ARRL International DX Contest - CW 2014 Results

By Ward Silver, NØAX

Records fall — is this Solar Cycle 24's last hurrah?

(Sponsored plaque winner tables were not yet available at publication time, watch for them to be added at www.arrl.org/contest-results-articles.)

There really isn't any better opportunity for the American or Canadian "little pistol" to work a lot of DX than the oldest of all contests, the ARRL's International DX Contest. Originally named the International Relay Party when it was announced in 1927, the idea was to exchange messages with other stations around the world directly, without any intervening stations.[1] CW and superheterodyne receivers were new and exciting technology on the short waves in those days – could we do it? You bet! Thus the idea of DX contesting was born in radiosport.

Although Solar Cycle 16 was on its way out, there were still enough sunspots generating ionizing ultraviolet for the ionosphere to redirect the outbound CW signals earthward. Even the ionosphere was a new concept in 1928, having only been discovered a few years earlier and still bearing the name "Kennelly-Heaviside Layer." Amateurs had played a key role in the receiving experiments of the early 1920s that established the ionosphere's existence and here they were exploiting as a playing field for an international wireless competition![2]

Does this look familiar? Larry, K5OT, operated with George, K5TR, to place fourth in the Multioperator, Single Transmitter, High Power category from STX. George's station is well laid-out for comfortable, undistracted operating. (Photo by K5TR)

Today, we find Solar Cycle 24 also about to begin its slide into the between-cycle minimum but just as the poor fellow pleads at the beginning of "Monty Python and the Holy Grail," our sunspot cycle exclaims, "I'm not dead yet!" And dead it most certainly was not. In the preceding fall, the somnolescent cycle snoozing its way through a languid and bittersweet farewell suddenly began producing sunspots in abundance. The 2013 CQ World Wide contests were madhouses of band-packing activity. The November Sweepstakes weekends saw Clean Sweepers vacuuming up every contact and December's 10 Meter Contest was another for the record books. A solar hiccup produced some geomagnetic heartburn for January's RTTY Roundup…would conditions hold up for the ARRL DX Contest on February 15th and 16th? Or not?

Leading up to the contest, life was looking pretty rosy on the HF bands. With just 10 days to go, solar flux hit 194 and stayed above 160 all the way up to contest day. Aside from a mild disturbance the weekend before, the A and K indexes were also low, leading to giddy anticipation in the shacks of HF operators across the land. (You can find archives of both solar and geomagnetic data online at www.swpc.noaa.gov/ftpmenu/indices/old_indices.html.) There were thunderheads on the horizon, however.

The ARRL Propagation Bulletin ARLP007 released on Friday read, "At 2351 UTC on February 12, the Australian Space Forecast Centre released this geomagnetic warning: "INCREASED GEOMAGNETIC ACTIVITY EXPECTED DUE TO CORONAL MASS EJECTION FROM 13-15 FEBRUARY 2014." They predict a minor geomagnetic storm on Saturday, February 15. Too bad that is the first day of the ARRL International CW DX Contest." Yeah, too bad! Why does it always seem to happen just before a contest?

So we held our collective breath and waited. Friday afternoon came in North America, the starting bell went off and, as it always seems at 0000 UTC, there were pileups with swarms of callers. Solar flux was 162, the A index was 11 and the K index was 0. The contest was off to a fast start. What's not to like?

In the middle of the North American night, things began to change. At sunrise on the East Coast, the K index jumped to 3 as the charged particles slammed into the

Earth's magnetosphere, held steady through the day, and then hit 5 at the halfway mark. On Sunday, while solar flux held steady at 164 the A index had doubled to 22 and K dropped to a desultory 2 or 3, leaving the polar paths somewhat muddy at best. If you weren't one of the Big Guns, Sunday was a lot less fun than Saturday.

Records Tumbled

Well, was it awful? A resounding, "No!" is heard! From the following week's bulletin, ARLP008, Jeff Hartley, N8II, recollected, "*It was quite a fun weekend in the ARRL DX contest. Despite solar flares, conditions allowed for many QSOs. Conditions were so good that N1UR claims a new low power all-band record, one which has stood since 2002, near the peak of Cycle 23 when solar activity was much higher than now.*" Well, even older than that, actually. N1UR's new SOLP record of 4.429 Mpts edged by the old all-time mark of 4.236 Mpts set in 2001 by N2NL operating at K4XS's station.

In fact, here on the U.S.-Canada side, K1IG pushed his all-time SOUHP (Single-op Unlimited, High Power) record up by 1.3 Mpts to 8.9 Mpts. K1LZ and W2FU both exceeded the high-water mark for MSH (Multi-single, High Power) and K3LR added another 850 kpts to the MM record. Across the various ponds and borders, none of the all-time marks fell.

And as is usually the case, numerous records got the pants scared off of them by various close calls and near misses. For a more complete look at the records, browse the records archive at www.arrl.org/contest-records which are maintained by Bob Schreibmeier, K3PH.

New Records Set in 2014

(***Bold*** indicates an all-time category record)

Continent	*Call*	*Score*	*Category*
AN	DP1POL (DL5XL, op)	525,804	SOHP
EU	CR2A (OH2BH, op)	363,204	SOSB-10
EU	CR2X (OH2PM, op)	303,909	SOSB-40
EU	SN7Q	3,445,305	SOUHP
AF	ZR9C (ZS6WN, op)	819,084	SOULP
AS	JA1BJI	757,890	SOULP
EU	TM6M	5,239,080	MSH
AS	JH1OES	65,178	MSL
EU	OL1C	1,316,250	MSL
AF	CN2AA	7,860,132	M2
AS	RTØC	2,457,837	M2

District	*Call*	*Score*	*Category*
5	N2IC	6,056,136	SOHP
1	***N1UR***	***4,429,668***	***SOLP***
5	N5AW	3,162,588	SOLP
7	WJ9B	1,861,986	SOLP
8	N8II	3,359,304	SOLP
9	N4TZ	3,226,719	SOLP
2	K2SSS	503,754	SOSB-10
VE	VY2ZM	561,456	SOSB-10
2	KU2M	678,870	SOSB-15
7	W7WA	477,651	SOSB-15
2	N2MF	761,838	SOSB-20
4	K4XS	734,706	SOSB-20
3	W3BGN	483,084	SOSB-40
1	***KI1G***	***8,923,164***	***SOUHP***
8	W8MJ	4,026,960	SOUHP
VE	VA2WA	5,948,964	SOUHP
1	W1MSW	2,554,656	SOULP
3	W6AAN	2,523,936	SOULP
5	N5DO	1,687,560	SOULP
6	WN6K	419,196	SOULP
7	KE7X	2,262,729	SOULP
Ø	AD1C	1,422,060	SOULP
1	***K1LZ***	***9,975,189***	***MSH***
2	W2FU	9,442,368	MSH
5	K5TR	5,455,296	MSH
9	AA9A	4,822,200	MSH
3	K3PH	2,594,241	MSL
4	WA3OFC	535,626	MSL
6	W6YX	200,400	MSL
7	***K2PO***	***2,674,638***	***MSL***
9	K9XD	1,776,024	MSL
VE	VE9ML	2,203,521	MSL
7	W7RN	7,185,795	M2
8	K8AZ	11,140,950	M2
Ø	NØNI	9,111,141	M2
3	***K3LR***	***18,892,848***	***MM***

When you have a good look at the scores across all of the bands and around the world, you'll find that overall, conditions were pretty good! The disturbance from the CME certainly could have been a lot worse and there was enough solar flux to open all of the bands for everyone. I hope you enjoyed it because we won't have too many of these years left before the sunspots return to their slumber.

