

ARRL September VHF Contest 2015 Results

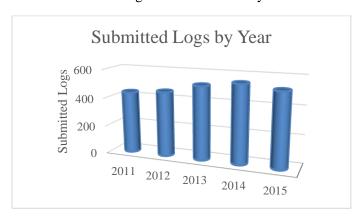
By Jeff Klein, K1TEO (wa2teo@aol.com)

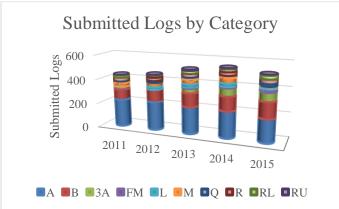
Maps, openings, and moving mobile stations make a potent mix

After the September VHF Contest on Sep 12-14 many participants noted that they had a good time getting on, making QSOs, trying new bands, and meeting old friends again. Ken, W2UAD probably reflected the overall sentiment best when he said "I still enjoy contesting," even if conditions weren't the best. Nevertheless, the September VHF contest was marked by generally poor conditions in most of North America and somewhat lower participation than last year. As N5DTT noted, "there was nothing magic about the bands this weekend!"

Who's Participating?

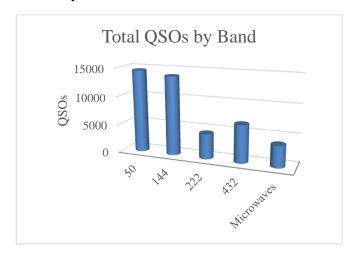
Conditions were reflected in overall activity being a bit lower this year after several years of steady increases. Log submissions totaled 516, down from 545 last year but still the second highest in the last five years.

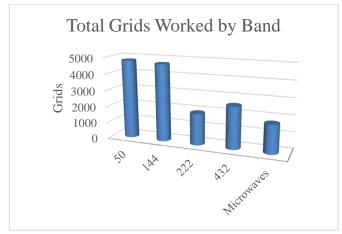




We also saw some interesting movement between categories. For example, there was a reduction in submitted logs among the bread-and-butter Single Operator, Low Power (SOLP) category while the High Power category saw a similar percentage increase in submissions. The three-year-old Single Operator, 3-Band (SO3B) category continues to grow while in the Multioperator categories there was a sizable decrease in participation.

While conditions and activity were not as hoped for, there was still plenty of action to be found. A total of over 14,000 QSOs were made on 50 MHz by those submitting logs with a nearly similar total on 144 MHz. 432 MHz is next for QSOs followed closely by 222 MHz and then by all of the microwave bands combined.

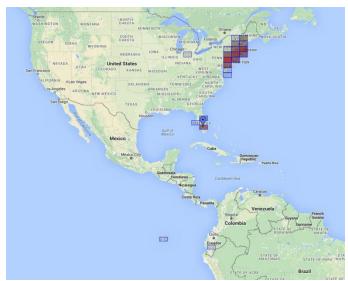




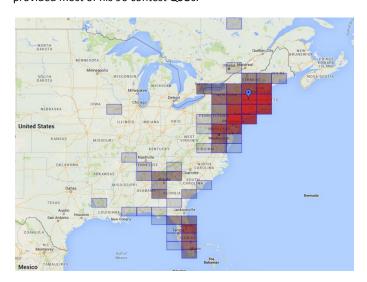
Grids worked are fairly similar across the bands with 50 and 144 MHz both totaling nearly 5000 grid multipliers among the 516 competitors.

Propagation Highlights

While the September contest is not during a time of year generally conducive to E skip on 6 meters, there was a modest opening Saturday afternoon for several hours. Stations in the Northeast and particularly in New England were able to work into the Southeast U.S., with Florida stations especially prevalent. There was also some DX worked in South America by W4 stations at the same time. From Georgia, the opening was from New Jersey and Pennsylvania to points further northeast. (The following set of maps was prepared by Andy Zwirko, K1RA. Darker shades indicate higher numbers of QSOs and only QSOs made over a 500-mile path or farther are included.)



This is the clear opening to the Northeast from NJ2F on 6 meters that provided most of his 90 contest QSOs.



W2SZ's 6 meter grids show what was workable from the Northeast.

Taking a look at the paths being worked for Saturday afternoon on 6 gives us another view of the opening.



Top scorer in SOLP, K1TR was in the right place and used the opening to add significantly to his 6 meter QSO and grid total, likely the difference over runner-up K2DRH.



Multioperator Georgia station W4NH's 6 meter QSOs on Saturday afternoon.

Even with these conditions, stations found ways to work significant grid totals on the bands. As shown by the QSO and Multiplier Leader table at the end of this article, five stations were able to work 50 or more grids on 6 utilizing brute force, meteor scatter, and in some cases the E skip of Saturday afternoon. On 2 meters, K5QE added EME QSOs to their tropospheric results to nearly reach 100 grids while KA1ZE/3 found a way to work 68 grids, mainly on tropo with some WSJT scatter QSOs. K8GP reached 40 grids on 222 while W3SO, despite some of the poorest band conditions in years, was able to work 47 on 432 MHz.

New Spotting Rules

The 2015 June and September events marked the first year with new rules for VHF+ contests allowing use of spotting capabilities by all categories during a contest. From the post-contest comments there is still a learning process underway in how to best utilize the available methods. Interest in using the new capabilities varied widely as some specifically noted they chose not use Internet access at all while others tried to use it as much as possible. Still others, particularly those operating from portable locations, lamented not having the same Internet access as others, in some cases vowing to work harder next year to figure out a way to gain the capability.

