far into the Northeast and showing the start of some westward extension with paths from east Texas and western Louisiana to the northern Midwest and from the Southeast into the Central Plains. The map also shows the start of some western paths from New Mexico to the Pacific Northwest.

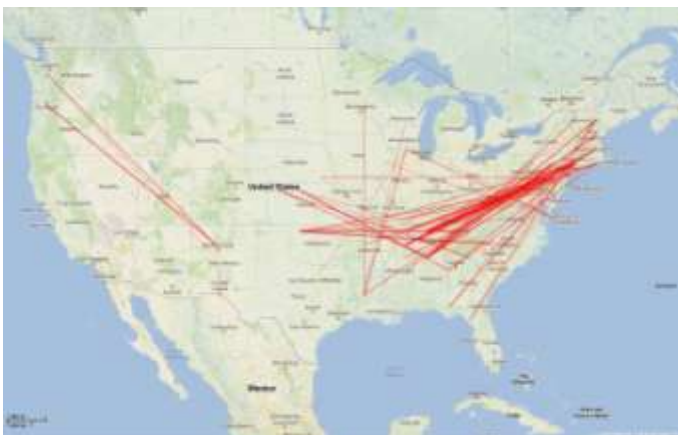


Figure 3 – Propagation on 6 meters from 0200-0300 UTC

In the third hour (0300-0400 UTC), paths from the Northeast diminished significantly but the mid-Atlantic region picked up a little and paths from the Southeast into Colorado appear. There is a clear grouping of path centers over southern Missouri. The paths from the southern Rocky Mountain region and across the

Southwest to the Pacific Northwest became more frequent.

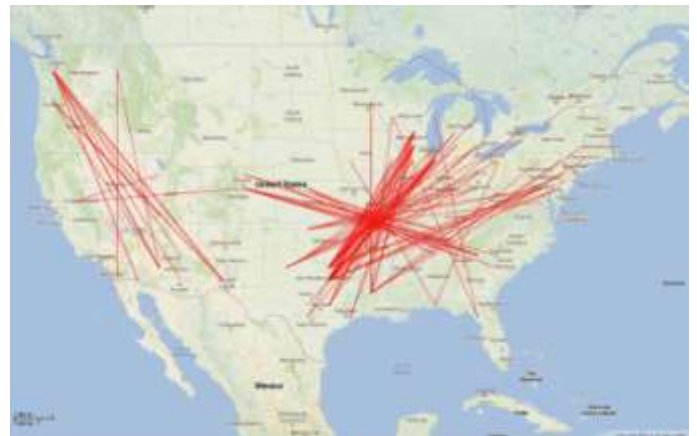


Figure 4 – Propagation on 6 meters from 0300-0400 UTC.

In the fourth hour (0400-0500 UTC), propagation in the west shows a spreading of the reported paths with about the same number as the prior hour. The eastern paths have clearly reduced in number and extent, with most of the paths crossing around the area of southwestern Missouri.

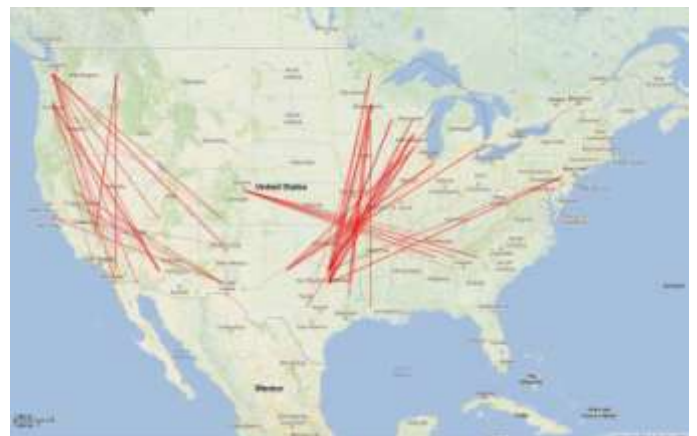


Figure 5 – Propagation on 6 meters from 0400-0500 UTC.

Longer propagation for 50 MHz returned on Sunday, in the two hours from 2300 UTC through 0100 UTC (Monday UTC) with each hour netting over 900 QSOs (1885 total) showing paths longer than 600 km. Sunday's conditions were much more favorable to the eastern half of the country (see Figure 6).

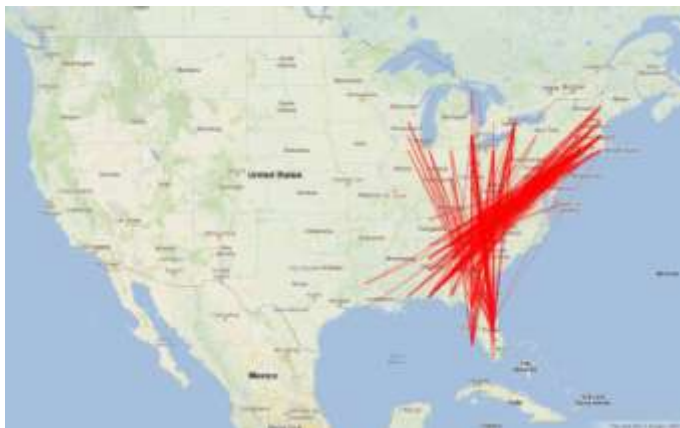


Figure 6 – Map showing 6 meter propagation was mostly restricted to the eastern regions on Sunday.

The ionosphere was not the only method of making longer QSOs. A number of stations bounced signals off of that passive reflector that orbits our planet approximately ¼-million miles away to make intra- and intercontinental QSOs. On 144 MHz K1JT, K5QE, KL7UW, NC2V, W4AS, W9GA, W9JN, WA3QPX and WB2RVX reported such QSOs. K5QE and W7MEM report EME QSOs on 432 MHz in their logs and W3HMS reported a couple of EME QSOs on 1296 MHz. The log from K5QE also shows a 222 MHz QSO with W6MYC that was likely to have been via EME, even though it was not over as long a path as EME QSOs completed on other bands.



Justin, N2ZBH sure had some great views during the contest! He roved to mountaintop locations in Eagle Rock Reservation (FN20vt), Mt. Peter (FN21uf), Nike Overlook Park (FN31ab), and Alpine Lookout (FN30aw). (Photo by N2ZBH)

By-sectioning the activity

The Northeast region, which includes the Atlantic, Hudson and New England Divisions along with the eastern reaches of Canada, was the source of more than 40% of the logs submitted with 303. The Atlantic Division alone provided over half of those (165) and the Eastern Pennsylvania Section (EPA) provided the highest count from any single section with 82. EPA actually tied the log totals from the entire New England Division (which is comprised of seven sections). The next highest count of logs from any single division was the 58 from the Central Division. With so many stations active in the area, many of the overall Top Ten by Category listings contained only stations from the Northeast region.