Here at Home

I'm sure the Top Ten and leader tables the first thing you look at in a contest writeup! These are all solid efforts from the best operators around and they tell the tale of propagation and perseverance.

Top Ten – US & Canada, Single-Op

Single Operator, High Power

N2NT	6,679,248
N2IC	6,056,136
VY2TT (K6LA, op)	5,418,363
K1ZZ	5,344,704
XL3A (VE3AT, op)	5,173,872
AA1K	4,958,064
NN3W (KL2A, op)	4,526,991
WXØB (AD5Q, op)	4,313,610
K4RO	4,193,850
K3EL	3,972,900

Single Operator, Low Power

N1UR	4,429,668
N8II	3,359,304
N4TZ	3,226,719
N5AW	3,162,588
NA8V	3,072,720
N9CK	2,459,148
K3AJ	2,071,440
WJ9B	1,861,986
KU8E	1,776,096
K7SV	1,652,490

Single Operator, QRP

W9WI	1,060,656
N1IX	958,995
N7IR	767,496
W9OP	672,714
W6JTI	620,100
AA1CA	616,209
VE3VN	611,328
N1TM	383,496
KU7Y	364,800
W6QU (W8QZA, op)	293,661

Single Operator Unlimited, High Power

KI1G	8,923,164
KØDQ	8,385,762
AA3B	7,204,080
K3WW	6,927,327
K5ZD	6,474,960
VA2WA	5,948,964
N3RS	5,743,296
K1AR	5,468,937
N1EU	4,803,768
N3RR	4,683,030

Single Operator Unlimited, Low Power

W1MSW	2,554,656
W6AAN	2,523,936
KE7X	2,262,729
N1EN	2,182,245
K9OM	2,158,740
W3KB	2,143,245
WD4AHZ	2,077,104
WW3S	2,056,560
W1NT	1,713,156
N5DO	1,687,560

Category Abbreviations

SOHP/LP/QRP — Single Op, All Band
SOUHP/LP — Single Op Unlimited
SOSB — Single Op, Single Band
MSH/L — Multiop, Single Transmitter
M2 — Multiop, Two Transmitter
MM — Multiop, Multi-Transmitter

While the northeastern divisions are always well-represented by top scores (Take a look at the slugfests in the SOHP and SOUHP boxes!) having favorable conditions leaves plenty of room for winners all across the continent.

SOHP was remarkable for the cross-country spread that is noticeably absent in low-flux or geomagnetic storm years. Don't be fooled by that pair of N2s at the top – while N2NT prevailed from New Jersey, that "other 2" hot on his tail was really operating from New Mexico and setting a new fifth-district record! WXØB's station in Texas being piloted by AD5Q and K4RO from his Tennessee mountain home made it into the Top Ten, as well.

In SOLP, it's nice to see N8II in West Virginia challenging for the top SOLP spot and chased by stations all the way out to the fifth district. In that top spot, N1UR set a new all-time category record and repeated last year's victory – was he setting up a sweep of the SOLP category? You'll have to read the ARRL DX Phone writeup to find out!

QRP operators live for conditions like these in which they can often run (call CQ and get answers) for extended periods. Tennessee's W9WI lead the parade this year, followed by New Hampshire's N1IX and Arizona's N7IR. A four-way, coast-to-coast match followed between WI, SF, NH, and ONE.

Mike, VE3GFN turned in the top Canadian SO~~HP~~LP score using his new K3 and P3 panadapter. (Photo from VE3GFN)

Where the SOHP/LP/QRP category Top Tens were geographically diverse, SOUHP was anything but. Proximity to multiplier- and population-rich Europe was the key to a top score because no station farther from Europe than the EPA section made it into the Top Ten! In the end, Rhode Island's KI1G sailed just a little faster than KØDQ operating from Maine, setting a new category all-time record on the journey.

SOULP returns to the cross-continental cioppino starting with New England's W1MSW and hitting all four corners of the U.S. Of all the single-operator categories, this was the most competitive, comparing the scores of the first- and tenth-place finishers.

The same "up for grabs" geography is replayed in the SOSB tables beginning at 40 meters all through through 10 meters. Let's take a quick look at the high points:

- 160: A fun band on CW, N7GP muscled into the Top Ten from Arizona.
- 80: When was the last time a pair of Florida stations (N4TB and K9FY) finished 1-2 on this band?
- 40: The Eastern Seaboard was the place to be with W3BGN in front of a very close three-way battle between KD2RD, N4UA, and N4WW.
- 20: It was all about a few extra QSOs as K2MF squeaked by K4XS with exactly the same number of multipliers – 119.
- 15: Wow – one-two-three all spanning less than 3% difference with KU2M prevailing over VE7ZO operating NQ4I, and K3RV.
- 10: You know it's got to be a hot year when this band is won by K1ZM at VY2ZM on Prince Edward Island!

Top Ten – US & Canada, Single-Band

Single Operator, 160 Meters

VE3PN	9,348
W2MF	7,080
N7GP	6,993
N2CEI	6,720
K2UR	6,000
AG4W	5,700
NØTT	4,725
K4EJQ	4,182
KM1R	3,813
WD5COV	3,150

Single Operator, 80 Meters

N4TB	71,928
K9FY	70,551
W1XX	37,236
N4DU	29,748
NN4MM (K9MUG, op)	26,688
VE3OSZ	23,490
K4FJ	23,427
K4CC	22,479
K1PQS	21,168
W4DD	18,810

Single Operator, 40 Meters

W3BGN	483,084
KD2RD	362,586
N4UA	353,100
N4WW	327,240
WØUO	247,641
NX6T (NØDY, op)	239,844
N6MA	159,858
K3NK	113,796
K3STX	93,366
K2UF	87,312

Single Operator, 20 Meters

N2MF	761,838
K4XS	734,706
W8TA	517,149
KT9T	445,500
K7KU (KØKR, op)	361,296
N9CO	224,070
N4IJ	180,780
N8AGU	152,061
W9ILY	151,470
KØPK	147,060

Single Operator, 15 Meters

KU2M	678,870
NQ4I (VE7ZO, op)	669,900
K3RV	661,548
K5RX	513,246
VE6WQ (@VE6JY, op)	491,280
N1LN	487,350
N2WQ/VE3	487,104
KØLUZ	483,183
W7WA	477,651
N7DD	476,406

Single Operator, 10 Meters

VY2ZM	561,456
N9NC	525,204
K2SSS	503,754
N4PN	479,205
WC1M	399,840
K8IA	386,052
K9BGL	381,924
N4OX	375,915
W3EP	353,400
VE9AA	340,362

The W7RN team (L-R: N6XI, N5KO, N6TV, and N5RZ – K5RC not shown) placed seventh in M2 from the seventh district. (Photo by K5RC)

The multi-operator competition is drawing a variety of new stations to the game with competitive efforts in every district: K8AZ's crew tops the M2 list from Ohio and, sacre bleu, K2PO grabbed the MSLP title from

Oregon with a new all-time category record in a narrow win over K3PH from EPA! Another all-time category record fell in MSHP to the ever-improving K1LZ team and station.

The WE3C crew has moved into third place for MM, keeping K3LR and W3LPL looking over their shoulder. As Satchel Paige once observed, "Something might be gaining on you!" Nothing seems to faze K3LR, however, as that team made it three for three in the contest season's "Big Three" and set the new all-time MM record in the process.

If you like Field Day, why not give multi-op a try during a regular contest? You can have all of the camaraderie and fun without the bug spray and rainouts!

