

2017 January VHF Contest Results

With MSK144, the digital modes come into their own for VHF contesting.

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The January 2017 VHF contest marked a turning point in the use of the digital modes in VHF contests. With the new MSK144 mode in Joe Taylor's, K1JT, *WSJT-X* software, there is finally a weak-signal digital mode that can be effectively used in contests, because it uses 15-second turnaround and automatic sequencing. These changes have addressed complaints from many operators (especially Rovers) that the digital modes were too slow for contesting, required too much attention to the computer, and caused some "analog" contacts to be missed entirely. The digital

modes are not just for the big guns, either. VE1SKY reported that 31 of his 33 contacts were made on MSK144. K2DRH observed that he made a lot of MSK144 contacts by simply calling CQ on 50.280, and even had mini pileups at times. Many found that MSK144, while designed for meteor scatter, also worked well for tropo scatter on 50 MHz and 144 MHz. Make plans to use it in future VHF contests!

Assistance in All Categories

This was the second January contest allowing QSO-spotting assistance for all entry categories. Operators have integrated chat rooms, clusters, Automatic Packet Reporting System (APRS), the Reverse Beacon Network (RBN), cell phones, and texting into their station activities to significantly increase their scores. Assistance is particularly important in the often-slow January contest as it allows fixed stations to find Rovers in rare grids, point beams accurately, eke out marginal contacts, and set up live meteor scatter contacts. K3TUF echoed the feelings of many when he said, "Assistance has taken the pressure off all of the planning and worry about getting the next meaningful contact. Now you can relax and enjoy the weak signal and VHF/UHF/microwave essence that draws us to this hobby and sport." Many

operators benefited from spotting assistance, even if they did not directly use it themselves. W9RM noted that the best way for fixed stations to find Rovers was with APRS. The Rovers agree, as APRS requires little additional time or resources in the Rover.

The January VHF Contest was scheduled a week earlier than usual in 2017 in hopes of having a better chance of getting some sporadic-E (E_s) propagation at the expense of competing with the NFL playoffs. Unfortunately, the E_s openings were, well, sporadic. Some stations, par-



One doesn't often see this much VHF/UHF antenna firepower vertically polarized, but it was key in John's, KM4KMU, 2nd place finish in the Single Operator, FM category. John set a new record for number of multipliers worked in this class. This is not a Rover; John operated in a single grid. [John Young, KM4KMU, photo]

Full Results Online

For the full results of the contest, including the complete score listings, more tables, more photos, and discussions, rove your browser to www.arrl.org/contest-results-articles.



Zack, W9SZ, usually a 10-band portable Single Operator station, scaled back this year with a three-band portable Single Operator station in a cornfield. Zack could only operate on Sunday and was feeling under the weather, but he put in a good effort with this modest setup. [Zack Widup, W9SZ, photo]

Division Winners

Classic Rover

Atlantic	K1DS/R	74,889
Central	KA9VVQ/R	17,215
Dakota	KC0P/R	4,060
Delta	AG4V/R	13,320
Midwest	N0LL/R	56
Pacific	N6JET/R	5,829
Rocky Mountain	W7QQ/R	9,135
Southeastern	K4SME/R	21,645
Southwestern	WA8WZG/R	4,450
Canada	VE3OIL/R	35,651

Limited Rover

Atlantic	N8KH/R	6,216
Central	W9YOY/R	6,975
Dakota	KE0FMX/R	552
Delta	W5VY/R	1,768
Hudson	K2EZ/R	50,625
New England	KC1EYG/R	6,453
Northwestern	KE7MSU/R	3,740
Pacific	N9DK/R	2,552
Roanoke	K2JB/R	3,625
Southwestern	K6LMN/R	714
West Gulf	KA5D/R	4,760
Canada	VE2NCG/R	189

Unlimited Rover

Atlantic	N2SLN/R	22,704
Delta	WD5DJW/R	576
West Gulf	N0LD/R	5,776
Canada	VE7AFZ/R	1,080