From my personal observations of the ON4KST chat page and use of the Ping Jockey website to try WSJT skeds, there was more usage during September than in the June contest. I would expect that trend to grow over time as participants find it helpful to add to the fun and the score.

For example, Bob, K2DRH noted that "it was great to set up digital WSJT Meteor scatter skeds during the contest using both the Ping Jockey and ON4KST sites". He also had the cell numbers of rovers to enhance the chance of finding them in the various grids. Likewise, Phil, K3TUF enjoyed utilizing the chat page to make more contacts during slow periods. Both Bob and Phil observed that it was nice not to have to rely on skeds set up before the contest to try some of the longer paths, rover QSOs, and meteor scatter attempts.

All three 2016 ARRL VHF contests will follow the new rules. It will be interesting to see how the live interaction online and through phone calls impacts operating approaches and its effect on scores, participation, and overall fun. The level of online activity was greater in September than June and as I write this ahead of the January contest, I suspect it will continue to show greater utilization as more give it a try and all of us figure out the best ways to make contacts with the spotting, chat, and other communication methods now allowed.

Results by Category Top Ten by Category

Score
er (SOLP)
133,722
125,832
82,836
67,303
65,405
50,868
37,730
29,970
25,704

21,978

Single Operator High Dower	(COUD)
Single Operator, High Power (K1TEO 2	
	237,160
· · · · · -	169,830
	163,440
WØUC	71,208
K1GX	58,072
W3IP	49,839
WZ1V	46,759
VE3ZV	43,896
WØGHZ	43,316
W1AN	41,184
Single Operator, Portable	e (SOP)
W7LUD	19,170
KJ4ZYB	2,233
WB2AMU	2,025
KJØNS	1,474
WD5AGO	720
N4RNR	512
KQ2RP	108
W3MEO	55
W2ODH	49
KC2JRQ	42
KK6PTS	42
Single Operator, 3 Band	(SO3B)
KO9A	`9,79Ó
N1ZN	5,310
K6ERF	2,886
WB2EOD	2,604
W2BZY	2,349
WB4OMM	2,288
KC2THQ	2,175
KM4ID	2,175
N1JD	2,064
K3UHU	2,013
Single Operator, FM only (
W2EV	2,835
N9VM (N1VM, op)	306
KF2MR	189
KG5IPP	174
NA6AA	105
K9JK	72
W2DPT	40
KØBBC	16
KG5FHU	6
NGOFITU	О

Single Operator, Low Power (SOLP)

This category has the largest number or entrants each year and remains very competitive. After several years of relatively steady numbers, SOLP participation dropped this year to 188. Let's hope this is an aberration since this is the main group for VHF+ contest participation.

The top two competitors continued their ongoing battle for first place, with Ed, K1TR coming out on top, edging out Bob, K2DRH in a repeat of 2014. Ed set up at a portable location on Wachusett Mountain in Massachusetts once again. He found conditions and activity below normal although the Saturday afternoon Es on 6 meters helped bolster his grid total on the band. He also observed a decline in rover activity, something others in the Northeast reported as well. The weekend weather was quite poor with rain and storms throughout so that may have been a factor.

KX4R

K2DRH operating from his home station in Western Illinois noted poor conditions and activity on Saturday at his QTH. Conditions improved on Sunday and in the last hour of the contest Bob faced the "problem" of whether to work tropo to his Southeast or work the rovers. He made some nice 500-600 mile contacts to bolster his score. In the end, Ed's QSO advantage on 6 meters and the microwave bands helped him stay ahead of Bob with a score of 133k to 125k.



AF1T moved some of his microwave antennas to a 100-foot tower and that helped a good deal along with Saturday success with 6 meter Es. (Photo by AF1T)

AF1T moved up nicely to take third this year in SOLP. WB1GQR was next, just ahead of K1KG. Two Long Island stations, WB2JAY and WA2VNV took 6th and 7th positions. Last year Todd, N4QWZ was in the right spot for tropo and took 4th in the category. Without the enhancement he still placed well, finishing 8th overall.

On the West Coast, VE7JH had the top score from British Columbia, narrowly missing the overall Top Ten.

Single Operator, High Power (SOHP)

This category has seen a rise in participation in each of the last five years. This year saw a nice jump of 12% to 130. This is an increase of over 35% in the last five years! Perhaps some of the 2015 decline in SOLP entrants came from those who moved up to high power to accommodate poor overall conditions.

The top three remained the same in 2015 as Jeff, K1TEO; Dave, K1RZ; and Phil, K3TUF finished in that order. While Jeff and Dave's score dropped quite a bit, Phil's was up substantially to tighten the competition. K1RZ noted that conditions were the worst he has seen in many years. Results author K1TEO echoed that observation as a cold front moved through the eastern part of the country. Perhaps Murphy played a role as there were great tropo conditions in the Midwest and

Eastern U.S. the week before the contest and the week following the contest. Next year...

Moving up nicely in the SOHP category was WØUC who placed 4th with a score of 71k after placing 8th last year. He was followed by Top Ten repeats K1GX, W3IP, and WZ1V. Lead Canadian entry VE3ZV and WØGHZ rounded out the Top Ten for SOHP.

Single Operator, 3-Band (SO3B)

In its third year as a category, SO3B participation levels were up about 10 %. Operators can participate on 50 and 144 MHz running 100 watts and on 432 MHz with 50 watts. Competing from a new QTH, KO9A took the top spot from Illinois with 12k. Jim noted flat conditions but used FSK441 from the *WSJT* software suite and online coordination to add otherwise unworkable multipliers. Moving up a notch from 2014 to take runner-up was another Jim, N1ZN from Connecticut. All other Top Ten entries scored between 2k and 3k in a tight battle to make the leader board. K6ERF placed third from the West Coast followed closely by repeat Top Ten station WB2EOD. Fellow Floridians W2BZY and WB4OMM also made effective use of the Saturday afternoon E skip for the bulk of their QSOs on 6 meters.