Top Ten – US & Canada, Multioperator

Multioperator, Single Transmitter, High Power

K1LZ	9,975,189
W2FU	9,442,368
K2QMF	5,631,600
K5TR	5,455,296
AA9A	4,822,200
K5RT	3,764,436
K6LL	3,338,442
VE3YAA	2,941,920
N4CW	2,775,780
N3BNA	2,698,041

Multioperator, Single Transmitter, Low Power

K2PO	2,674,638
K3PH	2,594,241
VE9ML	2,203,521
K9XD	1,776,024
VA7DZ	1,118,520
WA3OFC	535,626
W1TM	221,487
W6YX	200,400
W9FZ	105,300
K1FIR	11,760

Multioperator, Two Transmitters

K8AZ	11,140,950
NY4A	10,498,950
NØNI	9,111,141
W1VE	8,914,122
KØRF	8,857,566
VE3JM	8,705,340
W7RN	7,185,795
KB1H	6,704,307
W9JP	6,572,097
K1RX	6,427,080

Multioperator, Multiple Transmitters

K3LR	18,892,848
W3LPL	17,318,520
WE3C	15,771,483
W1UE	13,777,344
W4RM	11,064,168
AA2A	9,680,310
KØTV	7,629,300
K1KI	6,518,160
NE3F	4,276,845
K1KP	4,074,030

Around the World

Verrrry interesting…the difference in where the winners reside. It's obvious that for the top single-ops in either SOHP or SOLP categories, the winning strategy is to head for the Caribbean, Central America, and the northern shores and islands of South America. Unlike CQ World Wide with QSO point values that vary by continent, all QSOs in this contest count the same. Why add extra miles between you and the target population? An interesting note: none of the Top Ten DX lists span all six of the primary continents (NA, SA, EU, AF, AS, OC)!

The SOHP race illustrated the importance of multipliers as TI5W had about 120 more QSOs but 9 fewer multipliers than 6Y2T who held on to win by less than a percent. KH7XX put some aloha on the list in seventh and CS2C and ED1R delivered the goods from Europe. Out of the Top Ten but noteworthy, DL5XL operated as DP1POL on the Antartic continent to put a new continental SOHP record on the books from the bottom of the world!

Another 1-2 photo finish in SOLP came down to multipliers as well. This time, only six multipliers found by DK8ZB at KP4KE were enough to edge by perennial champ W2GD using his customary P4ØW call sign. The margin was extremely close – 0.4% -- the tightest race in any category of the contest. S53F was the top European in this category so dependent on low-latitude paths.

Top Ten – DX, Single Operator

Single Operator, High Power

6Y2T (VE3DZ, op)	5,965,245
TI5W (CT1ILT, op)	5,909,760
ZF35A (K6AM, op)	5,396,238
J38XX (DL5AXX, op)	5,289,060
CS2C (OK1RF, op)	5,067,810
V26M (N3AD, op)	4,816,680
KH7XX (KH6SH@KH6YY, op)	4,004,436
ED1R (EA4TX, op)	3,205,713
NP2P (N2TTA, op)	3,083,184
P4ØLE (K2LE, op)	3,052,503

Single Operator, Low Power	
KP4KE (DK8ZB, op)	4,666,215
P4ØW (W2GD, op)	4,648,770
VP9/W6PH	3,451,008
KP2B (WP3A, op)	2,744,217
EF8USA (EA8AY, op)	2,623,824
YS1YS (JA6WFM, op)	2,564,289
S53F	1,585,395
PS2T (PY2NY, op)	1,332,954
EA8CN	1,159,785
JH4UYB	1,060,041

Single Operator, QRP	
KH7M (KH6ZM, op)	662,904
HB9BMY	365,925
HG3M	284,874
G3SXW	264,438
ON6AB	246,012
UA1AFT	220,320
JH1OGC	217,152
JR4DAH	163,620
DL4CW	160,896
EF7AAW	154,056

Single Operator Unlimited, High Power	
SN7Q	3,445,305
IR2C (IK2PFL, op)	2,984,214
HB9FAP	2,574,168
OT2A (ON6CC, op)	2,503,044
WL7E	2,500,680
EF5F (EA5FV, op)	2,487,372
ES5Q (ES5RY, op)	2,351,349
SP9LJD	1,678,686
KH2/N2NL	1,630,074
M2A (G3ORY, op)	1,439,250

Single Operator Unlimited, Low Power	
YN2NC (AA4NC, op)	4,428,270
EI5KF	1,748,760
OK2PAY	1,303,155
KP4EJ	1,286,376
EC4TA	1,257,048
UX4U	1,214,640
GIØRQK	1,198,107
HI3LFE	1,185,201
SP1NY	864,432
S56A	829,008

Once away from the SOHP and SOLP categories, the situation is quite different and the focus swings back to Europe. Mostly. The SOQRP title went west as KH6ZM (at KH7M) took first with a convincing win.

The Unlimited categories are usually dominated by European stations – again, mostly. In SOUHP, good propagation enabled WL7E to land in fifth place from Alaska. Similarly, winding down his excellent run from Guam, KH2/N2NL who will be appearing next from KH6 appeared in eighth place. It was no contest in the SOULP category, though, as AA4NC went to Nicaraugua and ran away with the category as YN2NC.

In the DX Single-Band Top Ten, there are a variety of surprises tucked away. How about S51V there atop the SOSB-160 pileup? The Azores were sure loud over here and CR2X (OH2PM, op) and CR2A (OH2BH, op) both set EU records on SOSB-40 and SOSB-10, respectively.

Speaking of 10 meters, 6W/G3TXF was the only African category winner this year. And while the SOSB-10 leaders hailed from the tropics or a location with north-south propagation, both MW5A (G3WVG, op) and DL6FBL bucked the trend from Europe

Top Ten – DX, Single-Band

Single Operator, 160 Meters	
S51V	20,265
M5O (G3LET, op)	14,070
HC2AO	13,908
V31YN (DJ4KW, op)	11,433
DL2SAX	9,603
HB9LCW	8,019
UT5EO	4,758
XE1AY	2,622
JH2FXK	1,560
LY2IJ	1,482

Single Operator, 80 Meters	
C6AKQ (N4BP, op)	202,362
CO2JD	134,676
YV4YC	105,966
LX9DX (HB9CVQ, op)	97,854
F5CQ	70,272
SP3GEM	64,416
DR4A (DK5PD, op)	57,960
DM7C (DL6CX, op)	53,988
DJØMDR	52,008
9A1CCY (9A3LG, op)	50,526

Single Operator, 40 Meters	
CR2X (OH2PM, op)	303,909
HK3TU	223,155
OM2VL	221,328
9A6XX	221,073
CE1/K7CA	201,072
HA8JV	177,132
S57Z	169,803
CO8ZZ	167,922
LZ5K (LZ1GL, op)	167,214
XE2S	163,017

Single Operator, 20 Meters	
FY5KE (F6FVY, op)	391,524
9A2NA	278,598
OH8L (OH8LQ, op)	277,008
SM5INC	249,570
UA5C	239,304
OG8N (OH8WW, op)	232,638
HA7GN	231,768
C6AZZ (KQ8Z, op)	220,284
PT5T (PY2BK, op)	218,718
HA8MD	204,624

Single Operator, 15 Meters

LX7I (DL3BPC, op)	282,750
ZY5M (IV3NVN, op)	270,570
E71A	231,594
9A1UN	230,028
OK8NM (OM6NM, op)	223,938
E73W	218,022
SN5X (SP5GRM, op)	217,848
LW5HR	213,498
S51TA	212,454
SN2M (SP2XF, op)	211,584

Single Operator, 10 Meters

6W/G3TXF (G3TXF, op)	367,806
CR2A (OH2BH, op)	363,204
EA8AH (OHØXX, op)	334,254
LU1FAM	309,372
CT9/R9DX	305,856
PY2EX	297,714
NP3A	293,016
ZW5B (PY2LSM, op)	284,316
MW5A (G3WVG, op)	241,605
DL6FBL	237,336

MSHP is a popular – and competitive – category for DX stations as evidenced by the first five scores being between 5.2 and 5.8 Mpts. That the polar paths were strong is in evidence by the appearance of the Alaskan MSHP entry by KL7RA in the category Top Ten. The MSLP category is less popular for DX than in the States, but that didn't stop the V31TP group from running up a huge score that would have been #6 in the High Power category! DXpeditioners N7OU and NE7D entered the contest from Vanuatu and nailed YJØOU onto the leaderboard into sixth place.

