



ARRL RTTY Roundup

2014 Results

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New categories and interesting propagation liven up the Roundup!

(The table of sponsored plaque winners was not available when this article was published – it will be added as a revision when available. – Ed.)

Last year in his writeup of the 2013 RTTY Roundup, Jay, WS7I, opined that "the great unknown next year will be the propagation". Judging from the comments and results for the 2014 Roundup, Jay was right. Propagation was great for some, a challenge for many, and produced some shakeups in the results.

2014 was also a year of changes for the RTTY Roundup. For the first time, the Roundup included the Unlimited category. And, this year you have a new "semi-humble correspondent" to tell you what happened.

For 12 years, Jay Townsend, WS7I, - who along with Hal, K7IRA, created the Roundup back in 1989 - has penned these reports. For many of us Jay has been a RTTY Elmer and a willing friend, in my case he most recently helped me get my ST-8000 hardware modems working. Even considering my own size 14s, these will be large shoes to fill. *(See the sidebar "The Beginning of the Roundup" at the end of this writeup – Ed.)*

Despite the slight drop in overall participation this year, there were many new participants and many of them were also new hams. 11-year old Dylan, KK6IFZ, operated his second contest ever, first time on 10 meter RTTY: *"I did a bit on Saturday after basketball and came back on Sunday while [Grandpa] WN6K was watching the Charger/Bengal game. On my Elmer's advice, I brought a book to read on Sunday but after doing more reading than logging due to no sigs by 2100 UTC, I gave up the ghost."*

And while - already! - no stranger to RTTY, in her first Roundup 15-year old Georgia, NY2GB, noted: *"I had a total time on of 4:49 minutes and made 172 QSOs. My run on 21080 lasted 59 minutes from 1849 to 1948 (QSO numbers 86 to 137) for a total of 51 QSOs. That's very, very good for a 15 year old girl operator..."* Yes, I think we can all agree on that!

Not to forget the slightly longer-in-the-tooth hams among us, Nick, VE3IB, noted: *"No smoke from the TS-820S was a good sign. Great fun! I'm hooked."* A newly-

minted Extra, Bill, AB3TM, recounted a tale of setup woes; after many equipment changes: *"Voila! Good RTTY generated at 100% power! I was back in the game."* (Setup gets easier after seven or eight hundred times, we'll see you in the RTTY Rookie Roundup in August!) Will, WC2L: *"First semi effort and had a blast. Got to do this more often!"* John, N8FYL: *"My first RTTY Roundup. Learned a lot. Had FUN. Need to be more prepared next year!"* and Daniel, N2DD: *"Not bad for my first day of RTTY, EVER!"*



Georgia, NY2GB, operated from her grandpa N2FF's well-appointed shack. (N2FF photo)

Propagation or "Where the Heck is Europe?"

Even though the solar flux and sunspots were fully on the march towards the apparent Cycle 24 maximum, mixed conditions confronted many participants. Stations more towards the east seemed to be pretty happy, while stations to the west were less so. Don, AA5AU's comments echoed the experience of many: *"I thought 10 and 15 meters would be better - they were not. I expected a ten meter band full of EU stations Sunday morning but it didn't happen. Ten meters did not even open until well past 1400Z and then signals were weak."* Bud, VA7ST: *"Well, the bands were not good despite SFI of 218. A pair of back-to-back M-class flares ruined Saturday and conditions felt punky throughout the weekend here. Not sure if I enjoyed it or loathed it. Probably a bit of both."* But Bill, K2PO, in Portland, Oregon was a little more upbeat: *"The propagation wasn't quite as good as the spectacular solar numbers might indicate. The 10m opening to Europe here netted just 2 stations (both in*

France). 10m shut way early on Sunday afternoon... But the rate never dragged and the excitement never waned."

While in 4-land, Mike, K4GMH, was pleased: "That was interesting with the nice propagation on the higher HF bands and low noise on the lower HF bands." ...Sam, W4PK, agreed: "Conditions were excellent Sunday morning to Europe on 10M and I probably spent too much time there. During the evening hours they were also excellent on 80M with many Europeans in the log." And in Europe, Bernard, F5RD, enjoyed "Very good conditions for this contest with a lot of stations on the five bands."

Yearly QSO Totals, by Band

	2012	2013	2014
80 Meters	69,087	79,226	76,006
40 Meters	144,094	161,081	131,653
20 Meters	180,900	200,106	169,502
15 Meters	168,439	174,985	175,681
10 Meters	67,349	42,671	70,580
Total QSOs	630,742	658,523	623,422

Finally, judging by the conditions Stephen, VK3TDX, experienced, you had to go WAY west to find the best propagation: "Wow! Unforgettable night time conditions. Ten meters open at 3 AM? A real thrill to be able to operate in these great conditions."



Steve VK3TDX takes a break after an amazing night on 10 meter RTTY. (VK3TDX photo)

Unlimited Fun!

As noted above, Unlimited (aka "Assisted" aka "Packet" aka "Bloody distraction") as a category for single operators made its debut in the 2014 Roundup. Let's compare the total entries by category between 2013 and 2014, and perhaps divine what decisions were made.

2013 vs 2014 Category Choice (all entries)

Category	2013	2014
SOLP	1024	843
SOULP	n/a	225
SOHP	424	331
SOUHP	n/a	254
MSLP	200	29
MSHP	260	40
Total entries	1908	1722

While overall participation was down - perhaps due to the weather or an especially gripping football game - it's interesting to note the huge shift away from the Multioperator categories - from 460 in 2013 to only 69 in 2014. One might suppose the reason is that Single-Ops who wanted to use assistance in the past were forced into the Multioperator, Single-Transmitter categories (MSLP or MSHP). In 2014 they could instead choose to operate in Single-Operator Unlimited (SOULP or SOUHP).

2013 vs 2014 Category Shifts (all entries)

2013 Category	New 2014 Categories		
	SOULP	SOUHP	Total
SOLP	60	12	72
SOHP	4	44	48
MSLP	48	4	52
MSHP	9	89	98

But did they? A little "pivot table" magic in a popular spreadsheet program reveals the truth. Between 2013 and 2014, at least 150 calls that entered MSLP or MSHP opted for an Unlimited category. (It's not shown in the table, but another 49 calls that were MSLP or MSHP last year opted for SOLP or SOHP this year, without the spotting information.)

Affiliated Club Competition

Ever since the big contest clubs realized there was more to life than Sweepstakes, friendly competition between the clubs has helped drive participation in other contests like the Roundup. The rivalry between the Northern California Contest Club and the Potomac Valley Radio Club for the coveted gavel got a little closer with the PVRC pulling to within 800,000 points, but the NCCC prevailed with 65 logs submitted. Meanwhile the Minnesota Wireless Association pulled up into the Unlimited Club category this year with an impressive third-place score of almost 1.8 million.