Fixed Stations - Enhanced Category Top Tens

Call	Score	Bands	QSOs	Multipliers
Single-Operator, Three Band				
KV2R	6,368	ABD	187	32
VE3KZ	5,680	ABD	127	40
K6MI	5,145	ABD	118	35
N1IBM	4,770	ABD	94	45
AC8HU	4,465	ABD	85	47
N9TF	2,369	ABD	84	23
WB9TFH	2,160	ABD	58	30
N2SLO	2,080	ABD	87	20
W1DYJ	1,840	AB	80	23
KD5CKP	1,679	ABD	62	23
Single-Operator, FM Only				
W2EV	1,080	ABCD	59	15
KC9CUK	441	B	63	7
K6TDI	324	ABCD	21	12
N9ZE	156	BD	21	6
K2SI	128	ABD	13	8
KB1YNT	80	BD	17	4
WD9IGX	54	B	27	2
KL2DN	54	BD	6	6
K1KD	40	B	10	4
KB1YSK	33	BD	10	3
Single-Operator, Low Power				
W3SZ	186,415	ABCD9EFGHIJ	601	115
WA3NUF	128,338	ABCD9EFGHIJP	548	103
N3RG	88,786	ABCD9EFGP	394	103
K2DRH	81,648	ABCD9EFG	324	168
AF1T	76,248	ABCD9EFGHIJ	429	108
WB2SIH	71,642	ABCD9E	420	113
N4QWZ	69,750	ABCD9E	337	155
WA3GFZ	66,663	ABCD9EFGHI	377	81
K1KG	62,500	ABCD9EFGHI	311	100
W2BZY	40,107	ABCD9EFGHI	192	87

A standard band designators table is provided on the following page.

The initial winners of this year's new categories, **Rich, KV2R** for SO3B and **Ev, W2EV** for SO-FM, both operated from the region and three of the other Top Ten finishers in each of the new categories were from the Northeast. National SOLP leader, **Roger, W3SZ** was joined by 5 other SOLP entrants from the region. **Jeff, K1TEO** had more company from the Northeast, with

seven other SOHP national Top Ten finishers from there (five of those from the EPA Section). Another national leader from the Northeast region was **Richard, N2SPI** who was accompanied three other Single-Operator, Portable entrants.

ARRL VHF+ Band Designators

50 MHz	A
144 MHz	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

The national top scorers in the multioperator categories were also from the Northeast; the **N3NGE** team was joined by three other Northeasterners among the Top Ten in MO and the **W3SO** team led four other national LM leaders from the region.

Fixed Stations - Enhanced Category Top Tens

Call	Score	Bands	QSOs	Multipliers
Single-Operator, High Power				
K1TEO	349,305	ABCD9EFGHI	850	219
K3TUF	263,948	ABCD9EFGHIJ	704	151
WB2RVX	191,260	ABCD9EFGHIP	576	131
WA2FGK	109,516	ABCD9EFGHI	409	131
(K2LNS, op)				
WA3DRC	92,272	ABCD9EFGHIP	428	79
K3IPM	76,196	ABCD9EFGI	471	86
K3CB	57,715	ABCD9EFGHI	271	97
WØUC	56,848	ABCD9EFI	265	136
WA2OMY	49,368	ABCD9EFGH	346	68
WØRSJ	47,652	ABCD9EFG	316	76
Single-Operator, Portable				
N2SPI	2,464	ABD	74	28
KI6QEL	1,666	ABCD	70	17
WB2AMU	915	ABCD	49	15
WØSTU	666	ABCD	55	9
KDØEBT	270	ABD	23	10
KK6MC	252	ABD	19	12
WA3WUL	48	P	6	1
KC9ALX	28	BD	8	2
W3MEO	12	A	4	3
KD2DCC	6	BD	2	2

Leading rovers from the Northeast were **Russ, NN3Q** (with Al, K3WGR) in 'classic' Rover (accompanied by

one other rover from the region), **Justin, N2ZBH** in RL (also accompanied by one other from the region) and **Sig, KJ1K**, who was the sole RU entry from the Northeast.

Fixed Stations - Enhanced Category Top Tens

Call	Score	Bands	QSOs	Multipliers
Multioperator (Unlimited)				
N3NGE	575,706	ABCD9EFGHIP	1247	229
K5QE	418,608	ABCD9EFGHI	694	324
K3EOD	67,528	ABCD9EP	416	92
KBØHH	59,598	ABCD9E	325	126
WB3IGR	27,192	ABCD9EFP	213	66
KE1LI	20,945	ABCD	305	59
N1JEZ	17,253	ABCD9E	176	71
KO9A	17,136	ABCD9E	214	63
KE7SW	15,235	ABCD9EFGH	175	55
AE6GE	15,050	ABCD9E	204	50
Limited Multioperator				
W3SO	116,920	ABCD	549	158
K2LIM	91,440	ABCD	519	144
N8ZM	30,076	ABCD	242	103
W1QK	28,334	ABCD	401	62
N3MK	27,456	ABCD	234	96
W4NH	25,456	ABCD	257	86
KØSIX	14,256	ABCD	172	66
KB4BKV	9,776	ABCD	145	52
K2QO	8,050	ABCD	139	50
W9RVG	3,645	ABCD	76	45

The 115 logs from the Southeast region (Delta, Roanoke and Southeastern Divisions) was the next highest regional log count. In the new Single-Operator categories, the SO3B top scorer was **Tim, KD5CKP** with **Dave, N4DW** finishing first in SO-FM. For the SOLP and SOHP categories, **Todd, N4QWZ** and **Mike, W3IP** were the leaders for the region and there was no entry in SO-Portable from Southeast. The region's top multioperator entries were **Steve, N4JQQ** (+ assistance) in MO and **Don, N3MK** (+ assistance) in ML. The overall 'classic' Rover winner, **Wayne, N6NB** operated in the Southeast region, with **Ray, KD4RSL** finishing in the top spot for the region's Limited Rovers.

Log submissions from the Central region, consisting of Central and Great Lakes Divisions plus the 4 new sections of Ontario totaled 107, with **Bob, VE3KZ** and **Erich, KC9CUK** leading the Central region in the new SO3B and SO-FM categories, respectively. **Bob, K2DRH, Paul, WØUC** and **Rod, KDØEBT** topped the Central SOLP, SOHP, and SO-Portable categories, respectively. **Jim, KO9A** went with assistance to lead MO and a team at N8ZM (with "lots of good food" according to their Soapbox) topped ML from the region. Central's leading rovers were **Russell, VE3OIL** for 'classic' and **James, W8ISS** for Limited.

