2013 ARRL November Sweepstakes — CW Results

A look at the granddaddy of domestic contests — then and now.

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Eighty-three years ago, the winner of the first Sweepstakes, J.F. Feely, W1ADW, of Danbury, Connecticut, ran a Hi-C Hartley transmitter in a largely home-built station, replete with exposed tuning coils, capacitors, tubes and high-voltage connections, as seen in Figure 1. It took him 2 weeks to log a record-setting 153 QSOs in 43 sections — missing a clean sweep of all 68 sections — to win. Back in 1930, 68 sections were required for a sweep, but that year only 48 sections took part in the contest. This contest has been held for all but 4 of the 83 years since, and contesters have tried to claim the title in the granddaddy of domestic contests.

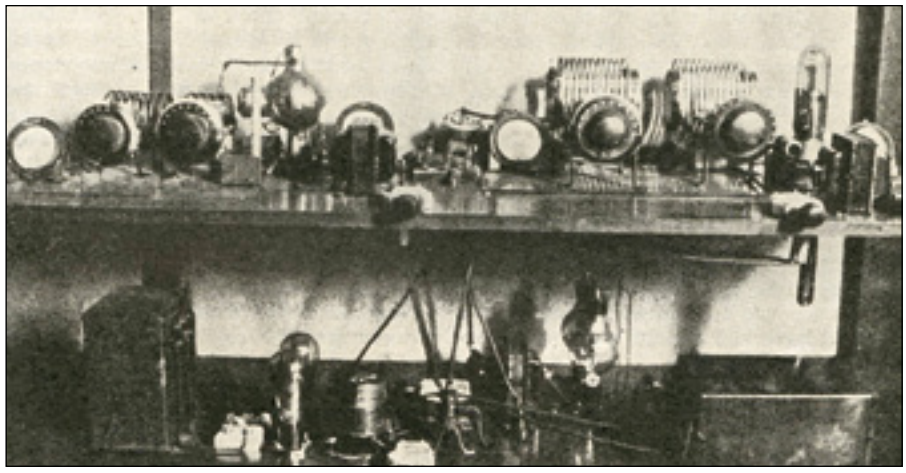
Contesters are awarded two points per contact. The reasoning behind this can be traced back to the 1930 Sweepstakes, where stations were awarded one point for sending an exchange and one point for receiving an exchange.

Historical Hardware

The first entrants used homebrew tube transmitters, with W1ADW using a Hartley circuit and 2nd place winner W9DEX using the famed Type 10. The most recent high-power winner, W7RN (operated by Bob, N6TV), used a pair of Elecraft K3s that combined took up less than one-quarter the desk space of W1ADW's station.

Full details of W1ADW's equipment aren't specified, but one can imagine it likely included lead-acid batteries for both the tube filaments and possibly for driving a generator to produce the B+, likely between 500 and 1000 V. Mark, K6UFO, who used the call sign NN7SS to win the QRP category this year, turned down his pair of 12 V Kenwood TS-590Ss to output less power (5 W) than W1ADW used just to heat the filaments in his tubes. "It's tough when QRP to cleanly work them all through the unruly pileups," Mark wrote in an e-mail. Even so, with 766 clean QSOs, 82 sections, and a fraction of the transmitting power, in 24 hours Mark quintupled W1ADW's QSO count. In 1930, W1ADW would have had his hands full operating one radio set, juggling T-R switching and swapping his UV-203a triode transmitting tube for an 852 triode from time to time.

Bob, N6TV, like most top-scoring stations, would have alternated between his two Elecrafts, often transmitting on one while listening on the other, a quite-legal practice known as Single Operator, Two Radio (SO2R). "SO2R is essential to winning Sweepstakes these days," Bob wrote. "I spend every possible moment doing search and pounce on the second radio, trying to find new ones, while also trying to keep a CQ run going on the first. It is very difficult."



This was the station of 1930 Sweepstakes winner, W1ADW. No SO2R, spotting network, or computer logging here!

Top Ten — CW

Single Operator, High Power

W7RN (N6TV, op)	242,360
N9RV	235,720
NØNI (AG9A, op)	235,388
N5RZ	228,250
WDØT	222,108
NR5M	219,452
K6LA	217,294
WØUA	216,464
N4OGW	215,136
W9RE	215,136

Single Operator, Low Power

K7BG	200,196
K7GK (@W6JZH)	189,904
N9CK	187,580
K4RO	187,414
NØAT (NØKK, op)	186,916
NAØN	185,920
KØAD	180,774
WA1Z	176,292
WJ9B	175,794
N7XU (K4XU, op)	171,478

Single Operator, QRP

NN7SS (K6UFO, op)	125,624
WØEEE (NØAX, op)	124,666
NØUR	120,682
WI9WI	117,916
K9TM	117,588
N1RR (@K1TTT)	115,038
N7IR	113,212
WF7T	105,742
KØOU	105,410
N4OO	102,754