Single Operator, High Power

Atlantic	K1RZ	196,185
Central	W0UC	51,253
Dakota	W0GZH	3,774
Delta	W5ZN	81,954
Great Lakes	K8TQK	28,140
Hudson	W2KV	25,830
Midwest	KF0M	6,069
New England	K1TEO	327,124
Northwestern	K7YDL	4,998
Pacific	WA6OSX	3,680
Roanoke	W3IP	68,139
Rocky Mountain	WB2FKO	7,245
Southeastern	K0VXM	21,390
Southwestern	KC6SEH	1,674
West Gulf	W5LUA	9,064
Canada	VE3ZV	38,016
DX	XE2JS	25

Single Operator, Low Power

Atlantic	WA3NUF	89,675
Central	K2DRH	123,606
Dakota	WB0HHM	2,727
Delta	N4QWZ	27,642
Great Lakes	K8CC	14,365
Hudson	WB2JAY	31,815
Midwest	K0CQ	285
New England	AF1T	71,145
Northwestern	KE0CO	2,831
Pacific	K2GMY	8,840
Roanoke	K4FJW	1,940
Rocky Mountain	NJ7A	1,377
Southeastern	W4RAA	3,696
Southwestern	N6TCZ	630
West Gulf	K5TRA	3,096
Canada	VE3DS	13,213
DX	XE2HWB	90

Single Operator, Portable

Atlantic	WX3P	1,170
Central	W9SZ	493
Hudson	WB2AMU	1,296
Midwest	N0JK	35
Northwestern	W4DVE	1,110
Roanoke	KB4IRR	4
Rocky Mountain	K0NR	168
Southwestern	WA7JTM	1,152
Canada	VE3EG	1,386

Single Operator, Three Band

Atlantic	N3BBI	9,042
Central	K09A	19,602
Dakota	W0ZF	162
Great Lakes	KE8EWI	435
Hudson	KA2BPP	1,342
Midwest	K0JQA	405
New England	W1DYJ	1,428
Northwestern	K7KAD	1,341
Pacific	K6ERF	1,463
Roanoke	K5VIP	1,764
Rocky Mountain	K4UB	1,152
Southeastern	WA4GPM	1,976
Southwestern	N7IR	708
West Gulf	K5TXM	51
Canada	VE3IQZ	990

Single Operator, FM Only

Atlantic	W2EV	6,292
Central	KC9PCP	567
Hudson	W2DPT	130
New England	KB1YSK	210
Northwestern	WA6PX	70
Pacific	W6KKO	2,096
Roanoke	KM4KMU	6,231
Rocky Mountain	KF5RCN	33
Southeastern	KE6GFI	1
Southwestern	NA6AA	84
West Gulf	K05OK	
	(NL7CO, op)	660
Canada	VA2DG	60

Limited Multioperator

Atlantic	K2LIM	147,576
Central	W9RVG	1,408
Dakota	W0VB	3,280
Delta	NE5BO	800
Hudson	N2NT	127,650
New England	W1QK	17,738
Northwestern	KB7ME	3,480
Southeastern	WB4WXE	4,455
West Gulf	K5QE	61,766
Canada	CG6AO	324

Unlimited Multioperator

Atlantic	N3NGE	430,066
Central	N2BJ	2,900
Great Lakes	N8ZM	19,359
Hudson	NY2NY	9,588
New England	KE1LI	16,698
Pacific	WA6OIB	7,452
Southeastern	W4NH	11,842
West Gulf	K5TR	19,344
Canada	VA3ELE	57,886

Top Ten by Category

Classic Rover

K1DS/R	74,889
K2TER/R	62,046
NN3Q/R	60,192
KF2MR/R	56,236
VE3OIL/R	35,651
W3ICC/R	29,631
K0BAK/R	25,431
K4SME/R	21,645
W2HRY/R	17,964
KA9VVQ/R	17,215

Limited Rover

K2EZ/R	50,625
WB2SIH/R	20,121
N2DXT/R	11,275
W9YOY/R	6,975
KC1EYG/R	6,453
N8KH/R	6,216
KA5D/R	4,760
K9JK/R	3,848
KE7MSU/R	3,740
K2JB/R	3,625