South American stations put together big scores for M2 (HK1NA) and MM (PJ2T). Both of these stations are capable of winning any time out. PJ2T has a huge list of wins and with their recent appearances in the Top Ten, HK1NA is beginning to show what they can do!

Top Ten – DX, Multioperator

Multioperator, Single Transmitter, High Power

P4ØL	5,807,160
KP2M	5,661,000
PJ4X	5,451,264
VP5S	5,358,300
TM6M	5,239,080
PJ5W	4,937,400
E7DX	4,025,085
KL7RA	3,908,358
IR4M	3,879,840
VP2EZZ	3,677,508

Multioperator, Single Transmitter, Low Power

V31TP	4,964,700
NP2N	3,374,520
OL1C	1,316,250
YJØOU	1,213,824
LZ7A	614,457
RT4S	91,416
JH1OES	65,178
SP3YOR	44,694
US2E	43,788
OO9O	21,948

Multioperator, Two Transmitters

HK1NA	8,215,809
CN2AA	7,860,132
CR3L	6,970,914
ED7P	5,227,647
IR1Y	4,708,353
DL1A	4,111,695
SK3W	4,095,441
ZM9ØDX	3,492,693
YU5R	3,379,320
SO9Q	3,112,725

Multioperator, Multiple Transmitters

PJ2T	9,131,286
KH6LC	6,599,313
EC2DX	6,313,716
9A1A	5,608,320
OL7M	4,808,142
HG1S	4,124,208
LZ9W	3,867,444
ZM1A	3,440,892
JE1ZWT	1,898,316
IR2T	630,873

Hawaii is an obvious "sweet spot" for any Oceania category but as the Continental Leaders table below shows, the wealth was spread all about the Pacific: KH2/N2NL and ZL3GA took the SOUHP and SOULP titles, respectively. Single-band winners were calling from KH6 to DU to VK7 and there were multi-op winners in 9M6, YJØ, and KH6, too. Given how large this "continent" really is, such a wide geographic distribution of winners indicates that conditions, while shaky at times, were actually pretty good.

Continental Leaders

Africa

Single Operator, High Power	3V8BB (KF5EYY, op)	2,132,055
Single Operator, Low Power	EF8USA (EA8AY, op)	2,623,824
Single Operator Unlimited, Low Power	ZR9C (ZS6WN, op)	819,084
Single Operator, 20 Meters	CN8KD	128,856
Single Operator, 15 Meters	EA8AVK	65,988
Single Operator, 10 Meters	6W/G3TXF (G3TXF, op)	367,806
Multioperator, Two Transmitters	CN2AA	7,860,132

Asia

Single Operator, High Power	UAØZAM	900,516
Single Operator, Low Power	JH4UYB	1,060,041
Single Operator, QRP	JH1OGC	217,152
Single Operator Unlimited, High Power	JE1LFX	1,139,307
Single Operator Unlimited, Low Power	JA1BJI	757,890
Single Operator, 160 Meters	JH2FXK	1,560
Single Operator, 80 Meters	JA6GCE	17,052
Single Operator, 40 Meters	JR8VSE	119,700
Single Operator, 20 Meters	UN9GD	93,987
Single Operator, 15 Meters	JA7FTR	181,431
Single Operator, 10 Meters	JH3AIU	122,094
Multioperator, Single Transmitter, High Power	JAØQNJ	1,843,572
Multioperator, Single Transmitter, Low Power	JH1OES	65,178
Multioperator, Two Transmitters	RTØC	2,457,837
Multioperator, Multiple Transmitters	JE1ZWT	1,898,316

Europe

Single Operator, High Power	CS2C (OK1RF, op)	5,067,810
Single Operator, Low Power	S53F	1,585,395
Single Operator, QRP	HB9BMY	365,925
Single Operator Unlimited, High Power	SN7Q	3,445,305
Single Operator Unlimited, Low Power	EI5KF	1,748,760
Single Operator, 160 Meters	S51V	20,265
Single Operator, 80 Meters	LX9DX (HB9CVQ, op)	97,854
Single Operator, 40 Meters	CR2X (OH2PM, op)	303,909
Single Operator, 20 Meters	9A2NA	278,598
Single Operator, 15 Meters	LX7I (DL3BPC, op)	282,750
Single Operator, 10 Meters	CR2A (OH2BH, op)	363,204
Multioperator, Single Transmitter, High Power	TM6M	5,239,080
Multioperator, Single Transmitter, Low Power	OL1C	1,316,250
Multioperator, Two Transmitters	ED7P	5,227,647
Multioperator, Multiple Transmitters	EC2DX	6,313,716

North America

Single Operator, High Power	6Y2T (VE3DZ, op)	5,965,245
Single Operator, Low Power	KP4KE (DK8ZB, op)	4,666,215
Single Operator, QRP	CO2CW	92,214
Single Operator Unlimited, High Power	WL7E	2,500,680
Single Operator Unlimited, Low Power	YN2NC (AA4NC, op)	4,428,270
Single Operator, 160 Meters	V31YN (DJ4KW, op)	11,433
Single Operator, 80 Meters	C6AKQ (N4BP, op)	202,362
Single Operator, 40 Meters	CO8ZZ	167,922
Single Operator, 20 Meters	C6AZZ (KQ8Z, op)	220,284
Single Operator, 15 Meters	CO8LY	45,396
Single Operator, 10 Meters	NP3A	293,016
Multioperator, Single Transmitter, High Power	KP2M	5,661,000
Multioperator, Single Transmitter, Low Power	V31TP	4,964,700

Oceania

Single Operator, High Power	KH7XX (KH6SH@KH6YY, op)	4,004,436
Single Operator, Low Power	KH6CJJ	950,400
Single Operator, QRP	KH7M (KH6ZM, op)	662,904
Single Operator Unlimited, High Power	KH2/N2NL	1,630,074
Single Operator Unlimited, Low Power	ZL3GA	24,366
Single Operator, 80 Meters	KH6/WB4JTT (WB4JTT, op)	48,750
Single Operator, 40 Meters	DU1EV	324
Single Operator, 20 Meters	VK7GN	94,770
Single Operator, 15 Meters	NH2DX (KG6DX, op)	187,074
Single Operator, 10 Meters	VK4LAT	360
Multioperator, Single Transmitter, High Power	9M6SDX	16,200
Multioperator, Single Transmitter, Low Power	YJØOU	1,213,824
Multioperator, Two Transmitters	ZM9ØDX	3,492,693
Multioperator, Multiple Transmitters	KH6LC	6,599,313

South America

Single Operator, High Power	P4ØLE (K2LE, op)	3,052,503
Single Operator, Low Power	P4ØW (W2GD, op)	4,648,770
Single Operator Unlimited, High Power	PY4RGS	590,352
Single Operator Unlimited, Low Power	PY1NX	700,812
Single Operator, 160 Meters	HC2AO	13,908
Single Operator, 80 Meters	YV4YC	105,966
Single Operator, 40 Meters	HK3TU	223,155
Single Operator, 20 Meters	FY5KE (F6FVY, op)	391,524
Single Operator, 15 Meters	ZY5M (IV3NVN, op)	270,570
Single Operator, 10 Meters	LU1FAM	309,372
Multioperator, Single Transmitter, High Power	P4ØL	5,807,160
Multioperator, Single Transmitter, Low Power	ZW8T	12,285
Multioperator, Two Transmitters	HK1NA	8,215,809
Multioperator, Multiple Transmitters	PJ2T	9,131,286

Accurate Operating

Among operators vying for the Top Ten scores, much is made of accurate operating. The same should be true for casual participants and those learning contesting skills! After all, contesting is really a training program to learn how to exchange information quickly and accurately. Why not take advantage of what contests have to offer?