Four divisions; Dakota, Midwest, Rocky Mountain and West Gulf; plus the Canadian provinces of Manitoba and

Saskatchewan make up the Midwest region from which 103 logs were submitted. **Bob, KØNR** and **Tim, WD9IGX** claimed the inaugural top spots for the region in the new SO3B and SO-FM categories, respectively. Midwest's best in SOLP was **Keith, WB5ZDP** and in SOHP **Ron, K5LLL**. **Stu, WØSTU** claimed the region's top spot for SO-Portable with a mountain-topping expedition as his photos show at www.arrl.org/soapbox/view/8567. Rovers in the Midwest were lead by **Tom, W5TV** (with Ralph, WD5RAH) in 'classic' Rover, your author **John, K9JK** (with Mike, WB8BZK) in RL and **Harry, WØBL** in RU.

Rover Stations - Enhanced Category Top Tens

Call	Score	Bands	QSOs	Mults	Grids Activated
Rover					
N6NB	154,440	ABCD9EFGHI	359	110	10
W6TAI	134,310	ABCD9EFGHI	325	110	10
W5TV	106,128	ABCD9EFGHI	347	88	8
NN3Q	104,924	ABCD9EFGHIP	536	68	4
N2CEI	101,707	ABCD9EFGHI	248	101	7
K1DS	99,162	ABCD9EFGHIJP	467	63	4
K4SME	94,224	ABCD9EFGHI	243	104	8
WB2ONA	65,681	ABCD9EFGHI	193	77	8
N2CYM	60,496	ABCD9EFGHI	173	76	8
W5JMC	47,150	ABCDE	354	82	13
Limited Rover					
K9JK	20,880	ABCD	243	60	11
KE5GAQ	18,800	ABCD	270	47	8
WW7D	18,216	ABCD	326	44	9
N2ZBH	13,968	ABCD	304	36	4
K7BWH	9,509	ABD	231	37	7
KØMHC	8,736	ABCD	150	42	12
N6ZE	2,882	ABCD	97	22	6
KD4RSL	2,222	ABD	82	22	4
N2SLN	2,016	ABCD	58	32	3
K6LMN	1,309	ABCD	63	17	3
Unlimited Rover					
WØBL	10,086	ABCD9E	156	41	5
KJ1K	9,682	ABCD9E	128	47	7
KRØVER	4,758	ABCD9E	103	26	3
ABØYM	3,082	ABCD	96	23	6

Participants from the West Coast region; Northwestern, Pacific and Southwestern Divisions plus Alberta, British Columbia and NWT; submitted a total of 91 logs with **John, K6MI** topping the new SO3B category and **Terry, K6TDI** prevailing in the new SO-FM category from the region. **Bob, AF6RR** and **Eric, N7EPD** were the region's leaders in SOLP and SOHP, respectively. **Duane, KI6QEL** was the lone SO-Portable entrant from the West Coast and also finished 2nd overall in the category. **Tom, KE7SW** (+ assistance) claimed the region's top spot in MO with a margin of less than 200 points over the team at **AE6GE**. The ML entry from the

West Coast was **W6QAR** with this being their second foray into VHF+ contesting. Their Soapbox comment also noted that they "Had a couple of newcomers participate who should soon be licensed." West Coast rovers kept it Limited (no 'classic' or Unlimited rovers from the region) with **Darryl, WW7D** finishing atop the category.

Affiliated Club Competition		
<i>Club Name</i>	<i>Logs</i>	<i>Score</i>
Unlimited Club Category		
Mt Airy VHF Radio Club	65	2,601,071
Medium Club Category		
North East Weak Signal Group	20	589,759
Nacogdoches ARC	5	584,300
Florida Weak Signal Society	11	407,792
Potomac Valley Radio Club	31	405,921
Contest Club Ontario	12	128,193
Badger Contesters	16	127,363
Pacific Northwest VHF Society	19	114,416
Society of Midwest Contesters	14	110,954
Northern Lights Radio Society	11	100,572
Yankee Clipper Contest Club	11	89,619
Tennessee Contest Group	4	70,490
Roadrunners Microwave Group	6	42,062
Frankford Radio Club	7	36,160
North Texas Microwave Society	4	32,240
Bergen ARA	11	18,029
Six Meter Club of Chicago	11	17,823
Florida Contest Group	6	15,421
Rochester VHF Group	6	14,232
Northern California Contest Club	9	12,087
South Jersey Radio Assn	5	10,979
Carolina DX Association	4	9,890
Rochester (MN) ARC	14	9,748
CTRI Contest Group	3	8,545
Mad River Radio Club	4	5,408
Alabama Contest Group	3	5,366
Hudson Valley Contesters and DXers	4	2,935
Georgia Contest Group	4	1,322
Contest Group Du Quebec	3	990
Minnesota Wireless Assn	4	231
Alaska VHF-UP Group	3	225
Local Club Category		
Murgas ARC	3	30,770
Bristol (TN) ARC	9	16,728
Granite State ARA	5	14,935
Raritan Bay Radio Amateurs	6	10,674
10-70 Repeater Association (added version 1.23)	3	9,521
Stoned Monkey VHF ARC	3	9,087
Meriden ARC	4	7,796
DFW Contest Group	3	5,424
Contoocook Valley Radio Club	4	3,382
Burlington County Radio Club	3	3,308
Sterling Park ARC	3	2,336
Mobile Sixers Radio Club	4	2,246
Maritime Contest Club	3	347

Club Competition

The results table tells the story. The Mt. Airy VHF Radio Club Packrats continued their streak of winning the Unlimited Club category. Even though their log count dropped to 65 from last year's 77 (still plenty of margin above the 51-log minimum for Unlimited), their aggregate total score increased by almost 185,000.

Among the 30 entries in Medium Club, 20 members of the North East Weak Signal Group submitted their logs to claim that gavel with just 5000 points more than the five logs from the Nacogdoches ARC (about 1% difference). Though not in contention for the gavel, the aggregate scores of the 3rd and 4th place Medium clubs were less than 2000 points apart (under ½% difference) with the Florida Weak Signal Society sneaking in just ahead of the Potomac Valley Radio Club.

Twelve clubs vied for the Local Club gavel with the Murgas ARC claiming it. Three Murgas members submitted their logs to finish just over 14,000 points ahead of the total score from the nine logs received from members of the Bristol (TN) ARC.