Unlimited Rover

N2SLN/R	22,704
N0LD/R	5,776
KD5IKG/R	4,370
VE7AFZ/R	1,080
WD5DJW/R	576

Single Operator, High Power

K1TEO	327,124
K1RZ	196,185
K3TUF	154,980
K3IPM	92,232
W5ZN	81,954
W3IP	68,139
K1GX	59,752
WA3DRC	57,600
WZ1V	54,910
N3HBX	51,514

Single Operator, Low Power

K2DRH	123,606
WA3NUF	89,675
N3RG	87,714
AF1T	71,145
WA3GFZ	41,496
K1KG	33,031
WB2JAY	31,815
N4QWZ	27,642
N3YMS	26,523
N3JDR	21,684

Single Operator, Portable

VE3EG	1,386
WB2AMU	1,296
WX3P	1,170
WA7JTM	1,152
W4DVE	1,110
W9SZ	493
K0NR	168
KQ2RP	108
K7JFD	105
NK1N	85

Single Operator, Three Band

KO9A	19,602
N3BBI	9,042
N3ALN	5,191
WB2EOD	4,263
KC2THQ	4,095
KF2Y	3,990
NE2U	3,969
N2BEG	3,570
N3MWQ	3,451
W3LL	3,400

Single Operator, FM Only

W2EV	6,292
KM4KMU	6,231
W6KKO	2,096
N2HJD	2,086
N2SCJ	1,944
K0SOK	
(NL7CO, op)	660
N9VM (N1VM, op)	576
KC9PCP	567
AF5Q	470
WB9WOZ	301

Limited Multioperator

K2LIM	147,576
N2NT	127,650
W3SO	80,172
K5QE	61,766
W1QK	17,738
WB4WXE	4,455
KB7ME	3,480
W0VB	3,280
W3ARO	3,210
W2NPT	2,052

Unlimited Multioperator

N3NGE	430,066
WA3ELE	57,886
WA3EHD	39,928
N8ZM	19,359
K5TR	19,344
KE1LI	16,698
N1JEZ	15,600
W1XM	15,288
W4NH	11,842
NY2NY	9,588

ticularly in the northeast, reported an uptick in activity after the last playoff game ended.

Many of the top finishers are now using software-defined radios (SDRs) or pan-adapters. These devices provide a visual display that allows you to see activity over an entire band. This has several advantages: you can see a new station as soon as it gets on the air; you can operate on one band while simultaneously observing the activity on another; you

can look at beacons to see where propagation is going next, and you can easily find off-frequency stations on the microwave bands.

Propagation

Conditions were predictably flat for the January contest, with few propagation enhancements. Very few stations reported E_s, and those that did were well-equipped stations with savvy operators, who were able to take advantage of the brief openings. W7QQ/R, who runs high

power from his Rover, had a short E_s opening resulting in a single contact from DM73 to DM40.

Tropo openings were almost as sporadic. W3SO in FN00 reported contacts from Chicago to New England, but that was the exception, not the rule. N0JK/P and K2DRH made use of a weak lift to work on Sunday, and K2DRH worked a few other stations on tropo, but it was far from a widespread opening.

The widespread fog and warm weather

Regional Leaders

Boxes list call sign, score, and class: LM = Limited Multioperator; R = Classic Rover; RL = Limited Rover; RU = Unlimited Rover; SO3B = Single Operator, Three Band; SOFM = Single Operator, FM Only; SOHP = Single Operator, High Power; SOLP = Single Operator, Low Power; SOP = Single Operator, Portable, and UM = Unlimited Multioperator.