What does "accurate" operating mean? It means copying call signs and exchanges, sending calls correctly, speaking clearly, and so forth. There are three basic types of errors that are detected by log-checking:

• Busted calls – miscopying a call sign, such as N1AX for NØAX.

• Busted exchanges – miscopying any part of the exchange, such as 599 MN for 599 MO or 599 100 for 599 1000.

• Not-In-Logs (NILs) – a contact for which a corresponding contact can't be found in the log of station with which the contact is claimed.

Duplicate contacts with other stations are not counted as errors if you submit your log electronically by emailing it to the ARRL. Similarly, "uniques," or call signs found only in your log, are not counted as errors. These may very well be busted calls, and most are, but they are not counted as errors if they can't be shown to be busted with a high degree of confidence.

Once a contact has been shown to contain one of the three errors, it is removed from your log's total of QSO points and, if the contact was the only one with a specific multiplier, from the multiplier total, as well. No additional penalty is assessed. (CQ World Wide contests assess an additional penalty of three QSOs worth of QSO points for each bad QSO.)

It should be noted that removing a QSO from your log or even assessing a penalty is most emphatically *not* an accusation of cheating. It's simply accounting for your error, just like an offsides call results in a five-yard penalty in football or stepping out of bounds results in a turnover in basketball. That's all. Disqualification or the dreaded "DQ" is quite rare. For a DQ to occur, there must be a judgment that there was consistent and repeated intent to break one or more contest rules. Look at it this way – be glad that that logs are checked carefully enough that you can be confident in the final order-of-finish, whether you won or lost.

How do you find out about your own accuracy? Easy – there is a report generated for every "electronic" log emailed to the ARRL. It's called an "LCR" or "Log Checking Report." It contains a complete list of every error found in your log from cross-checking with other logs. It's free and completely private. All you have to do is download it from the ARRL web site.

Measuring Accuracy

The basic measurement of operating accuracy is error rate, which is the percentage of contacts in your log with an error. (Duplicate contacts are removed from the totals before calculating error rate.) Error rate ranges from 0.0 (no errors; a golden log) to 1.0 (every contact was bad). The lower your error rate, the more accurate you are.

Does anyone turn in a perfect log? Yes! Sometimes, they do, and even if the log contains unique calls, they are recognized as having submitted a Golden Log that contained no detectable errors. You might be surprised at how large these logs can be – accuracy is really taken seriously! The table of Golden Logs shows that PV8ADI submitted a really large one at 1408 QSOs – congratulations on that achievement!

Top 10 Golden Single-Op Logs

Call	*QSOs*	*Category*
PV8ADI	1408	SOHP
AA8OY	702	SOLP
KØRC	690	SOUHP
K5LY	603	SOLP
S57C	600	SOHP
N6MU	572	SOLP
YL2CV	568	SOLP
K4MX	535	SOLP
DK2OY	514	SOUHP
W7MEM	506	SOHP

Error rate doesn't tell the whole story, though. Log size also needs to be taken into account. After all, which would you think is more difficult – making 100 QSOs with no errors or making 1000 QSOs with no errors? Or making 1000 QSOs with an error rate of, say, 0.3%? That's where the Accuracy Index comes in. The accuracy index noted in the table rewards lower error rates for large logs. For two logs with equal error rates, the log with more verified contacts has a higher index. For the mathematically adept:

$$Accuracy\ Index = \log_{10}(Good\ QSOs) + 10 \times (1 - Error\ Rate)$$

The table shows this year's accuracy leaders in all-band categories.

Accuracy Index Leaders

	Call	*Category*	*QSOs*	*Error %*	*Index*
W-VE					
SO	N2IC	SOHP	4440	0.4	13.607
SOU	KI1G	SOUHP	5168	0.6	13.653
MO	K3LR	MM	9378	1.1	13.862
DX					
SO	6Y2T (VE3DZ, op)	SOHP	5680	0.3	13.724
SOU	YN2NC (AA4NC, op)	SOULP	4500	0.6	13.593
MO	PJ2T	MM	8860	0.8	13.867

How Do I Get Into a Box?

That's the 64-dollar question, isn't it? "Making the box" for the first time is one of contesting's most treasured moments! Here's how—practice, practice, practice. I asked one of radiosport's leading operators Jeff, N5TJ, "What's the secret?" to his repeated record-setting successes. His response was, "There is no secret." In other words, you operate, study, learn, and just get better and better until one day, you open up the results and there you are!

Start by working on the *operator*: learn all you can about propagation, study logs and techniques of the top operators, and make your operating practices as efficient as possible. Focus on accuracy in every single QSO: don't guess at a call or exchange, never ever rely solely on information from the spotting network, and avoid letting a database fill in the contact information for you—copy what you hear. Download your LCR and study your errors. Optimize your station layout and equipment within whatever means you have. You would be surprised at how well a skilled and motivated operator can do from a modest station.

Ready, Steady, Go!

Before concluding the article, a shout-out is owed to one of contesting's steadiest long-timers; Joe, W7QN. Licensed in 1939, Joe moved to a multi-story retirement community in Seattle a few years ago, obtained a top floor apartment, and resumed contesting without missing a beat. Joe clamps a mobile whip to his balcony railing and makes hundreds of contacts. This year, he scored 145 kpts with 348 QSOs and 143 multipliers on 80 through 10 meters! Joe enters all of "the bigs" every year on CW and phone as you can see by entering his call sign into 3830scores.com. Inspiring, eh?

The traditional HF contest season is about to begin. Pick your battles, prepare yourself physically, make a plan, and dive in! Now is the time to put 21st and 22nd of February in 2015 on the family calendar. We'll expect to hear you in the pileups!