Looks like a balmy weekend out and about for some contesting, eh? Janice, KA9VVQ and Bruce, W9FZ braved the wintry conditions to do some roving from northern parts of the Midwest.

Summary

Welcome to the new Single-Operator, Three Band and Single-Operator, FM Only categories! Thanks as well to pioneering operators who chose to explore these new paths and to the many who entered in the “classic” categories. It would have been quite interesting had similar propagation occurred in 2013 as was experienced in 2012, but that is part of the ‘sport’ of radio: like Forrest Gump’s box of chocolates, you never know what you’re going to get. So what flavor of propagation will be found in 2014? Make your plans to participate and find out first-hand January 18-20!

New Category Comments

With two new categories to play with – Single-Op, FM Only and Single-Op, 3 Band – we get new records, new strategies, and new reactions. Here’s what the winners of those new categories had to say about them.

SO-FM category winner **Ev, W2EV** observes, “Activity is what YOU make it: There are three steps to success in the FM Only category:

“1. Make it easy for others to work you on all bands. Decide where the in-range participants are most likely located and maximize your station to work them. Think "realistically" vs. "conventionally". One example is on 6 meters. Convention says FM=Vertical antenna, right? The real story is that most other people are using multi-mode transceivers with horizontal beams.

“2. Be active at the right time(s). FM operators are generally "convenience" operators. They are not usually contesters. Pick your most active time based on other distractions (e.g. - broadcast sports, yard work, etc.). Additionally, tell others (see #3 below) when you *will* be active and calling CQ.

“3. Tell others and then remind them one last time. Ahead of the contest, become friends with the clubs (plural) in your area and talk-up the contest and category on their FM nets and in their newsletters. Most have e-mail groups that members are subscribed to. Periodically (do not spam) tickle those lists with updates on what you are doing to get prepared. Then, moments before the contest begins, send out one last message of encouragement.”



When in doubt – head for the water tower! Limited Rovers KØMHC and WØJT activated 12 grids in central Texas and southern Oklahoma. (Photo from KØMHC)

Elsewhere, **Rich, KV2R** assembled a make-shift antenna farm to rack up QSOs on the bands allowed in the 3 Band category (6 meters, 2 meters, and 432 MHz) and finish first in the SO-3B category!

“I had been thinking about trying the VHF contest of a more serious basis for a while as I now have more time as a retiree. At the last minute (actually halfway through the contest) I managed to set up in the attic an old 2m/432 yagi that had been gathering dust in the cellar with a very cheap rotator that also had been in the cellar. I thought it would be blocked to the west and the east because of the aluminum siding on the house. The transmitter was a 706MKIIG that we stopped using years ago in favor of an ICOM 746 Pro. After all, we had no 432 antenna. I used the old thin coax installed about 15 years ago for KV2M's first (15 m) attic dipole.

“I was thrilled to see that the 432 antenna worked quite well in the attic even though the 706 only puts out 20 W, the antenna is only 20 ft above ground level, and the intervening cable is rather high loss (for 432). Even at a distance of about 50 miles I was able to make a 432 contact with K3EOD (admittedly a super station). We live in a neighborhood where ham antennas are very rare. It is difficult to get municipal approval for antenna towers. Our present tower required 2 years effort for approval, and there is not that much room for a 432 antenna. Most of my contacts were on 2m or 6m as a result, but the 12 or so on 432 were most thrilling because of the gratification of seeing new effort succeed. The 3-band entry category is well suited to someone like my wife or me who can't really go wild with yagis on a massive tower.

“Anyway I worked pretty hard at the contest and had a good time. As it turned out quite a few people from our club competed, so there was kind of a party atmosphere on the air. With 3 bands, there were multiple opportunities to chat.”

Terry, K6TDI finished third in SO-FM, relating that “As a new ham, I didn't have the high power VHF rig and antenna setup of the big-time contesters. I did have a tri-band antenna, a 2 meter mobile rig, an ht with 440, and an old midland 220 rig. My HF rig (FT-450D) can do 6 meter FM. I've got 4 bands so I figured I'd give it a shot and maybe have some fun trying.

“I read a great website on VHF contesting (and) the best tip I got was when making a contact, ask what other bands they can do, and then try those with that same station. I'm sure the number of amateurs concentrated here in local So Cal helped me with fm only. I will say I expected to make more 6 meter contacts, but I'm a rookie

so I didn't really know any better about what kind of distance to expect on 6 meter.”

Another FM Only entry was submitted by **Erich, KC9CUK**. “I was very happy to see a FM category for the ARRL January VHF contest this year. I am what you could call a FM DX enthusiast, I really enjoy talking long distance 2m FM. So as you might have guessed I was very pleased to see it as a category.

“I think this also gives the average ham especially newer hams and hams on a limited budget a chance (to) participate in the contest. The more activity the better I always say. Don't get me wrong everyone knows the advantages of 2m SSB over FM. I have done both for many years and always have more fun working FM, yes the noise floor is higher, low power 50 watts or less and everyone is running vertical antennas (what a great challenge I think) but the one thing I like the most about FM is activity I can always turn on my radio and find activity and that is just not true on 2M SSB. I had a great time during the contest and was only able to devote a small amount of time to my effort because of other obligations but I hope to give it a 100% go next year – 73.”

Let's close with this excellent photo from Bruce, W9FZ as his roving partner Janice, KA9VVQ runs the bands at sunset from EN55. This year's contest was Janice's first and it won't be the last!



