ARRL International DX Contest CW 2023 Full Results

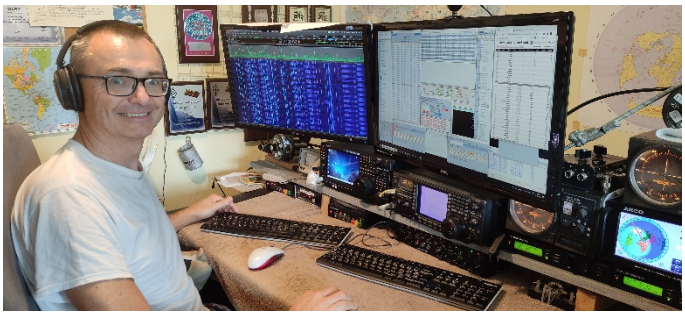
By Mark Beckwith, N5OT **(n5ot@arrl.net)**

Frustrated by too many years of solar doldrums — that inconveniently coincided with a global pandemic and resulting lockdowns for which contesting would be the perfect physically distanced activity — hams turned on their radios for the 2023 ARRL International DX Contest CW and were pleasantly surprised by outstanding conditions.

“Conditions could not have been better. We will likely never see conditions this good again across all of the bands in the same weekend,” said Randy, K5ZD.

Few records were set on the low bands, probably because just about everybody was banging away on 10 and 15 Meters thanks to long-awaited co-operation by the local star that energizes our ionosphere — “Ol’ Man Sol” as one intrepid QRPer relished.

“Best Asia conditions ever from this station,” said Ed, N1UR.
“Really wonderful conditions for this point in the new cycle,” said Glen, K6NA.
“What a fantastic weekend! Conditions on all bands (except 160m) were excellent,” said Marty, OL5Y.



You can tell Martin, OL5Y, loves this contest. This year he landed a spot in the Top Five for Single-Operator All-Band High-Power Unassisted, Worldwide. [Martin Huml, OL5Y, photo]

One thing that set the 2023 contest apart was exceptional propagation on the high bands. Widespread consensus amongst Old Timers is that 1959 was the year above all years. Many soapbox comments harkened to the past as the best way to describe what happened earlier this year on the 3rd full weekend in February.

“A most enjoyable weekend - great to have the higher bands opening again,” said Tony, ZL2AGY.
“I can't remember when I've logged so many stations from the west coast,” said Danilo, S5ØU.
“It was great to run the east coast on 10 and 15 meters after a decade,” said Shigeyuki, JHØKHR
“Nice to have sunspots again,” said Jim, W7XZ.

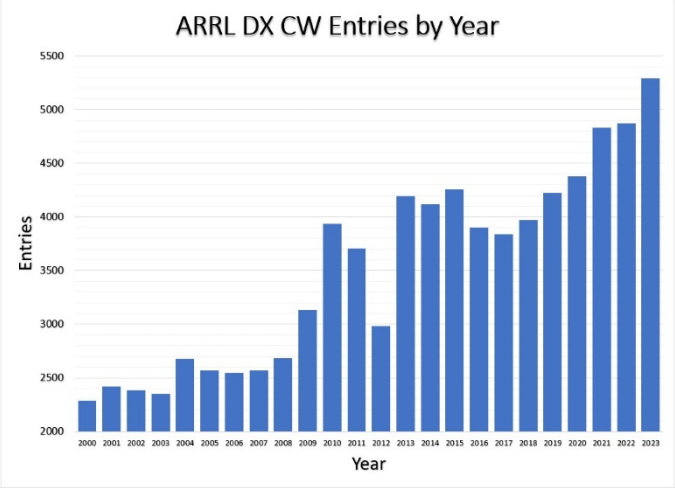
Operators are now trying the new era of Single Band categories on for size. Last year the ARRL erroneously retired the old single-band records, but this year has reinstated those scores as what they really are – Single-Operator Single-Band High-Power Unassisted scores. This year, after the dust has settled, five out of six of those old records remain standing. What a tribute to some huge efforts! Only the 10-meter record was broken (see propagation above).

The year 2023 will also be remembered for how the bar was raised in the Multi-Multi category by the convergence of multiple nearly inevitable twists, the proliferation of mega-stations combined with advances in remote operating technology. Such is the comparison between longtime superstation K3LR and newcomer K1LZ. The fundamental differences should make every competitor in the contest stop and think about the future, and where the game may be going.

Krassy’s K1LZ is in Maine. The operators running it were from nine different countries operating remote from three continents. K3LR is in western Pennsylvania, and its operators were, too.

Not just a Record but a RECORD

The illuminati are still scratching their heads wondering why activity in 2023 completely overshadowed all previous years. Those of us who are not rocket scientists will simply point to the Solar Flux. Last year’s 4,872 entries broke the previous record by 40. This year’s 5,293 entries surpasses it by 421 entries. Are you kidding me?



Note the spike in activity on the right-hand side of this graph. Graph courtesy of Bob Wilson, N6TV

Other New Records

Probably the most ubiquitous operator in all of radiosport, Bud, AA3B, broke the old record for Single-Operator All-Band High-Power Unlimited on the USA/Canada side of the contest. No small feat, as assisted operating has come into its own. Bud finished with a score 10 per cent higher than the Unassisted record score of Scott, KØDQ set in 2013. Bud did it by persistently running CQs interleaved on multiple bands simultaneously for more than 42 hours, holding both frequencies while clicking multipliers, and keeping his error rate respectably below one per cent.


Bud Trench, AA3B, exuberant about his new record in the Single-Operator All-Band High-Power Unlimited category [Bud Trench, AA3B, photo]

Amongst multi-op efforts, two other records fell. In the world of Multi-Single stations running Low-Power, the N4SS team in Kentucky set the bar to a new height. Station owner Bryan, W5MX said, "Wow, now THAT was a ride! We decided to tough it out with low power. Excellent conditions kept us busy all weekend."

In Multi-Two, Frank, W3LPL, and his crew drove hard to a new record, with a score that would have placed 3rd behind K1LZ and K3LR in Multi-Multi!

Too numerous to mention here, there were 119 new Call Area records, 296 new Section records, and 291 new State records. The 2023 scores are listed in the pages following. If you want to sort out all the records, you can go to the ARRL's contest portal, **contests.arrl.org**, and dig through the data to your heart's content, thanks to a huge effort by a number of staff members and dedicated volunteers.

On the World side of the contest, for the All-Band Single-Operator and Multi-Operator categories, no records were broken. They are the stuff of legends, indeed. When you break it down to individual continents, there was quite a lot of record action. Here's a list of all the new Continental records for All-Band entries:

Africa	
EA8RM	Single Operator QRP
Asia	
JH1EAQ	Single Operator Unlimited Low Power
JK7DWD	Single Operator Unlimited QRP
Europe	
CR6K (CT1ILT, op)	Single Operator High Power
EB7A	Single Operator Unlimited High Power
North America	
NP4Z	Single Operator Unlimited High Power

Additionally, there were 59 new Continental records, and 482 new Country records for stations in various Single-Band categories. Again, you can further parse the single-band record data by pointing a browser to the ARRL's contest portal, contests.arrl.org. Happy surfing!

No matter how you slice it, that is a pile of new records!

Categorically Speaking

This is like two different contests in one. Sponsored by ARRL, the national association for amateur radio in the U.S.A., it is built for the United States and Canada to work the world, and the world to work the United States

and Canada. This means the results for each of those two groups are not comparable, so we report them separately. Entrants are divided into a number of groups. Individual operators (Single Operator) don't have to compete against teams of operators (Multi Operator), for instance.

Teams of operators limited to only one signal on the air at a time (Multi Operator, Single Transmitter) don't compete against teams of operators putting out signals on two different bands at the same time (Multi Operator, Two Transmitter). All those teams don't compete against the very largest stations putting out more than two signals at the same time (Multi Operator, Multi Transmitter entries can have up to one signal per band simultaneously).

Stations that run radios without an amplifier (Low Power) don't compete against stations that do (High Power). There are some stations that like to use very little power. They can enter a lower-than-low power category where they only use 5 watts and see who can hear them (QRP).

There is even a subdivision of all these groups for operators who only want to compete on a single band.