Competition was even tighter in the Medium Club category, with an especially close race for third. In first with over 1.5 million points was the Society of Midwest Contesters. Second and third place were separated by less than 15,000 points, with the Arizona Outlaws Contest Club edging out the Frankford Radio Club, who managed an impressive 1.25 million on only 16 logs.

The Local Club category finds the Orleans County Amateur Radio Club in first place with 655 thousand

points and 10 logs, more than twice as many points as second place Boeing Employees ARS - St. Louis. The Kansas City Contest Club rounds out the top three with just three logs making it happen.

ARRL Affiliated Club Competition

Category	Entries	Score
Unlimited		
Northern California Contest Club	65	3,202,878
Potomac Valley Radio Club	53	2,456,716
Minnesota Wireless Assn	54	1,793,519

Medium

Society of Midwest Contesters	28	1,524,491
Arizona Outlaws Contest Club	26	1,266,544
Frankford Radio Club	16	1,252,196
Yankee Clipper Contest Club	27	1,106,046
DFW Contest Club	12	944,181
Tennessee Contest Group	12	822,668
Contest Club Ontario	19	763,516
ORCA DX And Contest Club	11	639,868
Alabama Contest Group	14	594,172
Grand Mesa Contesters of Colorado	8	570,724
Contest Group Du Quebec	8	569,888
Louisiana Contest Club	5	552,638
Willamette Valley DX Club	14	538,714
Florida Contest Group	14	424,225
Georgia Contest Group	4	400,946
Hudson Valley Contesters and DXers	8	344,912
North Coast Contesters	6	302,196
Carolina DX Association	4	274,558
Mad River Radio Club	7	259,944
Western Washington DX Club	5	236,435
CTRI Contest Group	5	212,839
Rochester (NY) DX Assn	6	196,374
Texas DX Society	3	165,016
Southern California Contest Club	10	139,616
South East Contest Club	6	135,232
Utah DX Assn	3	123,925
Bristol (TN) ARC	4	89,882
Mississippi Valley DX/Contest Club	3	37,056

Local

Orleans County Amateur Radio Club	10	655,255
Boeing Employees ARS - St. Louis	5	320,042
Kansas City Contest Club	3	317,160
Spokane DX Association	8	306,718
Contest Club California Peninsula	3	199,305
Dominion DX Group	3	187,156
Bergen ARA	5	148,067
Midland ARC	3	137,199
Maritime Contest Club	6	108,366
New Providence ARC	3	67,265

Regional Highlights

Looking at section-by-section participation this year, Minnesota can claim bragging rights for the most logs submitted, followed by strong showings from Virginia, Arizona, and Western New York. The only sections not represented were Newfoundland/Labrador and Northern New York. Hopefully next year you guys can dig yourself out of the snow and we can get all 83 sections on the air!

Domestic Participation, by ARRL Section

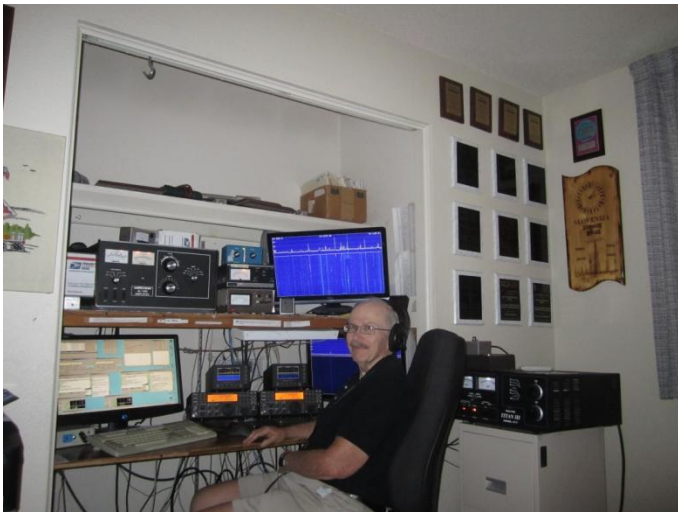
Section	Logs received	Section	Logs received
MN	52	EMA	8
VA	40	ID	8
AZ	31	NE	8
WNY	30	SC	8
OH	29	SDG	8
SCV	29	SF	8
IL	27	SFL	8
MDC	25	WMA	8
EPA	24	AK*	8
MI	23	ORG	7
NC	23	MAR	6
OR	22	IA	6
SV	21	SNJ	6
TN	21	UT	6
NNJ	20	PR*	6
WWA	20	AB	5
CO	19	AR	5
STX	19	NM	5
BC	17	WTX	5
AL	16	WV	5
MO	16	PAC*	5
CT	15	DE	4
WI	15	LAX	4
EB	14	MS	4
NH	14	ONE	4
ENY	13	ME	3
NTX	13	MT	3
EWA	12	ND	3
WCF	12	SD	3
WPA	12	SK	3
GA	11	VI*	3
KS	11	RI	2
KY	11	SB	2
ONS	11	VT	2
QC	11	WY	2
GTA	10	MB	1
IN	10	NLI	1
NV	10	NT	1
SJV	10	ONN	1
LA	9	NL	0
NFL	9	NNY	0
OK	9		

* DX section

West Coast Region

K2PO earned the top spot in the west for SOLP, top spot and new record in the Northwestern Division, and third overall. Bill managed to put DC in the log only 18 minutes into the contest thanks to AB3UM - "a good omen!" - for his best RTTY effort so far. In second and third places we find two stations that were also close in 2013, and once again K7TQ (with the same number of multipliers) edged VA7KO by just 16 Qs this time around.

In SOHP, W7RN - operated by yours truly with the multitude of VFOs and the moral support of a rubber chicken - ended up on top again, also earning the Pacific Division title and third overall. Arizona powerhouse K6LL had a strong showing in second spot which was good enough for the Southwestern Division title and sixth overall.