With many rigs having 50, 144 and 432 MHz this should be a category that continues to grow.. If you have a transceiver capable of these bands and have not given it a try we invite you to join the fun in the 2016 ARRL VHF contests.

Single Operator, Portable (SOP)

This category continues to attract a steady group of about 20 operators each September. You are eligible to compete if you are operate a portable station and are running no more than 10 watts power output. Showing what can be done even with sub-normal conditions, W7LUD from Washington lapped the field scoring an impressive 19k points. Operating all bands through 1296 MHz, he made 242 contacts in 54 grid multipliers to improve his score by over 50% from last year and move up a place. Taking second was a newcomer to SOP, KJ4ZYB . Using 4 bands his score was 2.2k. WB2AMU moved up a notch to take third while KIØNS was fourth.

Single Operator, FM Only (SOFM)

With 10 entries, the FM-only category still has some upside for growth. It is a good way to get your feet wet in VHF+ contesting and perhaps helped by the recent addition of the national simplex frequency (146.52 MHz) as an allowable frequency for contesting. Ev, W2EV used 50-432 effectively to score 2.8k, demonstrating what is possible using FM. He was able to make over

100 QSOs from his Western New York QTH. N9VM was second followed by KF2MR and KG5IPP.

Top Ten by	y Category
Call	Score
Limited Multion	operator (LM)
K8GP	190,486
W3SO	136,113
W2LV	87,125
K8EP	83,592
AA4ZZ	81,548
N2NT	53,560
K5QE	48,320
W4NH	42,265
W1QK	20,800
K7CW	8,722
Unlimited Mult	ioperator (UM)
W2SZ	449,555
K2LIM	138,840
W2EA	126,312
WE1P	68,628
W6TV	65,272
KV1J	37,914
W1XM	37,410
K1MUJ	28,044
K2AMI	10,945
NY2NY	10,370

Multioperator Categories

Some familiar scores took top honors this year. Starting with Limited Multioperator (LM), after winning the Rover category last year, the K8GP group returned to their fixed location in FM19 (Virginia). Despite poor conditions, they managed to score 190k, higher than last year's top score in the category when tropo enhancement prevailed. They turned in contest-high grid totals on 50 and 222 MHz as well as QSO totals on 144 and 222 MHz.

Last year's second-place team, W3SO, repeated in 2015 with another LM score over 100k. Third through fifth place was very tight with W2LV, last year's fifth-place team, moving up ahead of 2014's LM champs, K8EP. AA4ZZ took fourth as N2NT moved up a couple of notches to take fifth, followed by K5QE and W4NH as all stations were tightly bunched.

There was a fairly steep drop in Unlimited Multioperator (UM) submissions this year, dropping from 41 in 2014 to 17 in 2015. There is no clearly identifiable reason for this. UM stations tend to be the ones that keep the bands active throughout a contest. Casual ops who show up at some point over the weekend can usually count on hearing their signals. The drop in the category activity made the bands quieter over the weekend. Hopefully 2016 will see their return.

While submissions were down, the UM winner was a familiar one: the W2SZ group on Mt Greylock in Massachusetts with a total of 449k. As they have shown over the years, their outstanding microwave results, combined with solid scores on the bottom four bands was the recipe for a win. Continuing to score well were the Western New York operators at K2LIM, moving up a notch this year to place second. Northeast stations W2LV and WE1P took the next spots followed closely by W6TV from the West Coast.

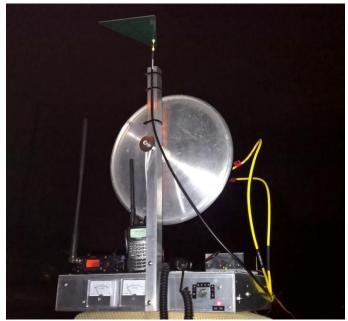
Top Ten by	
Call	Score
Classic Ro	over (R)
N6NB/R	193,776
VE3OIL/R	62,220
W6TE/R	60,264
K6MI/R	56,166
N6MTS/R	54,450
WA3PTV/R	38,178
W6IT/R	34,980
W6TAI/R	34,920
VE3WJ/R	25,560
KF2MR/R	22,701
Limited Ro	ver (RL)
NF2RS/R	61,586
WW7D/R	35,574
VE3SMA/R	34,048
K2EZ/R	26,320
AE5P/R	20,200
WA5GVQ/R	19,800
WD5RAH/R	18,088
W5TV/R	8,650
K9JK/R	6,913
WB8BZK/R	3,256
Unlimited R	over (RU)
KØDAS/R	32,016
W3HMS/R	13,394
KJ1K/R	6,960
VE7AFZ/R	3,267

Rover Categories

While some in the Northeast lamented the low activity from rovers this time around, total submissions between the three categories in the competition were up with 67 entrants. As usual the Classic Rover class had the highest number of submissions with 34, up about 25% from last year. In recent years, Wayne, N6NB/R has focused on Portable operations but he returned to roving this year to rack up the high score in the category with 193k. Wayne worked between 47 and 49 QSOs on all bands up through 10 GHz with 11 grids on each band. He also added 31 contacts and 11 grids on 24 GHz. With the higher point totals from microwave contacts and 11 bands operated he was able to more than triple the score of second-place VE3OIL/R.

Wayne used a new strategy this time around as he roved Saturday with W6IT and W6TAI through 5 grids.