Scott, KA9P, operates with 5 watts to a Buddipole from the Grand Caymans. [Scott McDonald, KA9P, photo]

When a Single Operator is Not a Single Operator

It's a big lightning rod whether competitors who don't use the internet to help them find stations to work are on an equal footing with competitors who do. When the Internet became common in ham shacks, we thought it would be wise to keep these two groups separate. There are separate categories for people who don't use spots to find stations and people who do. Unlimited refers to those who use spotting systems, either local or online.

"It was just me. No internet. I partied like it was 1964," said Nate, K1GU.

Regional Results

Since the early days of working distant stations, some operators think they are in disadvantaged locations, and say some other operators are in advantaged locations. Of course, the other operators with higher scores say that is a bunch of bunk and the only reason they win is because they are better operators. Rather than try to answer this question, we include an informal table of "Regional Results" at the end of each section (USA/Canada and World), that show what happens when you break it up into regions and allow the reader to draw their own conclusions.

Overall Results in the USA and Canada

In some categories, there were tight races. In others, there were winners who distinguished themselves from other competitors by large margins.

W/VE High Power

Congratulations to Dave, K5GN, who won it from Texas. This is the first time a station west of the Mississippi has won the contest since 1992. (For you statistics junkies, that was Jeff, N5TJ, before he was N5TJ, and it was only the fifth time this has happened in the history of the contest). Dave admits, "The stars certainly had to align for me. I went at it as hard as I could from the start. Ultimately, I worked every multiplier I heard on 10 and 15."

Propagation brought out the best in 2023 – the entire remainder of the Top Ten for Single-Operator High-Power are operators who have been in the Top Ten before, and the spread between first and 10th is tight.

"K5GN turned in a truly amazing score from Texas," said Randy, K5ZD.

"For N2IC to do that from New Mexico is a real accomplishment," said Dave, K1ZZ.

"Just like everyone else said, 10 and 15 were fantastic," said Steve, N2IC

"Hello 10 meters," said Ken, K6LA

"K3ZO would have absolutely loved this one," said Ken, K4ZW, in a nod to Fred, K3ZO, who died earlier this year.

Note that there were 877,401 QSOs logged on 10 meters by entrants. That's a big number!

The Single Operator High-Power Unlimited trophy goes to Bud, AA3B. No stranger to the winner's circle, Bud bested long-time rival Chas, K3WW, for the top spot, and this year he set a new record for this category.

AA3B and Charles, K3WW, have worked hard perfecting "2BSIQ" - two-radio contesting carried to the point of making "Two Band Synchronized Interleaved QSOs." While both prefer to receive the assistance of a global spotting network keeping them informed about the frequencies of stations they need in real-time, this time around Bud relates, "Chasing spots seemed counter-productive since interleaved CQs consistently produced high rates." Under those circumstances, one wonders how Bud might have fared, had he turned off the spotting network and tried his hand competing unassisted. Who knows, there could be a new kid on the block!

Flexible multi-band arrays like this one take the guesswork out of making two band sequentially interleaved QSOs. [Bud Trench, AA3B, photo]

Single Operator, High Power

K5GN	6,498,144
K5ZD	6,349,854
K1ZZ	6,135,177
N2IC	6,094,620
N9RV	5,325,600
VY2TT (K6LA, op)	5,257,074
AA1K	5,117,817
K4ZW	5,102,040
NA8V	4,931,640
NN7CW	4,791,393

Single Operator Unlimited, High Power

AA3B	9,024,696
K3WW	7,876,368
VE3EJ	6,550,578
N3RS	6,084,759
N2YO	6,031,650
N3RD	5,934,810
W8FJ	5,669,139
AB3CX	5,463,450
KQ2F (AA2FB, op)	5,458,770
N4AF	5,359,233

Single Operator, Low Power

N1UR	4,008,753
K1TR	2,214,879
K1VUT	1,921,608
K4OAQ	1,656,324
K1GU	1,016,178
K8MR	992,085
VE1RSM	883,224
VE6TN	874,161
WA7NB	830,115
K5FUV	822,276

Single Operator Unlimited, Low Power

K1BX	4,195,785
KG9X	2,717,964
WO1N	2,462,112
N4XL	2,334,360
AD5A	2,325,960
N1EN	2,073,600
N4ZR	1,950,936
WA1S	1,852,389
W1QK	1,846,968
WA4PGM	1,830,213

W/VE Low Power

Ed, N1UR, did a great job leveraging the excellent band conditions to a top score by a large margin in Single-Operator Low-Power. “It was nice to see great activity and great conditions combine,” Ed said, adding his score this year using low power was greater than his score last year using high power. “That felt like the best conditions to Asia ever from this station.” He felt having big antennas on a hill helped.

ARRL DX Veteran N1UR takes all the marbles in Single-Operator All-Band Low-Power Unassisted for the USA and Canada from his home in Vermont. [Ed Sawyer, N1UR, photo]

The same can be said for K1BX in the Low-Power Unlimited category. Art commented, “Conditions were dream-like.” He pinched himself to a decisive victory with very solid numbers on all bands, although he points out that NU1R’s unassisted score is still higher than his own.

W/VE QRP

For Single-Operator QRP, repeat winner George, K2DM, in Florida conceded the top spot this year to a formidable operator much further north and East – Al, W1FJ, in Massachusetts. At 82 years old, there is little left that Al hasn’t done. “My Iron Man days are over,” Al cheerfully remarked. “This was my first semi-serious effort at QRP contesting. I may be hooked!” Al set an initial goal of 500 QSOs but he’d knocked that one out by lunch time on Saturday. Al finished with 1,206 QSOs all while running only 4.9 watts! Commendable by any measure.

For Single Operator Unlimited QRP, Vlad, AA8CA, cleaned house, only two weeks after undergoing complex aortic surgery, then a subsequent lung biopsy on the very day the contest started. Can we applaud Vlad’s dedication?

Single Operator, QRP

W1FJ	925,407
K2DM	873,918
W6JTI	497,502
K1RO	457,272
WS2E	450,180
NDØC	419,175
K2YAZ	363,792
KO1H	260,631
N7RCS	256,056
W6QU (W8QZA, op)	256,035

Single Operator Unlimited, QRP

AA8CA	581,040
K5NZ	426,570
K7SV	412,965
K8ZT	213,672
NK4O	199,584
KB9RPG	107,448
KQ2RP	105,492
W4ER	100,497
KU4A	81,753
W7RY	73,872

W/VE Multi-Operator

At this level, with multiple operators, there is no “unassisted” division. Every station doing multi-op gets to access the spotting network.

Last year we described how entrants were coming out of hiding from the COVID epidemic with trepidation. For some years at that point, the multi-op stations had to figure out how to get into the contest while the operators remained adequately distanced. This year it seems like all the old players have a full head of steam, along with some new stations trying their hand at running with the really big dogs.

In the USA and Canada Multi-Operator Single-Transmitter category, one can only wonder how they decided which operators got to have all the fun on 10 meters. Hopefully camaraderie and sportsmanship carried the day, everyone took turns, and nobody was injured.

In the High-Power category, Delaware stalwart K9RS put in a solid victory, but on their heels was another Texas station – this time K5TR. Their totals track each other band-by-band, K9RS beating out K5TR in each case, with one exception: the two-man multi-op in Texas

cleaned up on 10-meter multipliers. It wasn't enough to put them over the top, but 115 countries on 10 meters for a single two-man team is impressive by any standard.

Another two-man multi-op rounded out the top three, with Jack, N4RV, and Carl, K3RV, keeping Jack's Virginia station on the air for 44 out of 48 hours.

Multi-Operator Single-Transmitter Low Power is sometimes an exercise in frustration, made bearable by snagging as many multipliers on other bands as you can. The new Kentucky station built by Bryan, W5MX, donned the Radio Ridge Contest Club callsign N4SS and opted this was the year to see about winning all the marbles in Multi-Single Low Power – and they did it! Impressive from Kentucky. "It's a different strategy with low power. You've got to be flexible and ready to move." Here's a picture of all the hard work Bryan and his bunch have put into Kentucky's new destination for food, fun and radiosport camaraderie.