"Neither I nor my shack is very photogenic, but here it is. SO2R in a closet." We think it's very photogenic, Dave! (K6LL photo)

West Coast Region

Call	Score	Category	QSOs	Mults
K2PO	194,235	SOLP	1717	115
K7TQ	104,690	SOLP	1114	95
VA7KO	103,075	SOLP	1098	95
VA7ST	89,018	SOLP	953	94
NW7D	76,856	SOLP	750	104
N6EE	83,062	SOULP	705	119
N6MA	72,540	SOULP	787	93
VA7RY	57,236	SOULP	706	82
K7GS	49,100	SOULP	497	100
W6UX	36,500	SOULP	506	73
W7RN	278,632	SOHP	2418	116
K6LL	222,158	SOHP	1978	113
K8IA	199,065	SOHP	1742	115
W7WW	154,000	SOHP	1578	100
VE7SZ	121,590	SOHP	1368	90
VE7CC	284,928	SOUHP	2246	128
N6RO	214,375	SOUHP	1743	125
W1SRD	205,110	SOUHP	1963	106
W7RY	192,458	SOUHP	1673	118
N6IE	185,520	SOUHP	1572	120
VE7SAR	25,050	MSLP	340	75
K7BTW	174,876	MSHP	1511	118
W6DR	146,740	MSHP	1295	115
N7BV	119,281	MSHP	1195	101
KK7PR	33,321	MSHP	387	87
K6KO	28,864	MSHP	360	82

In the new SOULP category, N6EE achieved the top spot as well as the Pacific Division title, with N6MA and VE7RY in second and third. All alone in the MSLP category we find VE7SAR, proving that if you do enter you can win! And K7BTW takes the top spot in MSHP with a score good enough for fifth overall in the category.

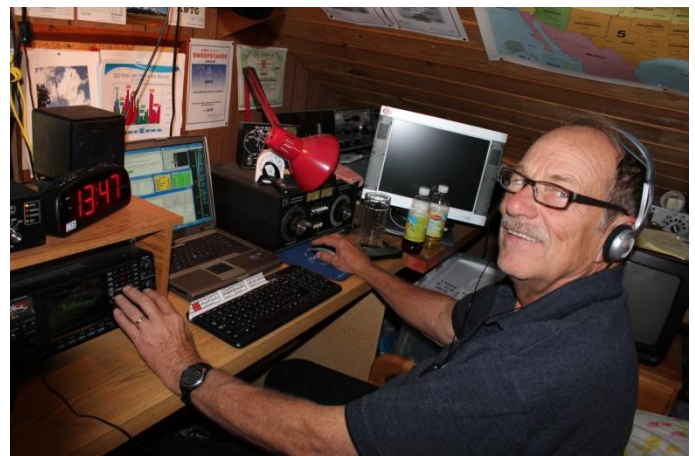
But the real news out west is that VE7CC scored the top spot in the world - and the world record - in SOUHP, edging out K4GMH by a margin of less than 400 points - that's just a few Qs and a couple multipliers difference.

The west also saw strong results by N6RO (fifth overall in W/VE), W1SRD (seventh overall), and W7RY (tenth overall).

Midwest Region

Crossing the Rockies to the Midwest, and despite what he described as an unusual amount of QRM from automated stations, AB5K in Texas took the coveted top spot in SOHP with a new W/VE record 347,625 points. ACØC and ABØRX also ran up impressive scores, good enough for fifth and seventh overall, respectively. Both operators reported decent conditions on Saturday but disappointing conditions on Sunday that didn't reflect the high solar flux numbers. ACØC also earned the Midwest Division crown, while the always elusive (at least, in my log) VE4EAR took first in Canada.

In SOLP, the top five Midwest stations KØTI, KTØDX, KØAD, NTØF, and KE5OG owned half of the Top Ten overall, placing in fourth, fifth, sixth, eighth, and ninth, respectively. KE5OG echoed the remarks of other Midwest stations regarding the poor Sunday conditions. And in the Unlimited categories, WB5TUF in Low Power - setting a personal best Roundup score - and WØLSD in High Power came out on top.



Ken WØLSD was all smiles as he piloted his station to a score of over 240,000 points in the SOHP category. (KØGEO photo)

In MSLP, KU5B just missed breaking 200K points but that was good enough to take the overall top spot - not to mention being within striking distance of the MSLP world record of 210,500 set at NØNI in 2010 - with ACØE taking ninth. Similarly NØNI came up just shy of 300K points to take the top spot in MSHP - and break their own world record! - with WØSD close behind in second, and WY7FD in fourth.

Midwest Region

Call	Score	Category	QSOs	Mults
KØTI	170,532	SOLP	1590	108
KTØDX	142,230	SOLP	1304	110
KØAD	138,402	SOLP	1417	99
NTØF	131,428	SOLP	1151	116
KE5OG	128,724	SOLP	1277	102
WB5TUF	136,539	SOULP	1177	117
AD1C	104,092	SOULP	987	106
K5WE	65,736	SOULP	673	99
N5ZC	47,058	SOULP	694	69
K5ND	46,893	SOULP	547	87
AB5K	347,625	SOHP	2821	125
ACØC	227,400	SOHP	1932	120
ABØRX	216,184	SOHP	1790	122
VE4EAR	149,058	SOHP	1537	98
K5RZA	82,164	SOHP	1017	82
WØLSD	232,224	SOUHP	1999	118
WA5ZUP	209,559	SOUHP	1779	119
W5AP	196,262	SOUHP	1655	121
ABØLR	144,210	SOUHP	1335	110
VE5MX	141,729	SOUHP	1201	119
KU5B	199,821	MSLP	1564	129
ACØE	31,360	MSLP	496	64
WSØZ	30,932	MSLP	432	74
KN5S	22,218	MSLP	325	69
NØNI	298,934	MSHP	2210	137
WØSD	251,518	MSHP	1890	134
WY7FD	184,147	MSHP	1733	107
WØGJ	112,644	MSHP	1057	108
AF5Q	3,003	MSHP	84	39

Central Region

First-time RTTY participant K9XD entered this year's Roundup "primarily as practice for one of our new ops. It also gave us a chance to test all the changes to the station from last year." It looks like everything worked because they edged past WZ8P to take the regional top spot in MSHP. On the Low Power side, the Central region owned half of the Top Ten with K9NR at the top with a score good enough for third overall, followed by K4FT, KOØZ, VE3MGY, and N9LAH in fourth, fifth, sixth, and tenth overall, respectively.

AI9T noted that both his Qs and mults were down this year compared to last year, but his score was still good enough for the win and a spot on the overall top ten in SOHP. We had another close one for second and third with VE3CX just squeezing past KE9I by only 117 points! Just two more Qs by KE9I would have swung it the other way. In SOLP, K9CK took top honors and seventh on the overall top ten.

Chad WE9V was on a pace to surpass his own personal best score and Central Division low power record when he took "...several hours off to let my 9 year old daughter operate the ham radio for the first time ever, for [the] ARRL Kids Day operating event. While I didn't

break my record, I still feel like a winner." Chad, we think you're a winner, too - and in fact you did set the record for SOULP in the Central Division, so now you own two division records! Your score was also good enough for second place overall. Not too shabby, dad.



