



ARRL RTTY Roundup 2017 Results

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Here comes Big Iron!

I've been doing this little RTTY Roundup writeup for a few years now and every year I swear that I won't lead with the lousy terrestrial and/or space weather. Unfortunately the elements once again conspired to foil my plans, in more ways than one!

Your humble correspondent can only blame the weather this year for a forced hiatus from the RTTY Roundup. After several hours spent slowly gaining the pass at Echo Summit - all other Sierra Nevada passes being completely shut down by something like 50 feet of this white scourge - I arrived back in cell phone range only to find out that the road to my mountaintop operating position at W7RN near Reno, NV was completely impassible. Even though my contest club-mates told me, "You picked a good one to miss!" there was nothing to be done but hunker down to play some Texas Holdem and drown my sorrows.



W7RN, near Virginia City, NV, was pretty much unreachable for the author. January can present stern challenges to travelers through the Sierra range. (Photo provided by Tom Taormina, K5RC)

Meanwhile, a little further south near Carson City, NV, Rick's WØPC/7 Multi Low Power team had better luck:

"The 2017 RTTY Roundup was a blast again this year. Yes, we had antenna problems that pretty much eliminated 80 meters. We made an attempt to do repairs in the blowing snow. We have operated with a simple station for the last 7 years and been able to win the Nevada Section each year and Pacific Division most years running low power. This year we had a new Icom IC-7300 on the bench.

The spectrum scope made tuning in signals during our S&P time very easy... so easy we didn't need the tuning scope built into the MMTTY engine. Our 4 radio operators were: Rick Crockett WØPC, Helen Crockett ACØNF, Heiko Muench KF7STT, and Mike Russo whose home we used. We are already looking forward to next year with better antennas."



Mike Russo, N6EVG and Heiko Muench, KF7STT try their best for antenna repairs under challenging conditions. (Photo provided by Rick Crockett, WØPC)

The team at OL7M had better luck with their extreme Central EU conditions:

"...Saturday morning there were minus 25 degrees Celsius. We needed to drive our cars, but it was really hard - impossible in the some cases :) We did have a lot of fun with it. Also about 30cm of new snow made us happy... Thanks to ice and snow we did have a lot of work on wire antennas: 2 broken elements on our 10el wire yagi for 40m, torn wires on a few beverages etc. Finally everything was ready before the contest and we should enjoy it. I am afraid, condx was really poor. We started at 20m band but it was closed in 18:00 GMT. Than we moved to 40m and jumped to 80m and back. 10m band was closed all the contest and on 15m brought only a few QSOs and a few NA stations. The result was the lowest count of NA stations in last 5 years:

YEAR	QSOs
2013	693 QSOs with NA
2014	682 QSOs with NA
2015	443 QSOs with NA
2016	515 QSOs with NA
2017	425 QSOs with NA



"After all it was nice contest with a few visits of Murphy, nice BBQ in minus 25°C and some vodka drinks!" (Photo provided by Pavel Prihoda, OK1MU)

Challenging cold conditions weren't limited to the great white north, as Larry, K4KGG relates:

"I contest from a club shack in a small county park on the edge of the Everglades. Sat night I was running Qs on 80M with a big smile when the electricity to my location and the shack went out. Smile gone. But I figured the power would pop back on in a few minutes like usual. Not wanting to waste the downtime, I went outside to relieve myself, then returned to the now totally dark and cold shack, pulled out some water and a sandwich and stared at my laptop screen and rapidly dropping battery indicator. Some may wonder how I managed to be cold in Florida, but this was the winter's coldest night at my location with temps in the mid 40s. That's cold for a FL boy, and I didn't have the clothes for it. Now the club's UPS into which I have plugged my laptop is rapidly beeping, preparing to give up its last electron. Time to shut down my laptop. Yup. Now I'm in the dark and cold with a small LED flashlight as the only illumination. The wind that came with the cold front is howling outside the trailer which is making some strange sounds and vibrating slightly.

"The shack has a sofa, but the park doesn't allow overnight occupancy. I lie down in the dark, try to think warm, and try to forget that I am in a small trailer on the edge of a huge swamp full of wild creatures, some with large teeth. I am also in a totally dark small park, emptied of other visitors by a deputy each night. Usually I enjoy nights at the shack. There's an owl that often sits on the 6M antenna watching for mice and rabbits. He sometimes gives a loud hoot when you exit the shack. It can be startling if you don't expect it. But tonight I'm not having fun. It's cold and dark, my sandwiches are gone, I can't operate, and it's a bit creepy.

"Happily, it all ends well. After an hour in the cold and dark, I decide I'm done for the night. I go home, get some sleep, some food, and return to the shack to find the power back on, the contest in full swing, and twelve hours left to run up the score. I'd have beaten your score if it weren't for the cold, dark and alligators."



Joe, KØBX enjoys using two monitors while chasing mults on 20. (Photo provided by Joe Duerbusch, KØBX)

Not everyone had weather issues. First time RTTY op Bob, N7WY, got trouble, got it fixed, got on, and got busy:

"Since my wife was away, I thought I give the RU a shot. I had to set up MMTTY with N1MM, so I started well before the RU began. I was greeted by no video passing into my station monitor. I swapped HDMI cables, swapped monitors, changed to DVI cabling, changed the video card, and still nothing. I went back to the original configuration and suddenly things were well. Because of this, I got the software set up done about 3 hours after the RU started, and found that MMTTY was sending mark and space. I got this fixed and commenced operating. Sunday morning, the PC did not want to drive the monitor again, but warmed up to it quickly. Operating 14 hours, I worked 520 stations. I've been a ham for 54 years, and this was the first time EVER I operated RTTY. My loss. Now the PC is at the local medic."