The Radio Ridge Contest Club, N4SS, used the W5MX contest station to enter Multi-Operator Single-Transmitter Low Power, and set a new record from the USA and Canada. [Bryan Bydal, W5MX, photo]

Bryan remarked, "I never really thought there would be as much 'extra' work involved. I have learned a bit," he laughs. "It's rewarding, but there is always something needing attention before and during the contest." Bryan adds, "It is just a hobby, right?"

Frank, W3LPL, has been a powerhouse in the Multi-Transmitter categories for decades. When the pandemic hit, he scaled back his ambition to better accommodate the challenges in recruiting operators for his teams. "We downsized to Multi-Two because of our operators' safety concerns related to the COVID-19 pandemic," Frank explains. This year, W3LPL set a new record for Multi-Two. Digging down into his log, he can show that 65 per cent of the multipliers worked only once were not worked because they answered a W3LPL CQ. They were worked by a team operator who had to go find them and dig them out. "This illustrates the importance of S&P operations in a DX contest."

Four geographically diverse stations fought it out for 2nd place, with New York's W2FU rising above K9CT in Illinois, VA2WA in Quebec, and N4WW in Florida.

Clash of the Titans

It was only a matter of time before a truly massive station would come to Maine, where they say you can hit Europe with a rock if you throw it hard enough. Focused and methodical all the way to the finish line, Krassy, K1LZ, made this his goal. Last year on their maiden voyage they entered Multi-Single and dominated the category. In the fall, Krassy decided it was time to see what the station could do in Multi-Multi.

K1LZ recruited long-time friend and ARRL DX CW Champion Jeff, K1ZM (VY2ZM), to help recruit a team of operators. Jeff recalls, "When Krassy told me we were going to enter Multi-Multi in ARRL DX CW, I told him, 'You've got to be joking, K3LR is going to clean our clock'" Krassy's response? "Yes, but we will learn and get better."

Between Krassy and Jeff, the word went out, and an interesting band of protegés, misfits and other characters rose to the surface. Because the station was designed to be run by any operator on any band from any place by remote control, the roster was not limited only to operators who could be in Maine in February. Instead, the 2023 K1LZ Multi-Multi ushered in a new kind of team, made up of great operators all over the place running arguably the biggest Multi-Multi station ever built, all at the same time, with a single goal. K1ZM related, "We had a dream, and a plan."

Operators from Alaska, Argentina, Bulgaria, Serbia, Slovenia, Sweden, Ukraine and the United States remoted in to K1LZ from Dubai, Bulgaria, Serbia, California, Connecticut, Idaho, Oklahoma, Rhode Island and Texas. There was a skeleton crew present at the station in Maine. At K3LR the lineup was a who's who of veteran operators, all present in person.

Though the K1LZ operators adhered to a strict regimen of tutoring and practice for weeks prior to the contest, they got off to a bumpy start. K3LR, on the other hand,

presented their customary high standard of refined contesting.

Success via remote remained elusive. The culprit? Latency and lockouts got the upper hand. Readers might recall the most recent DXpedition to Ducie, VP6A, and how they tested a variety of remote ideas. Some worked better than others, and they had the exact same kinds of problems on CW. “I kept telling my CQ guys to wait longer between CQs to give the other in-band guys a chance to have better timing,” Krassy explained, knowing how tempting it is to push as hard as possible on the running frequency.

“Add a little adrenaline to snappy ops with fast contest reflexes, and this sort of thing is bound to happen,” Krassy’s 40 meter in-band op was heard to say. “We still have room for refinement. Timing is everything, and we need to tighten up our timing.” Yet, to the K1LZ team’s credit, veteran K3LR contester John, K1AR, reported, “K1LZ was on top of every spot. I mean, every one of them.”
K3LR took an early lead, then on Saturday morning it became neck and neck. With both stations showing millions of points already, the scoreboard would trade a 1K or 5K or 10K lead back and forth. It was harrowing! Maybe all the K1LZ ops needed was some quality time spent under pressure, getting used to so many new contest ideas all at once. Starting on Saturday afternoon, band-by-band, the K1LZ crew began building a bigger lead, then managed to maintain the pace through to the end. On the real-time scoreboard and in the post-contest claimed scores, K1LZ had a positive gap on all 6 bands. After log checking, K3LR regained the lead on 20 meters but on the other bands the seeming rag-tag team “in” Maine edged out the well-oiled contesters in Pennsylvania. Some of those gaps on some of those bands were way-too-close-for-comfort!

The K1LZ crew won the contest, but we might consider these things: K1LZ covers 12 times the real estate, K1LZ has more than twice as many towers and antennas and K1LZ is located 650 miles closer to Europe.

Overall, the K3LR error rate was 1.4 per cent. At K1LZ it was 2.2 per cent “We should strive to be under one per cent,” said Jon, KL2A, who was on the K1LZ 10-meter team. Jon is a long-time operator from a lot of operations over a lot of years. He knows.

Remote operation is here to stay. It has opened so many great doors already. There is room for both in-person operations and remotes. The question all radiosport competitors have to ask themselves is, what will an acceptable balance be between urgency and patience? Between good timing and digital delay?

Krassy’s perspective: “The station showed her beauty and what we can do with her.” Tim’s perspective: “It was a great weekend. Amazing conditions! But the best part was having everyone here at the station, having fun! Watching the seasoned guys coach the newer guys was very special.” You must admit, these are two classy contesters.

If pictures say what words cannot, the contrast between the two herculean efforts can be summed up by comparing their team photos.

Two teams wrestled for top honors in Multi-Multi for the USA and Canada. Above is the conventional on-site team at K3LR. Below is the unconventional mostly remote team at K1LZ. [Tim Duffy, K3LR and Krassy Petkov, K1LZ, photos]

Multioperator, Single Transmitter, High Power

K9RS	6,946,710
K5TR	6,181,839
N4RV	5,547,690
AA9A	4,152,759
K8AZ	4,098,105
K2LE	4,038,375
KQ3F	4,005,276
AA7A	3,937,626

K3PH	3,874,176
NX6T	3,739,239

Multioperator, Single Transmitter, Low Power

N4SS	3,409,182
W4TG	1,356,552
W1FM	1,155,018
NJ1F	639,540
W5GAD	485,928
VE4WSC	154,440
KA9FZR	192

Multioperator, Two Transmitter

W3LPL	14,524,974
W2FU	11,188,023
K9CT	10,421,010
VA2WA	10,025,271
N4WW	9,706,788
VE3JM	9,067,275
N2AA	9,022,572
W4NF	8,254,176
ND7K	7,995,000
K2AX	7,957,218

Multioperator, Multitransmitter

K1LZ	17,596,626
K3LR	16,864,284
K1RX	11,552,568
K1TTT	11,375,760
KØRF	8,195,175
N1RR	8,156,145
KO6M	6,577,800
K1KI	6,330,942
VE7UF	5,098,464
K1KP	3,112,641

USA/Canada Single Bands

As mentioned, with the revamped Single-Band categories, there are now hundreds of races and records, all of which can be analyzed in depth at the ARRL's online contest portal. We thought we might single out a notable effort by a beloved station operator well known to many. If you ask anyone who gets into contests regularly, "Where is WC7S?" they will tell you Dale is in Wyoming. All contesters know this. Dale set the new overall record for Single-Operator Unlimited 10 Meters QRP. Dale managed 249 QSOs with 54 countries, taking first place in the category over Don, K6GHA, who landed the 2nd place spot from California, with a 50/50 split between Asian and European QSOs. Here's to many more QSOs with WC7S!

"That was fun, to have runs with 5 watts!" said Dale, WC7S
"I had a blast making seriously long-distance contacts with under 5 watts," said Don, K6GHA.