Chad WE9V takes a break from the Roundup to show his 9-year old daughter, Priya, how to "diddle" as part of Kid's Day. (WE9V photo)

Central Region

Call	Score	Category	QSOs	Mults
N9CK	137,456	SOLP	1140	121
K9WX	82,250	SOLP	889	94
K8AJS	73,932	SOLP	741	101
WA8KHP	61,287	SOLP	674	93
VE3IAE	60,819	SOLP	636	97
WE9V	187,354	SOULP	1668	113
AA8R	127,897	SOULP	1076	121
W4LC	67,798	SOULP	635	109
ND4X	51,870	SOULP	553	95
K9JWI	48,790	SOULP	586	85
AI9T	188,875	SOHP	1527	125
VE3CX	142,680	SOHP	1236	116
KE9I	142,463	SOHP	1312	109
N8NR	135,355	SOHP	1194	115
N8BJQ	127,948	SOHP	1111	116
N2BJ	110,959	SOUHP	1058	107
K9DJ	93,492	SOUHP	888	106
W9IU	86,655	SOUHP	804	109
KT9L	76,214	SOUHP	730	106
NS9I	59,192	SOUHP	610	98
K9NR	86,926	MSLP	899	98
K4FT	59,670	MSLP	592	102
KOØZ	54,417	MSLP	575	97
VE3MGY	40,296	MSLP	598	69
N9LAH	31,164	MSLP	375	84
K9XD	117,702	MSHP	1046	117
WZ8P	116,272	MSHP	1140	104
KE4YVD	46,822	MSHP	604	82

Southeast Region

K4GMH has won SOHP in three out of the last four Roundups. This time Mike decided to go with the new Unlimited category and as noted above, VE7CC squeezed up on the rail and beat him by a nose. Still -

despite a two-hour antenna switch repair at the start of the contest - his score was good enough for the top SOUHP spot in the always competitive Southeast region.

Speaking of competitive, N2QT competed against himself by setting a goal of 225K points at the outset. His 206,976 points fell short of that goal but was still enough to earn the top score and a world record in SOULP. Mark opined that *"I don't think [assisted] really affects the score appreciably as mults count only once and there are a limited number. This contest is all about rate, which you lose when chasing spots. Just wait, the mults will call you."*

Southeast Region

Call	Score	Category	QSOs	Mults
AA5AU	240,737	SOLP	2037	119
KU4V	77,794	SOLP	806	97
KA4RRU	72,720	SOLP	738	101
N4DSL	70,756	SOLP	728	98
KD5LNO	64,766	SOLP	695	94
N2QT	206,976	SOULP	1625	128
WW4LL	150,040	SOULP	1270	121
AB4SF	81,324	SOULP	760	108
WB2RHM	68,875	SOULP	732	95
N2ESP	32,000	SOULP	322	100
K4RO	242,560	SOHP	1917	128
N4ZZ	213,202	SOHP	1776	121
W4GKM	175,376	SOHP	1587	113
AG4W	114,356	SOHP	1024	113
AB4GG	114,345	SOHP	1103	105
K4GMH	284,532	SOUHP	2198	131
W4DXX	202,150	SOUHP	1571	130
W4PK	135,541	SOUHP	1151	119
KU1T	128,800	SOUHP	1154	112
W4ML	124,656	SOUHP	1127	112
K4RFT	38,080	MSLP	500	80
W4BNO	23,630	MSLP	279	85
N5ZM	22,104	MSLP	310	72
N4SVC	11,110	MSLP	217	55
KN5O	219,648	MSHP	1736	128
W1AW/4	172,824	MSHP	1562	114
W4RM	168,360	MSHP	1409	122
K4WNW	142,890	MSHP	1327	110
K4QD	129,850	MSHP	1360	98

Checking on the unassisted side of Single Operator, it's interesting to note that K4RO in the top spot for High Power, and AA5AU in the top spot for Low Power, ended up about 2,000 points apart. K4RO achieved a personal best by working *"143 more QSOs and 2 fewer mults this year. Station worked perfectly start to finish."*

First time MSLP station K4RFT was very pleased with their "Field Day" style operation: *"set up a FT-920 with Microham Microkeyer interface and N1MM Logger software on the computer using MMTTY and 2Tone for decoding. It was simply a blast!!"* - and good enough for seventh overall! Meanwhile in MSHP, KN5O ran up an impressive score that netted a third place overall and

Delta Division record, yet they still had time to introduce of their ham friends to the joys of RTTY.

Northeast Region

Right from the outset VA2UP was gunning for AA5AU's SOLP world record. While he didn't quite get there, his determination put him in the top spot overall with over 250K points. Fabi noted *"The killer this time were the mults. I had a rough time finding them and ended up with 4 less than last year but with 500 more Qs.... If you are a mult you should always make sure you call me before the contest ends!"* For his second place overall finish in SOHP, AA3B was a man of fewer words but similar sentiments: *"Mults were sure hard to find."*

N2WK and WA2TMC had an excellent time operating in the MSLP category (while lamenting the six band change per hour rule), garnering enough Qs for a third place finish overall. The crew at K3MJW also *"had big fun"* on their way to a seventh place overall.

Northeast Region

Call	Score	Category	QSOs	Mults
VA2UP	250,954	SOLP	2089	121
K1RO	116,802	SOLP	1145	103
K2EN	89,200	SOLP	895	100
WØBR	79,734	SOLP	833	97
N1EO	64,578	SOLP	696	94
WW3S	123,664	SOULP	1059	118
K1SD	113,100	SOULP	993	116
W3FIZ	101,205	SOULP	889	117
W1SLF	91,908	SOULP	860	108
VE2EBK	71,877	SOULP	756	97
AA3B	306,633	SOHP	2402	129
N2KI	166,750	SOHP	1479	115
K5ZD	139,464	SOHP	1197	117
W2GR	128,800	SOHP	1175	112
VE2GSO	102,919	SOHP	1025	101
K1MK	221,255	SOUHP	1628	137
W3LL	190,092	SOUHP	1561	124
N8CL	160,573	SOUHP	1429	113
N2MM	148,428	SOUHP	1191	126
K3MD	143,880	SOUHP	1226	120
N2WK	162,503	MSLP	1357	121
KF2VX	8,064	MSLP	134	63
K2EP	5,217	MSLP	111	47
WA3AFS	3,384	MSLP	78	47
K3MJW	147,917	MSHP	1271	119
KV1J	134,512	MSHP	1214	112
WG3J	76,965	MSHP	810	105
K3OQ	44,280	MSHP	501	90

K1MK took the regional first place in SOUHP, while second place W3LL had *"High SWR on the antenna attributed to icing. 10M had the best SWR so started there on Sunday and watched the SWR slowly come down as the ice melted."* Meanwhile in SOULP, WW3S ended up on top, while second place K1SD at a new QTH

mounted a determined effort to overthrow the RI Section record of 51,900 points that he has held for 14 years. Looks like James made it!

New W/VE Records and Top Ten

I have good news for all of you who entered in SOULP or SOUHP and won your division or your section: you have just set a new record! For the rest of you, here are your new targets for next year. And, I can't help but notice that some section records remain unclaimed...