And the team operating CG7SAR (at VA7XB) found that gremlins come in all shapes and sizes, but a little attention can catch them quickly:

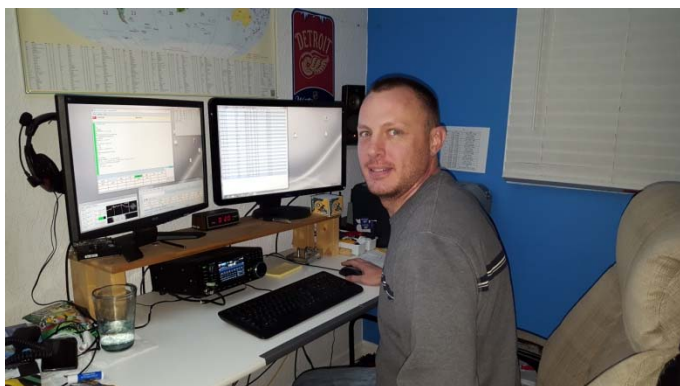
"Every contest is a challenge in its own way and this one was no different. The ARRL RTTY Roundup started at 10 am local time on Saturday, Jan. 7th and I took the first shift so I could be confident everything was functioning

as it should before the visitors arrived. We decided to use the club callsign CG7SAR as allowed under the Canada 150 birthday rules, with the linear amplifier cranked up and the beam at full height to make the experience the most productive possible.

“All appeared under control to begin with, but very soon odd things started happening. First I noticed that the frequency on the IC-7600 wasn’t tracking N1MM properly, though it was OK on the antenna controller. A shutdown and startup of N1MM rectified this glitch but it was a bad omen. Then a new issue soon became evident: much to my consternation, once the function key was pressed to launch the macro, the callsign and exchange would send repetitively and nothing would shut them off, not even the escape key.

“In desperation, thinking it might be an “RF in the shack” problem, I tightened all the ground connections and slapped on a few ferrite cores where they might do some good. Then things settled down and I began to make progress once again. By 1 pm it was Sheldon VA7XNL’s shift but he immediately began having trouble too, only this time the transmitter was shutting down in the middle of contacts. Clearly, something more serious was amiss. We quickly discovered the cause ... we had a defective, over-heated 40 amp fuse on the rig runner that was causing an unacceptably large voltage drop in the power delivered to the transmitter.

“Conditions were poor. Many spotted North American stations could not be heard at all and there was virtually no DX to be heard other than a few South Americans and the occasional JA, nevertheless, it was a very fulfilling exercise and all look forward to the next challenge, the BC QSO Party on Feb 4th. Who will join the party?”



“Here’s a picture of me and my station setup that shouldn’t make anyone jealous.” A great illustration that anyone and any station can have fun in the RTTY Roundup! (Photo by Mike Ricketts, KB9BIB)

Participation in 2017

Yearly QSO Totals, by Band					
	2013	2014	2015	2016	2017
80 Meters	79,226	76,006	67,015	65,133	83,767
40 Meters	161,081	131,653	125,537	146,679	132,198
20 Meters	200,106	169,502	145,994	191,328	204,498
15 Meters	174,985	175,681	160,868	153,983	62,227
10 Meters	42,671	70,580	95,436	31,850	5,364
Total QSOs	658,523	623,422	595,971	588,973	488,054

If you need any evidence of the decline in sunspots, you need only take a glance at the QSO Totals table, with 15m down and 10m being virtually non-existent. Take a look at the next table listing average 10 meter QSOs per Section, and you’ll see that South Dakota topped out at only about 24 per submitted log, and it quickly dropped off from there - with many sections failing to log any.

Average of 10 Meter QSOs, by Section	
Section	Average QSOs
SD	23.88
EB	20.75
SV	16.00
SJV	13.50
LA	12.00
OK	11.22
CO	10.40
MN	10.18

Overall total entries remain flat - what is it going to take to push the total over 2k? - but other than a slight shift away from Single-Op Unlimited LP to Single-Op LP, it seems like everyone is set in their category.

2014 to 2017 Category Choice (W/VE and DX)				
Category	2014	2015	2016	2017
SOLP	843	921	828	853
SOULP	225	229	275	241
SOHP	331	296	295	292
SOUHP	254	258	290	273
MSLP	29	28	25	24
MSHP	40	48	44	45
Total entries	1,722	1,780	1,757	1,728

Affiliated Clubs

Club	Score	Entries
Unlimited		
Potomac Valley Radio Club	1,929,695	62
Medium		
Northern California Contest Club	1,879,145	43
Society of Midwest Contesters	1,648,227	48
Minnesota Wireless Assn	1,028,575	45
Arizona Outlaws Contest Club	1,028,558	25
Yankee Clipper Contest Club	932,154	31
Frankford Radio Club	691,449	17
Florida Contest Group	629,407	14
Contest Club Ontario	534,983	18
Tennessee Contest Group	529,288	14
CTRI Contest Group	399,746	5
Southern California Contest Club	384,736	17
Alabama Contest Group	380,692	12
Carolina DX Association	369,630	11
Willamette Valley DX Club	362,530	13
Mad River Radio Club	345,519	11
DFW Contest Group	339,971	10
Grand Mesa Contesters of Colorado	339,222	10
Kentucky Contest Group	318,035	10
Central Texas DX and Contest Club	309,678	6
Western Washington DX Club	296,316	7
Texas DX Society	276,942	4
Swamp Fox Contest Group	252,632	9
Louisiana Contest Club	233,043	3
Georgia Contest Group	200,238	3
Contest Group du Quebec	152,397	5
North Coast Contesters	133,038	6
Orca DX and Contest Club	104,111	7
South East Contest Club	103,462	5
Rochester (NY) DX Assn	92,185	6
Utah DX Association	61,808	4
Big Sky Contesters	47,297	3
Hudson Valley Contesters and DXers	46,201	4
Northeast MD Amateur Radio Contest Soc	45,643	4
Order of Boiled Owls of New York	30,135	3
Local		
Orleans County Amateur Radio Club	475,347	6
Kansas City Contest Club	294,412	3
Niagara Frontier Radiosport	239,459	7
Spokane DX Association	182,130	6
Metro DX Club	132,649	5
North Carolina DX and Contest Club	122,566	3
Boeing Employees ARS - St. Louis	79,920	4
New Providence ARC	44,317	3
XRX AMATEUR RADIO CLUB	17,129	5
Hilltop Transmitting Assn	16,159	4

Club clearly redoubled their focus this year, and surged to the top of Unlimited clubs uncontested. On the other hand, the perennial Unlimited Club entry, the Northern California Contest Club, took a break but still posted enough logs and scores to take the Medium Club gavel. And perennial Local Club winner, Orleans County Amateur Radio Club, continued their utter domination of the category.