Top 10 Single Band W/VE

Single Operator, High Power, 160 Meters

N4XD	17,424
KM1R	7,548
W1HIS	2,736
N4PSE	2,208
K3UU	396
K6TD	144

Single Operator Unlimited, High Power, 160 Meters

K2KW	7,245
NE8P	4,557
W7RH	2,058
K3JJG	1,650
WA3EKL	1,449
N4DE	972
W6XI	891
N6SJ	396

Single Operator, High Power, 80 Meters

W3BGN	104,148
K9ZO	37,125
W1HI	24,492
VY2OX	24,021
W8KA	19,038
K1MC	12,402
W6RKC	3,744

Single Operator, Low Power, 80 Meters

VE3SMA	5,952
AC8CE	5,202

Single Operator Unlimited, High Power, 80 Meters

W3NO	49,920
N4EL	11,562
W4PK	11,058
N7RK	6,561
NA5M	1,932

Single Operator Unlimited, Low Power, 80 Meters

K7LU	10,164
KØKT	7,236
K3ORC	7,236
W8WTS	5,280
WB2AIV	1,512

Single Operator, High Power, 40 Meters

N2MF	447,552
W1RCR	228,897
KU8E	155,520
K9AY	79,002
K9CJ	65,490
AD4TJ	32,760
K7PJT	14,523
W8LJB	10,944
W8RU	1,152

Single Operator, Low Power, 40 Meters

KU2M	185,850
WA3FAE	65,715
WN4AFP	63,918
K2UF	37,701
N8CWU	34,020
KC4WQ	20,736
W8UE	20,100
N2JNZ	16,050
VA3EC	15,996
N9HDE	10,209

Single Operator, QRP, 40 Meters

NN1DX	20,424

Single Operator Unlimited, High Power, 40 Meters

KA1IS	458,082
K7NJ	284,592
K9OM	234,264
K1TZQ	207,144
N4HB	123,444
N3AC	66,597
VA1RST	65,736
K5KJ	63,000
N9LR	48,348
W1FQ	23,364

Single Operator Unlimited, Low Power, 40 Meters

AA4NP	81,270
K1IM	67,275
K4FN	56,283
AA8R	46,632
W4VIC	18,081
K5MXG	6,804
W4YV	1,827
KB8ZYE	168

Single Operator, High Power, 20 Meters

W7WA	359,385
N5CR	266,112
N7TU	171,615
N5JJ	116,724
K7TAR	72,759
K3GW	39,330
W4JKC	32,565
K4RDU	6,954
W7TU	3,648
AI3Q	2,997

Single Operator, Low Power, 20 Meters

K4SXT	83,070
W8GOC	44,154
K1EFI	33,630
WX2N	31,758
W2TZ	30,498
KD2MI	21,216
VE3HLS	13,158

W3EH	1,953
W5EB	1,122
KK7HXU	90

Single Operator, QRP, 20 Meters

KØWOI	270
KI4DEF	36

Single Operator Unlimited, High Power, 20 Meters

VE3NNT	363,372
N2CG	24,192
KD6X	12,096
KØARY	1,386

Single Operator Unlimited, Low Power, 20 Meters

NY6DX	77,847
NW4V	23,115
AB7R	648
W7QF	243

Single Operator Unlimited, QRP, 20 Meters

K9AXT	13,200

Single Operator, High Power, 15 Meters

K2SSS	677,235
KM3T (@KC1XX)	657,729
W6YA	395,472
WØEWD	385,296
VA3AR	271,365
VE6UM	182,988
K4WW	65,286
KW9A	47,925
K3DNE	21,285
W7GF	12,420

Single Operator, Low Power, 15 Meters

WØUO	262,476
WA7BNM	99,216
AI6O	96,279
WNØL	42,387
WA8ZNC	34,731
W9QL	33,660
K4MX	27,720
K7ACZ	18,408
KEØTT	15,087
KA7T	12,825

Single Operator, QRP, 15 Meters

KD9MS	67,914
NØUR	67,200

Single Operator Unlimited, High Power, 15 Meters

N1LN	626,520
WW3S	449,904
KM5G	333,216
WAØMHJ	226,368
K8TS	76,752
W1NG	73,800
NK6A	54,441
KO8Z	43,884
K5CI	40,512
NØSMX	16,464

Single Operator Unlimited, Low Power, 15 Meters

WA1FCN	165,984
W2UP	93,840
NU8A	88,821
VE3XD	54,876
VE1ANU	54,450
K3MTT	51,504
VE9BK	20,382
WØBF	15,000
KE8G	4,896
WV7S	4,680

Single Operator, High Power, 10 Meters

WA1Z (@KC1XX)	683,235
K2XA	436,356
K9BGL	435,600
N4OX	435,132
K1RM	431,892
K2PS	315,060
W2AW (N2GM, op)	307,671
K1TO	275,232
N4CW	228,000

N6KN	206,550

Single Operator, Low Power, 10 Meters

N8II	342,468
NC1CC (WA1BXY, op)	282,426
WB4TDH	223,272
K4AMC	110,925
WA5POK	92,250
KØXF	89,040
VA6WWW	75,810
N9DJ	72,240
N4HA	64,998
WB2AMU	59,160

Single Operator, QRP, 10 Meters

K3TW	55,242
KQ1P	25,116
KJ3M	20,193
WE6EZ	18,612
NØJK	15,132
W7USA	14,625
WØMB	7,104

Single Operator Unlimited, High Power, 10 Meters

VE5MX	500,904
K1JB	443,232
N6SS	424,944
N4ZZ	415,914
WB9Z	410,538
K6LL	400,500
K5KG	398,574
VE3NZ	392,544
W6YX (N7MH, op)	388,722
W4NZ	374,850

Single Operator Unlimited, Low Power, 10 Meters

W9XT	330,876
AI1TT (W1WBB, op)	208,464
N1DG	191,700
VE3GFN	178,281
N4IJ	171,120
KB3AAY	139,230
NØAX	137,808
K9CW	108,315
W8JGU	106,074
AB9YC	103,275

Single Operator Unlimited, QRP, 10 Meters

WC7S	36,936
K6GHA	31,350
K6JS	30,780
KS4YX	17,136
N9SE	12,261

Overall Results Outside the US and Canada

DX High Power

Nate, N4YDU, wins it all as the top World Single Combat Warrior – Single Operator High-Power. Kam, TI7W, invited Nate to Costa Rica for some serious contesting. Nate recalls, “It was great to start the contest with 10 and 15 meters open, this made for a fun first few hours. Kam continues to amaze me with the quality of his station and hospitality – he is awesome. It was nice to be back as a single op from DX for the first time since 2019. Congrats to 8P5A for a strong performance from his new station.” Nate’s first hour was clocked at 430 QSOs. “That’s a personal best for me by 56 QSOs.”

Overall Single-Operator All-Band High-Power Unassisted winner Nate, N4YDU, quite satisfied to be on his first Single-Op outing since before the global pandemic. [Nate Moreschi, N4YDU, photo]

In the A-Man-Needs-a-Project division, Tom, W2SC/8P5A, is no stranger to the most prestigious

category in this contest, even though you may not have heard him on the air much in recent years. “The old 8P5A had to be dismantled when the property I was renting was sold a couple years ago.” Tom took the opportunity to build a newer, bigger, better station. “This was the first contest from the new QTH after spending a very busy six months building a station on raw land, starting with no buildings or utilities.”

In the weeks leading up to the contest, Tom was not sure the station would be ready. “It was a hectic few days prior to the contest with a couple issues arising just hours before the start. Once resolved, the station was nearly event free during the entire contest.” Satisfied with his first go overall, Tom says he still has some work to do on the low bands, and temperature control inside the station, but he was pleased with how it performed. “Congratulations to Nate for a tremendous performance and a well-deserved win.”

Tom, W2SC, is building an all-new station for his contest efforts at 8P5A in Barbados. [Tom Georgens, W2SC, photo]

An impressive effort by Filipe, CT1ILT, to land in third place overall as CR6K. Most operators who do this are not operating from a country with 14 other stations on the air. This is quite a feat. “Conditions were simply at the best for the high bands,” Filipe wrote after the contest. “It was unfortunate 160 meters did not produce.” On the way to landing third place in the contest overall from his home in Portugal, Filipe set a new all-time record for Single-Operator High-Power in all of Europe.

An interesting dynamic unfolded during the race for World Single-Operator High-Power Unlimited, and so much credit is due to the European operators who pushed hard in this category. The winner, Felipe, NP4Z, essentially won it by accident. He is not in Europe, but in Puerto Rico where by rights he will do better than the stations across the Atlantic. Felipe started out without using assistance, but his operation got sideways. “There is something to be said about the stress at the beginning of the contest that makes you do stupid things or simply ignore the obvious,” Felipe was telling us after the contest. After he was finished laughing at himself for his mistakes (Felipe is a really good sport), he switched on the spotting network and entered as assisted. “The amazing propagation was hard to ignore. For a moment I wanted to operate a remote station in the states, and play with the whole world!”