1. Handy, F.E., 1BDI, "Coming—An International Relay Party," *QST*, March 1927, page 28.

2. Kruse, S., "Bureau of Standards - ARRL Tests of Short Wave Radio Signal Fading," *QST*, November 1920, page 5.

Regional Leaders

SOQRP/LP/HP = Single-Op All-Band; SOULP/HP = Single-Op Unlimited; MSL/MSH = Multioperator, Single Transmitter

Northeast Region

New England, Hudson and Atlantic Divisions; Maritime and Quebec Sections

Call	Score	Cat
N2NT	6,679,248	SOHP
VY2TT (K6LA, op)	5,418,363	SOHP
K1ZZ	5,344,704	SOHP
AA1K	4,958,064	SOHP
NN3W (KL2A, op)	4,526,991	SOHP
N1UR	4,429,668	SOLP
K3AJ	2,071,440	SOLP
K2TTM	1,593,930	SOLP
K1VSJ	1,570,254	SOLP
K1RO	1,384,191	SOLP
N1IX	958,995	SOQRP
AA1CA	616,209	SOQRP
N1TM	383,496	SOQRP
K8CN	293,280	SOQRP
K3WWP	271,602	SOQRP
KI1G	8,923,164	SOUHP
KØDQ	8,385,762	SOUHP
AA3B	7,204,080	SOUHP
K3WW	6,927,327	SOUHP
K5ZD	6,474,960	SOUHP
W1MSW	2,554,656	SOULP
W6AAN	2,523,936	SOULP
N1EN	2,182,245	SOULP
W3KB	2,143,245	SOULP
WW3S	2,056,560	SOULP
W2MF	7,080	SO-160
KM1R	3,813	SO-160
W2VO	918	SO-160
NS3T	675	SO-160
W1XX	37,236	SO-80
K1PQS	21,168	SO-80
N3SY	2,700	SO-80
W3BGN	483,084	SO-40
KD2RD	362,586	SO-40
K3NK	113,796	SO-40
K3STX	93,366	SO-40
K2UF	87,312	SO-40
N2MF	761,838	SO-20
K3GW	122,388	SO-20
KG1V	64,584	SO-20
WR2G	47,880	SO-20
W3HWE	28,728	SO-20
KU2M	678,870	SO-15
KE2WY	69,696	SO-15
VE9OA	51,450	SO-15
K2YR	48,495	SO-15
K2TV	38,220	SO-15
VY2ZM	561,456	SO-10
N9NC	525,204	SO-10
K2SSS	503,754	SO-10
WC1M	399,840	SO-10
W3EP	353,400	SO-10
K1LZ	9,975,189	MSHP
W2FU	9,442,368	MSHP
K2QMF	5,631,600	MSHP
N3BNA	2,698,041	MSHP
W1HIS	2,446,122	MSHP
K3PH	2,594,241	MSLP
VE9ML	2,203,521	MSLP
W1TM	221,487	MSLP
W1VE	8,914,122	M2
KB1H	6,704,307	M2
K1RX	6,427,080	M2
W2YC	6,149,418	M2
KU2C	5,342,970	M2
K3LR	18,892,848	MM
W3LPL	17,318,520	MM
WE3C	15,771,483	MM
W1UE	13,777,344	MM
AA2A	9,680,310	MM

Southeast Region

Delta, Roanoke and Southeastern Divisions

Call	Score	Cat
K4RO	4,193,850	SOHP
K4AB	3,781,773	SOHP
N4YDU	3,302,595	SOHP
K1TO	2,754,408	SOHP
N4UU	2,142,426	SOHP
N8II	3,359,304	SOLP
KU8E	1,776,096	SOLP
K7SV	1,652,490	SOLP
K5KU	1,351,818	SOLP
W4AA	1,157,712	SOLP
W9WI	1,060,656	SOQRP
KS4X	241,392	SOQRP
NT4TS	200,025	SOQRP
K8MR	170,520	SOQRP
N4CF	149,112	SOQRP
K5KG	3,395,775	SOUHP
K7BV	2,793,780	SOUHP
K3IE	2,388,960	SOUHP
W4DXX	2,301,375	SOUHP
K5EK	2,191,164	SOUHP
K9OM	2,158,740	SOULP
WD4AHZ	2,077,104	SOULP
K1HTV	1,280,772	SOULP
K1KNQ	793,584	SOULP
N4UW	754,596	SOULP
N2CEI	6,720	SO-160
AG4W	5,700	SO-160
K4EJQ	4,182	SO-160
W4ZV	1,938	SO-160
K4DZR	1,716	SO-160
N4TB	71,928	SO-80
K9FY	70,551	SO-80
N4DU	29,748	SO-80
NN4MM (K9MUG, op)	26,688	SO-80
K4FJ	23,427	SO-80
N4UA	353,100	SO-40
N4WW	327,240	SO-40
K4XS	734,706	SO-20
W4JDS	10,032	SO-20
KG4IGC	1,404	SO-20
NQ4I (VE7ZO, op)	669,900	SO-15
K3RV	661,548	SO-15
N1LN	487,350	SO-15
KØLUZ	483,183	SO-15
WA1FCN	170,022	SO-15
N4PN	479,205	SO-10
N4OX	375,915	SO-10
W4KZ (NQ4I, op)	277,464	SO-10
WB4TDH	223,080	SO-10
K1PT	190,734	SO-10
N4CW	2,775,780	MSHP
AD4ES	489,552	MSHP
WA3OFC	535,626	MSLP
K1FIR	11,760	MSLP
NY4A	10,498,950	M2
W5RU	6,152,967	M2
W4RM	11,064,168	MM
W4YY	3,164,370	MM
K3PH	2,594,241	MM
VE9ML	2,203,521	MM
W1TM	221,487	MM

Central Region

Central and Great Lakes Divisions; Ontario Section

Call	Score	Cat
XL3A (VE3AT, op)	5,173,872	SOHP
K1LT	3,496,500	SOHP
K9MA	2,631,390	SOHP
K8GL	2,598,141	SOHP
N8BJQ	2,383,152	SOHP
N4TZ	3,226,719	SOLP
NA8V	3,072,720	SOLP
N9CK	2,459,148	SOLP
KV8Q	1,216,260	SOLP
N8VV	1,153,248	SOLP
W9OP	672,714	SOQRP
VE3VN	611,328	SOQRP
N8BB	210,576	SOQRP
VE3HG	159,273	SOQRP
K2YAZ	92,016	SOQRP
W8MJ	4,026,960	SOUHP
K9NW	2,914,521	SOUHP
K3WA	2,587,200	SOUHP
N4QS	1,688,085	SOUHP
K9ZO	1,480,365	SOUHP
WE9R	1,226,295	SOULP
K9OR	919,776	SOULP
W8BI (KD8SAV, op)	875,952	SOULP
WD8KNC	851,760	SOULP
VE3IAE	839,124	SOULP
VE3PN	9,348	SO-160
K2UR	6,000	SO-160
WD8DSB	918	SO-160
VE3OSZ	23,490	SO-80
W1NN	17,784	SO-80
AC8CE	5,040	SO-80
WO9S	52,341	SO-40
W8UE	27,456	SO-40
VE3TG	27,384	SO-40
W8LJB	25,560	SO-40
N9TF	21,063	SO-40
W8TA	517,149	SO-20
N9CO	224,070	SO-20
N8AGU	152,061	SO-20
W9ILY	151,470	SO-20
VE3CR	92,400	SO-20
N2WQ/VE3	487,104	SO-15
W8JGU	145,656	SO-15
NF8R	91,350	SO-15
WB8MIW	72,708	SO-15
VE3FH	57,912	SO-15
K9BGL	381,924	SO-10
K9QVB	250,194	SO-10
N9XX	85,536	SO-10
AF9T	62,826	SO-10
N8LJ	30,360	SO-10
AA9A	4,822,200	MSHP
VE3YAA	2,941,920	MSHP
K8AZ	11,140,950	M2
VE3JM	8,705,340	M2
W9JP	6,572,097	M2
WØAIH	4,417,248	M2

Midwest Region

Dakota, Midwest, Rocky Mountain and West Gulf Divisions; Manitoba and Saskatchewan Sections