New W/VE Division Records

Call	Division	Category	Score	QSOs	Mults
VA2UP	Canada	SOLP	250,954	2089	121
K2PO	Northwestern	SOLP	194,235	1717	115
KTØDX	Rocky Mountain	SOLP	142,230	1304	110
WW3S	Atlantic	SOULP	123,664	1059	118
VE2EBK	Canada	SOULP	71,877	756	97
WE9V	Central	SOULP	187,354	1668	113
WGØM	Dakota	SOULP	43,142	596	74
W4TTM	Delta	SOULP	20,856	319	66
AA8R	Great Lakes	SOULP	127,897	1076	121
NO2T	Hudson	SOULP	51,548	563	98
WAØTPN	Midwest	SOULP	36,279	445	87
K1SD	New England	SOULP	113,100	993	116
K7GS	Northwestern	SOULP	49,100	497	100
N6EE	Pacific	SOULP	83,062	705	119
N2QT**	Roanoke	SOULP	206,976	1625	128
AD1C	Rocky Mountain	SOULP	104,092	987	106
WW4LL	Southeastern	SOULP	150,040	1270	121
N6MA	Southwestern	SOULP	72,540	787	93
WB5TUF	West Gulf	SOULP	136,539	1177	11
N2KI	Hudson	SOHP	166,750	1479	115
AB5K*	West Gulf	SOHP	347,625	2821	125
W3LL	Atlantic	SOUHP	190,092	1561	124
VE7CC**	Canada	SOUHP	284,928	2246	128
N2BJ	Central	SOUHP	110,959	1058	107
NØBK	Dakota	SOUHP	76,450	700	110
W4BCG	Delta	SOUHP	23,940	325	76
K8MM	Great Lakes	SOUHP	55,272	591	94
K2CYE	Hudson	SOUHP	111,672	1046	108
KØBJ	Midwest	SOUHP	100,855	885	115
K1MK (@ K1TTT)	New England	SOUHP	221,255	1628	137
W7RY	Northwestern	SOUHP	192,458	1673	118
N6RO	Pacific	SOUHP	214,375	1743	125
K4GMH	Roanoke	SOUHP	284,532	2198	131
WØLSD	Rocky Mountain	SOUHP	232,224	1999	118
W4DXX	Southeastern	SOUHP	202,150	1571	130
W7ZR	Southwestern	SOUHP	152,574	1305	118
W5AP	West Gulf	SOUHP	196,262	1655	121
N2WK	Atlantic	MSLP	162,503	1357	121
KU5B	West Gulf	MSLP	199,821	1564	129
KN5O	Delta	MSHP	219,648	1736	128
NØNI**	Midwest	MSHP	298,934	2210	137

* W/VE Record
** World Record

Top Ten Scores - W/VE

Single Operator, Low Power

VA2UP	250,954
AA5AU	240,737
K2PO	194,235
KØTI	170,532
KTØDX	142,230
KØAD	138,402
N9CK	137,456
NTØF	131,428
KE5OG	128,724
K1RO	116,802

Single Operator, High Power

AB5K	347,625
AA3B	306,633
W7RN (WK6I, op)	278,632
K4RO	242,560
ACØC	227,400
K6LL	222,158
ABØRX	216,184
N4ZZ	213,202
K8IA	199,065
AI9T	188,875

Single Operator Unlimited, Low Power

N2QT	206,976
WE9V	187,354
WW4LL	150,040
WB5TUF	136,539
AA8R	127,897
WW3S	123,664
K1SD	113,100
AD1C	104,092
W3FIZ	101,205
W1SLF (KB1JZU, op)	91,908

Single Operator Unlimited, High Power

VE7CC	284,928
K4GMH	284,532
WØLSD	232,224
K1MK (@K1TTT)	221,255
N6RO	214,375
WA5ZUP	209,559
W1SRD	205,110
W4DXX	202,150
W5AP	196,262
W7RY	192,458

Multioperator, Low Power

KU5B	199,821
N2WK	162,503
K9NR	86,926
K4FT	59,670
KOØZ	54,417
VE3MGY	40,296
K4RFT	38,080
WØPC/7	32,688
ACØE	31,360
N9LAH	31,164

Multioperator, High Power

NØNI	298,934
WØSD	251,518
KN5O	219,648
WY7FD	184,147
K7BTW	174,876
W4RM	168,360
K3MJW	147,917
W6DR	146,740
K4WNW	142,890
KV1J	134,512

DX Highlights

DX participation was also down a bit as compared to last year. It's interesting, however, that by percentage the participation per continent has remained roughly the same, with less than a percentage point plus or minus difference.

DX Participation, by Continent

Continent	Logs	% of total DX
AF	10	1.2%
AS	163	19.4%
EU	589	70.1%
NA	33	3.9%
OC	19	2.3%
SA	26	3.1%
Total logs	840	

Only two new DX records were set in the existing categories, including P49X's new world record and new SA record. V5/DL9NDS demolished the African record that stood for 7 years, increasing it by almost 50%. In the new Unlimited categories it is interesting to note that records for Oceania in the Low Power and Africa in the High Power lay unclaimed — hint, hint!"

New DX Records

Call	Location	Category	Score	QSOs	Mults
EO3Q	EU	SOULP	107,969	1079	101
EA8OM	AF	SOULP	50,140	467	109
JP1QDHF	AS	SOULP	30,618	379	81
XE2FGC	NA	SOULP	53,898	698	78
ZZ2T	SA	SOULP	107,378	1017	106
	OC	SOULP	none		
P49X	WORLD, SA	SOHP	459,624	3514	132
V5/DL9NDS	AF	SOHP	183,655	1620	115
LZ8E	EU	SOUHP	255,080	1840	140
JM1XCW	AS	SOUHP	106,370	980	110
XE2K	NA	SOUHP	174,570	1548	115
WH7DX	OC	SOUHP	19,435	315	65
LU2EE	SA	SOUHP	33,456	409	82
	AF	SOUHP	none		

DX Top Ten Scores

Single Operator, Low Power

HI3TEJ	169,950
SQ9UM	123,640
KH6ZM	98,126
UC6A	81,061
UT7I (UT2IO, op)	74,428
RG5A	67,860
UT5EPP	65,124
UR4U (UR4UDI, op)	64,800
F6HRP	63,954
UT8EL	62,748

Single Operator, High Power

P49X (WØYK, op)	459,624
UTØU (UT5UDX, op)	223,647
SN7Q (SP7GIQ, op)	206,766
EA1DR	188,955
V5/DL9NDS	183,655
EMØI (UT2IZ, op)	173,756
UR7GO	165,816
PZ5RA	137,830
IK2NCJ	136,161
IV3TMV	126,976