Felipe admits the bands were so good he spent some time running JAs and other Asian stations because they kept calling and calling on 10 and 15 meters.

The race for 2nd place was All-Europe-All-The-Time. Rising above the rest, Nino, EB7A, exercised his new personal callsign from the great remote station built by Raul, EC7WR, in Cordoba. “Many thanks to Raul for his hospitality and maintenance of the station. It all performed perfectly.” Nino finished with a really huge number on 20 meters. He added that “the contest was super fun with such good conditions.”

Single Operator, High Power

TI7W (N4YDU, op)	7,341,915
8P5A (W2SC, op)	7,019,010
CR6K (CT1ILT, op)	6,119,712
TO4A (VE3DZ, op)	5,560,830
CR3DX	5,361,408
EF6T (EA3M, op)	5,278,338
EI7M (GD4XUM, op)	3,994,560
OK7W	3,783,780
KP2M (KT3Y, op)	3,681,600
EF1A (EA1X, op)	3,202,740

Single Operator Unlimited, High Power

NP4Z	5,359,860
EB7A	4,919,061
IR2Q (IK2PFL, op)	4,478,091
OM2VL	3,574,323
OX7AM (OZ7AM, op)	3,492,480
ES5RR	3,485,268
SN7Q (SP7GIQ, op)	3,256,200
G5W	3,223,548
NP2X (K9VV, op)	3,139,380
KH7M (NA2U, op)	3,086,982

DX Low Power

In the Unlimited category for Low-Power, John, W2GD, again piloted P44W to an overwhelming victory. “This young cycle is looking more and more like the real deal,” John reported, but bemoaned how, the better the conditions, the fewer stations in the USA are pointing their beams toward Aruba. The rest of the Top-Ten, with one-third of his score, would probably disagree. But then, nobody said it was a level playing field. John has been doing what works for decades, keeping a big smile on his face and giving USA stations a lot of great multipliers. “Already looking forward to next February,” he said, and he was smiling, I know.

A notable phenomenon this year: Once you move past the single-ops in the Caribbean and Latin America, the highest scoring Europeans after extreme western countries such as Portugal and Ireland are in the Czech Republic. Was it conditions? Was it Czech tenacity? Superior prowess? Can’t tell for sure, but OK7W, OM2VL and OL5Y put in great performances! Gotta give IR2Q credit for holding a spot in there, too. Luca loves the ARRL DX Contest and picked his new station location to favor the USA.

Ever-present IR2Q, the contest callsign for Luca, IK2PFL who loves the ARRL DX Contest. [Luca Babolin, IK2PFL, photo]

Single Operator, Low Power

FS/KO1A (IZ3EYZ, op)	4,067,226
VP2V/AA7V	3,313,800
EA5M	1,704,750
EA4KD	1,680,780
OL5Y	1,500,114
CO8NMN	1,327,332
JI1RXQ	982,176
VE4GV/6Y	961,245
JS1OYN	863,877
JA1BJI	830,592

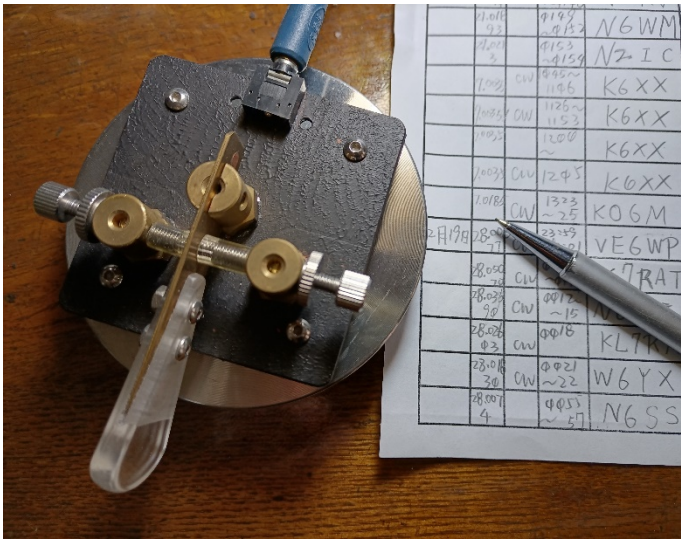
Single Operator Unlimited, Low Power

P44W (W2GD, op)	4,203,444
9A7T (9A2EU, op)	1,562,706
EC4TA	1,452,990
S52NR	1,446,480
MI5I (GIØRQK, op)	1,269,384
SN7O (SP7IVO, op)	1,203,015
DK5DQ	1,202,541
ED3Z (EA3ICJ, op)	996,837
F5NKX	857,241
JH1EAQ	829,464

DX QRP

The exceptional conditions brought out some great scores by stations outside the USA and Canada who ran five watts or less. “What conditions! This is what I was waiting for almost 20 years!” said Juan, EA8RM. Juan took his QRP rig, laptop, keyer and set up a portable station on 10-40 meters, running Single Operator QRP. “It was my first QRP contest but not the last.”

In the Single Operator QRP Unlimited, it was DL9EE controlling the remote station at DP7D to best LZ7X. Mitko acknowledges the stations who go the extra mile, “Thanks to everyone who has the patience to make QSOs with QRP stations.”



Gu, BD4LB, used this brilliant scratch-built paddle to pound out 19 hard-won QSOs from his home in QingDao City on the East coast of China, running only 20 watts. [Gu Huaqiang, BD4LB, photo]

Single Operator, QRP

EA8RM	882,504
DK7HA	561,450
LY9A	340,578
ZF2NZ (N6NZ, op)	247,008
LZ2RS	192,042
JH7UJU	182,910
7K1CPT	163,500
JQ1NGT	146,520
DM2DZM	136,590
DL1JDQ	124,875

Single Operator Unlimited, QRP

DL9EE	480,909
LZ7X	249,498
DL1EFW	189,000
JK7DWD	102,144
SFØA (SMØLPO, op)	91,350
EA5ICL	89,577
EA1AER	76,806
OA4ASD	65,793
IU3MIK	49,704
JK2VOC	43,068

DX Multi-Operator

Talk about rising to the top of your game, the winners of all four of the World Multi-Operator categories were repeat winners from 2022. Congratulations to all the operators at ZF1A, ZF5T, CR3W and PJ2T. Not only were they repeat winners from last year, but worthy of note:

- ZF1A has won World Multi-Single High Power 3 out of the past 4 years.
- ZF5T has won World Multi-Single Low Power for the past 4 years.
- PJ2T has won World Multi-Multi 3 times in the past 4 years.

For CR3W to win Multi-Two from Europe two years in a row, beating stations in the Caribbean, is an especially notable feat. The race for second place in Multi-Two was almost too close to call - KP4AA landed in second place by fewer than 2 contacts over third place TM6M, and by fewer than 10 contacts over fourth place T48K. That must have kept the log checkers busy, since their single goal is to ensure an honest order of finish.

Multioperator, Single Transmitter, High Power

ZF1A	6,967,230
P4ØL	6,180,624
PJ4A	5,957,823
VP5K	5,695,299
EA5RS	4,172,154
LZ5R	3,879,600
II2S	3,705,540
4A7S	3,643,752
TM7A	3,485,400
SP8R	3,315,123

Multioperator, Single Transmitter, Low Power

ZF5T	5,122,818
V3T	4,653,000
3Z1K	1,597,476
C6ANM	1,564,434
ES7A	848,100
7U7EE	164,160
BY4DX	85,848
F8KLY	80,100
PY1AA	72,324
JJ2YDV	34,680

Multioperator, Two Transmitter

CR3W	7,384,608
KP4AA	7,004,880
TM6M	7,003,752
T48K	6,994,896
KH6LC	6,011,766
P4ØN	5,610,528
ED1R	5,458,890
OMØR	4,872,375
DD2D	4,223,016
DR4A	4,045,440

Multioperator, Multitransmitter

PJ2T	9,316,566
KL7RA	6,565,440
9A1A	6,370,650
E7DX	5,779,227
LN8W	5,085,990
JA3YBK	3,337,284
JF1NHD	2,017,008

BD1KV	805,968
JA1YPA	205,056
YO3GNF	21,204

DX Single Bands

Delighted to hear he set the new record for the Netherlands on 10 meters as an Unassisted Single-Operator, Mark, PA4M enjoys this radio stuff. [PA4M, photo]

With conditions as good as they were for the contest, Mark, PA4M, seized the opportunity to lock in a new record for the Netherlands in the Single-Operator High-Power 10 Meters Unlimited category. “Thanks to KEØA for calling me and giving me the last missing US multiplier!” Mark was exuberant. “Although I did not hear any stations from YT, NT, NU or MB, I had a great time working so many NA stations on 10 meters.” Worthy of comment — Mark set this new record using only a trap tribander at about 50 feet.