Call	Score	Cat
N2IC	6,056,136	SOHP
WXØB (AD5Q, op)	4,313,610	SOHP
WD5K	1,897,023	SOHP
K5BG	1,869,819	SOHP
KØTT	1,559,910	SOHP
N5AW	3,162,588	SOLP
NAØN	1,637,196	SOLP
N1CC	901,554	SOLP
N7WY	468,330	SOLP
K5LY	445,014	SOLP
VE5VA	134,277	SOQRP
WC7S	113,100	SOQRP
KØOU	105,750	SOQRP
N5OBC	62,361	SOQRP
NNØQ	49,608	SOQRP
NØAT	2,320,500	SOUHP
KØKX	2,066,526	SOUHP
W5GN	1,940,430	SOUHP
K3PA	1,903,914	SOUHP
K5NA	1,638,471	SOUHP
N5DO	1,687,560	SOULP
AD1C	1,422,060	SOULP
NØHJZ	1,107,792	SOULP
VE5ZX	1,073,952	SOULP
KØMPH	785,400	SOULP
NØTT	4,725	SO-160
WD5COV	3,150	SO-160
NØOK	9,675	SO-80
KIØG	4,278	SO-80
NGØT	3,696	SO-80
WØUO	247641	SO-40
NEØU	67452	SO-40
NØUJT	12	SO-40
KT9T	445,500	SO-20
K7KU (KØKR, op)	361,296	SO-20
N4IJ	180,780	SO-20
KØPK	147,060	SO-20
NAØBR	8,436	SO-20
K5RX	513,246	SO-15
KØSR	334,278	SO-15
KZ5J	131,061	SO-15
VE5KS	34,128	SO-15
K5ZCJ	18,600	SO-15
N7DR	318,453	SO-10
AA5B	277,875	SO-10
NN7ZZ (N5LZ, op)	239,490	SO-10
KTØA	199,143	SO-10
KØJJR	60,300	SO-10
K5TR	5,455,296	MSHP
K5RT	3,764,436	MSHP
K5YAA	581,130	MSHP
NØNI	9,111,141	M2
KØRF	8,857,566	M2
NØMA	1,905,054	M2

West Coast Region

Pacific, Northwestern and Southwestern Divisions; Alberta, British Columbia and NWT Sections

Call	Score	Cat
N9RV	3,359,268	SOHP
K6XX	2,995,704	SOHP
VE7JH	2,246,490	SOHP
W2VJN	2,009,502	SOHP
AF6O	1,654,701	SOHP
WJ9B	1,861,986	SOLP
N6RV	991,368	SOLP
VA7ST	629,292	SOLP
W7QDM	575,310	SOLP
N7ZN	507,546	SOLP
N7IR	767,496	SOQRP
W6JTI	620,100	SOQRP
KU7Y	364,800	SOQRP
W6QU (W8QZA, op)	293,661	SOQRP
K7HBN	199,296	SOQRP
KO7AA	3,515,055	SOUHP
VE6RST	2,222,829	SOUHP
KG7H	2,068,308	SOUHP
N7XU (K4XU, op)	1,823,421	SOUHP
KE2VB	1,663,926	SOUHP
KE7X	2,262,729	SOULP
K6WSC	783,756	SOULP
WN6K	419,196	SOULP
VE7KW	354,255	SOULP
W6AWW	336,753	SOULP
N7GP	6,993	SO-160
N6TI	390	SO-160
W7WR	198	SO-160
W7ZR	27	SO-160
N7RK	3,402	SO-80
W6RLL	1,836	SO-80
NX6T (NØDY, op)	239,844	SO-40
N6MA	159,858	SO-40
N7CW	78,684	SO-40
W6RKC	39,936	SO-40
VE7MR	25,146	SO-40
N7YT	5,940	SO-20
VE6WQ (@VE6JY, op)	491,280	SO-15
W7WA	477,651	SO-15
N7DD	476,406	SO-15
WA7LT	222,870	SO-15
NU6S	186,912	SO-15
K8IA	386,052	SO-10
KA7T	117,117	SO-10
KM6Z	74,952	SO-10
AI6Z	63,510	SO-10
K6LL	3,338,442	MSHP
K7GT	912,126	MSHP
K2PO	2,674,638	MSLP
VA7DZ	1,118,520	MSLP
W6YX	200,400	MSLP
W7RN	7,185,795	M2

Division Winners

Atlantic

Single Operator, High Power	AA1K	4,958,064
Single Operator, Low Power	K3AJ	2,071,440
Single Operator, QRP	K3WWP	271,602
Single Operator Unlimited, High Power	AA3B	7,204,080
Single Operator Unlimited, Low Power	W6AAN	2,523,936
Single Operator, 160 Meters	W2MF	7,080
Single Operator, 40 Meters	W3BGN	483,084
Single Operator, 20 Meters	N2MF	761,838
Single Operator, 15 Meters	KE2WY	69,696
Single Operator, 10 Meters	K2SSS	503,754
Multioperator, Single Transmitter, High Power	W2FU	9,442,368
Multioperator, Single Transmitter, Low Power	K3PH	2,594,241
Multioperator, Two Transmitters	W2YC	6,149,418
Multi- Multi Transmitters	K3LR	18,892,848

Central

Single Operator, High Power	K9MA	2,631,390
Single Operator, Low Power	N4TZ	3,226,719
Single Operator, QRP	W9OP	672,714
Single Operator Unlimited, High Power	K9NW	2,914,521
Single Operator Unlimited, Low Power	WE9R	1,226,295
Single Operator, 160 Meters	K2UR	6,000
Single Operator, 40 Meters	WO9S	52,341
Single Operator, 20 Meters	N9CO	224,070
Single Operator, 15 Meters	KE9EX	3,444
Single Operator, 10 Meters	K9BGL	381,924
Multioperator, Single Transmitter, High Power	AA9A	4,822,200
Multioperator, Single Transmitter, Low Power	K9XD	1,776,024
Multioperator, Two Transmitters	W9JP	6,572,097

Dakota

Single Operator, High Power	KØTT	1,559,910
Single Operator, Low Power	NAØN	1,637,196
Single Operator, QRP	NNØQ	49,608
Single Operator Unlimited, Low Power	NØHJZ	1,107,792
Single Operator, 80 Meters	NØOK	9,675
Single Operator, 40 Meters	NEØU	67,452
Single Operator, 20 Meters	KT9T	445,500
Single Operator, 15 Meters	KØSR	334,278
Single Operator, 10 Meters	KTØA	199,143

Delta

Single Operator, High Power	K4RO	4,193,850
Single Operator, Low Power	K5KU	1,351,818
Single Operator, QRP	W9WI	1,060,656
Single Operator Unlimited, High Power	K3IE	2,388,960
Single Operator Unlimited, Low Power	N4UW	754,596
Single Operator, 160 Meters	K4EJQ	4,182
Single Operator, 40 Meters	W5TZC	52,632
Single Operator, 10 Meters	AA5AU	167,526
Multioperator, Two Transmitters	W5RU	6,152,967

Great Lakes

Single Operator, High Power	K1LT	3,496,500
Single Operator, Low Power	NA8V	3,072,720
Single Operator, QRP	N8BB	210,576
Single Operator Unlimited, High Power	W8MJ	4,026,960
Single Operator Unlimited, Low Power	W8BI (KD8SAV, op)	875,952
Single Operator, 80 Meters	W1NN	17,784

Single Operator, 40 Meters	W8UE	27,456
Single Operator, 20 Meters	W8TA	517,149
Single Operator, 15 Meters	W8JGU	145,656
Single Operator, 10 Meters	N8LJ	30,360
Multioperator, Two Transmitters	K8AZ	11,140,950

Hudson

Single Operator, High Power	N2NT	6,679,248
Single Operator, Low Power	K2TTM	1,593,930
Single Operator, QRP	NQ2W	135,420
Single Operator Unlimited, High Power	N1EU	4,803,768
Single Operator Unlimited, Low Power	KD2MX	698,196
Single Operator, 80 Meters	N3SY	2,700
Single Operator, 40 Meters	KD2RD	362,586
Single Operator, 20 Meters	WR2G	47,880
Single Operator, 15 Meters	KU2M	678,870
Single Operator, 10 Meters	WB2AMU	65,280
Multioperator, Single Transmitter, High Power	K2QMF	5,631,600
Multioperator, Two Transmitters	KU2C	5,342,970