Sunday he moved 200 miles north in California and roved with W6TE, K6MI and N6MTS through another 6 grids. Along the way Wayne (and some of the others) managed to work Multioperator station W6TV from 5 grids on 24 GHz to give them VUCC on the band over the weekend.



One of the 10-band stations used by N6NB/R and others to make a lot of QSOs on a lot of different bands. (Photo by N6NB)

Wayne's Sunday partners placed very well in this category as W6TE/R, K6MI/R and N6MTS/R were right behind VE3OIL/R. WA3PTV/R slipped in between the 6-land stations for sixth overall, followed by Wayne's Saturday group of W6IT/R and W6TAI/R.



K9JK parked at the corner of EN50/51/60/61, with some of a wind farm that has 'popped up' there within the past year and a half to keep him company. (Photo by K9JK)

The Limited Rover (LR) category allows operation on 50 through 432 MHz. Competing in the category, NF2RS/R repeated as top dog. Hitting 16 grids over the weekend, partners Mark, K2QO and Dick, K2ZR worked over 500 stations. While they noted "stinky" conditions throughout the weekend, they managed nice multiplier totals on all 4 bands topped by 39 on 2 meters.



Darryl, WW7D/R continued his outstanding roving from the Pacific Northwest, finishing in the Limited Rover category's second spot. (Photo by WW7D)

Take a look at the pictures of WW7D/R's antennas and station setup to see what he used to achieve his second-place LR finish. Steve, VE3SMA operating LR for the first time took third right behind Darryl, followed by September Contest new comer K2EZ/R who placed fourth. Several 5-land stations were next with AE5P/R, WA5GVQ/R, WD5RAH/R and W5TV/R following in that order.

The Unlimited Rover category saw four entries this time. KØDAS/R was the top scorer with 32K. Roving in Iowa with NØNLO, Rod was able to make over 300 QSOs while operating from 16 different grids. W3HMS/R moved up from third in 2014 to finish in second with 13k. KJ1K/R was third with nearly 7k points.

Coming Back for More by Mark Adams, K2QO and Richard Stein, K2ZR

Four consecutive first-place US/VE Limited Rover wins were on the line as the 2015 September VHF contest weekend drew nearer. K2ZR and I had were keenly aware of the great competition in this category. We spent a goodly amount of time strategizing for a five-peat.

The groundwork for the run of winning efforts began in 2010 when we changed up our usual route for the contest. As it turned out, Dick had friends in western CT that lived a few miles from a state park with good elevation. It seemed like a good choice for a first grid stop especially considering that our gracious hosts Meri & Ed had plenty of room for an overnight stay. Bonus — a nice pool and hot tub. Add to that a great dinner party on Friday night, a late wakeup call on Saturday followed by a fabulous farmer's breakfast. Then, lunch to go. Who could say no!

Sadly, the rove in 2010 was our last in the Classic Rover category. With so few stations to work above 432 MHz in WNY, it was simply not worth the effort to carry the extra bands. Our FN31 and FN32 locations sported good microwave activity, but taking time to hand out QSOs in those grids while only reporting a score for Limited Rover would hurt our score. Our basic operating strategy has not changed much since 2010. The front seat operating position usually filled by K2ZR is dedicated to 2 meters while the back seat position runs 6, 222 and 432. CQing on 2 meter CW is the norm. Being heard an extra grid or two further than SSB allows surely helps our score. We paper log at both positions even though we have enough technology to allow networked computers. Having more room in the rover is nice and we eliminate the omnipresent computer noise that is especially noticeable on 6 meters.

It is not fun to manually enter 500 QSOs after the contest. You'd think that this method would result in a better LCR (log checking report) and a cleaner score but I'm not convinced. There is just as much chance of incorrectly typing a call sign or band as there is writing it during the initial logging process. Add to that some second guessing on a call or grid and you are no better off, in my opinion.

The biggest change we made for 2015 was adding more operating time and doing so was not easy. K2ZR spent hours poring over previous year's roves with a focus on determining which grids were most important to our score. In combination with the usual time of day we operate each grid, he was able to mine important clues that allowed us to optimize our rove even further.

Most notably, we eliminated our Saturday overnight stay at the Cold Brook Contest Club HQ in the southern Adirondacks. Instead, we stayed at a motel just a few miles from our FN22 morning grid stop in Cobleskill, NY. The previous year's drive from FN32 on the Taconic Parkway to the Adirondacks was long and tiring in a driving rain with few QSOs from the road. The free lodging and great camaraderie at the W2CCC Contest Club HQ would surely be missed, but getting an early start in FN22 helped bolster our score. We also got more sleep. Any rover team will tell you is well worth it come 0300 UTC on Monday! In the heat of the contest battle, it is easy to feel as though more operating time is needed, but personal safety must take precedence when you are driving a rover vehicle nearly 1000 miles in a weekend.

Despite the exquisite planning, visit from Murphy were plentiful. In our case, he stopped by fairly often to wreak havoc with transverter keying and power output. When we tested the equipment prior to the contest everything worked great. Power outputs were on the money, transverter keying and un-keying was good and there was no inter-rig interference.

Initial installation and testing in the SUV was likewise good. But at the very first stop, all that changed. In the back seat operating position, the Elecraft XV222 refused to un-key after it transmitted for more than few seconds and the power output of the XV432 was anywhere from a couple watts to 25 watts. On 6 meters, the K3 was only putting out 80 watts. This all worked perfectly in my driveway just 24 hours earlier! All very frustrating but not the first contest with these issues. Fixing these issues is going to take more investigation. Even better would be a modern radio like the Icom IC-9100 with built in 222 MHz. Having all four lower VHF bands in one box using one microphone, one key, and no additional switching/cabling/etc would be perfect for my setup.