Many single band records were challenged and surpassed this year with all the fantastic band conditions. All of that data is available by checking the ARRL’s contest portal at **contests.arrl.org**.

Back to Normal

It seems as though few pandemic-related fears of operating together remain, now that the dust seems to have settled. Most or all of the big multi-ops seem to have found their way through it. A couple more take-aways might be:

First, remote operation of a contest station appears to be here to stay, and the short version of how to reduce or remove the problems is best summed up by George, K5TR, “Talk to any online gamer — it is all about latency with any real-time application.”

The big story was the band conditions. What a contest! Operators get drawn into a few QSOs and … there goes the weekend! We hope you enjoyed the chance to look back on it, and even better, we hope you are inspired to see how many more contacts you can make next time, and with more places around the world. There were over 2.4 million contacts reported this year. Our game, at least, seems very healthy indeed. See you on the air! There is no end to the personal stories about what makes this contest great. See you on the air!

“It takes two or maybe three to pull off a good QSO. One is always the Prop Princess and her family: Momma Nature and Ol ’Man Sol. Then one or maybe two good operators,” said Dale, WC7S.

Get those antennas, radios and logging computers ready, the next ARRL DX CW contest is Feb. 17-18, 2024.

Regional Leaders

Boxes list call sign, score, and class:
M2 = Multioperator, Two Transmitter
MM = Multioperator, Multitransmitter
MSHP = Multioperator, Single Transmitter, High Power
MSLP = Multioperator, Single Transmitter, Low Power
SOHP = Single Operator, High Power
SOHP-10 = Single Operator, High Power, 10 Meters
SOHP-15 = Single Operator, High Power, 15 Meters
SOHP-160 = Single Operator, High Power, 160 Meters
SOHP-20 = Single Operator, High Power, 20 Meters
SOHP-40 = Single Operator, High Power, 40 Meters
SOHP-80 = Single Operator, High Power, 80 Meters
SOLP = Single Operator, Low Power
SOLP-10 = Single Operator, Low Power, 10 Meters
SOLP-15 = Single Operator, Low Power, 15 Meters
SOLP-160 = Single Operator, Low Power, 160 Meters
SOLP-20 = Single Operator, Low Power, 20 Meters
SOLP-40 = Single Operator, Low Power, 40 Meters
SOLP-80 = Single Operator, Low Power, 80 Meters
SOQRP = Single Operator, QRP
SOQRP-10 = Single Operator, QRP, 10 Meters
SOQRP-15 = Single Operator, QRP, 15 Meters
SOQRP-20 = Single Operator, QRP, 20 Meters
SOQRP-40 = Single Operator, QRP, 40 Meters
SOQRP-80 = Single Operator, QRP, 80 Meters
SOUHP = Single Operator Unlimited, High Power
SOUHP-10 = Single Operator Unlimited, High Power, 10 Meters
SOUHP-15 = Single Operator Unlimited, High Power, 15 Meters
SOUHP-160 = Single Operator Unlimited, High Power, 160 Meters
SOUHP-20 = Single Operator Unlimited, High Power, 20 Meters
SOUHP-40 = Single Operator Unlimited, High Power, 40 Meters
SOUHP-80 = Single Operator Unlimited, High Power, 80 Meters
SOULP = Single Operator Unlimited, Low Power
SOULP-10 = Single Operator Unlimited, Low Power, 10 Meters
SOULP-15 = Single Operator Unlimited, Low Power, 15 Meters
SOULP-160 = Single Operator Unlimited, Low Power, 160 Meters
SOULP-20 = Single Operator Unlimited, Low Power, 20 Meters
SOULP-40 = Single Operator Unlimited, Low Power, 40 Meters
SOULP-80 = Single Operator Unlimited, Low Power, 80 Meters
SOUQRP = Single Operator Unlimited, QRP
SOUQRP-10 = Single Operator Unlimited, QRP, 10 Meters
SOUQRP-15 = Single Operator Unlimited, QRP, 15 Meters
SOUQRP-20 = Single Operator Unlimited, QRP, 20 Meters
SOUQRP-40 = Single Operator Unlimited, QRP, 40 Meters

West Coast Region

(Pacific, Northwestern and Southwestern Divisions. Alberta, British Columbia, and TER Sections)

N9RV	5,325,600	SOHP
K7RAT (N6TR, op)	2,701,236	SOHP
K6XX	2,271,918	SOHP
N6TV	2,150,211	SOHP
K6NA	1,994,538	SOHP
VE6TN	874,161	SOLP
WA7NB	830,115	SOLP
K7NEW	487,080	SOLP
KS7T	360,477	SOLP
KJ9C	319,362	SOLP
W6JTI	497,502	SOQRP
W6QU (W8QZA, op)	256,035	SOQRP
N7JI	85,500	SOQRP
K7FR	46,137	SOQRP
N6HI	32,850	SOQRP
KU1CW	4,271,124	SOUHP
N6RV	2,187,645	SOUHP
N7XU	2,138,562	SOUHP
N7AT (K8IA, op)	1,939,722	SOUHP
K7QA	1,904,841	SOUHP
K6WSC	764,643	SOULP
NU7F	565,554	SOULP
N7UVH	266,976	SOULP
AA2IL	245,784	SOULP
W2XX	224,100	SOULP
K6TD	144	SOHP-160
W7RH	2,058	SOUHP-160
W6XI	891	SOUHP-160
N6SJ	396	SOUHP-160
W8KA	19,038	SOHP-80
W6RKC	3,744	SOHP-80

N7RK	6,561	SOUHP-80
K7PJT	14,523	SOHP-40
K7FA	2,001	SOUHP-40
W7WA	359,385	SOHP-20
N5CR	266,112	SOHP-20
N7TU	171,615	SOHP-20
W7TU	3,648	SOHP-20
W6SY	330	SOHP-20
KK7HXU	90	SOLP-20
KD6X	12,096	SOUHP-20
AB7R	648	SOULP-20
W7QF	243	SOULP-20
W6YA	395,472	SOHP-15
VE6UM	182,988	SOHP-15
W7GF	12,420	SOHP-15
N6HK	7,290	SOHP-15
WA7BNM	99,216	SOLP-15
WA8ZNC	34,731	SOLP-15
K7ACZ	18,408	SOLP-15
KA7T	12,825	SOLP-15
KW6AA	2,652	SOLP-15
NK6A	54,441	SOUHP-15
WØBF	15,000	SOULP-15
WV7S	4,680	SOULP-15
N6KN	206,550	SOHP-10
WS7L	182,400	SOHP-10
VE7NY	38,688	SOHP-10
K7IU	14,238	SOHP-10
N7XCZ	9,702	SOHP-10
VA6WWW	75,810	SOLP-10
K6FA	25,050	SOLP-10
WB7FJG	11,514	SOLP-10
WØOR	6,882	SOLP-10
NC6V	5,607	SOLP-10
W7USA	14,625	SOQRP-10
N6SS	424,944	SOUHP-10
K6LL	400,500	SOUHP-10
W6YX (N7MH, op)	388,722	SOUHP-10
W7RN (K5RC, op)	351,360	SOUHP-10
N7EPD	247,095	SOUHP-10
K6VHF	64,944	SOULP-10
K6OO	33,456	SOULP-10
K6MI	19,110	SOULP-10
N6MZ	15,453	SOULP-10
WB7BWZ	1,584	SOULP-10
K6GHA	31,350	SOUQRP-10
K6JS	30,780	SOUQRP-10
AA7A	3,937,626	MSHP
NX6T	3,739,239	MSHP
KM7W	3,209,256	MSHP
W7VJ	2,813,454	MSHP
W8TK	2,788,464	MSHP
ND7K	7,995,000	M2
N7DX	5,031,600	M2
N7IP	2,508,660	M2
KO6M	6,577,800	MM
VE7UF	5,098,464	MM