Single Operator, Unlimited, High Power

KØEU	234,890
KH7XX (@KH6SH, op) KH6YY)	218,788
K7RL	212,978
K6LL	206,670
KO7AA	206,006
N4BP	202,520
NY3A	201,192
N4ZZ	198,868
N6XI	195,548
KTØA	192,726

Single Operator, Unlimited, Low Power

WE9V	197,872
VE6EX	188,078
KK7S	185,754
W4MR (AA4NC, op)	185,422
KTØR (KØOB, op)	184,758
KE7X	183,430
KB7Q	175,296
K2NNY (K2DB, op)	161,684
N4PN	160,854
N2MM	160,356

Multioperator, High Power

W2FU	230,076
NX6T	227,254
AA5B	225,096
VY1EI	210,986
W4RM	207,002
KP2M	202,354
KØWA	195,880
NY6C	162,348
K6SU	157,534
KT4RR	156,704

Multioperator, Low Power

WØDLE	182,600
K5CM	181,604
KH6LC	181,106
VE4EA	137,924
N4UW	135,456
W8EDU	129,646
W5RU	126,492
K5KC	122,176
AC5K	115,702
KU7Y	88,614

School Club

W6YX	206,172
KØHC (WØBH, op)	183,098
W6RFU (AC6T, op)	121,512
W6BB (K6JEB, op)	113,324
W3YI (AB3LS, op)	73,538
W2DSC (WB2NVR, op)	37,228
N5XU (AA5BT, op)	28,552
K5LSU	15,494
WB5H	10,716
W1AF (W1PL, op)	9,800

Bob, N6TV, piloted the W7RN Comstock Memorial Station near Virginia City, Nevada to the top spot in Single Op, High Power.

In 1930, the operators confined themselves to "the 3500, 7000, and 14000 kc bands." Today, Sweepstakes contacts are made on all of the traditional bands from 160 to 10 meters, excepting 60, 30, 17, and 12 meters.

Little was said of antennas in the 1930 Sweepstakes report, but it's safe to assume wire antennas were the norm. Most articles of the day referred to coupling to single-wire feed lines and Hertz antennas or doublets, and today some stations can achieve outstanding results using nothing more than the average city-lot antenna farm. W7RN uses, among its eight towers, a pair of rotating monopoles with multiple stacks of antennas, including a pair of three-element 80 meter Yagis, one at 175 feet and the other at 55 feet. Bob, N6TV, said the biggest benefit was being able to hear signals approaching from multiple angles, helping to eliminate fading and maximizing received signal strength. In 1930, hams were still learning the many nuances of propagation.

Contacts and Exchanges, Then and Now

Today's exchange, the most complex of all modern contests, is still a relatively simple affair; call sign, serial number, precedence (denoting operating category), check (year of first license), and section. In 1930, the exchange was not specified exactly, but had to be a two-way exchange consisting of no fewer than 10 words each. It is one thing to have a complex exchange when you know what to expect, but it is something else entirely when operators can choose 10 words themselves. In 1930, Sweepstakes was a 2-week contest consisting mainly of CW contacts, though one station (W9GHI in Baldwin, Kansas) was singled out for using phone for "a good number" of contacts. Considering amateurs didn't start seriously experimenting with single-sideband modulation until after World War II, AM would have ruled the day in 1930. Back then, the few phone contacts made were blended with the CW contacts and all counted the same. SS today is divided over the first and third weekends in November, with CW taking place on the first and Phone on the third weekend. Operators may work a maximum of 24 hours. Over those 2 weeks in 1930, the winner, W1ADW, made 153 QSOs. Today's top stations can make that many QSOs in less than an hour during the high-rate hours such as Saturday evening. In 2013, we measure rate in QSOs per hour. In 1930, some rates were measured in hours per QSO.

Sweepstakes Here and There

In 1930, operators such as VE4IC (the only Manitoba station but not the only VE4, because that call area then included Manitoba, Saskatchewan, and Alberta), would have been within arm's reach of their tuning controls. In 2013, Hal, W1NN, operating his Ohio station, wasn't even in North America.

Hal is a business consultant helping North American companies do business in Japan and spends a large part of each year at his Tokyo apartment. Hal's 961 QSOs and a sweep were good for 20th place in Single Operator, Low Power. "I am using a TS-480 with the RemoteRig boxes," explained Hal. "The front panel of the radio is with me in Tokyo and the rear end stays in Ohio." Hal says that despite the separation, the part he misses the most about doing Sweepstakes remotely (he normally leaves for Japan after Sweepstakes) is not having SO2R capability. "Tokyo is about 6,500 miles from my station in Ohio, but amazingly latency is not an issue at all," he said, referring to Internet delays. High-speed Internet connections at both ends extend the control wires of his TS-480. Keying, tuning, received audio, and antenna switching commands travel back and forth between Tokyo and Ohio.