Making good scores on VHF while being primarily a Western NY rover has taken increased effort over the years and has forced us east to find activity. Gone are the SOHP 10-band guys and the M/M superstations. In fairness, there is a growing crop of VHF newcomers in the Rochester area and activity levels seem to be on the upswing after bottoming out a couple years ago.

In the end, for me, there is nothing more fun in radiosport than roving in the VHF contest. While the effort required for a top finish is substantial, it is offset by gourmet meals, great accommodations, and sometimes magical moments of enhanced propagation. Is it any surprise that we keep coming back for more?

Affiliated Club Competition

A total of 19 Clubs competed in the Medium category, while 9 participated in the Local category. A little over 40% of the logs were part of the club competition.

In the Medium category, the Potomac Valley Radio Club (PVRC) stayed on top in a very close competition with the Northeast Weak Signal Group (NEWS), prevailing 557k to 548k. 23 PVRC members submitted scores with 15 for NEWS. The Southern California Contest Club was next with 434k while the Mt Airy VHF Radio Club took forth with 355k. Also scoring well with over 200k were the Contest Club of Ontario and the Northern Lights Radio Society.

In the Local category we have a new champion, as the Michigan VHF-UHF Society scored nearly 30k. Two New Jersey clubs were next with the Lodi ARC scoring 17k followed by the Bergan ARA. Last year's leaders, the Granite State ARA took fourth this time around with 10k.

Affiliated Club Results		0
Club Name	Logs	Score
Medium Category	22	FF7 440
Potomac Valley Radio Club	23	557,442
North East Weak Signal Group	15 7	548,541
Southern California Contest Club	, 12	434,689
Mt Airy VHF Radio Club Contest Club Ontario	12 11	355,608
		216,115
Northern Lights Radio Society	19 30	203,236
Pacific Northwest VHF Society		154,426
Society of Midwest Contesters	11	145,844
Yankee Clipper Contest Club Carolina DX Association	8 3	138,395
	3 4	89,611
Nacogdoches ARC Frankford Radio Club	6	66,738
	5	61,935
CTRI Contest Group	5 8	45,445
Rochester VHF Group Northern California Contest Club	6 4	28,855
	5	7,410
Florida Contest Group Grand Mesa Contesters of Colorado	4	7,694
South Jersey Radio Assn	3	5,572 4,939
Arizona Outlaws Contest Club	5 6	281
Local Category	O	201
Michigan VHF-UHF Society	5	29,834
Lodi ARC	3	17,198
Bergen ARA	3	12,023
Granite State ARA	4	10,232
Bristol (TN) ARC	8	9,961
DFW Contest Group	3	7,893
West Valley ARA	5	6,886
Florida Weak Signal Society	3	3,905
Raritan Bay Radio Amateurs	3 3	1,130
Maritari Bay Madio / Milatouro	5	1,100

Results Wrap-up

So that's a wrap on 2015 VHF contesting results. The year saw new rules apply, creating significant changes in the use of communication between competitors during contests and allowable real-time information available to all categories of participants. It also changed some of the ways we can use FM in contests. It is clear that the full effects of these changes have yet to be felt and it will be interesting to see how the implementation of these changes evolve over time. 2015 also saw relatively poor contest conditions. So here's to hoping that on Sep 10-12, 2016 there will be some improved band conditions and lots of activity on the VHF+ bands!