Single Operator, Unlimited Low Power

EO3Q (UR3QCW, op)	107,969
ZZ2T (PY2MNL, op)	107,378
GWØA (GW4SKA, op)	101,315
F5BEG	99,110
LA7HJA	97,284
S57AW	85,914
HA5BSW	77,826
UT1IA	74,480
IT9MUO	71,613
URØHQ	62,790

Single Operator Unlimited, High Power

LZ8E (LZ2BE, op)	255,080
PI4DX (PD1DX, op)	175,616
XE2K	174,570
UW4I (US5IQ, op)	168,960
OH2HAN	111,012
DM5TI	108,300
3Z5N (SP5GRM, op)	107,360
JM1XCW	106,370
DJ6QT	86,394
OH2MZB	79,144

Multioperator, Low Power

WP2/WQ6X	107,205
SP9KDA	99,435
KP2D	81,090
UX4E	41,218
OK2KDS	29,520
LZ9R	26,448
PY2QG	24,395
OK2RVM	19,662
IK2RZG	17,030
IK2QCF	15,120

Multioperator, High Power

OL7M	191,268
IT9BLB	185,988
IQ1RY	180,858
OH1ØZ	138,805
G2F	126,142
EA1SA	109,557
EA2RY	91,859
RX7M	69,720
RK3DXW	61,650
SZ1A	60,114

Africa

Only 10 logs were submitted from Africa (I know there were more, you're in my log!) but V5/DL9NDS ran up a respectable 183,655 for a new AF record and an overall fifth place in the DX top ten SOHP - not to mention making many ops very happy: "Highlight was working V5/DL9NDS on 40 on the first call (before he got spotted)." - KX7L

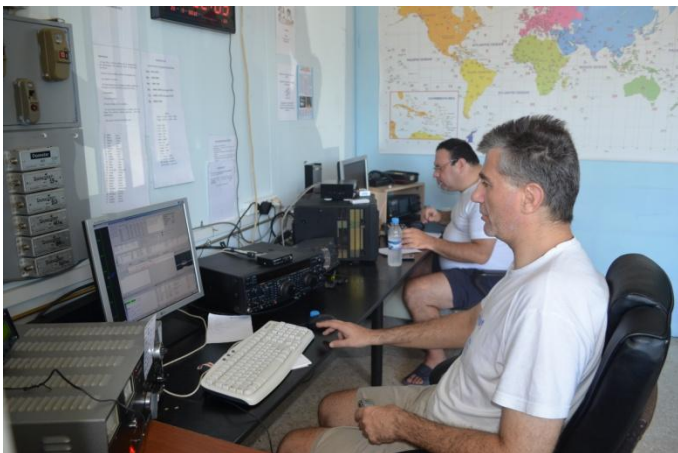
Asia

With almost 20% of the DX logs you might expect to see a few Asian stations represented in the top ten lists, but only JM1XCW made it with an eighth place showing in SOUHP. Nonetheless, JA was well represented by 122 logs submitted and plenty with several hundred Qs.

Europe

On the other hand, with over 70% of the DX logs submitted, Europe took the number one spot in both Unlimited categories. In SOULP, EO3Q operated by UR3QCW took another squeaker over PY2MNL at ZZ2T with less than 600 points separating them. And at LZ8E operated by LZ2BE dominated with an impressive 255K points in SOUHP, which was also the top DX score in the category.

And in MSHP, EU "owned" the category with all 10 slots taken, and the crew at OL7M achieved their "new maximum score" of over 191K points to take the top spot.



The Radio Amateur Association of West Greece (RAAWG) operated SZ1A. (SV1DPI photo)

North America

Despite needing to completely install Windows and logging software on a backup PC - in "record time" - during the contest, a bad Writelog macro that went undetected for 8 hours, losing 2 towers since last year, and having only one radio, HI3TEJ took first place overall in DX SOLP with nearly 170K points. We're going to have to start calling Ted, "Lucky".

Meanwhile, N6GEO and WQ6X operating from St. Croix as WP2/WQ6X suffered 85F daytime temperatures and a handful of "blue screens" from Windows to take the top spot in MSLP. Not that a little cobbling together of things wasn't needed: "The main station ran a Flex-1500 SDR into an intermediate HL-45b amplifier upping the 5 watts to approx. 35 watts, enough to drive an ALPHA 89 amplifier to 149.45 watts to qualify as an LP entry." KP2D finished third overall.

XE2K was gunning for a 200K score and to set the first Mexico record in the SOUHP category. An "Internet modem going Kaput" one third of the way through the

Roundup foiled the 200K, but Hector's score was good enough to establish a good record and an overall top three finish.

South America

As noted above, ZZ2T narrowly missed the top spot in SOULP, but 107,378 was good enough to establish the first SA record in that category. And the other big story here is P49X once again taking First Place World with yet another world record breaking score of nearly 460K points. Ed, WØYK, who operates P49X was recently inducted into the CQ Contest Hall of Fame, a well deserved honor! (For more about Ed's exploits in Aruba, check out the sidebar!)

Oceania

Working the Roundup from the far Pacific can be challenge, but the payoff is some fun and unusual openings. Previously mentioned VK3TDX enjoyed EU stations on 10 meters as late as 2 AM local time, and a surprise long path contact with P49X in the middle of the night. On the top ten lists KH6ZM was the lone standout with a third place overall in SOLP.

Brag Tapes

Remotely Possible



Ron N6IE operates a remote station five miles away from this remote setup. (N6IE photo)

"The remote is several miles from the house on a ranch and uses a RemoteRig to send audio, CW and FSK RTTY keying to an Orion II. That drives an ACOM 2000A to a SteppIR DB42 at 70' rotated with an M2 Orion 2800 with a Green Heron RT-21 controller. The Orion is controlled with a remote desktop computer using N4PY software, and the amplifier, DB42, the Green Heron and

an N8LP SWR meter are all tied into the home LAN using 915 MHz WLAN. A Perseus SDR on a local antenna at home provides a very nice band scope as well as CW Skimmer in contests that allow it. I still like the feel of a knob, so I use the K6TD/K6TU Flex Control know which works well with the N4PY software." - N6IE

A Reelfoot Rendevous



Reelfoot ARC members Jamie WB4YDL, Todd W4TZX, Phil N4PWW, Noel KJ4UNX, and Dean KK4PXJ operated as K4RFT at Glenn N4MJ's station. That's N4PWW in the chair. (WB4YDL photo)

For the first time in Reelfoot Amateur Radio Club history, members got together and entered in the ARRL RTTY Roundup which is held the first weekend of the calendar year. So it was on January 4th-5th, 2014 that 6 members – Glenn, N4MJ; Jamie, WB4YDL; Todd, W4TZX; Phil, N4PWW; Noel, KJ4UNX; and Dean, KK4PXJ – gathered at the Field Day shop before noon that Saturday.