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
W3SZ 186,415 LP	N4QWZ 69,750 LP	K2DRH 81,648 LP	WB5ZDP 15,504 LP	AF6RR 10,350 LP
WA3NUF 128,338 LP	W2BZY 40,107 LP	VA3ST 39,483 LP	W0GHZ 13,986 LP	KD7UO 9,064 LP
N3RG 88,786 LP	N4TWX 20,010 LP	KC9BQA 16,132 LP	N0LL 10,731 LP	K1YQP 4,984 LP
AF1T 76,248 LP	W5MRB 13,650 LP	VE3SMA 15,660 LP	K7RB 5,400 LP	K6ATZ 4,218 LP
WB2SIH 71,642 LP	WB8TFV 12,505 LP	N9DG 15,580 LP	WB0YVWV 4,698 LP	W7YOZ 4,216 LP
K1TEO 349,305 HP	W3IP 41,412 HP	W0UC 56,848 HP	K5LLL 28,747 HP	N7EPD 22,506 HP
K3TUF 263,948 HP	N4HB 15,120 HP	W9GA 41,965 HP	W5LUA 14,136 HP	KC6ZWT 16,796 HP
WB2RVX 191,260 HP	W4ZRZ 9,800 HP	K8MD 40,848 HP	K0AWU 7,080 HP	K7ND 10,621 HP
WA2FGK (K2LNS, op) 109,516 HP	N1GC 8,496 HP	KU8Y 30,765 HP	WD5K 7,020 HP	K17JA 5,180 HP
WA3DRC 92,272 HP	WB4JGG 7,614 HP	K9EA 24,192 HP	W3XO/5 3,276 HP	K7CW 4,896 HP
N2SPI 2,464 Q		KD0EBT 270 Q	W0STU 666 Q	K16QEL 1,666 Q
WB2AMU 915 Q		KC9ALX 28 Q	KK6MC 252 Q	
WA3WUL 48 Q				
W3MEO 12 Q				
KD2DCC 6 Q				
KV2R 6,368 3B	KD5CKP 1,679 3B	VE3KZ 5,680 3B	K0NR 1,311 3B	K6MI 5,145 3B
N1IBM 4,770 3B	W4ETN 1,485 3B	AC8HU 4,465 3B	AB0BW 174 3B	VE7DAY 1,113 3B
N2SLO 2,080 3B	WA4LDU 768 3B	N9TF 2,369 3B	K0JQA 88 3B	K6KQV 1,098 3B
W1DYJ 1,840 3B	NR4J 570 3B	WB9TFH 2,160 3B	K0RGR 80 3B	WB6HYH 800 3B
K3YDX 1,246 3B	N4BRF 324 3B	VA3WU 1,064 3B	KC0P 65 3B	K7VIT 768 3B
W2EV 1,080 FM	N4DW 22 FM	KC9CUK 441 FM	WD9IGX 54 FM	K6TDI 324 FM
K2SI 128 FM	KK4MIN 10 FM	N9ZE 156 FM	K1KD 40 FM	KL2DN 54 FM
KB1YNT 80 FM	N5EEO 1 FM	KT8D 24 FM	KB0KOA 20 FM	N6AJR 30 FM
KB1YSK 33 FM		KC9IDS 9 FM	N0HZO 15 FM	W6CT 18 FM
			KC5FM 3 FM	K6QCB 12 FM
				N7WLC 12 FM
N3NGE 575,706 MO	N4JQQ 13,356 MO	KO9A 17,136 MO	K5QE 418,608 MO	KE7SW 15,235 MO
K3EOD 67,528 MO	K1KC 3,003 MO	K8GDT 11,712 MO	KB0HH 59,598 MO	AE6GE 15,050 MO
WB3IGR 27,192 MO	W4YCC 1,653 MO	N2BJ 7,436 MO	KC5MVZ 2,697 MO	KE0CO 2,323 MO
KE1LI 20,945 MO	K5EK 648 MO	W8RU 1,196 MO	W0RIC 1,898 MO	W6RKC 1,278 MO
N1JEZ 17,253 MO	W4TUN 493 MO	K5ZQ 252 MO	WQ5C 660 MO	KX7L 992 MO
W3SO 116,920 LM	N3MK 27,456 LM	N8ZM 30,076 LM	K0SIX 14,256 LM	W6QAR 1,725 LM
K2LIM 91,440 LM	W4NH 25,456 LM	W9RVG 3,645 LM	WD5IYF 2,652 LM	
W1QK 28,334 LM	N4DXY 1,740 LM		W0MR 2,256 LM	
KB4BKV 9,776 LM	WA4NZD 1,488 LM		W0AO 54 LM	
K2QO 8,050 LM	N4THM 1,056 LM			
NN3Q 104,924 R	N6NB 154,440 R	VE3OIL 36,646 R	W5TV 106,128 R	
K1DS 99,162 R	W6TAI 134,310 R	W9FZ 20,400 R	WK5F 40,716 R	
W2MC 10,584 R	N2CEI 101,707 R	K9TMS 8,207 R	KC0P 4,320 R	
K3IUV 10,348 R	K4SME 94,224 R	NE8I 7,344 R	N0HZO 4,293 R	
KM3G 8,832 R	WB2ONA 65,681 R	K9PLS 784 R	AF5Q 252 R	
N2ZBH 13,968 RL	KD4RSL 2,222 RL	W8ISS 264 RL	K9JK 20,880 RL	WW7D 18,216 RL
N2SLN 2,016 RL	N4TZH 480 RL		KE5GAQ 18,800 RL	K7BWH 9,509 RL
WA1T 880 RL	KD4NOQ 290 RL		K0MHC 8,736 RL	N6ZE 2,882 RL
W1PL 495 RL	WD5DJW 28 RL		WA2VOI 672 RL	K6LMN 1,309 RL
N2DCH 297 RL	KF5QOA 20 RL		W0JT 608 RL	AF6VG 350 RL
KJ1K 9,682 RU			W0BL 10,086 RU	
			KR0VER 4,758 RU	
			AB0YM 3,082 RU	

Division Winners

Category/Division	Call	Score
Single Operator, High Power		
Atlantic	K3TUF	263,948
Central	WØUC	56,848
Dakota	KØAWU	7,080
Delta	WB4JGG	7,614
Great Lakes	K8MD	40,848
Hudson	W2BVH	13,708
Midwest	WØKT	680
New England	K1TEO	349,305
Northwestern	N7EPD	22,506
Pacific	KC6ZWT	16,796
Roanoke	W3IP	41,412
Southeastern	W4ZRZ	9,800
Southwestern	WA7JTM	4,294
West Gulf	K5LLL	28,747
Canada	VE3ZV	16,571

Single Operator, Low Power		
Atlantic	W3SZ	186,415
Central	K2DRH	81,648
Dakota	WØGHZ	13,986
Delta	N4QWZ	69,750
Great Lakes	K8WW	9,802
Hudson	WB2SIH	71,642
Midwest	NØLL	10,731
New England	AF1T	76,248
Northwestern	KD7UO	9,064
Pacific	AF6RR	10,350
Roanoke	WB8TFV	12,505
Rocky Mountain	KKØQ	3,920
Southeastern	W2BZY	40,107
Southwestern	K6TSK	3,944
West Gulf	WB5ZDP	15,504
Canada	VA3ST	39,483
DX	XE2JS	4

Single Operator, Portable		
Atlantic	N2SPI	2,464
Central	KDØEBT	270
Hudson	WB2AMU	915
Pacific	KI6QEL	1,666
Rocky Mountain	WØSTU	666