Midwest Region

(Dakota, Midwest, Rocky Mountain, and West Gulf Divisions. Manitoba and Saskatchewan Sections)

K5GN	6,498,144	SOHP
N2IC	6,094,620	SOHP
WXØB (AD5Q, op)	4,009,824	SOHP
N5AW	2,601,648	SOHP
WA2VYA	1,066,977	SOHP
KØEA	814,296	SOLP
VE5SF	636,165	SOLP
VE5ZX	489,216	SOLP
KNØV	393,054	SOLP
NØKK	391,503	SOLP

NDØC	419,175	SOQRP
N3CI	60,888	SOQRP
NO2D	26,316	SOQRP
KB4IRR	9,516	SOQRP
N8LA	8,721	SOQRP
N5RZ	3,356,520	SOUHP
KØEU	2,936,700	SOUHP
NØAV	2,668,152	SOUHP
KØAP	2,456,238	SOUHP
KØMD	2,171,415	SOUHP
AD5A	2,325,960	SOULP
KØRC	1,565,304	SOULP
AD1C	1,245,159	SOULP
KØKX	546,120	SOULP
WB5N	512,952	SOULP
K5NZ	426,570	SOUQRP
W7RY	73,872	SOUQRP
NA5M	1,932	SOUHP-80
KØKT	7,236	SOULP-80
N9HDE	10,209	SOLP-40
K7NJ	284,592	SOUHP-40
K5KJ	63,000	SOUHP-40
K5MXG	6,804	SOULP-40
N5JJ	116,724	SOHP-20
W5EB	1,122	SOLP-20
KØWOI	270	SOQRP-20
KØARY	1,386	SOUHP-20
WØEWD	385,296	SOHP-15
WØUO	262,476	SOLP-15
AI6O	96,279	SOLP-15
WNØL	42,387	SOLP-15
KEØTT	15,087	SOLP-15
NØUR	67,200	SOQRP-15
WAØMHJ	226,368	SOUHP-15
K5CI	40,512	SOUHP-15
W2UP	93,840	SOULP-15
N5NA	69,360	SOHP-10
WW5W	38,448	SOHP-10
WA5POK	92,250	SOLP-10
KØXF	89,040	SOLP-10
KZ5J	30,618	SOLP-10
W5LXS	26,775	SOLP-10
K5PX	25,137	SOLP-10
WE6EZ	18,612	SOQRP-10
NØJK	15,132	SOQRP-10
WØMB	7,104	SOQRP-10
VE5MX	500,904	SOUHP-10
NX5M	299,376	SOUHP-10
K5BG	287,040	SOUHP-10
KØVBU	213,333	SOUHP-10
W5TM	181,071	SOUHP-10
NØAX	137,808	SOULP-10
WØVX	56,280	SOULP-10
K7BG	49,980	SOULP-10
WBØWIV	5,916	SOULP-10
WC7S	36,936	SOUQRP-10
K5TR	6,181,839	MSHP
KS5Z	1,007,424	MSHP
VE4WSC	154,440	MSLP
NRØT	1,012,800	M2
KØRF	8,195,175	MM

Central Region

(Central and Great Lakes Divisions; Ontario East, Ontario North, Ontario South, and Greater Toronto Area Sections)

NA8V	4,931,640	SOHP
VE3AT	4,771,242	SOHP
W9RE	4,632,000	SOHP
VE3VN	3,708,456	SOHP
K8GL	3,214,728	SOHP
VE3TM	796,446	SOLP
W1NN	772,632	SOLP
VE3TG	662,220	SOLP
K4IE	634,674	SOLP
KV8Q	580,563	SOLP
K2YAZ	363,792	SOQRP
KB8PGW	100,497	SOQRP
VE3SIF	59,760	SOQRP
KD8BBK	11,928	SOQRP
AI9K	4,830	SOQRP
VE3EJ	6,550,578	SOUHP
W8MJ	3,656,088	SOUHP
K9NW	3,298,680	SOUHP
K1LT	2,973,696	SOUHP
K9IMM	2,926,314	SOUHP
KG9X	2,717,964	SOULP
WE9R	1,778,688	SOULP
VE3MGY	1,201,704	SOULP
VE3MV	929,070	SOULP
K9PW	826,956	SOULP
AA8CA	581,040	SOUQRP
K8ZT	213,672	SOUQRP
KB9RPG	107,448	SOUQRP
KU4A	81,753	SOUQRP
VE3HG	35,154	SOUQRP
K9ZO	37,125	SOHP-80
VE3SMA	5,952	SOLP-80
AC8CE	5,202	SOLP-80
N4EL	11,562	SOUHP-80
W8WTS	5,280	SOULP-80
K9AY	79,002	SOHP-40
K9CJ	65,490	SOHP-40
W8LJB	10,944	SOHP-40
W8RU	1,152	SOHP-40
N8CWU	34,020	SOLP-40
KC4WQ	20,736	SOLP-40
W8UE	20,100	SOLP-40
VA3EC	15,996	SOLP-40
N8QE	216	SOLP-40
N9LR	48,348	SOUHP-40
N9LQ	20,412	SOUHP-40
K4FN	56,283	SOULP-40
KB8ZYE	168	SOULP-40
K7TAR	72,759	SOHP-20
W8GOC	44,154	SOLP-20
VE3HLS	13,158	SOLP-20
VE3NNT	363,372	SOUHP-20
VA3AR	271,365	SOHP-15
K4WW	65,286	SOHP-15
KW9A	47,925	SOHP-15
W9QL	33,660	SOLP-15
W9KHH	4,950	SOLP-15
VE3IKV	2,448	SOLP-15
WA8OLD	1,794	SOLP-15
KD9MS	67,914	SOQRP-15
K8TS	76,752	SOUHP-15
KO8Z	43,884	SOUHP-15
W8EH	2,640	SOUHP-15
NU8A	88,821	SOULP-15
VE3XD	54,876	SOULP-15
KE8G	4,896	SOULP-15
K9BGL	435,600	SOHP-10

N9DJ	72,240	SOLP-10
WB8JAY	23,079	SOLP-10
KG4BIG	19,875	SOLP-10
W9AKS	9,009	SOLP-10
N9TO	108	SOLP-10
WB9Z	410,538	SOUHP-10
VE3NZ	392,544	SOUHP-10
KK9V	354,438	SOUHP-10
W9ILY	234,906	SOUHP-10
W9PA	157,638	SOUHP-10
W9XT	330,876	SOULP-10
VE3GFN	178,281	SOULP-10
K9CW	108,315	SOULP-10
W8JGU	106,074	SOULP-10
AB9YC	103,275	SOULP-10
N9SE	12,261	SOUQRP-10
AA9A	4,152,759	MSHP
K8AZ	4,098,105	MSHP
VE3YAA	2,645,460	MSHP
WE5P	770,868	MSHP
N4SS	3,409,182	MSLP
KA9FZR	192	MSLP
K9CT	10,421,010	M2
VE3JM	9,067,275	M2
W9VW	5,854,140	M2
K8LX	5,673,396	M2
VE3IC	956,175	MM

Southeast Region

(Delta, Roanoke, and Southeastern Divisions)