	Regional Leaders															
	SOQRP/LP/HP = Single-Op All-Band; SOULP/HP = Single-Op Unlimited; MSL/MSH = Multioperator, Single Transmitter															
North	east Region	on	South	east Regi	on		Cent	ral Regioı	1			est Regio			oast Reg	
New England, Hudson and Atlantic Divisions; Maritime and Quebec Sections				Delta, Roanoke and Southeastern Divisions			Dakota, Midwest, Romann Central and Great Lakes Mountain and West Divisions; Ontario Section Divisions; Manitoba Saskatchewan Section		and West (; Manitoba a	Gulf and	Southwe Alberta, Bri	lorthwesterr estern Divisi itish Columb 'T Sections	ions;			
Call	Score	Cat	Call	Score	Cat		Call	Score	Cat		Call	Score	Cat	Call	Score	Cat
K1TR	133,722	SOLP	N4QWZ	29,970	SOLP		K2DRH	125,832	SOLP		KKØQ	4,020	SOLP	VE7JH	15,066	SOLP
AF1T	82,836	SOLP	KX4R	21,978	SOLP		VE3DS	18,732	SOLP		WBØHHM	2,403	SOLP	KEØCO	12,056	SOLP
WB1GQR (W1SJ, op)	67,303	SOLP	K4FJW	6,885	SOLP		W9GA	11,270	SOLP		NØLL	1,980	SOLP	K2GMY	9,072	SOLP
K1TEO	237,160	SOHP	W3IP	49,839	SOHP		wøuc	71,208	SOHP		WØGHZ	43,316	SOHP	WA6OSX	16,701	SOHP
K1RZ	169,830	SOHP	N4HB	18,592	SOHP		VE3ZV	43,896	SOHP		KØSIX	10,000	SOHP	W7FI	10,992	SOHP
K3TUF	163,440	SOHP	N3MK	15,300	SOHP		K8TQK	40,365	SOHP		KØAWU	8,855	SOHP	KC6ZWT	10,620	SOHP
WB2AMU	2,025	SOP	KJ4ZYB	2,233	SOP		KO9A	9,790	SO3B		WD5AGO	720	SOP	W7LUD	19,170	SOP
KQ2RP	108	SOP	N4RNR	512	SOP		WB9TFH	1,152	SO3B		KØNR	21	SOP	KJØNS	1,474	SOP
W2ODH	49	SOP	W3MEO	55	SOP		KG9Z	675	SO3B		NØJK	16	SOP	KK6PTS	42	SOP
N1ZN	5,310	SO3B	W2BZY	2,349	SO3B		К9ЈК	72	SOFM		K5ND	954	SO3B	K6ERF	2,886	SO3B
WB2EOD	2,604	SO3B	WB40MM	2,288	SO3B		N2BJ	5,670	SOFM		KØJQA	672	SO3B	K5TRI	1,344	SO3B
KC2THQ	2,175	SO3B	KM4ID	2,175	SO3B		VA3NW	702	SOFM		WDØBGZ	380	SO3B	к6кнв	1,120	SO3B
														N9VM		
W2EV	2,835	SOFM	K8GP	190,486	SOFM		VE3OIL/R	62,220	R		KG5IPP	174	SOFM	(N1VM, op)	306	SOFM
KF2MR	189	SOFM	K8EP	83,592	SOFM		VE3WJ/R	25,560	R		кøввс	16	SOFM	NA6AA	105	SOFM
W2DPT	40	SOFM	AA4ZZ	81,548	SOFM		KF8QL/R	10,320	R		KG5FHU	6	SOFM	K7CW	8,722	LM
W3SO	136,113	LM	N4JQQ	2,520	LM		VE3SMA/R	34,048	LR		K5QE	48,320	LM	W6ZZZ	6,090	LM
W2LV	87,125	LM	AG4V/R	13,104	R		K9JK/R	6,913	LR		AIØBP	867	LM	W6TV	65,272	М
N2NT	53,560	LM	N4TWX/R	3,360	R		WB8BZK/R	3,256	LR		WCØAAA	300	LM	N6NB/R	193,776	R
W2SZ	449,555	М	W4WNT/R	77	R						KC5MVZ	1,206	М	W6TE/R	60,264	R
K2LIM	138,840	М	K4EDI/R	464	LR						W7QQ/R	17,719	R	K6MI/R	56,166	R
W2EA	126,312	М	K6PFA/R	12	LR						KA9VVQ/R	17,664	R	WW7D/R	35,574	LR
WA3PTV/R	38,178	R									W9FZ/R	17,616	R	KA4VBF/R	640	LR
KF2MR/R	22,701	R									AE5P/R	20,200	LR	W6PI/R	120	LR
WB2SIH/R	5,418	R									WA5GVQ/R	19,800	LR	VE7AFZ/R	3,267	UR
NF2RS/R	61,586	LR									WD5RAH/R	18,088	LR			
K2EZ/R	26,320	LR									KØDAS/R	32,016	UR			
W1PL/R	1,400	LR														
W3HMS/R	13,394	UR														
KJ1K/R	6,960	UR				Ш										

2015 ARRL September VHF Contest QSO and Multiplier Leaders by Band

QSO Leaders				Multiplier Leaders			
Band	Call	Category	QSOs	Band	Call	Category	Mults
50 MHz	W2SZ	UM	444	50 MHz	K8GP	LM	58
	W2LV	LM	256		W2SZ	UM	54
	W2EA	UM	255		K1TEO	SOHP	51
	K8GP	LM	253		K2DRH	SOLP	51
	K8EP	LM	221		K5QE	LM	51
	K1TR	SOLP	219		K2ZD	SOHP	48
	KV1J	UM	195		KV1J	UM	44
	K1TEO	SOHP	185		K1TR	SOLP	43
	W4NH	LM	182		W2LV	LM	43
144 MHz	NF2RS/R K8GP	RL LM	174 284	144 MHz	W2EA K5QE	UM LM	42 94
144 IVIDZ	W2SZ	UM	278	144 IVITZ	KA1ZE/3	SOHP	68
	KA1ZE/3	SOHP	252		K8GP	LM	60
	W3SO	LM	218		AA4ZZ	LM	58
	W2LV	LM	205		W3SO	LM	55
	NF2RS/R	RL	195		K2DRH	SOLP	53
	K2LIM	UM	194		K2LIM	UM	49
	K1TEO	SOHP	193		K1TEO	SOHP	44
	WW7D/R	RL	173		K8EP	LM	43
	AA4ZZ	LM	171		K8TQK	SOHP	43
222 MHz	K8GP	LM	86	222 MHz	K8GP	LM	40
	K1TEO	SOHP	84		W3SO	LM	36
	WW7D/R	RL	83		K1TEO	SOHP	33
	W3SO_	LM	79		K2LIM	UM	33
	AE5P/R	RL	77		K2DRH	SOLP	31
	WD5RAH/R	RL	76		W2SZ	UM	28
	WA5GVQ/R	RL	75 74		K3TUF	SOHP	27
	W2SZ K2LIM	UM	74 71		K8TQK	SOHP	27
	VE3SMA/R	UM RL	71 71		K1RZ VE3ZV	SOHP SOHP	26 26
	VE3SIVIA/K	KL	7 1		W2LV	LM	26 26
432 MHz	W2SZ	UM	142	432 MHz	W3SO	LM	47
432 WII IZ	W3SO	LM	118	432 IVII 12	K8GP	LM	44
	WW7D/R	RL	118		K2DRH	SOLP	38
	K8GP	LM	117		K1TEO	SOHP	34
	K1TEO	SOHP	109		K2LIM	UM	30
	K2DRH	SOLP	97		K3TUF	SOHP	29
	AE5P/R	RL	93		K8TQK	SOHP	29
	K3TUF	SOHP	93		W2SZ	UM	28
	WD5RAH/R	RL	93		AA4ZZ	LM	27
	WA5GVQ/R	RL	91		K1RZ	SOHP	27
		_			K8EP	LM	27
902 MHz	N6NB/R	R	48	902 MHz	K1TEO	SOHP	19
	W2SZ	UM SOHP	37		K1RZ	SOHP	17
	K1RZ K6MI/R	R	33 33		W2SZ K1GX	UM SOHP	15 13
	K1TEO	SOHP	31		K3TUF	SOHP	13
	N6MTS/R	R	30		K1TR	SOLP	11
	W6TE/R	R	30		K2LIM	UM	11
	W6TV	ÚM	26		N6NB/R	R	11
	K3TUF	SOHP	23		K1KG	SOLP	10
	K1TR	SOLP	21		WØGHZ	SOHP	10
					WØUC	SOHP	10
					W2EA	UM	10
					WB2JAY	SOLP	10
1.2 GHz	N6NB/R	R	48	1.2 GHz	K1TEO	SOHP	18
	W2SZ	UM	44		K3TUF	SOHP	17
	K1TEO	SOHP	39		WØUC	SOHP	15
	K3TUF	SOHP	39		W2SZ	UM	15
	K6MI/R	R	31		WZ1V	SOHP	15
	WZ1V N6MTS/R	SOHP R	31 30		K1GX K1RZ	SOHP SOHP	12 12
	W6TE/R	R	30		K1RZ K2DRH	SOLP	12
	WA3PTV/R	R	28		WB2JAY	SOLP	12
	AF1T	SOLP	26		K1TR	SOLP	11
	K1TR	SOLP	26		N6NB/R	R	11
		502	_0				• • •