The contest is an everybody-contact-everybody contest with a duration of 30 hours. Of that time, you are allowed 24 hours to operate. We chose to be off from 12 midnight to 6 AM and work the contest in 12 -hour blocks. The contest was entered in the M/S LP (multiple operator, single transmitter, low power) category.

The radio used was the Yaesu FT-920 transceiver that we normally use for the GOTA station during Field Day. To make the most of this radio, an added 400 Hz INRAD filter was installed and a Microham Microkeyer interface was used. The contest software was *NIMM Logger* with the *MMTTY* engine and *2Tone* as decoders. The old Dell *Windows XP* computer handled everything just fine once the software was configured and we used a two monitor setup for easy viewing by bystanders and visitors. The antennas were the Mosely mini-32 2-element tribander up 25 feet and an 80M/40M fan dipole constructed by

Todd, W4TZX, configured as an inverted-V. Power output was a nominal 80 watts.

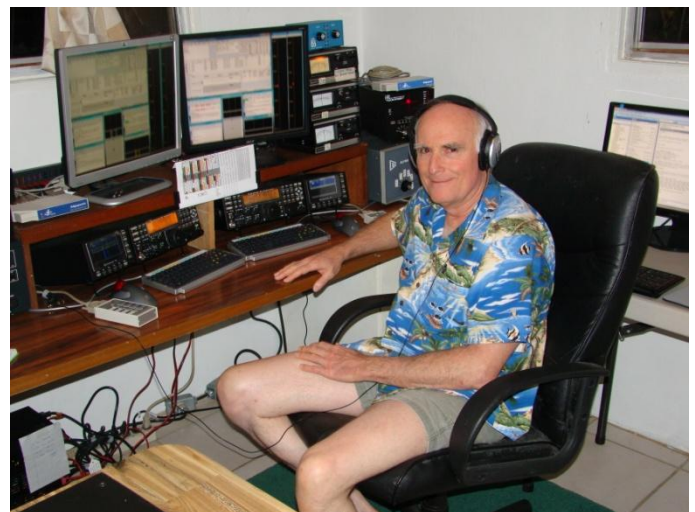
Jamie, WB4YDL, and Todd, W4TZX, had the most experience with this mode and with the *NIMM* software. Phil, N4PWW, also had experience in RTTY but utilizing *FLdigi* software and its very different display. Both Noel, KJ4UNX, and Dean, KK4PXJ, had very limited experience with the mode. Glenn, N4MJ, decided to 'supervise' and did not participate in actual transmission.

As the contest kicked off, we noticed right away that conditions on the bands were not ideal and our limited station was going to struggle a bit making contacts. However, each operator made the best of what was common to all and found a rhythm and made good runs. The first day wrapped up at midnight. At 6 AM, weather conditions were deteriorating and it was getting cold and windy fast. Todd and Jamie were in the shack operating for the rest of the way. When 500 QSOs were finally attained, a great sigh of relief was heard as we achieved our overall goal. As we departed, the temperature was in single digits and there was ice on the ground. We all made it home fine and basked in the glory of a successful first RARC RTTY Roundup contest!

(From the [Reelfoot Amateur Radio Club](#) website.)

Notes from the champ – Ed Muns, WØYK

Fun contest! Thanks to everyone who showed up, even for a short while. Each of our individual results are really not “individual”, but rather the combined efforts of many, on both sides of each QSO. It was great to contact so many familiar stations around the world. Thank you for working me!



P49X lookin' good in Aruba while setting another world record! (WØYK photo)

Extra thanks go to those many who responded to my QRV message and went to my other band to give another QSO. This was especially gratifying on Sunday when I was fighting to catch up to my 2013 Roundup results. There was even one station who interleaved QSOs with me on two bands at the same time. That gave me a double-take for a second as I thought I'd somehow got the two radios mixed up!

Despite an impressive sunspot number over the weekend, conditions didn't live up to my optimistic expectation. Saturday was mostly pretty good where my peak full-hour QSO rate hit 252, about 20% higher than my prior best. Then, all of a sudden there would be no one calling, although there were still signals on the bandscope with reasonable signal strength. Strange.

At the end of my first 12 hours, the net of these ups and downs was about 100 QSOs ahead of my best in this contest (2013). I hoped that solar conditions would settle down and actually improve on Sunday, so it was hard to take a sleep break ... I was excited to see how high the rate might go!

Well, it was not to be. Sunday was also up and down, just like Saturday, but was never really great. As the day wore on, I watched my QSO total drop comparatively with Sunday last year, until I was 100 QSOs behind. Very discouraging to be tempted by such seemingly promising conditions, only to be let down. Not to be deterred, I dug in and pushed hard. At the end of my 24 hours, I ended up 54 QSOs ahead of 2013. But with one less mult, it's not certain that this will hold up as a new personal best after the ARRL completes log checking. (*It did!* – Ed.)

Speaking of mults, once again I fell short. I only got 8 VE mults and already several stations are reporting 9-10 with additional ones heard but not worked. And, I'd expect the country total from here to be much higher than 75. However, it is a challenge to search for (and, work) mults on the second receiver in each radio (while averaging 150/hour for 24 hours (at least for this operator!). Most of the mults I did find were not able to hear me and just kept CQing back to my calls. With the weak signal levels and any amount of local noise, it is not surprising to find "alligators" on the bands.

This station worked well with only two scary moments and one miraculous positive occurrence. Late on Thursday before the contest, while running on 10 and 15 meters, the 15 meter SWR started rising, until it got above 3:1 and the amp couldn't be used. Checking the home-run to the 15 meter Yagi with an antenna analyzer showed there was basically no antenna at the end of the

coax. We've been replacing some defective PL-259s throughout the antenna system this past year and the 10/15 tower has yet to be refurbished. So, I figured that was the problem and I prepared to climb up there early Friday and replace coax jumpers as well as the PL-259 at the end of the home run coax.

Working my way toward the antenna feed-point with my analyzer, I ultimately found a fried Balun. Replacing that and one of the coax jumpers fixed the problem. The antenna has been solid since then, and it got a heavy workout during RU. It's both a good thing and a bad thing that RTTY stress-tests the hardware in your station.

The next key moment came late Saturday afternoon when I noticed the power out of the Alpha 86 on 10 meters was gradually dropping. I kept lowering the grid current to keep it tuned properly, but eventually it was at about 150 watts. Not my preference for a high power entry. My guess was that the (very old) tubes were beginning to give up the ghost. There is a spare 86 here, but I never like equipment problems. I resigned myself to take one of my two break periods to swap out the amp. Before doing so, though, I moved that radio from 10 to 20 while continuing to run on 15. The power out was just what it has always been. All parameters looked good. So I kept going.