Affiliated Club Gavel Winners, 2004 to present				
Year	Club	Logs	Score	
Unlimited				
2017	PVRC	62	1,929,695	
2016	NCCC	67	3,809,079	
2015	Minnesota Wireless Assn	56	1,891,478	
2014	NCCC	65	3,202,878	
2013	NCCC*	71	4,044,558	
2012	NCCC	73	3,715,609	
2011	Minnesota Wireless Assn	64	2,183,630	
2010	NCCC	60	2,502,251	
2009	NCCC	86	3,307,797	
2008	no winner			
2007	no winner			
2006	no winner			
2005	no winner			
2004	no winner			
Medium				
2017	NCCC	43	1,879,145	
2016	Frankford RC	19	1,178,489	
2015	PVRC	47	2,406,478	
2014	SMC	28	1,524,519	
2013	Minnesota Wireless Assn	43	1,607,832	
2012	PVRC*	49	2,500,870	
2011	PVRC	37	1,833,820	
2010	PVRC	40	1,813,567	
2009	PVRC	37	1,778,086	
2008	PVRC	35	1,440,226	
2007	PVRC	37	1,966,378	
2006	PVRC	28	1,355,040	
2005	NCCC	31	1,231,336	
2004	NCCC	35	1,439,443	
Local				
2017	Orleans County ARC	6	475,347	
2016	Orleans County ARC	7	748,161	
2015	Orleans County ARC	6	533,555	
2014	Orleans County ARC	10	655,255	
2013	Orleans County ARC*	10	1,065,283	
2012	Orleans County ARC	10	936,547	
2011	Dominion DX Group	10	639,851	
2010	Orleans County ARC	6	449,103	
2009	Orleans County ARC	4	294,392	
2008	Maritime Contest Club	4	297,018	
2007	Alabama Contest Group	7	453,854	
2006	Maritime Contest Club	5	262,279	
2005	Spokane DX Assn	3	131,022	
2004	Dauberville DX Assn	3	125,534	
* Record score				

A bit of a shakeup this year, which may be a result of clubs changing their contest focus from year to year. Perennial Medium club champ Potomac Valley Radio 2017 ARRL RTTY Roundup

No new club records were set this year. Check back in about 2021, or when participation increases, or when the Orleans County group starts submitting 10 logs again...

Heavy Metal

If you are truly paying attention, you'll recall that last year Dave, W5DT worked 208 stations on his venerable Teletype Model 33. Dave this year, "...worked 362. I have decided to submit my log this year, even though I know it will fall far short of an award - I am doing so as part of a lobbying effort in the hope that a future new award category will be created for the contest - for entrants using a *REAL* Teletype." (You can see one of Dave's beautifully restored machines in the photograph.)



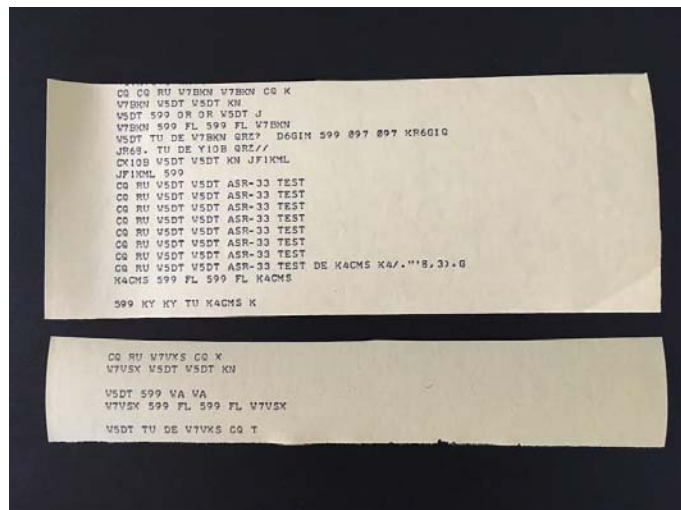
Dave, W5DT restores teleprinters and here are the beautifully rebuilt Teletype Model 33 machines in his station. (Photo by Dave Tumey, W5DT)

"Why don't we have a special category for those who choose to make their RTTY lives even more challenging by operating using vintage teletype equipment," I wondered aloud and pattered off to inquire some of the Powers That Be – a.k.a. The ARRL Contest Branch.

It turns out that said Powers said "Why not, indeed?" and — with the stipulation that we not create a bunch of extra work for the Branch — a new overlay has been approved for the 2018 RTTY Roundup, something I've been calling the "Heavy Metal RTTY Roundup Award."

Simply put, W5DT has agreed to sponsor a special plaque to be awarded to the station that can show the best score while operating exclusively via electromechanical means. No computer encoding or decoding allowed, everything must be printed on the paper roll (see the photo) to qualify for this special recognition. Any kind of terminal unit may be used as the interface between the receiver and the teleprinter. Paper tape macros are of course permitted for repetitive tasks like calling CQ, as well as computers for logging and station control: We're

not monsters, after all. (*There is no truth whatsoever to the imagined suggestion that logs in this category will have to be submitted on paper tape – Ed.*)



Some actual copy from Heavy Metal plaque sponsor Dave, W5DT's own RTTY station. (Photo by Dave Tumey, W5DT)

I have agreed to compile the entries and determine the winning entry. Like much of what we do in contests, qualifying for this overlay will be dependent on the honor system; however, we will ask for modest proof that you really did print QSOs the Olde-Fashioned Way.

Stay tuned later this year for detailed rules, and how to enter and submit proof of print. In the meantime, if you have general interest in old iron, or maybe even have a classic teleprinter gathering dust in the garage, you'll find a lot of help on the Greenkeys mailing list.

Since the *QST* version of this report there has been great excitement on the mailing lists at the prospect of a heavy metal overlay, and considerable discussion about what truly qualifies. Some purists want it limited to native RTTY 45.45 baud equipment with current loops and mechanical shift registers, and there is some merit to taking it back to basics.

On the other hand, many operators have equipment that is actually designed for 110 baud ASCII, and in order to run 45.45 baud RTTY they have to pass both ways through a code conversion - in fact, one op ends up passing through 1200 baud ASCII to get to 110 baud.

It seems to me that we should focus on the "user interface" - the keyboard and paper tape, and the printer - and let the operator get the keying to the rig however they can. But what do you think?