2.3 GHz	N6NB/R W2SZ N6MTS/R K6MI/R W6TE/R WA3PTV/R W6TV K1RZ W6IT/R W6TAI/R	R UM R R R R UM SOHP R R	48 36 29 28 28 24 22 18 18	2.3 GHz	W2SZ N6NB/R K1GX K1RZ K1KG VE3OIL/R VE3WJ/R W2EA K3TUF AF1T K1IIG K1TR K6MI/R N6MTS/R W1XM W6TE/R	UM R SOHP SOLP R R UM SOHP SOLP SOHP SOLP SOLP SOLP SOLP SOLP SOLP SOLP SOL	18 11 10 10 8 8 8 8 7 6 6 6 6 6 6 6
3.4 GHz	N6NB/R W2SZ K6MI/R N6MTS/R W6TE/R W6TV WA3PTV/R W6IT/R W6TAI/R K1TEO	R UM R R R UM R R R SOHP	48 33 30 30 30 24 23 18 18 17	3.4 GHz	WB1GQR (W1SJ, op) W2SZ K1TEO N6NB/R K1KG K1RZ K3TUF K1GX W2EA K6MI/R N6MTS/R W6TE/R	SOLP UM SOHP R SOLP SOHP SOHP UM R R R UM	6 16 12 11 8 8 7 7 6 6 6 6
5.7 GHz	N6NB/R N6MTS/R K6MI/R W6TE/R W2SZ W6IT/R W6TAI/R W6TV WA3PTV/R K1RZ	R R R R UM R UM R SOHP	47 29 27 27 22 18 18 16 11	5.7 GHz	WB1GQR (W1SJ, op) N6NB/R W2SZ K6MI/R N6MTS/R VE3OIL/R VE3WJ/R W6TE/R K1KG K1RZ K1TEO K3TUF W6IT/R	SOLP R M R R R R R P P P P P P SOHP P R R SOHP P R S	6 11 10 6 6 6 6 6 5 5 5 5 5 5 5 5 5 5 5 5 5 5
10 GHz	N6NB/R N6MTS/R K6MI/R W6TE/R W2SZ W6TV W6IT/R W6TAI/R WØGHZ WA3PTV/R	R R R UM UM R R SOHP R	48 30 28 27 24 22 18 18 17	10 GHz	W6TV N6NB/R WØGHZ W2SZ K1GX K6MI/R N6MTS/R W6TE/R W6TV K1KG K1RZ W6IT/R	UM R SOHP UM SOHP R R R UM SOLP SOHP R	5 11 9 8 6 6 6 6 6 5 5 5
24 GHz	N6NB/R W6IT/R W6TAI/R W2SZ W6TE/R VE3OIL/R VE3WJ/R W6TV AF1T	R R R UM R R R UM SOLP	31 18 18 10 8 7 7 5	24 GHz	W6TAI/R N6NB/R VE3OIL/R VE3WJ/R W6TE/R W6IT/R W6TAI/R W6TV W2SZ AF1T	R R R R R R UM UM SOLP	5 11 7 7 6 5 5 5 4 1
LIGHT	K3TUF W2EA VE3OIL/R VE3WJ/R W2SZ AF1T	SOHP UM R R UM SOLP	1 9 7 7 4 1	LIGHT	K3TUF VE3OIL/R VE3WJ/R AF1T W2EA W2SZ	SOHP R R SOLP UM UM	1 7 7 1 1