Time difference is a big issue for Hal. "The contest starts at 6 AM Sunday Japan time and ends at noon on Monday," he said. This may be an advantage during the first half of the contest, because I start off pretty fresh after a good night's sleep. However, when it's 3 AM in Ohio and things slow down, it is still only 5 PM in Tokyo." The time shifting made the usual sleep breaks impossible. "I operated on and off until 3 AM Tokyo time (1 PM Ohio time) but then collapsed for 3½ hours (during the afternoon Ohio time)."

Back in 1930, DX spotting was likely done by carrier pigeon, if at all. In 2013, 434 operators entered as Single Operator Unlimited, which allows stations to use the Internet spotting networks or other methods, including *CW Skimmer* (a software-based multichannel CW code reader), to find multipliers they need. Spotting allows an operator to set up their logging software to identify a needed station and then use the mouse to click on that spot and tune their radio to the station's frequency instantly.

"I like working a sweep as quick as possible. So toward the beginning of the contest, I used [spotting] fairly heavily to get the sweep," said Chad, WE9V, winner of the Single Operator Unlimited, Low Power category. "I'm still amazed at the *CW Skimmer* technology, and for a CW contest, assisted mode, it's like drinking from a fire hose. There's always someone new to work."

Randy, KØEU, who won the Single Operator, Unlimited, High Power category, has wanted to try a new category for a while, having won and placed in the Single Operator, Low Power category a number of times. He said when operating high power, the attraction of using spotting isn't as great as it seems. "Operating SO2R high power, a sweep is like the point-after after a touchdown — almost automatic. Add in spots, and — unless there is no activity from a given section — a sweep truly is automatic."

Randy, who has been a perennial Top Ten entrant for more than a decade, keys into one of the major attractions of Sweepstakes. "This may surprise you, but Sweepstakes is not my favorite contest. However, it is the one I have been most successful at in terms of first-place finishes. For that reason, I tend not to miss many of them."

Sweepstakes Rules!

In 2013, there remains much debate over rules. Is Hal's remote operation permitted by the rules? (Yes, it is.) Can we keep working once our 24-hour period has run out? (Yes, and stations you work will get credit for those contacts, but you'll only get credit yourself for contacts made before your 24-hour period expires.) In 1930, there was similar confusion about the rules. Some operators believed you could only work other ARRL members (not true). Other stations were under the impression only contacts made with stations actually participating could count for points (also not true) Some stations did well by cajoling non-participants into giving them a contact. In today's Sweepstakes, some stations do well by encouraging non-participants into giving them a contact.

As Sweepstakes heads into its 81st year, it appears to be as popular as ever. A domestic

Regional Leaders

Boxes list call sign, score and class (Q = QRP, A = Low Power, B = High Power, M/ML= Multioperator/Low Power, U/L=Unlimited/Low Power)