Regional Highlights

The Southeast Region surged from worst in 2016 to first in 2017, with VA and NC leading the charge, and reflecting the renewed focus by the PVRC to score their first Unlimited Club gavel. At the other end of the section list it was nice to see NL return to the party, while NT and MB were this year's no-shows. Come on, Manitoba!

Domestic Participation, Logs Received by Region

Region	2015	2016	2017
Southeast	190	167	226
Northeast	222	221	216
West Coast	216	243	210
Midwest	202	214	194
Central	156	194	174
Total	986	1039	1020

Domestic Participation, by ARRL Section

Section	2016 Rank	Logs received	2016 logs
VA	3rd	59	43
IL	2nd	55	52
MN	1st	49	71
NC		39	17
AZ	8th	32	26
EPA	6th	32	28
OH	4th	32	34
WNY	9th	31	25
MDC	5th	28	30
TN		25	
WWA	7th	23	27
STX		22	
CT		21	
CO		20	
MI		19	
NTX		19	
SCV	10th	19	24
IN		17	
NNJ		17	
OR		17	
BC		16	
MO		16	
SC		16	
SV		15	
WI		15	
AL		14	
KY		14	
NFL		14	
WMA		14	
SDG		13	
GA		11	
MS		11	
WCF		11	
WPA		11	
ENY		10	

SB	10
SJV	10
EWA	9
IA	9
KS	9
OK	9
QC	9
UT	9
EB	8
ID	8
ONS	8
SD	8
SFL	8
SNJ	8
AR	7
EMA	7
GTA	7
NM	7
PAC*	7
SF	7
LAX	6
MT	6
NE	6
ONE	6
PR*	6
WV	6
AK*	5
LA	5
NH	5
RI	5
WTX	5
AB	4
NLI	4
NV	4
NNY	3
ORG	3
VT	3
WY	3
DE	2
MAR	2
ME	2
NL	2
SK	2
ND	1
ONN	1
VI*	1
MB	0
NT	0

* DX Section

0

West Coast Region

Call	Score	Cat	QSOs	Mults	Operators
WN6K	56,192	SOLP	902	64	
K6GHA	52,930	SOLP	680	79	
AA7UN	43,584	SOLP	705	64	
VA7KO	38,257	SOLP	577	67	
W8WOM	35,813	SOLP	631	59	
KØMP	38,090	SOULP	594	65	
N6DZR	35,108	SOULP	530	67	
NN6NN	30,000	SOULP	402	75	
VA7RY	27,625	SOULP	428	65	
K6PO	22,880	SOULP	357	65	
K6MR	172,172	SOHP	2,026	86	
N6WM	171,444	SOHP	1,930	91	
NC6B	77,598	SOHP	966	81	
W65FK	74,022	SOHP	1,040	73	
N7QT	69,685	SOHP	930	77	
K6LL	227,374	SOUHP	2,098	109	
VE7CC	173,555	SOUHP	1,704	103	
N6IE	135,736	SOUHP	1,464	94	
W7WW	103,617	SOUHP	1,239	87	
W1RH	102,339	SOUHP	1,260	83	
WØPC/7	23,877	MSLP	387	63	WØPC N6EVG ACØNF KF7STT K7BTW N9ADG K7EDX K7MO K7VAP
K7BTW	136,710	MSHP	1,324	105	NK7U KR7X K7ZO KØIP WB7DNU AE7JW K6ST KG7PG W6DR KJ6GMT
K7JR	88,044	MSHP	980	92	
KØIP	23,744	MSHP	377	64	
AE7JW	17,342	MSHP	322	58	
W6DR	16,414	MSHP	284	58	

In Single-Op HP we had a classic close battle between Chris, N6WM (at N6RO) and Ken, K6MR. At log submission time N6WM (with an edge in Multipliers) showed a slightly higher claimed score than K6MR (with an edge in QSOs). After log checking, we find the situation reversed, with K6MR just getting past N6WM by a handful of points for the top West Region spot. Both had respectable error rates but Ken's was just a little better. In his 3830 post, and perhaps a cautionary tale, Chris alluded to being tired at the outset due to a family ski trip the day before... Still, sixth place overall is nothing to sneeze at!

It was also close in Single-Op LP, with the top two stations having opposite QSO and Multiplier advantages. Both stations reported challenges with EU conditions, Paul, WN6K: "Only EU worked was an OH2 called me 4 minutes before the end on 20m." And Don, K6GHA with a lower claimed score had the better error rate. In this case, it was not enough to get past WN6K, but K6GHA put into perspective: "The one cool thing [about RTTY] is you can monitor the local ARES Net while you contest. All in a days work. And fun."

On the Unlimited side, even a station with spotting assistance and high power found working EU to be a challenge, but again perspective, from Dave, K6LL: "Hardly any Europe, with the A Index at 20, the K at 3, and the Solar Flux at 72. JA participation was fairly good, but only 40 had a good opening. There sure were a ton of US and VE hams participating, so it was pretty lively, and therefore a lot of fun!" Dave's score was good enough for third overall. And for Unlimited LP, KØMP took the top spot.

Midwest Region

Call	Score	Cat	QSOs	Mults	Operators
KØAD	102,194	SOLP	1,398	74	
KE5OG	78,474	SOLP	974	82	
KI6DY	69,440	SOLP	1,001	70	
KTØDX	65,262	SOLP	900	73	
AD5XD	63,492	SOLP	864	74	
WB5TUF	153,036	SOULP	1,326	117	
NX5M	62,985	SOULP	749	85	
AAØAW	33,294	SOULP	541	62	
N1CC	24,816	SOULP	387	66	
NØOJ	20,955	SOULP	383	55	
ACØC	222,372	SOHP	2,097	108	
K5DU	173,943	SOHP	1,783	99	
N3BUO	90,160	SOHP	999	92	
ABØS	59,466	SOHP	915	66	
KØJJR	57,528	SOHP	804	72	
WØLSD	219,906	SOUHP	1,954	114	
VE5MX	143,080	SOUHP	1,466	98	
W5AP	141,888	SOUHP	1,526	96	
W7RY	107,957	SOUHP	1,235	89	
N5XZ	105,906	SOUHP	960	114	
NØNI	259,870	MSHP	2,030	130	NØAC NØNI WØBNW NØXR WØFLS
WØSD	214,110	MSHP	1,854	117	
KDØS	156,275	MSHP	1,671	95	KDØS WDØT AA5B K5TQ KK6MC KG5DOJ
AA5B	119,856	MSHP	1,378	88	
WY7SS	110,303	MSHP	1,530	73	WY7FD WY7YL