Single Operator, 3-Band		
Atlantic	KV2R	6,368
Central	N9TF	2,369
Dakota	ABØBW	174
Delta	KD5CKP	1,679
Great Lakes	AC8HU	4,465
Hudson	N2SLO	2,080
Midwest	KØJQA	88
New England	W1DYJ	1,840
Northwestern	K7VIT	768
Pacific	K6MI	5,145
Roanoke	WA4LDU	768
Rocky Mountain	KØNR	1,311
Southeastern	W4ETN	1,485
Southwestern	WB6HYH	800
West Gulf	AE5P	48
Canada	VE3KZ	5,680
DX	XE1AY	627

Single Operator, FM Only		
Atlantic	W2EV	1,080
Central	KC9CUK	441
Dakota	WD9IGX	54
Delta	N4DW	22
Great Lakes	KT8D	24
New England	KB1YNT	80
Pacific	N6AJR	30
Roanoke	KK4MIN	10
Southeastern	N5EEO	1

Southwestern	K6TDI	324
West Gulf	KC5FM	3
Multipoperator		
Atlantic	N3NGE	575,706
Central	KØ9A	17,136
Dakota	NYØA	378
Delta	N4JQQ	13,356
Great Lakes	K8GDT	11,712
Hudson	K2ZD	12,768
Midwest	NØAC	6
New England	KE1LI	20,945
Northwestern	KE7SW	15,235
Pacific	AE6GE	15,050
Roanoke	W4YCC	1,653
Rocky Mountain	WØRIC	1,898
Southeastern	K1KC	3,003
West Gulf	K5QE	418,608
Canada	VA7FC	546

Limited Multipoperator		
Atlantic	W3SO	116,920
Central	W9RVG	3,645
Dakota	KØSIX	14,256
Great Lakes	N8ZM	30,076
Hudson	W2GH (W2JSJ, op)	440
Midwest	WØAO	54
New England	W1QK	28,334
Roanoke	N3MK	27,456
Southeastern	W4NH	25,456
Southwestern	W6QAR	1,725
West Gulf	WD5IYF	2,652

Rover		
Atlantic	NN3Q	104,924
Central	W9FZ	20,400
Dakota	KCØP	4,320
Delta	N6NB	154,440
Great Lakes	NE8I	7,344
New England	AA1I	4,061
Roanoke	W5JMC	47,150
West Gulf	W5TV	106,128
Canada	VE3OIL	36,646

Limited Rover		
Atlantic	N2SLN	2,016
Dakota	WA2VOI	672
Delta	KD4NOQ	290
Great Lakes	W8ISS	264
Hudson	N2ZBH	13,968
Midwest	NØJK	182
New England	WA1T	880
Northwestern	WW7D	18,216
Roanoke	KD4RSL	2,222
Rocky Mountain	KD7WPJ	54
Southeastern	N4TZH	480
Southwestern	N6ZE	2,882
West Gulf	K9JK	20,880

Ver 1.23 restores listing for Southwestern Division Limited Rover winner N6ZE.

Unlimited Rover		
New England	KJ1K	9,682
Rocky Mountain	WØBL	10,086

2013 ARRL January VHF Contest – QSO Category/Band Leaders

Single Operator, Low Power	K1KG 4 NØYE 3 W2BZY 3	3.4 GHz	W4ETN 48 K3TUF 25 WB2RVX 20 WA3DRC 18 K1TEO 12 K3IPM 9 WA3EHD 9
50 MHz	24 GHz	144 MHz	
N4QWZ 191 AF1T 164 N8RA 158 WA3NUF 147 K2DRH 124 W3SZ 124	W3SZ 5 AF1T 1 VE3SMA 1 WA3NUF 1	KV2R 83 K6MI 46 VE3KZ 45 N1IBM 40 N9TF 39	
144 MHz	Light	5.7 GHz	432 MHz
WA3NUF 149 W3SZ 147 WB2SIH 146 KBØLYL 126 AF1T 120	W2SJ 7 N3RG 6 K3EGE 2 KB1JEY 1 VE3SMA 1 W3GAD 1 WA3NUF 1	K3TUF 16 WB2RVX 14 WA3DRC 10 K1TEO 9 WA2FGK (K2LNS, op) 4 WA2OMY 4	K6MI 29 N9TF 19 N2SLO 17 VE3KZ 15 WB9TFH 14
222 MHz	Single Operator, High Power	10 GHz	Single Operator, FM Only
W3SZ 76 WA3NUF 68 WB2SIH 63 W3GAD 53 AF1T 52 WA3GFZ 52	50 MHz	K3TUF 10 WA3DRC 8 K1TEO 7 WB2RVX 6 K3CB 5	50 MHz
432 MHz	K1TOL 396 K3OO 287 K1TEO 259 W3EP 221 N3HBX 219	24 GHz	W2EV 19 K2SI 2 K6TDI 2 NØHZO 1
W3SZ 87 WB2SIH 73 WA3NUF 71 WA3GFZ 66 K2DRH 56	144 MHz	Light	144 MHz
902 MHz	K1JT 263 K1TEO 250 KA1ZE 218 W2KV 216 N3HBX 174	WB2RVX 3 WA3DRC 1 WA3EHD 1	KC9CUK 63 W2EV 27 WD9IGX 27 N4DW 22 N9ZE 16
W3SZ 33 WA3NUF 28 N3RG 27 WA3GFZ 24 W3GAD 20	222 MHz	Single Operator, Portable	222 MHz
1.2 GHz	K1TEO 102 K3TUF 94 WB2RVX 67 WA3DRC 54 K3IPM 52 N3YMS 52	50 MHz	W2EV 5 KT8D 3 K6TDI 1 N6AJR 1
W3SZ 45 N3RG 31 WA3NUF 30 WA3GFZ 20 K1KG 19	432 MHz	N2SPI 29 WB2AMU 21 KK6MC 14 KI6QEL 12 WØSTU 9	432 MHz
2.3 GHz	K1TEO 125 K3TUF 111 WB2RVX 92 K3GNC 76 WA3DRC 74	144 MHz	W2EV 8 K6TDI 5 N9ZE 5 W6CT 4 K2SI 3 KB1YNT 3 KL2DN 3
W3SZ 27 WA3NUF 21 WA3GFZ 16 N3RG 14 K1KG 10	902 MHz	Single Operator, Portable	222 MHz
3.4 GHz	K3TUF 40 WB2RVX 35 K1TEO 30 WA3DRC 27 WA3EHD 25	N2SPI 31 KI6QEL 30 WØSTU 27 WB2AMU 16 KD0EBT 11	W2EV 5 KT8D 3 K6TDI 1 N6AJR 1
W3SZ 23 WA3NUF 18 WA3GFZ 10 W2BZY 9 N3RG 8	1.2 GHz	50 MHz	432 MHz
5.7 GHz	K3TUF 46 WB2RVX 41 K1TEO 40 WA3DRC 37 K3GNC 32	KI6QEL 22 WØSTU 15 N2SPI 14 WB2AMU 7 KC9ALX 6	W2EV 8 K6TDI 5 N9ZE 5 W6CT 4 K2SI 3 KB1YNT 3 KL2DN 3
W3SZ 18 WA3NUF 7 K1KG 4 W2BZY 2 W3RJW 2	2.3 GHz	Light	222 MHz
10 GHz	WB2RVX 28 K3TUF 27 WA3DRC 23 WA3EHD 17 K1TEO 16	WA3WUL 6	KI6QEL 6 WB2AMU 5 WØSTU 4
W3SZ 16 WA3NUF 7	2.3 GHz	Single Operator, Three Band	50 MHz
	WB2RVX 28 K3TUF 27 WA3DRC 23 WA3EHD 17 K1TEO 16	50 MHz	KV2R 92 K2UNK 82 VE3KZ 67 W1DYJ 50