Northeast Region (New England, Hudson and Atlantic Divisions; Maritime and Quebec Sections)			Southeast Region (Delta, Roanoke and Southeastern Divisions)			Central Region (Central and Great Lakes Divisions; Ontario East, Ontario North, Ontario South and Greater Toronto A			Midwest Region (Dakota, Midwest, Rocky Mountain and West Gulf Divisions; Manitoba and Saskatchewan Sections)			West Coast Region (Pacific, Northwestern and Southwestern Divisions; Alberta, British Columbia and NWT Sections)		
N2NT									NØNI			W7RN		
(N2NC, op)	213,642	B	N4OGW	215,136	B	W9RE	215,136	B	(AG9A, op)	235,388	B	(N6TV, op)	242,360	B
AA3B	204,678	B	N4AF	201,856	B	KE9I	180,774	B	N5RZ	228,250	B	N9RV	235,720	B
K5ZD	203,516	B	K4BAI	184,260	B	K9BGL	174,300	B	WDØT	222,108	B	K6LA	217,294	B
									NØAT					
WA1Z	176,292	A	K4RO	187,414	A	N9CK	187,580	A	(NØKK, op)	186,916	A	K7BG	200,196	A
N8NA	164,672	A	NP3A	160,688	A	W1NN	159,526	A	NAØN	185,920	A	K7GK		
WY3A	161,352	A	KU8E	156,538	A	W8CAR	158,364	A	KØAD	180,774	A	(@W6JZH)	189,904	A
												WJ9B	175,794	A
N1RR									WØEEE			NN7SS		
(@K1TTT)	115,038	Q	WF7T	105,742	Q	WI9WI	117,916	Q	(NØAX, op)	124,666	Q	(K6UFO, op)	125,624	Q
W1QK	90,720	Q	N4OO	102,754	Q	K9TM	117,588	Q	NØUR	120,682	Q	N7IR	113,212	Q
AA1CA	76,194	Q	K4QPL	101,898	Q	KT8K	101,352	Q	KØOU	105,410	Q	W6JTI	100,532	Q
												KH7XX		
												(KH6SH, op @KH6YY)		
NY3A	201,192	U	N4BP	202,520	U	VE3KI	179,114	U	KØEU	234,890	U		218,788	U
WR3Z	190,734	U	N4ZZ	198,868	U	N4TZ	164,174	U	KTØA	192,726	U	K7RL	212,978	U
KI1G	184,426	U	N1LN	176,292	U	K9NR	152,554	U	K5RT	183,762	U	K6LL	206,670	U
K2NNY			W4MR						KTØR					
(K2DB, op)	161,684	UL	(AA4NC, op)	185,422	UL	WE9V	197,872	UL	(KØOB, op)	184,758	UL	VE6EX	188,078	UL
N2MM	160,356	UL	N4PN	160,854	UL	N9CO	159,858	UL	KØMPH	159,360	UL	KK7S	185,754	UL
K3AU			N4KH	151,226	UL	K8BL	157,700	UL	N5DO	154,380	UL	KE7X	183,430	UL
(K2YWE, op)	155,542	UL												
W2FU	230,076	M	W4RM	207,002	M	KT4RR	156,704	M	AA5B	225,096	M	NX6T	227,254	M
K3AJ	154,048	M	KP2M	202,354	M	K8BZ	132,136	M	KØWA	195,880	M	VY1EI	210,986	M
W3LJ	29,400	M	AC8Y	116,366	M	W9YK	85,772	M	NY6C	162,348	M	K6SU	157,534	M
			N4UW	135,456	ML	W8EDU	129,646	ML	WØDLE	182,600	ML	KH6LC	181,106	ML
			W5RU	126,492	ML	VA3MN	74,358	ML	K5CM	181,604	ML	KU7Y	88,614	ML
			K3MZ	60,216	ML	N9MT	35,154	ML	VE4EA	137,924	ML	W6K	76,194	ML
W3YI									KØHC					
(AB3LS, op)	73,538	S	K5LSU	15,494	S				(WØBH, op)	183,098	S	W6YX	206,172	S
W2DSC									N5XU	28,552	S	W6RFU	121,512	S
(WB2NVR, op)	37,228	S										W6BB		
W1AF												(K6JEB, op)	113,324	S
(W1PL, op)	9,800	S												

contest where anyone can make a splash appeals to a wide array of operators. And, the continuing popularity of a CW contest with a lengthy exchange is welcome news to any operator worried CW may be going the way of the spark gap.

Randy, KØEU, is gratified to see a large number of stations he hasn't heard before giving out recent checks (the year they were first licensed) in their exchanges. The results suggest about 80 or so stations had checks of the year 2000 or newer.

The Secret of Contest Longevity

Finding out why Sweepstakes has endured for 80 years might require looking not at the top scores, but at some in the middle. Ted, WB3AVD, took up the broom in 1998 and is a self-proclaimed "putterer" in Sweepstakes. He usually averages about 200 QSOs or so and only worked a sweep once, in 2013.

Ted has been building keys for 3 years, teaching himself to be a machinist. For 2013, he used No. 19, the 19th key he's built. It can be used four ways: as a standard dual-lever paddle, a single-lever paddle, a straight key, or as an iambic paddle with fingers actuating the keys horizontally, like the buttons on a computer mouse. "Typically, now, I use the contest to evaluate one of my new key designs — figuring that if it doesn't work well, I'm not stuck in a long ragchew," he said.

One longtime Top Ten operator, Matt, K7BG, salutes operators like Ted. "Sweepstakes, as with most any contest, is made possible by the casual operator. That is how I started out. When I entered my first few Sweepstakes years ago and realized how much fun it was, my goal became simply to improve my previous best score," Matt wrote.

"I tip my hat to the casual operator who gets out a bug or straight key and memorializes the love of CW and Sweepstakes by returning each year. In many ways, these operators are leading the flock."

In a contest where the winning stations must work more stations than actually submit logs (The top-scoring W7RN made 1,460 QSOs, 97 more than the 1,363 logs submitted.), casual operators such as Ted and others who don't submit logs are critical to the contester's success.

Plaque winners for CW Sweepstakes will be published along with those for the Phone weekend in next month's *QST*.

The 2014 running of Sweepstakes runs November 1 – 3 for CW and November 15 – 17 for Phone.

Try it for yourself and write a little history of your own.

Make History Online

You can see what was written into the history books for the 2013 CW Sweepstakes by browsing the expanded online article at **www.arrl.org/contest-results**. It contains more detailed analysis, extra tables, and more photos and graphics.