Sure, ACØC had propagation complaints just like everyone else: "DX country count was down by 11 from last year." But that 11 seems to be the difference that put him in second place. And it may be that Murphy is more to blame: "at some point after the first couple of hours a coax run between the BPF filter and a power meter apparently started to leak enough that the rig was folding back. And even with the amp, output to the antenna had dropped to about 100w! At first I thought the rig had blow finals or something and resisted assigning fault to the cable for too long, wasting more time. Eventually tracked it down to an ancient (40 years old?) coax jumper I had picked up at a hamfest last year. The irony is that I used that jumper in the setup thinking that with the Amphenol connectors and Belden cable, 'it was made right like they did it back in the day.' Uhhh-huhhhh..." KØAD placed first in LP.

In Unlimited LP, WB5TUF took second place overall, but only had this to say about it: "I love RTTY contesting!" Which is plenty. WØLSD had even less to say, taking the regional first in Unlimited HP, and fourth overall.

The whole Midwest region had nothing at all to say about LP multi-operating, but it was much different on the HP side of life, with Midwest stations taking four of the top ten spots overall, including NØNI and WØSD in the top two. The weather and Murphy also took their toll at WØSD: "With the harsh South Dakota WX we had a 20 meter antenna that had SWR that was to high to use and a 15 meter beam that had no read out as to azimuth so we just left it east. We had one amplifier that would not start up. All this fancy protection stuff sure cuts down on the reliability. The 8877 HB with no protection has never failed me but I sure can't say that about the others..."



Dave, WØFLS, center, Dean, NØXR, and far right Toni, NØNI, and a whole lotta screens, working 20 meters hard. (Photo provided by Toni Radebaugh, NØNI)

Central Region

Call	Score	Cat	QSOs	Mults	Operators
N9CK	125,000	SOLP	1,265	100	
KD9MS	96,805	SOLP	1,031	95	
K8AJS	54,418	SOLP	605	91	
N8CWU	51,429	SOLP	676	79	
VE3MGY	41,028	SOLP	553	78	
VA3DF	98,382	SOULP	866	114	
K9WX	89,930	SOULP	1,069	85	
W9ILY	74,868	SOULP	745	102	
WT9U	64,974	SOULP	838	78	
K9DJT	41,650	SOULP	506	85	
VE3CX	100,881	SOHP	1,026	99	
WA8KHP	80,982	SOHP	833	99	
W5MX	71,016	SOHP	818	88	
W9IE	67,760	SOHP	863	80	
CG3TW	54,834	SOHP	712	78	VE3TW
K9CT	175,525	SOUHP	1,492	119	
K4WW	103,880	SOUHP	983	106	
N2BJ	74,214	SOUHP	807	93	
A19T	73,170	SOUHP	825	90	
KE4KY	63,360	SOUHP	799	80	
K9NR	103,851	MSLP	1,066	99	
WS9V	78,587	MSLP	909	89	WS9V KD9GKL
KOØZ	37,800	MSLP	560	70	KOØZ KC9ULA
N9LAH	26,560	MSLP	424	64	
KE4YVD	7,592	MSLP	177	52	KF4REN KJ4PXR AJ4A KJ4YLR KK4NZI KY4SGM AG4ZA KK4NZT K4BLP NV9L K9CS WB9Z KB8O AB8M N8USK WZ8P WX8P W8TJT KE8BQL
NV9L	180,531	MSHP	1,558	117	
KB8O	98,280	MSHP	952	105	
WZ8P	78,840	MSHP	909	90	

VA3DF takes the top spot here in SO Unlimited LP, and good enough for fourth overall, with a tale of despair and last minute victory: "I was not impressed with conditions at the start (and during) the contest. After a couple of hours, I had resigned myself to making the best of a bad situation and had no expectation of even getting close to last year's score.

"Come Sunday afternoon, I was behind last year on qsos but even on mults - needing only MT, DE, ME and DC for the sweep of all states. Gradually, and with a lot of effort, MT, DE and ME found their way into the log - leaving only DC as the last mult. Having not heard a DC station all weekend, I was assured that this was just another pot of gold at the end of the rainbow.

"Funny thing happened on the way to 2400Z - I ended up with a better score than I had anticipated - but 100K was just too ridiculous to even contemplate! As the clock passed 2345Z - I was still missing DC - it was not going to happen.

"With about 5 minutes to go, I'm working everything in sight - begging for qsos - I work a W3 station - a very rare DC mult is now in the books! Call me Lucky. Made a few more qsos to pad the log and pulled the switch. Basically the same score as last year..."

Craig, K9CT managed the top spot in Central Unlimited HP, and seventh overall, despite the intrusion of "family entertainment that overrode the contest plans... I probably would have operated 24 hours under different situation. I missed 5 hours Saturday early evening that would have been prime time."

In SO Unassisted LP, Steve, N9CK missed first place overall by, well, a lot, but he most enjoys seeing "all those familiar callsigns along with the many new ones!" And VE3CX tops the chart in SOHP.

The Central region is the only one to make a strong showing Multiop LP, fielding enough stations to populate a top five. In fact, they took four of the top ten overall, including K9NR in first and WS9V third. For a change HP is the stepchild, but NV9L showed up and took third overall. (Maybe they just don't like amplifiers?)