Multioperator (-L Limited Multioperator)		50 MHz		K3IUV	1	1.2 GHz	
		W5JMC	82	VE3OIL	1	KJ1K	7
		NN3Q	64			KRØVER	5
50 MHz		K1DS	60	Light		WØBL	5
N3NGE	355	W2MC	52	NE3I	6		
K5QE	252	W5TV	51	W2MC	6		
K2ZD	224			K1DS	5		
W1QK -L	220	144 MHz		K3IUV	5		
K2LIM -L	173	NN3Q	139	VE3OIL	2		
		W5JMC	111	NN3Q	2		
144 MHz		K1DS	92				
N3NGE	367	W9FZ	88	Limited Rover			
K2LIM -L	230	VE3OIL	75				
W3SO -L	202			50 MHz			
K5QE	198	222 MHz		WW7D	130		
W1QK -L	125	NN3Q	76	N2ZBH	122		
		W5JMC	60	K7BWH	91		
222 MHz		K1DS	59	K9JK	79		
N3NGE	144	W5TV	53	KE5GAQ	70		
W3SO -L	82	N6NB	47				
K2LIM -L	65			144 MHz			
K3EOD	63	432 MHz		K7BWH	114		
K5QE	61	NN3Q	82	WW7D	108		
		K1DS	74	N2ZBH	98		
432 MHz		W5JMC	71	KE5GAQ	70		
N3NGE	186	W9FZ	57	KØMHC	63		
W3SO -L	109	W5TV	50				
K5QE	94			222 MHz			
K3EOD	66	902 MHz		KE5GAQ	62		
KBØHH	54	NN3Q	46	K9JK	52		
		K1DS	35	N2ZBH	40		
902 MHz		N6NB	30	WW7D	36		
N3NGE	47	W5TV	28	KØMHC	26		
K3EOD	26	W6TAI	27				
K5QE	21			432 MHz			
WB3IGR	15	1.2 GHz		KE5GAQ	68		
KBØHH	8	NN3Q	48	K9JK	53		
		K1DS	40	WW7D	52		
1.2 GHz		N6NB	30	N2ZBH	44		
N3NGE	60	W5JMC	30	KØMHC	32		
K5QE	24	W6TAI	29				
K3EOD	23	2.3 GHz		Unlimited Rover			
WB3IGR	15	N6NB	30				
KBØHH	12	W6TAI	27	50 MHz			
		K1DS	24	WØBL	51		
2.3 GHz		W5TV	23	KJ1K	30		
N3NGE	32	N2CEI	21	ABØYM	25		
K5QE	13			KRØVER	24		
W1XM	6	3.4 GHz					
N4JQQ	4	N6NB	28	144 MHz			
WB3IGR	3	W6TAI	26	WØBL	45		
		K1DS	24	KJ1K	42		
3.4 GHz		W5TV	24	ABØYM	33		
N3NGE	25	N2CEI	21	KRØVER	29		
K5QE	11	NN3Q	21				
KE7SW	2			222 MHz			
		5.7 GHz		KJ1K	22		
5.7 GHz		N6NB	26	WØBL	19		
N3NGE	15	K1DS	22	ABØYM	16		
K5QE	11	W5TV	20	KRØVER	15		
KE7SW	1	W6TAI	20				
		K4SME	19	432 MHz			
10 GHz		N2CEI	19	WØBL	26		
N3NGE	14	NN3Q	19	KJ1K	23		
K5QE	9			ABØYM	22		
		10 GHz		KRØVER	20		
Light		N6NB	26				
K3EOD	6	K1DS	24	902 MHz			
WB3IGR	3	NN3Q	20	KRØVER	10		
N3NGE	2	N2CEI	19	WØBL	10		
		W6TAI	18	KJ1K	4		
Rover		24 GHz					
		K1DS	8				