West Coast Region (Pacific, Northwestern, and Southwestern Divisions; Alberta, British Columbia, and NT Sections)			Midwest Region (Dakota, Midwest, Rocky Mountain, and West Gulf Divisions; Manitoba and Saskatchewan Sections)			Central Region (Central and Great Lakes Divisions; Ontario East, Ontario North, Ontario South, and Greater Toronto Area Sections)			Southeast Region (Delta, Roanoke, and Southeastern Divisions)			Northeast Region (New England, Hudson, and Atlantic Divisions; Maritime and Quebec Sections)		
N6JET/R	5,829	R	W7QQ/R	9,135	R	VE3OIL/R	35,651	R	K4SME/R	21,645	R	K1DS/R	74,889	R
WA8WZG/R	4,450	R	KC0P/R	4,060	R	KA9VVQ/R	17,215	R	AG4V/R	13,320	R	K2TER/R	62,046	R
N6ZE/R	860	R	N0HZ/R	2,912	R	W9FZ/R	17,105	R	WA3RGQ/R	5,481	R	NN3Q/R	60,192	R
KE7MSU/R	3,740	RL	KK6MC/R	2,568	R	KC9MUT/R	54	R	K2JB/R	3,625	RL	KF2MR/R	56,236	R
N9DK/R	2,552	RL	K5WO/R	1,088	R				W5VY/R	1,768	RL	W3IC/R	29,631	R
W6ESL/R	1,088	RL				W9YOY/R	6,975	RL	AF5WN/R	644	RL	K2EZ/R	50,625	RL
K6LMN/R	714	RL	KA5D/R	4,760	RL	K9JK/R	3,848	RL	WD5DJW/R	576	RU	WB2SIH/R	20,121	RL
WB5CTS/R	676	RL	KE0FMX/R	552	RL	N9GH/R	3,016	RL	W5ZN	81,954	SOHP	N2DXT/R	11,275	RL
VE7AFZ/R	1,080	RU	N0SPN/R	234	RL				W3IP	68,139	SOHP	KC1EYG/R	6,453	RL
K7YDL	4,998	SOHP	N0LD/R	5,776	RU	W0UC	51,253	SOHP	K0VXM	21,390	SOHP	N8KH/R	6,216	RL
KD7UO	4,968	SOHP	KD5IKG/R	4,370	RU	VE3ZV	38,016	SOHP	W4ZRZ	14,755	SOHP	N2SLN/R	22,704	RU
KE7SW	4,368	SOHP	W5LUA	9,064	SOHP	K8TQK	28,140	SOHP	NG4C	6,336	SOHP	K1TEO	327,124	SOHP
N7EPD	4,180	SOHP	K5LLL	8,901	SOHP	K8ZR	13,561	SOHP	N4QWZ	27,642	SOLP	K1RZ	196,185	SOHP
WA6OSX	3,680	SOHP	WB2FKO	7,245	SOHP	K9EA	9,984	SOHP	W4RAA	3,696	SOLP	K3TUF	154,980	SOHP
			K5AND	7,098	SOHP	K2DRH	123,606	SOLP	K4FJW	1,940	SOLP	K3IPM	92,232	SOHP
			KC5WX	6,256	SOHP	K8CC	14,365	SOLP	N4BRF (WA2VNV, op)	1,872	SOLP	K1GX	59,752	SOHP
						VE3DS	13,213	SOLP	KD4NOQ	1,008	SOLP	WA3NUF	89,675	SOLP
K2GMY	8,840	SOLP	K5TRA	3,096	SOLP	N9LB	11,395	SOLP	KB4IRR	4	SOP	N3RG	87,714	SOLP
KC6ZWT	7,067	SOLP	WB0HHM	2,727	SOLP	VA3ZV	11,286	SOLP				AF1T	71,145	SOLP
K6MI	5,088	SOLP	WB5ZDP	1,680	SOLP	VE3EG	1,386	SOP	WA4GPM	1,976	SO3B	WA3GFZ	41,496	SOLP
KE0CO	2,831	SOLP	AA5AM	1,617	SOLP	W9SZ	493	SOP	K5VIP	1,764	SO3B	K1KG	33,031	SOLP
K7ATN	2,076	SOLP	NJ7A	1,377	SOLP	N2XDO	6	SOP	K4SO	1,633	SO3B	WB2AMU	1,296	SOP
WA7JTM	1,152	SOP			KB2PBR	6	SOP	KK4MA	800	SO3B	WX3P	1,170	SOP	
W4DVE	1,110	SOP	K0NR	168	SOP	KO9A	19,602	SO3B	N4PD	780	SO3B	KQ2RP	108	SOP
K7JFD	105	SOP	N0JK	35	SOP	KA9VDU	2,580	SO3B				NK1N	85	SOP
N6BSC	70	SOP			WB9TFH	1,820	SO3B	KM4KMU	6,231	SOFM	N2TEB	48	SOP	
			K4UB	1,152	SO3B	VE3IQZ	990	SO3B	KJ4JSF	33	SOFM	N3BBI	9,042	SO3B
K6ERF	1,463	SO3B	KC7QY	468	SO3B	KE8EWI	435	SO3B	KE6GFI	1	SOFM	N3ALN	5,191	SO3B
K7KAD	1,341	SO3B	K0JQA	405	SO3B				WB4WXE	4,455	LM	WB2EOD	4,263	SO3B
N4DLA	840	SO3B	W0ZF	162	SO3B	KC9PCP	567	SOFM	NE5BO	800	LM	KC2THQ	4,095	SO3B
W5MMW	737	SO3B	K0TAR	114	SO3B	WB9WOZ	301	SOFM	N9LHS	152	LM	KF2Y	3,990	SO3B
N7IR	708	SO3B			VE3PYJ	1	SOFM				W2EV	6,292	SOFM	
W6KKO	2,096	SOFM	KO5OK (NL7CO, op)	660	SOFM	W9RVG	1,408	LM	W4NH	11,842	UM	N2HJD	2,086	SOFM
N9VM (N1VM, op)	576	SOFM	AF5Q	470	SOFM	VA3ELE	57,886	UM				N2SCJ	1,944	SOFM
W7AIT	266	SOFM	KF5RCN	33	SOFM	N8ZM	19,359	UM				KB1YSK	210	SOFM
W6IA	264	SOFM	WA0KXO	24	SOFM	N2BJ	2,900	UM				W2DPT	130	SOFM
NA6AA	84	SOFM	K5QE	61,766	LM	W8RU	1,026	UM				K2LIM	147,576	LM
KB7ME	3,480	LM	W0VB	3,280	LM							N2NT	127,650	LM
K7CPU	427	LM	WC0AAA	10	LM							W3SO	80,172	LM
CG6AO	324	LM										W1QK	17,738	LM
			K5TR	19,344	UM							W3ARO	3,210	LM
			KC5MVZ	583	UM							N3NGE	430,066	UM
												WA3EHD	39,928	UM
												KE1LI	16,698	UM
												N1JEZ	15,600	UM
												W1XM	15,288	UM