Southeast Region

Call	Score	Cat	QSOs	Mults	Operators
W4AAA	182,700	SOLP	1,600	116	KK9A
KA4RRU	117,600	SOLP	1,147	105	
WA1FCN	81,589	SOLP	1,003	83	
W4GO	66,836	SOLP	688	98	
N5RN	44,980	SOLP	701	65	
AA5AU	186,192	SOUHP	1,741	108	
K9OM	105,820	SOUHP	976	110	
KU4V	76,296	SOUHP	877	88	
W4PJW	49,357	SOUHP	648	77	
K8ARY	49,011	SOUHP	537	93	
K5XH	113,905	SOHP	1,210	95	
NR4M	113,791	SOHP	1,019	113	
W4GKM	113,270	SOHP	1,245	94	
AG4W	109,740	SOHP	1,194	93	
K7BV	98,252	SOHP	870	116	
W9SN	253,260	SOUHP	1,921	134	
K4KGG	140,517	SOUHP	1,219	117	
AB4GG	137,100	SOUHP	1,377	100	
K4GMH	123,497	SOUHP	1,221	103	
W4ML	104,728	SOUHP	1,006	106	W4MYA KA4IOX KP2N KR4U KB8ESY N2ESP N4GD N4KPJ N4RI NY4I VE3XD W4CU W4TSP
W4TA	85,845	MSLP	908	97	
N5ZM	44,073	MSLP	536	83	
NA5NN	30,690	MSLP	473	66	W5UE K2FF
WA1F	14,520	MSLP	253	60	WA1F WA1S WW4LL N9DFD
WW4LL	180,048	MSHP	1,516	121	K1ZZI AA4CF W4KTR
W4RM	158,301	MSHP	1,326	123	W4RM K4RG W7IY

W6IHG	122,752	MSHP	1,123	112	W4TMO WS7I N1MGO KJØD MMØLID W6IHG W4AAW
N8VCF	105,432	MSHP	1,169	92	N8VCF NW8U AF4Z KA4JRY KM4TIX KM4TIY K4FIT W9BCH
W4MLB	96,933	MSHP	1,273	79	KM4UCK KDØVNT K3BSX W4EE K5LP WB5ZGA

Speaking of eschewing amplifiers, the Southeast owns the distinction of owning two firsts and a second in the three LP categories. W4TA made a respectable total for second overall in Mutli LP. W4AAA (KK9A, op.) dominated the Single-Op LP category with a margin of almost 60,000 points. This, despite the fact that his "antennas and towers were completely covered with a coating of ice... Luckily most of the stuck antenna were in convenient directions from testing out the station on the previous day so I got back on the air hoping the strong sun would melt the ice and that they would start working again." Oh, and by the way: "This was my first time operating this contest and I had to figure out a strategy as I went along. It turned out to be a lot fun!" There you go.

Don, AA5AU achieved a margin of over 40,000 to take the overall SO Unlimited LP. From Louisiana, he had a different view of propagation: "40m was so long Saturday night, I could only work EU, California and Mexico. Endless unanswered CQs and the bandscope was eerily void of signals. I was expecting more out of 40. It was just the opposite Sunday afternoon/evening. It was open to all the USA and everyone heard me so I made up for lost Q's. 15m was a nice surprise. Wasn't expecting 300 Qs but I'll take it." Don has just one request: "Thanks to everyone for the contacts. Do it again next year." Will do.

Plenty was also going on in HP categories. WW4LL, W4RM, and W6IHG took fourth, fifth, and eighth respectively in Multi HP. Led by K5XH, Southeast stations swept seventh through tenth places in unassisted Single op HP. And W9SN placed a strong second in Unlimited HP, even though he "lost one of my antennas to the SWR gods just after the start and too late to fix." Still: "40 meters was flat the first night, but 80 meters was incredible, with amazing runs. 20 meters on Sunday was great and started earlier than expected, lasting into the late afternoon with consistent high run rates."

Finally, everyone experiences their own high points during a contest, and fifth-place Southeast Unlimited LP, Jim, K8ARY was no exception:

"Using 100 watt transceiver, I have a 40 meter vertical loop and 80 meter horizontal loop. That's my antenna farm. My RU high point was when I heard A31MM (Tonga) on 15 on Sunday afternoon. I nab him on the 2nd call to fill a needed DX band slot. That felt good! About 2 hours later, I was hearing E51ADD (S. Cook Is.) on 15. The signal was not too strong, but I was eventually able to work him filling another needed DX band slot. It's like fishing, I never know what I'm going to catch. Too bad the RU is only once a year!"

Northeast Region

Call	Score	Cat	QSOs	Mults	Operators
N1IXF	103,110	SOLP	997	105	
N2N	60,960	SOLP	778	80	NN2NN
N2HMM	54,327	SOLP	622	91	
KB3AAY	38,520	SOLP	550	72	
W2GN	38,258	SOLP	530	74	
WW3S	80,333	SOULP	747	109	
N1EN	63,705	SOULP	688	93	
W3FIZ	42,504	SOULP	494	88	
KS1J	39,444	SOULP	527	76	
CF2BK	32,472	SOULP	498	66	VE2EBK
AA3B	243,024	SOHP	2,005	122	
N2WK	194,228	SOHP	1,657	118	
N8CL	91,176	SOHP	1,071	87	
K5ZD	76,296	SOHP	755	102	
K3PP	75,636	SOHP	779	99	
K1IG	271,260	SOUHP	1,999	137	
K1MK	176,020	SOUHP	1,371	130	@K1TTT
W3LL	175,768	SOUHP	1,420	127	
N3QE	164,439	SOUHP	1,370	121	
NR2C	103,960	SOUHP	914	115	
N1DBL	39,648	MSLP	485	84	N1DBL W1PFZ N1UZ
W1QA	118,170	MSHP	1,028	117	W1QA WN1E WD3HAY KB3EYY WC3O K3RMB
K3MJW	111,282	MSHP	1,115	102	WB3BUW WA3KFS AB3LS WA3HGW AJ3O W3VYK
K3AJ	99,736	MSHP	965	104	K3AJ KD4D ND3D WA3EKL KG4USN KØOO
WA3EKL	49,664	MSHP	547	97	KB3VQC K3LU W3UL KC3HPS N3DPB K3OQ W3RFC
K3OQ	21,560	MSHP	315	70	WA3OFF KC3BXK

Rich, N1IXF who finds himself at the top of the SO LP standings for the Northeast, was unfazed by the snowy conditions, noting, "one of the best things about contesting on a snowy weekend? Somebody else has to clear the driveway!" In HP, AA3B once again took the top spot here and overall, despite starting the contest three hours late. Maybe he's on to something?

Similarly, Rick, KI1G took first Unlimited HP in the Northeast and also overall. (Do we detect a pattern here?) Rick notes that he "upgraded my computers so that they could keep up with the skimmers. Now if I could only upgrade my brain to keep up with the computers..." Looking at the rest of the scores reveals a very tight race between K1MK and W3LL for second and third in the region (and fifth and sixth overall) - places that swapped during log checking. Remember: accuracy is! Northeast stations would account for four of the top ten.