Division Winners

	Division Winner	S	
Division	Category	Call	Score
Atlantic	Single Operator, Low Power	WA3EOQ	25,704
/ tital itio	•	K1RZ	
	Single Operator, High Power		169,830
	Single Operator, Portable	W2ODH	49
	Single Operator, 3 Band	WB2EOD	2,604
	Single Operator, FM only	W2EV	2,835
	Limited Unlimited Multioperator	W3SO	136,113
	Unlimited Multioperator	K2LIM	138,840
	Rover	WA3PTV/R	38,178
	Limited Rover	NF2RS/R	61,586
	Unlimited Rover	W3HMS/R	13,394
Canada	Single Operator, Low Power	VE3DS	18,732
	Single Operator, High Power	VE3ZV	43,896
	Single Operator, 3 Band	VE7IHL	416
	Unlimited Multioperator	VA3NW	702
	•	-	
	Rover	VE3OIL/R	62,220
	Limited Rover	VE3SMA/R	34,048
	Unlimited Rover	VE7AFZ/R	3,267
Central	Single Operator, Low Power	K2DRH	125,832
	Single Operator, High Power	WØUC	71,208
	Single Operator, 3 Band	KO9A	9,790
	Single Operator, FM only	K9JK	72
	Unlimited Multioperator	N2BJ	5,670
	Limited Rover	K9JK/R	6,913
Dakota	Single Operator, Low Power	WBØHHM	2,403
	Single Operator, High Power	WØGHZ	43,316
	Single Operator, 3 Band	NØAT	
			243
	Single Operator, FM only	KØBBC	16
	Limited Unlimited Multioperator	AIØBP	867
	Rover	KA9VVQ/R	17,664
	Limited Rover	NØSPN/R	296
Delta	Single Operator, Low Power	N4QWZ	29,970
Dona		W5MRB	
	Single Operator, High Power		10,710
	Limited Unlimited Multioperator	NE5BO	3,458
	Unlimited Multioperator	N4JQQ	2,520
	Rover	AG4V/R	13,104
	Limited Rover	K4EDI/R	464
Great Lakes	Single Operator, Low Power	WZ8T	9,882
Ordat Lando	Single Operator, High Power	K8TQK	40,365
			•
	Single Operator, 3 Band	KG9Z	675
	Rover	KF8QL/R	10,320
	Limited Rover	K8DOG/R	2,331
Hudson	Single Operator, Low Power	WB2JAY	50,868
	Single Operator, High Power	N2SLO	14,495
	Single Operator, Portable	WB2AMU	2,025
		_	
	Single Operator, 3 Band	K2UNK	915
	Single Operator, FM only	W2DPT	40
	Limited Unlimited Multioperator	W2LV	87,125
	Unlimited Multioperator	WE1P	68,628
	Rover	WB2SIH/R	5,418
	Limited Rover	N2MH/R	560
Midwest	Single Operator, Low Power	NØLL	1,980
Midwest			•
	Single Operator, High Power	KØTPP	1,435
	Single Operator, Portable	NØJK	16
	Single Operator, 3 Band	KØJQA	672
	Limited Rover	WK7G/R	855
	Unlimited Rover	KØDAS/R	32,016
Now England	Single Operator, Low Power		
New England		K1TR	133,722
	Single Operator, High Power	K1TEO	237,160
	Single Operator, Portable	N1PRW	24
	Single Operator, 3 Band	N1ZN	5,310
	Limited Unlimited Multioperator	W1QK	20,800
	Unlimited Multioperator	W2SZ	449,555
	Limited Multioperator	K2EZ/R	26,320
N 1 (1 :	Unlimited Rover	KJ1K/R	6,960
Northwestern	Single Operator, Low Power	KEØCO	12,056
	Single Operator, High Power	W7FI	10,992
	Single Operator, Portable	W7LUD	19,170
	Single Operator, 3 Band	K5TRI	1,344
	Limited Unlimited Multioperator	K7CW	8,722
	Rover	K7BWH/R	5,880
	Limited Rover	WW7D/R	35,574

Pacific	Single Operator, Low Power	K2GMY	9,072
	Single Operator, High Power	WA6OSX	16,701
	Single Operator, Portable	KJØNS	1,474
	Single Operator, 3 Band	K6ERF	2,886
	Single Operator, FM only	N9VM (N1VM, op)	306
	Limited Unlimited Multioperator	W6ZZZ	6,090
	Unlimited Multioperator .	W6TV	65,272
	Rover	N6NB/R	193,776
	Limited Rover	KA4VBF/R	640
Roanoke	Single Operator, Low Power	K4FJW	6,885
	Single Operator, High Power	W3IP	49,839
	Single Operator, Portable	KJ4ZYB	2,233
	Single Operator, 3 Band	KM4ID	2,175
	Limited Unlimited Multioperator	K8GP	190,486
	Rover	N4TWX/R	3,360
	Limited Rover	K6PFA/R	12
Rocky Mountain	Single Operator, Low Power	KKØQ	4,020
,	Single Operator, High Power	W9RM	3,774
	Single Operator, 3 Band	KØCS	12
	Single Operator, FM only	KG5FHU	6
	Rover	W7QQ/R	17,719
	Limited Rover	ABØYM/R	1,092
Southeastern	Single Operator, Low Power	KX4R	21,978
	Single Operator, High Power	W4ZRZ	7,440
	Single Operator, Portable	N4RNR	512
	Single Operator, 3 Band	W2BZY	2,349
Southwestern	Single Operator, Low Power	K6TSK	4,332
	Single Operator, High Power	K7HP	12
	Single Operator, Portable	KK6PTS	42
	Single Operator, 3 Band	WB6HYH	429
	Single Operator, FM only	NA6AA	105
	Rover	W6IT/R	34,980
	Limited Rover	W40EP/R	120
West Gulf	Single Operator, Low Power	WB5ZDP	810
	Single Operator, High Power	NR5M	6,039
	Single Operator, Portable	WD5AGO	720
	Single Operator, 3 Band	K5ND	954
	Single Operator, FM only	KG5IPP	174
	Limited Unlimited Multioperator	K5QE	48,320
	Unlimited Multioperator	KC5MVZ	1,206
	Rover	AF5Q/R	1,679
	Limited Rover	AE5P/R	20,200