In most January contests, W9FZ/R and KA9VVQ/R are either knee deep in snow or standing in front of a thermometer reading -10° F. This year, they had warm weather, although the fog didn't really help the comfort factor or the propagation. [Bruce Richardson, W9FZ, photo]

across the northeast and midwest caused a lot of attenuation on bands above 432 MHz. The inversions and tropo scatter that can accompany these conditions and that often save an otherwise slow contest failed to materialize.

The southwest had an unusual January snow and ice storm on Saturday. This storm system moved to Oklahoma, Texas, and Arkansas on Sunday, where it encountered warmer air, generating thunderstorms, tornadoes, and the accompanying noise.

Club Competition

The club competition for the January

VHF Contest is always vigorous, and winning is a badge of honor. The Pennsylvania-based Mt. Airy VHF Radio Club, more commonly referred to as the Pack Rats, had no competition and repeated as winners of the Unlimited club category. The North East Weak Signal Group won the Medium category by a solid margin, with 21 entries — up from last year. The Potomac Valley Radio Club finished second with 48 logs, a testament to their ability to get their HF-focused operators interested in VHF/UHF contesting. The Bergen Amateur Radio Association showed real strength in edging out the Eastern Connecticut Amateur Radio Association in the Local club category (both with just three entries).

Rovers

For Rovers, the keys to making a big score are visiting a lot of grids and, for the Classic Rovers, having a lot of bands. K2EZ/R easily took the Limited Rover category by visiting 13 grids — more than double the amount of the runner-up, WB2SIH/R. K2EZ/R traveled 1,200 miles this year (compared to 1,700 miles through 27 grids in 2016) and surprised many fixed stations when she called them from widely separate grids.

K1DS/R drove off with the Classic Rover prize in large part due to having two more bands than runner-up K2TER and concentrating his contacts on the high-contact-point bands, even though he visited one less grid. N2SLN/R topped the Unlimited Rover category, outrunning the other four entries by a large margin with a score that would have placed in the top ten in the other two Rover categories.