The next morning after a 5-hour break (saving another hour as a contingency for the rest of the contest), I checked that errant 86 on 10 meters and all was good again. Hmm. Well, don't push fate. I decided to only use that amp on 15 meters and see how it would hold up. I could always take my last one-hour break to swap in another amp. But, the amp held steady at 1200 watts all day. Second problem skirted and I finished my 24 hours before the end of the contest period.

The miraculous happening was that Saturday night there was virtually no RFI from the 40 meter station into the 20 meter side. This has always been a huge obstacle in this station for years now, and for some mysterious reason it was gone. Even the day before, the RFI was huge, just as it has been for a long time. But Saturday night, I could run unimpeded on 40 and 20. I was stunned, but not at all ashamed to take advantage of the good luck!

I started the contest on 15 and 20, but in retrospect I should have started on 10 and 15. After struggling on 20 meters for the first 28 minutes of the contest, I moved that radio to 10. I then experienced my highest-ever rate. There were 252 QSOs in the following 60 minutes, evenly split between 10 and 15 meters. What a rush! Makes a case for not being shy to change bands if things

aren't working well. Of course, it can go the other way, as it did on Sunday. At that time, when I hit a slow period on 10 meters, I moved that radio to 20 for a while but wasn't able to do any better, so moved back to 10.

This time I setup six decoders on each radio, four on the main receiver and two on the sub-receiver. On the main, I used *2Tone Normal*, *2Tone Flutter*, *MMTTY Standard* and the Hal DXP38 hardware modem. On the sub, I used *2Tone Normal* and *MMTTY Standard*. Later, I may elucidate the gory details on how each decoder performed throughout the weekend, but the short story is that this complement of decoders was absolutely crucial to minimizing requests for repeats. There were many times when only one of the four main decoders copied clearly and I was so thankful I hadn't bet on only one of them. There also is not a clear winner among the four. They each have their strengths and weaknesses.

I'm continually grateful to John (W6LD/P4ØL) and Andy (AE6Y/P4ØY) for sharing their quaint station here with me. It's amazing what a few modest antennas on a city lot can do ... if it's located off the coast of Venezuela! Thanks to the hundreds of stations who worked P49X this weekend. Together we made for a fun weekend, at least on this end.. – *Ed, WØYK*

Wrap up

This was my first time ever writing anything for *QST*; spending so much time looking at the results of a contest can really give you a different perspective. So often we have been told by our contesting mentors "a few Qs either way won't make a difference" - but some of the close finishes in these results contradict that maxim. In fact, I noticed in a couple categories that the results were affected by the accuracy of the operator: based on claimed scores Operator A was the winner, but after log checking (and penalties) Operator B came out on top.

So, under the very crowded conditions of a big RTTY contest like the Roundup, getting the other call and exchange in the log correctly can be very critical — whether your goals involve making a personal best, winning your division, or even the whole thing — you need to make sure your station is up to the challenge.

One thing is common with the top scoring stations in this event: they all run multiple decoders. Multiple decoders give you a better chance of getting it right the first time. For example, in my setup I will run two instances of *MMTTY*, two instances of *2Tone*, and also a hardware decoder. Each decoder is set up differently with the goal of having at least one of them get the correct decode,

whether you are dealing with fading, flutter, or that splatter-fest 2 kHz up from your frequency.

A proper description of how to configure your software for the signal conditions you are experiencing is way beyond the scope of this report, but a great resource for both the beginning and experienced RTTY operator is AA5AU's excellent rttycontesting.com website. You can find basic and advanced setup instructions, as well as contest rules and Don's own contest reports. Also, the RTTY email reflector on contesting.com is a great place to ask questions and share ideas.

As of this writing it appears that we are at the start of the downward half of the solar cycle. I still remember well the feeling of emptiness that came the first time I experienced that dread time at the bottom of a cycle when a 15 meter opening was a reason to miss work, and 10 meter openings were but a wistful memory...

What better reason, then, to join us for the 2015 RTTY Roundup (3-4 January) before it's too late? Perhaps next time will be your turn for the Propagation Fairy to favor your efforts? Maybe try to set a new record? How about a full 24-hour effort? You might be surprised at how far up the leader board you could find yourself.

Jeff Stai, WK6I, an ARRL Life Member, was first licensed in 1996 as KE6KNF and soon caught the contesting bug while at the South Orange ARA's Field Day operation. A subsequent visit to Arne, N6HC's shack for a DXCC card check led to an elmering session and started an addiction to RTTY. He has won the NAQP RTTY contest twice and just missed the top W/VE spot in the RTTY Roundup several times.

In a previous life, Jeff was an electronics engineer in the data storage industry, wrote several esoteric books on data interfaces, and snagged a few patents along the way. In 2001 he left engineering to pursue a second career in the wine industry, opening Twisted Oak Winery in the Sierra Nevada foothills in 2003 along with his wife, Mary, and a few rubber chickens. Jeff and the chickens can be reached at wk6i.jeff@gmail.com.

The Beginning of the Roundup

by Jay Townsend, WS7I



I was first licensed in 1967 and primarily a CW operator until I met Hal Blegen, WA7EGA, and we started contesting in 1986 as a Multi-Single team. We used Model 28 teleprinters and RTTY. Hal was an old-time RTTY operator from the Irv Hoff era. He did auto-start and tinkered with clanking machines and was heard nearly every evening banging out long RTTY QSOs. He had dabbled in several RTTY contests prior to our getting together and we began RTTY contesting together.

Hal, now K7IRA (at left above), and I had an idea one evening over a couple of slices of prime rib and a bottle of wine (which might have been scotch). We decided that we needed another RTTY contest. Thus the ARRL RTTY Roundup was designed in the spring of 1988. After a lot of work with the Northwestern Division ARRL Director, Rush Drake, W7RM, it was approved by John Lindholm, W1XX, and the ARRL Membership Services Committee (MSC) in the summer of 1988. The first running of the RTTY Roundup was January 1989.

Hal and I spent hours and hours trying to figure out how to make a US and Canadian domestic-oriented RTTY contest that would be fun for all, but winnable across the entire U.S. It was originally a Single Operator low-power-only concept that had multi-operator added by the MSC.

Strategy and hours of propagation to areas of the US are what makes it a contest that can and has been won in most parts of the country. A primary part of the strategy is the selection of the off-times. The time of the contest start is critical to making it winnable everywhere.

Hal wrote the RTTY Roundup results for QST for the first four years of the contest. He was the Contest Columnist for the RTTY Journal for many years. I wrote the results for the RTTY Roundup for QST and the web from 2002 through 2013.

The RTTY community acknowledges the contributions of Jay and Hal to RTTY contesting. The ARRL RTTY Roundup is one of the fastest growing contests, bringing many new contesters into the world of radiosport. - Ed