WW3S came out first LP Unlimited in the Region, and sixth overall, ahead of N1EN in tenth overall. In Multi LP, lone regional entry N1DBL is first - in general, Multi LP could sure use some more entries - and top Multi HP entry W1QA was 10th overall.

W/VE Top Tens

Call Sign	Score
Single Operator, High Power	
AA3B	243,024
ACØC	222,372
N2WK	194,228
K5DU	173,943
K6MR	172,172
N6WM	171,444
K5XH	113,905
NR4M	113,791
W4GKM	113,270
AG4W	109,740
Single Operator, Low Power	
W4AAA (KK9A, op)	182,700
N9CK	125,000
KA4RRU	117,600
N1IXF	103,110
KØAD	102,194
KD9MS	96,805
WA1FCN	81,589
KE5OG	78,474
KI6DY	69,440
W4GO	66,836
Single Operator Unlimited, High Power	
K1IG	271,260
W9SN	253,260
K6LL	227,374
WØLSD	219,906
K1MK (@K1TTT)	176,020
W3LL	175,768
K9CT	175,525
VE7CC	173,555
N3QE	164,439
VE5MX	143,080

Single Operator Unlimited, Low Power	
AA5AU	186,192
WB5TUF	153,036
K9OM	105,820
VA3DF	98,382
K9WX	89,930
WW3S	80,333
KU4V	76,296
W9ILY	74,868
WT9U	64,974
N1EN	63,705
Multioperator, Single Transmitter, High Power	
NØNI	259,870
WØSD	214,110
NV9L	180,531
WW4LL	180,048
W4RM	158,301
KDØS	156,275
K7BTW	136,710
W6IHG	122,752
AA5B	119,856
W1QA	118,170
Multioperator, Single Transmitter, Low Power	
K9NR	103,851
W4TA	85,845
WS9V	78,587
N5ZM	44,073
N1DBL	39,648
KOØZ	37,800
NA5NN	30,690
N9LAH	26,560
WØPC/7	23,877
WA1F	14,520

DX Highlights

European participation continues to fall off, but we did see a nice uptick on the part of Asia and Oceania. I know there are lots of EU RTTY contesters out there (get on for the Worked All Europe RTTY or the Makrothen contest, and you'll see what I mean!), and though I couldn't help but notice more "special calls" in the top tens, what will it take to improve participation in the Roundup?

DX Participation, by Continent

Continent	2017 logs	2016 logs	2015 logs
AF	5	8	7
AS	146	134	133
EU	474	522	569
NA (non W/VE)	30	31	33
OC	30	21	21
SA	23	21	31
Total logs	708	737	794

It was nice to see P49X (WØYK op) back in the top spot after a one year hiatus (we won't speak any more of that). However, Mike, WØMU declared that he was never going to work P49X again: "Every time I went to work P49X, I screwed something up! I mean every time. Someone must have put some weird voodoo on my station. The first time I was off frequency. After that the computer would send my call after I had his info. Apparently N1MM decided that I didn't have his info. That happened a few times even when I was trying to make sure it did not... But I will endeavor to be more prepared next time. Thanks for the contacts and If you never work me again, I would understand! HI!"

Many of the usual top five SOHP suspects were in there swinging - like PZ5RA and UR7GO - but EA1DR changed categories from SOULP last year to edge them both for second spot. In SOLP, it's nice to see Ted, HI3TEJ return to RTTY contesting, earning the top DX spot with a very respectable score. And he got there despite starting late, and having just one radio - though he did manage a "poor man's SO2R" with the second VFO on search and pounce duties. F5BEG had to settle for second place for the second time in two years.

In the Unlimited categories, 4M1K had the top HP score, leaving last year's winner SP7GIQ (as SN7Q) in the dust. In the LP results, nine out of ten stations that placed this year weren't even in the list last year. Mario, S56A took the top spot, noting that 40 meters was his "money band," and that 80 meters was "noisy but workable." Meanwhile, DF2F (DF2SD op) moved up from sixth last year to fourth this year.

In Multiop HP, and as noted above, despite those freezing temperatures of minus 25C, and snow 30cm deep, the team at OL7M took the top spot after narrowly missing it last year, while keeping LZ7A well behind them in second. In LP, LY7Z jumped right to the top, while last year's winner IQ2CU slipped to third - but still pretty darn good considering they had just one radio and a dipole!

DX Top Tens

Call Sign	Score
Single Operator, High Power	
P49X (WØYK, op)	417,585
EA1DR	115,920
PZ5RA	94,738
UR7GO	86,142
IK4GNI	69,776
IV3SKB	61,226
DL3BQA	60,030
YO3RU	48,240
HP3SS	47,124
UA6CE	44,608

Single Operator, Low Power

HI3TEJ	142,888
F5BEG	84,530
SO9M (SQ9UM, op)	70,564
TM4C (F4GDI, op)	47,432
YV5AAX	45,108
UT5EPP	44,480
ON5GQ	42,195
CO2AME	35,595
DL3SYA	33,984
UX1UX	32,604

Single Operator Unlimited, High Power

4M1K	181,500
9A5W	174,108
UW1M	151,194
P3X (5B4AMM, op)	146,165
SN7Q	135,090
TK5MH	120,428
S57AW	113,256
IZ4AFW	110,625
OH8A (OH8WW, op)	90,626
KH6ZM	84,600

Single Operator Unlimited, Low Power

S56A	70,092
IK3TPP	57,230
9A7DX	56,133
DF2F (DF2SD, op)	52,154
XE2B	39,425
IT9MUO	34,470
CT1BXT	33,200
G8X	30,704
GMØFGI	28,786
HI3CC	27,783

Multioperator, Single Transmitter, High Power

OL7M	149,225
LZ7A	80,700
EA2WT	76,258
YV5ØARV	73,710
EA2VE	71,900
S53M	53,486
OK1KUW	51,520
USØAK	39,848
PC2Y	34,488
OL2U	29,376

Multioperator, Single Transmitter, Low Power

LY7Z	45,552
RT2M	28,000
IQ2CU	22,230
UZ2I	19,698
OK2RVM	13,818
9A7B	8,987
MØIEP	6,820
KL4SD	3,500
YU7KMN	3,264
DF4WC	2,592