Multioperator Stations

The Multioperator stations are one of the foundations of this contest, providing signals that are always on the air, and usually on more than one band at a time. N3NGE ran away with the Unlimited Multioperator category this year. Last year's runner-up, K2LIM, moved over to the Limited Multioperator category this year, winning that handily over N2NT. K5TR, the beneficiary of hours of good tropo in this category last year, dropped

Affiliated Club Competition		
Club Name	Logs	Score
Unlimited		
Mt. Airy VHF Radio Club	1,916,167	66
Medium		
North East Weak Signal Group	594,896	21
Potomac Valley Radio Club	222,104	48
Rochester VHF Group	200,028	22
Contest Club Ontario	161,680	14
Society of Midwest Contesters	152,692	13
Frankford Radio Club	133,564	7
Northern Lights Radio Society	71,570	12
Florida Weak Signal Society	64,220	8
Yankee Clipper Contest Club	61,886	11
Badger Contesters	58,183	6
Pacific Northwest VHF Society	48,837	32
Roadrunners Microwave Group	40,287	5
Michigan VHF-UHF Society	29,444	8
South Jersey Radio Assn.	17,167	9
North Texas Microwave Society	13,073	5
Northern California Contest Club	11,405	9
Six Meter Club of Chicago	10,486	6
Arizona Outlaws Contest Club	5,984	12
West Valley ARA	3,969	4
Willamette Valley DX Club	1,776	3
Florida Contest Group	1,479	6
Texas DX Society	469	3
Alaska VHF-Up Group	382	3
Local		
Bergen ARA	20,569	3
Eastern Connecticut ARA	18,338	3
Pottstown Area ARC	16,031	5
Contocook Valley Radio Club	2,958	3
Bristol (TN) ARC	2,087	3
Peterborough Amateur Radio Club	1,406	3
Ventura County Amateur Radio Society	1,331	4
NorDX Club	254	4

to 3rd place, and perennial powerhouse K5QE dropped in this year's standings from 2nd to 5th, while proclaiming this year "the worst January contest that we have ever seen."

Single Operator

The Single Operator categories are the bread and butter of the VHF contests, with more entries than all the other classes combined. The hard-working trio of heavy hitters K1TEO, K1RZ, and K3TUF repeated their 1st, 2nd, and 3rd place High Power finishes from last year.

This year, K2DRH overtook WA3NUF to take 1st place in the Low Power category, swapping their places from last year. K2DRH is still in the process of integrating his SDR with his transverters and should be even more formidable competition when he has it all up and running smoothly.

The Single Operator, Portable category in January is only for the hardest of souls. VE3EG narrowly edged out last year's winner, WB2AMU. WA7JTM put Scarlet Mountain in DM33 on the air and

took advantage of the Summits on the Air (SOTA) program (and the abundance of enthusiastic SOTA chasers in Arizona), to finish 4th place nationwide in the category. Maybe more SOTA activators will take the hint and activate summits next January.

The Single Operator, Three Band category appeals to many operators who don't have 222 MHz transverters and antennas. KO9A took this category in this year's contest, moving up from 3rd place last year.

The FM category, introduced a few years ago to stimulate contest interest and activity among hams that are not usually active in VHF/UHF contests, had significant growth in activity, with many more contacts made this year than in past years. Perennial winner W2EV won again this year, but only by a small margin of about 1% over KM4KMU. FM contacts can be particularly productive for Rovers when they have worked out a grid, but often require a different approach than the typical contest contact. K2EZ/R said, "I worked more stations on FM in the first hour than total FM contacts I have gotten in entire contests. Perhaps 50% of my contacts in the first hour were stations on FM." Many organizations use the January VHF Contest FM category as a training exercise for emergency operators, which demonstrates the versatility of contesting. As KM4KMU explained, "FM takes a very light touch. With very few contesters, you need to be prepared to chat a while and then talk people through the contest contact and provide them with their grid."

Summary

The January 2017 ARRL VHF Contest is in the books. Now is the time to prepare for the June, August, and September contest, as well as for next January. MSK144 has proved to be an effective tool, so you may want to add it to your bag of tricks. Be sure that your computer is up to the task. Also, consider how best to incorporate the APRS page into your station to track Rovers, and add FM into your contest plans if you have not already done so.