K4ZW	5,102,040	SOHP
NN7CW	4,791,393	SOHP
KØEJ	4,412,724	SOHP
K4AB	3,986,523	SOHP
K4BAI	2,372,520	SOHP
K4OAQ	1,656,324	SOLP
K1GU	1,016,178	SOLP
K8MR	992,085	SOLP
K5FUV	822,276	SOLP
WA5SOG	588,288	SOLP
K2DM	873,918	SOQRP
N7RCS	256,056	SOQRP
K4WY	190,344	SOQRP
NU4B	163,572	SOQRP
WB4GHZ	94,659	SOQRP
N2YO	6,031,650	SOUHP
N4AF	5,359,233	SOUHP
AD4EB	3,933,462	SOUHP
KØZR	3,537,408	SOUHP
K4PI	3,312,255	SOUHP
N4XL	2,334,360	SOULP
WA1S	1,852,389	SOULP
WA4PGM	1,830,213	SOULP
N4AO (WC4E, op)	1,162,083	SOULP
AD8J	877,536	SOULP
K7SV	412,965	SOUQRP
NK4O	199,584	SOUQRP
W4ER	100,497	SOUQRP
K4PQC	48,600	SOUQRP
W6FB	41,895	SOUQRP
N4XD	17,424	SOHP-160
N4PSE	2,208	SOHP-160
K3UU	396	SOHP-160
K2KW	7,245	SOUHP-160
NE8P	4,557	SOUHP-160
N4DE	972	SOUHP-160
W4PK	11,058	SOUHP-80
K7LU	10,164	SOULP-80
K3ORC	7,236	SOULP-80
W1RCR	228,897	SOHP-40
KU8E	155,520	SOHP-40
AD4TJ	32,760	SOHP-40
WN4AFP	63,918	SOLP-40

N4ARO	90	SOLP-40
K9OM	234,264	SOUHP-40
N4HB	123,444	SOUHP-40
N3AC	66,597	SOUHP-40
K4ZRJ	867	SOUHP-40
AA4NP	81,270	SOULP-40
AA8R	46,632	SOULP-40
W4VIC	18,081	SOULP-40
W4YV	1,827	SOULP-40
W4JKC	32,565	SOHP-20
K4RDU	6,954	SOHP-20
K4SXT	83,070	SOLP-20
KI4DEF	36	SOQRP-20
NW4V	23,115	SOULP-20
K9AXT	13,200	SOUQRP-20
K3DNE	21,285	SOHP-15
K4MX	27,720	SOLP-15
N1LN	626,520	SOUHP-15
KM5G	333,216	SOUHP-15
NØSMX	16,464	SOUHP-15
K4KKL	3	SOUHP-15
WA1FCN	165,984	SOULP-15
N4OX	435,132	SOHP-10
K2PS	315,060	SOHP-10
K1TO	275,232	SOHP-10
N4CW	228,000	SOHP-10
N4TB	167,427	SOHP-10
N8II	342,468	SOLP-10
WB4TDH	223,272	SOLP-10
K4AMC	110,925	SOLP-10
N4HA	64,998	SOLP-10
W4RYW	52,260	SOLP-10
K3TW	55,242	SOQRP-10
KJ3M	20,193	SOQRP-10
N4ZZ	415,914	SOUHP-10
K5KG	398,574	SOUHP-10
W4NZ	374,850	SOUHP-10
AG4W	220,281	SOUHP-10
K5RM	188,748	SOUHP-10
N4IJ	171,120	SOULP-10
W1ZZ	87,750	SOULP-10
N9TF	71,622	SOULP-10
K3JT	53,754	SOULP-10
KG4IGC	43,416	SOULP-10
KS4YX	17,136	SOUQRP-10
N4RV	5,547,690	MSHP
AD4ES	3,660,141	MSHP
W4TG	1,356,552	MSLP
W5GAD	485,928	MSLP
N4WW	9,706,788	M2
W4NF	8,254,176	M2
KT4XA	1,098,300	M2

Northeast Region

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

K5ZD	6,349,854	SOHP
K1ZZ	6,135,177	SOHP
VY2TT (K6LA, op)	5,257,074	SOHP
AA1K	5,117,817	SOHP
W1WEF	3,070,404	SOHP
N1UR	4,008,753	SOLP
K1TR	2,214,879	SOLP
K1VUT	1,921,608	SOLP
VE1RSM	883,224	SOLP
KX1E	742,203	SOLP
W1FJ	925,407	SOQRP
K1RO	457,272	SOQRP
WS2E	450,180	SOQRP
KO1H	260,631	SOQRP

WB2CPU	240,315	SOQRP
AA3B	9,024,696	SOUHP
K3WW	7,876,368	SOUHP
N3RS	6,084,759	SOUHP
N3RD	5,934,810	SOUHP
W8FJ	5,669,139	SOUHP
K1BX	4,195,785	SOULP
WO1N	2,462,112	SOULP
N1EN	2,073,600	SOULP
N4ZR	1,950,936	SOULP
W1QK	1,846,968	SOULP
KQ2RP	105,492	SOUQRP
K3MRK	55,200	SOUQRP
KW2A	15,075	SOUQRP
KC1DVT	4,356	SOUQRP
KM1R	7,548	SOHP-160
W1HIS	2,736	SOHP-160
K3JJG	1,650	SOUHP-160
WA3EKL	1,449	SOUHP-160
W3BGN	104,148	SOHP-80
W1HI	24,492	SOHP-80
VY2OX	24,021	SOHP-80
K1MC	12,402	SOHP-80
W3NO	49,920	SOUHP-80
WB2AIV	1,512	SOULP-80
N2MF	447,552	SOHP-40
KU2M	185,850	SOLP-40
WA3FAE	65,715	SOLP-40
K2UF	37,701	SOLP-40
N2JNZ	16,050	SOLP-40
VA2SG	4,779	SOLP-40
NN1DX	20,424	SOQRP-40
KA1IS	458,082	SOUHP-40
K1TZQ	207,144	SOUHP-40
VA1RST	65,736	SOUHP-40
W1FQ	23,364	SOUHP-40
K1IM	67,275	SOULP-40
K3GW	39,330	SOHP-20
AI3Q	2,997	SOHP-20
KM2DX	507	SOHP-20
K1EFI	33,630	SOLP-20
WX2N	31,758	SOLP-20
W2TZ	30,498	SOLP-20
KD2MI	21,216	SOLP-20
W3EH	1,953	SOLP-20
N2CG	24,192	SOUHP-20
NY6DX	77,847	SOULP-20
K2SSS	677,235	SOHP-15
KM3T (@KC1XX)	657,729	SOHP-15
KE3ZT	11,400	SOLP-15
K3JSJ	1,311	SOLP-15
KC1WD	168	SOLP-15
WW3S	449,904	SOUHP-15
W1NG	73,800	SOUHP-15
VE1ANU	54,450	SOULP-15
K3MTT	51,504	SOULP-15
VE9BK	20,382	SOULP-15
AC3JG	24	SOULP-15
WA1Z (@KC1XX)	683,235	SOHP-10
K2XA	436,356	SOHP-10
K1RM	431,892	SOHP-10
W2AW (N2GM, op)	307,671	SOHP-10
N1IX	137,700	SOHP-10
NC1CC (WA1BXY, op)	282,426	SOLP-10
WB2AMU	59,160	SOLP-10
VA2AN	35,910	SOLP-10
VY2LI	15,621	SOLP-10
W2NR	4,440	SOLP-10

KQ1P	25,116	SOQRP-10	W3ZGD	1,869,120	MSHP
K1JB	443,232	SOUHP-10	W1FM	1,155,018	MSLP
VO2AC	347,193	SOUHP-10	NJ1F	639,540	MSLP
KN2M	209,352	SOUHP-10			
N2OO	197,859	SOUHP-10	W3LPL	14,524,974	M2
VE2EBK	47,775	SOUHP-10	W2FU	11,188,023	M2
			VA2WA	10,025,271	M2
AI1TT (W1WBB, op)	208,464	SOULP-10	N2AA	9,022,572	M2
N1DG	191,700	SOULP-10	K2AX	7,957,218	M2
KB3AAY	139,230	SOULP-10			
VO1HP	62,568	SOULP-10	K1LZ	17,596,626	MM
K1IR	56,283	SOULP-10	K3LR	16,864,284	MM
			K1RX	11,552,568	MM
K9RS	6,946,710	MSHP	K1TTT	11,375,760	MM
K2LE	4,038,375	MSHP	N1RR	8,156,145	MM
KQ3F	4,005,276	MSHP			
K3PH	3,874,176	MSHP			