2013 ARRL January VHF Contest – Multiplier Category/Band Leaders

Single Operator, Low Power

50 MHz	
N4QWZ	67
K2DRH	55
N4TWX	52
NØLL	44
AF1T	42
K8WW	42

144 MHz

K2DRH	41
N4QWZ	30
VA3ST	26
WA3EOQ	25
N9DG	24
WB2SIH	24

222 MHz

K2DRH	26
N4QWZ	22
WB2SIH	22
VA3ST	20
N9DG	18

432 MHz

K2DRH	27
N4QWZ	24
VA3ST	22
WB2SIH	21
WA3EOQ	17

902 MHz

KC9BQA	8
WA3NUF	8
K1KG	7
N3RG	7
W3SZ	7
WA3GFZ	7
WB2SIH	7

1.2 GHz

K2DRH	11
WB2SIH	9
N3RG	8
W3SZ	8
K1KG	7
VA3ST	7
W2BZY	7

2.3 GHz

W3SZ	7
K1KG	6
N3RG	6
W2BZY	5
WA3GFZ	5
WA3NUF	5

3.4 GHz

W3SZ	7
W2BZY	5
WA3NUF	5
N3RG	4
WA3GFZ	4

5.7 GHz

W3SZ	7
K1KG	3
WA3NUF	2
AF1T	1
K1YQP	1
KF8QL	1
VE3SMA	1
W2BZY	1
W3RJW	1
WA3GFZ	1

10 GHz

W3SZ	7
AF1T	2
K1KG	2
NØYE	2

W2BZY	2
WA3NUF	2

24 GHz

W3SZ	4
AF1T	1
VE3SMA	1
WA3NUF	1

Light

K3EGE	1
KB1JEY	1
N3RG	1
VE3SMA	1
W2SJ	1
W3GAD	1
WA3NUF	1

Single Operator, High Power

50 MHz

K1TOL	97
WØUC	57
K1TEO	54
WD5K	54
KU8Y	51
W3EP	51

144 MHz

K1JT	96
KA1ZE	56
K1TEO	41
WA3QPX	36
W9JN	33
WA2FGK (K2LNS, op)	33
WB2RVX	33

222 MHz

K1TEO	31
K3TUF	22
WA2FGK (K2LNS, op)	21
WØUC	18
K1TR	16
K8MD	16
K8TQK	16
W9GA	16
WB2RVX	16

432 MHz

K1TEO	31
K3TUF	25
WA2FGK (K2LNS, op)	22
K9EA	19
VE3ZV	19
WB2RVX	19

902 MHz

K1TEO	15
K3TUF	9
WB2RVX	9
W3IP	8
W9GA	8

1.2 GHz

K1TEO	18
K3TUF	10
K3CB	9
W3IP	9
WA2FGK (K2LNS, op)	9
WB2RVX	9

2.3 GHz

K1TEO	10
K3TUF	7
K3CB	6
WB2RVX	6
WA2FGK (K2LNS, op)	5
WA3DRD	5

3.4 GHz

K1TEO	7
K3TUF	7

K3CB	5
WA3DRD	5
WB2RVX	5

5.7 GHz

K1TEO	7
K3TUF	6
WB2RVX	5
WA3DRD	4
K3CB	3
WA2FGK (K2LNS, op)	3

10 GHz

K1TEO	5
K3CB	4
K3TUF	4
KA3EJJ	3
W5LUA	3

24 GHz

K3TUF	4
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Light

WA3DRD	1
WA3EHD	1
WB2RVX	1

Single Operator, Portable

50 MHz

N2SPI	10
KK6MC	8
WB2AMU	6
K16QEL	4
KDØEBT	3
W3MEO	3

144 MHz

N2SPI	12
K16QEL	6
KDØEBT	5
WB2AMU	5
WØSTU	4

222 MHz

K16QEL	2
WB2AMU	2
WØSTU	1

432 MHz

N2SPI	6
K16QEL	5
KDØEBT	2
KK6MC	2
WØSTU	2
WB2AMU	2

Light

WA3WUL	1
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Single Operator, Three Band

50 MHz

AC8HU	24
N1IBM	23
VE3KZ	23
W4ETN	23
XE1AY	19

144 MHz

AC8HU	16
N1IBM	15
K6MI	12
KV2R	12
VE3KZ	12
WB9TFH	12

432 MHz

K6MI	10
AC8HU	7
N1IBM	7
N9TF	7
WB9TFH	7

Single Operator, FM Only

50 MHz
W2EV 4
K2SI 2
K6TDI 2
NØHZO 1

144 MHz
KC9CUK 7
K6TDI 5
K1KD 4
N6AJR 4
N9ZE 4
W2EV 4

222 MHz
W2EV 4
KT8D 2
K6TDI 1
N6AJR 1

432 MHz
K6TDI 4
K2SI 3
KL2DN 3
W2EV 3
N9ZE 2

Multioperator
(-L Limited Multioperator)

50 MHz
K5QE 103
N3NGE 60
KBØHH 60
K2ZD 57
N3MK -L 54

144 MHz
K5QE 105
K2LIM -L 49
W3SO -L 48
N3NGE 47
N8ZM -L 29

222 MHz
N3NGE 38
W3SO -L 34
K2LIM -L 27
K5QE 26
N8ZM -L 16

432 MHz
K5QE 39
W3SO -L 36
N3NGE 34
K2LIM -L 19
N8ZM -L 18

902 MHz
K5QE 10
N3NGE 10
K3EOD 8
KBØHH 8
N4JQQ 7
WB3IGR 7

1.2 GHz
N3NGE 14
K5QE 12
K3EOD 8
KBØHH 8
N4JQQ 7

2.3 GHz
K5QE 8
N3NGE 7
N4JQQ 4
W1XM 3
WB3IGR 3

3.4 GHz
K5QE 7
N3NGE 6
KE7SW 1

5.7 GHz
K5QE 7
N3NGE 6
KE7SW 1

10 GHz
K5QE 7
N3NGE 6

Light
K3EOD 1
N3NGE 1
WB3IGR 1

Rover
50 MHz
AG4V 17
W5JMC 16
K4SME 10
N2CEI 10
N6NB 10
W6TAI 10
WA2IID 10

144 MHz
W5JMC 19
VE3OIL 18
NN3Q 13
K4SME 12
W9FZ 12

222 MHz
W5JMC 12
K4SME 11
N2CEI 11
N6NB 10
W6TAI 10

432 MHz
W5JMC 15
K4SME 13
N2CEI 12
VE3OIL 12
N6NB 10
W6TAI 10

902 MHz
N6NB 10
W6TAI 10
K4SME 8
N2CEI 8
W5TV 8

1.2 GHz
K4SME 10
N2CEI 10
N6NB 10
W6TAI 10
W5TV 8

2.3 GHz
N6NB 10
W6TAI 10
K4SME 8
N2CEI 8
W5TV 8

3.4 GHz
N6NB 10
W6TAI 10
K4SME 8
N2CEI 8
W5TV 8

5.7 GHz
N6NB 10
W6TAI 10
K4SME 8
N2CEI 8
W5TV 8

10 GHz
N6NB 10
W6TAI 10

K4SME 8
N2CEI 8
W5TV 8

24 GHz
K1DS 2
K3IUV 1
VE3OIL 1

Light
K1DS 3
K3IUV 2
NN3Q 2
VE3OIL 2
NE3I 1
W2MC 1

Limited Rover
50 MHz
K9JK 19
KE5GAQ 15
WW7D 15
N2ZBH 13
K7BWH 12

144 MHz
N2SLN 14
K7BWH 13
K9JK 11
KØMHC 10
N2ZBH 9
WW7D 9

222 MHz
K9JK 9
KE5GAQ 8
KØMHC 6
N2ZBH 5
WW7D 4

432 MHz
K9JK 10
KØMHC 8
KE5GAQ 8
WW7D 7
K7BWH 5
N2ZBH 5

Unlimited Rover
50 MHz
WØBL 13
KJ1K 8
ABØYM 4
KRØVER 4

144 MHz
KJ1K 13
WØBL 8
KRØVER 6
ABØYM 5

222 MHz
KJ1K 8
ABØYM 4
WØBL 4
KRØVER 3

432 MHz
KJ1K 8
WØBL 5
ABØYM 4
KRØVER 4

902 MHz
KRØVER 3
WØBL 3
KJ1K 1

1.2 GHz
KRØVER 3
WØBL 3
KJ1K 2