Midwest

Single Operator, High Power	WØEB	433,575
Single Operator, Low Power	N7WY	468,330
Single Operator, QRP	KØOU	105,750
Single Operator Unlimited, High Power	K3PA	1,903,914
Single Operator Unlimited, Low Power	KØVBU	655,659
Single Operator, 160 Meters	NØTT	4,725
Single Operator, 10 Meters	WNØL	48,300
Multioperator, Two Transmitters	NØNI	9,111,141

New England

Single Operator, High Power	K1ZZ	5,344,704
Single Operator, Low Power	N1UR	4,429,668
Single Operator, QRP	N1IX	958,995
Single Operator Unlimited, High Power	KI1G	8,923,164
Single Operator Unlimited, Low Power	W1MSW	2,554,656
Single Operator, 160 Meters	KM1R	3,813
Single Operator, 80 Meters	W1XX	37,236
Single Operator, 40 Meters	W1FQ	44,496
Single Operator, 20 Meters	KG1V	64,584
Single Operator, 15 Meters	AK2MA	25,137
Single Operator, 10 Meters	N9NC	525,204
Multioperator, Single Transmitter, High Power	K1LZ	9,975,189
Multioperator, Single Transmitter, Low Power	W1TM	221,487
Multioperator, Two Transmitters	W1VE	8,914,122
Multioperator, Multiple Transmitters	W1UE	13,777,344

Northwestern

Single Operator, High Power	N9RV	3,359,268
Single Operator, Low Power	WJ9B	1,861,986
Single Operator, QRP	K7HBN	199,296
Single Operator Unlimited, High Power	KG7H	2,068,308
Single Operator Unlimited, Low Power	KE7X	2,262,729
Single Operator, 160 Meters	W7WR	198
Single Operator, 40 Meters	NW6V	14,259
Single Operator, 20 Meters	N7YT	5,940
Single Operator, 15 Meters	W7WA	477,651
Single Operator, 10 Meters	KA7T	117,117
Multioperator, Single Transmitter, High Power	K7GT	912,126
Multioperator, Single Transmitter, Low Power	K2PO	2,674,638

Pacific

Single Operator, High Power	K6XX	2,995,704
Single Operator, Low Power	N6YEU	371,520
Single Operator, QRP	W6JTI	620,100
Single Operator Unlimited, High Power	W6DR	1,354,752
Single Operator Unlimited, Low Power	K6AAB	275,940
Single Operator, 40 Meters	W6RKC	39,936
Single Operator, 15 Meters	NU6S	186,912
Single Operator, 10 Meters	W7XZ	56,097
Multioperator, Single Transmitter, Low Power	W6YX	200,400
Multioperator, Two Transmitters	W7RN	7,185,795

Roanoke

Single Operator, High Power	N4YDU	3,302,595
Single Operator, Low Power	N8II	3,359,304
Single Operator, QRP	N4CF	149,112
Single Operator Unlimited, High Power	K7BV	2,793,780
Single Operator Unlimited, Low Power	K1HTV	1,280,772
Single Operator, 160 Meters	W4ZV	1,938
Single Operator, 80 Meters	K4FJ	23,427
Single Operator, 40 Meters	N4UA	353,100
Single Operator, 20 Meters	KG4IGC	1,404
Single Operator, 15 Meters	K3RV	661,548
Single Operator, 10 Meters	K1KAV	16,380
Multioperator, Single Transmitter, High Power	N4CW	2,775,780
Multioperator, Single Transmitter, Low Power	WA3OFC	535,626
Multioperator, Two Transmitters	NY4A	10,498,950
Multioperator, Multiple Transmitters	W4RM	11,064,168

Rocky Mountain

Single Operator, High Power	N2IC	6,056,136
Single Operator, Low Power	NØTK	227,481
Single Operator, QRP	WC7S	113,100
Single Operator Unlimited, High Power	KEØUI	920,700
Single Operator Unlimited, Low Power	AD1C	1,422,060
Single Operator, 160 Meters	WD5COV	3,150
Single Operator, 80 Meters	NGØT	3,696
Single Operator, 20 Meters	K7KU (KØKR, op)	361,296
Single Operator, 15 Meters	NØVD	18,189
Single Operator, 10 Meters	N7DR	318,453
Multioperator, Single Transmitter, High Power	KØRF	8,857,566

Southeastern

Single Operator, High Power	K4AB	3,781,773
Single Operator, Low Power	KU8E	1,776,096
Single Operator, QRP	NT4TS	200,025
Single Operator Unlimited, High Power	K5KG	3,395,775
Single Operator Unlimited, Low Power	K9OM	2,158,740
Single Operator, 160 Meters	N2CEI	6,720
Single Operator, 80 Meters	N4TB	71,928
Single Operator, 40 Meters	N4WW	327,240
Single Operator, 20 Meters	K4XS	734,706
Single Operator, 15 Meters	NQ4I (VE7ZO, op)	669,900
Single Operator, 10 Meters	N4PN	479,205
Multioperator, Single Transmitter, High Power	AD4ES	489,552
Multioperator, Single Transmitter, Low Power	K1FIR	11,760

Southwestern

Single Operator, High Power	AF6O	1,654,701
Single Operator, Low Power	N6RV	991,368
Single Operator, QRP	N7IR	767,496
Single Operator Unlimited, High Power	KO7AA	3,515,055

Single Operator Unlimited, Low Power	K6WSC	783,756
Single Operator, 160 Meters	N7GP	6,993
Single Operator, 80 Meters	N7RK	3,402
Single Operator, 40 Meters	NX6T (NØDY, op)	239,844
Single Operator, 15 Meters	N7DD	476,406
Single Operator, 10 Meters	K8IA	386,052
Multioperator, Single Transmitter, High Power	K6LL	3,338,442

West Gulf

Single Operator, High Power	WXØB (AD5Q, op)	4,313,610
Single Operator, Low Power	N5AW	3,162,588
Single Operator, QRP	N5OBC	62,361
Single Operator Unlimited, High Power	W5GN	1,940,430
Single Operator Unlimited, Low Power	N5DO	1,687,560
Single Operator, 80 Meters	KIØG	4,278
Single Operator, 40 Meters	WØUO	247,641
Single Operator, 20 Meters	N4IJ	180,780
Single Operator, 15 Meters	K5RX	513,246
Single Operator, 10 Meters	K5QR	50,190
Multioperator, Single Transmitter, High Power	K5TR	5,455,296

Canada

Single Operator, High Power	VY2TT (K6LA, op)	5,418,363
Single Operator, Low Power	VE3GFN	915,240
Single Operator, QRP	VE3VN	611,328
Single Operator Unlimited, High Power	VA2WA	5,948,964
Single Operator Unlimited, Low Power	VE5ZX	1,073,952
Single Operator, 160 Meters	VE3PN	9,348
Single Operator, 80 Meters	VE3OSZ	23,490
Single Operator, 40 Meters	VY2OX	40,320
Single Operator, 20 Meters	VE3CR	92,400
Single Operator, 15 Meters	VE6WQ (@VE6JY, op)	491,280
Single Operator, 10 Meters	VY2ZM	561,456
Multioperator, Single Transmitter, High Power	VE3YAA	2,941,920
Multioperator, Single Transmitter, Low Power	VE9ML	2,203,521
Multioperator, Two Transmitters	VE3JM	8,705,340