Golden Logs

Call	Category	QSOs	Score
K2DFC	SOULP	412	27,192
WB8JUI	SOLP	250	14,000
N3CKI	SOLP	235	12,220
VE3YF	SOLP	221	10,829
K8NWD	SOLP	212	10,600
WØZF	SOLP	198	9,900
KC2WUF	SOULP	196	10,192
W3GVX	SOUHP	188	11,468
UX6IB	SOLP	180	7,560
KC5FP	SOULP	176	10,032
N5XJ	SOUHP	176	8,976
JH3FUK	SOHP	160	10,880
WA1DRQ	SOUHP	156	7,644
N6VH	SOUHP	153	8,721
WO7V	SOHP	140	5,880
KB9DVC	SOLP	138	6,900
SM7CIL	SOLP	135	5,535
K9SE	SOLP	132	6,468
PA3GDG	SOULP	130	5,720
ZS2EZ	SOULP	128	7,296
OK2PCL	SOHP	128	5,888
K9LGE	SOLP	113	4,746
AD5LU	SOLP	111	3,774
7N2UQC	SOLP	111	3,108
K5WI	SOLP	106	4,134
N6HI	SOLP	106	3,392
KA8HKC	SOLP	105	4,935
K5TA	SOLP	105	4,410
W9VQ	SOLP	100	4,554
KE7AUB	SOLP	100	4,000

We've arbitrarily defined a Golden Log as a log with no errors and with at least 100 QSOs. Congratulations to this year's top Golden Log, submitted by Fred K2DFC with 412 QSOs and a respectable 27,192 points - edging a little higher than last year's total of 410 QSOs and 25,010 points logged by WØPI. I'll note with interest that Fred entered in the SO Unlimited category, proving that an operator that uses assistance can actually copy and log the correct QSO. A word to the wise.

There Were Records?

New W/VE Division Records					
Call	Division	Category	Score	QSOs	Mults
K4WW	Great Lakes	SOUHP	103,880	983	106
W7RY	Midwest	SOUHP	107,957	1,235	89

New DX Records					
Call	Location	Category	Score	QSOs	Mults
P3X	Asia	SOUHP	146,165	1,287	115
KH6ZM	Oceania	SOUHP	84,600	1,147	75
4M1K	South America	SOUHP	181,500	1,526	121

We spoke a little too soon in the print version of this article. Turns out on more careful scrutiny, against all odds there were a handful of new domestic and DX records set. All were set in the Single-Op High Power Unlimited category, which continues to show that records can be set in these relatively new Unlimited categories even during less than wonderful conditions.

Sponsored Plaques

Thanks to the generous support of numerous clubs and individuals, we are pleased to list the winners of the Sponsored RTTY Roundup plaques below. For more information on plaque sponsorship or to order a duplicate plaque, contact ARRL Contest Branch Manager Bart Jahnke, W9JJ, at 860-594-0232 or w9jj@arrl.org. Plaques cost \$75, which includes all shipping charges.

Plaque Category	Plaque Sponsor	Winner
W/VE Single Operator High Power	Preston Radio Club, W7PRC	AA3B
W/VE Single Operator Low Power	Robert E Darlington III, N3XKB	W4AAA (KK9A, op)
W/VE Single Operator Unlimited High Power	WQ6X Software	K11G
W/VE Single Operator Unlimited Low Power	SMECC Communications Museum (AZ), KF7RWW	AA5AU
W/VE Multioperator High Power	John Lockhart, W0DC	NØNI
W/VE Multioperator Low Power	Dan Karg, KØTI	K9NR
DX Single Operator High Power	Rick Tavan, N6XI	P49X (WØYK, op)
DX Single Operator Low Power	Rich Cady, N1XF	HI3TEJ
DX Single Operator Unlimited High Power	Mother Lode DX/Contest Club	4M1K
DX Single Operator Unlimited Low Power	Michael Trowbridge,	S56A

	KA4RRU	
DX Multioperator High Power	Paolo Cortese, I2UIY, Memorial by WØYK	OL7M
DX Multioperator Low Power	Jeff Stai, WK6I	LY7Z
Canada Single Operator Unlimited High Power	Tom Haavisto, VE3CX	VE7CC
Atlantic Division Multioperator High Power	Skyview Radio Society - In Memory of Daniel Rabinovitz, K3ISO	K3MJW
Central Division Single Operator High Power	Society of Midwest Contesters	W9IE
Central Division Single Operator Low Power	Society of Midwest Contesters	N9CK
Central Division Multioperator High Power	Society of Midwest Contesters	NV9L
Central Division Multioperator Low Power	Society of Midwest Contesters	K9NR
Dakota Division Single Operator High Power	Minnesota Wireless Association	KØJJR
Dakota Division Single Operator Low Power	Minnesota Wireless Association	KØAD
Dakota Division Single Operator Unlimited High Power	Minnesota Wireless Association	KØCN
Dakota Division Single Operator Unlimited Low Power	Minnesota Wireless Association	AAØAW
Dakota Division Multioperator High Power	Minnesota Wireless Association	WØSD
New England Division Single Operator High Power	CTRI Contest Group	K5ZD
Northwestern Division Single Operator High Power	Hank/KR7X	N7QT
Pacific Division Single Operator High Power	Northern California Contest Club	K6MR
Pacific Division Single Operator Low Power	Dick Wilson, K6LRN & Carolyn Wilson K6TKD	K6GHA
Roanoke Division Multioperator Low Power	Sheila Blackley, K4WNW	W4RM

It's nice to once again see such a healthy looking table of sponsored plaques, thanks to all who keep the awards coming whether the metal is heavy, light, or not even metal at all! Remember, you too can be a plaque sponsor, and you can sponsor any available outcome. (It would be

lovely to see some commercial sponsors on here as well, like we see in Sweepstakes and other ARRL contests. How about it?)

Last Print

Aside from the new Heavy Metal overlay, the next contest is always different and always has the potential to be a great one. Don't forget the new log submission deadline of 5 days after the contest. The 2018 version is on Jan 6-7 so thaw out some of the holiday leftovers, clean off the keyboard, and get ready to diddle!