

# CW Results of the 2021 CQ World Wide DX Contest

## *The CQWW Fills the Bands — Again!*

*“My first contest from home using an L-match to a rain spout! But it was the CQWW and always great fun! –DM5US*

BY JOHN DORR,\* K1AR

If there is any doubt that you’ve seen the last of the CW glory days, don’t give up hope just yet. All one needs to do is to listen to the bands during a CQWW CW contest and you’ll discover that our cherished mode is still alive and well. It was no different in the running of the 73<sup>rd</sup> CQWW. The bands were jam-packed from end-to-end with contest activity; 20 and 15 meters experiencing activity well above 14/21.100 MHz.

Of course, another measure of activity is the number of logs we receive. On CW, 8,613 logs were received, bringing the “both modes” total for 2021 to 17,720 entries — a new record for the CQWW. These logs represent over 9.6M (million) total QSOs or an average of 522 contacts per log. The numbers are simply staggering.

One of my favorite parts of this job is reading your soapbox comments. Believe it or not, I read them all! You can do so for yourself by checking out <[cqww.com/results](http://cqww.com/results)>. Here’s just a representative sample, reflecting the enthusiasm and excitement created by the CQWW each year:

*“This was my first CQWW in 62 years of hamming! It was fun to see what could be done with low power and very modest antennas.” –K7ZX*

*“Every QSO is a sip of joy when made with 5 watts.” –ON6NL*

*“I really had a ball this year and enjoyed working all bands. What a nice contest!” –PA3DTR*

*“... It’s amazing when 40,000 friends get on the air and make some noise!” –K5GN*



*Here’s the PJ2T team that won World #1 in Multi-Multi from Curacao. Kneeling from left to right were: Roger, G4BVY; Geoff, WØCG/PJ2DX; Rich, NN3W; Jon, KL2A. Standing left to right were: Martin, G4XUM; Pete, K8PGJ; Brooke, N2BA; Ray, ND8L; and Rich, M5RIC.*

So, now that the case has been made for the CQWW being a great contest, let’s move on to the results.

### **Some Fantastic Results this Year!**

While band conditions weren’t quite as good as they were during the SSB weekend, there was still plenty of excitement and fun to be had by all on CW. The impact was felt from an increase in multi-op entries (2021 – 298; 2020 – 191). Let’s all hope they’ll be back in full force for 2022.

The World Single Operator race was dominated, yet again, by perennial top-finisher Dan Craig, N6MJ, as he drove

the T17W superstation to a dominant victory at 16.1M, besting the amazing effort by CR6T (op. CT11LT) at 12.1M. Dan perfectly played the 2BSIQ (Two Band Synchronized Interleaved QSOs) game to a grand total of 11,300 QSOs. That’s an average of 235 QSOs/hour for the entire 48-hour contest! If you want to hear what his 464-hour sound-effect like, take a listen to <<https://tinyurl.com/4cpfd93v>>.

The U.S. Single-Operator All Band (SOAB) results were also led by another top-tier operator, Kevin Stockton, N5DX, who piloted N2QV to a 10.1M win, besting super-op W1KM who came in second at 7.5M. It’s worthy of note

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that several non-East Coast stations made the Top-10 this time around, led by N2IC (NM) at 5.7M, W9RE (IN) at 5.2M, and N9RV (MT) at 4.5M. Congrats to all!

The SOAB Low Power (LP) category was a little closer as Bud, AA3B, fired up his V26K station, achieving a final tally of 11.5M, beating out the SSB SOABHP winner, Juan, EA8RM, who posted an impressive score of his own at 10.9M. Bud has enjoyed an amazing run from Antigua, hav-

ing won this category 16 times in the past 23 years. It finally took a pandemic to end his last winning streak at seven consecutive victories.

The SO Assisted race was won again by P44W (W2GD) who continues to travel to Aruba each year and post winning results. John's 11.9M final score bested outstanding op Stan, ZF5T (K5GO)'s, solid effort of 9.0M. Randy, K5ZD, led the U.S. field again with a terrific score of 8.9M, coming in third in the world.

## 2021 WWDX CW PLAQUE WINNERS AND DONORS

### SINGLE OPERATOR, ALL BANDS

#### World

**T17W (Opr.: Dan Craig, N6MJ)**  
Donor: Vibroplex

**World - Low Power**  
**V26K (Opr.: Bud Trench, AA3B)**  
Donor: Slovenia Contest Club

**World - QRP**  
**PZ5CO (Opr.: Dimitry Kryukov, RA3CO)**  
Donor: Bob Evans, K5WA

**World - Assisted**  
**P44W (Opr.: John Crovelli, W2GD)**  
Donor: Robert McGwier, N4HY

**World - Assisted Low Power**  
**P3AA (Opr.: Sergey Popov, RN3QO)**  
Donor: Mike Charteris, VK4QS

**World - Assisted QRP**  
**DM2M (Opr.: Pit Schmidt, DK3WE)**  
Donor: Steve "Sid" Caesar, NH7C

#### U.S.A.

**Kevin Stockton, N5DX**  
Donor: Frankford Radio Club

**U.S.A. - Low Power**  
**Mark Speck, KØEJ**  
Donor: North Coast Contesters

**U.S.A. - QRP**  
**Doug Zwiebel, KR2Q**  
Donor: Andy Blank, N2NT - W3ZZ Memorial

**U.S.A. - Assisted**  
**Randy Thompson, K5ZD**  
Donor: John Rodgers, WE3C

**U.S.A. - Assisted Low Power**  
**Jim Bowman, KS1J**  
Donor: LA8W/LN8W & LA Contest Club

**U.S.A. - Zone 3**  
**Bob Wolbert, K6XX**  
Donor: Arizona Outlaws Contest Club

**U.S.A. - Zone 4**  
**Steve London, N2IC**  
Donor: Central Texas DX and Contest Club - K6RV Memorial

**U.S.A. - Zone 5**  
**Greg Cronin, W1KM\***  
Donor: Carolina DX Association - N4ZC Memorial

**Europe**  
**CR6K (Opr.: Filipe Lopes, CT1ILT)**  
Donor: Florida Contest Group - W3AU Memorial

**Europe - Low Power**  
**IY3A (Opr.: Matteo Marzilli, IZ3EYZ)**  
Donor: Tim Duffy, K3LR

**Europe - QRP**  
**Tine Brajnik, SØØA**  
Donor: Sergio Cartoceti, IK4AUY - I4FAF Memorial

**Europe - Assisted**  
**ERØDX (Opr.: Sergiy Rebrov, UT5UDX)**  
Donor: IR4X Monte Capra Contest Team - I4IND Memorial

**Africa**  
**Juan Hidalgo, EA8RM**  
Donor: Ralph "Gator" Bowen, N5RZ - K5KA Memorial

**Asia**  
**Masaki Masa Okano, JH4UYB**  
Donor: DFW Contest Group - W5PG Memorial

**Carib./C.A. - High Power**  
**V48A (Opr.: Bob Brockman, WX4G)\***  
Donor: DFW Contest Group - W5PG Memorial

**Carib./C.A. - Low Power**  
**VP9I (Opr.: Jeff Kinzli, N6GQ)\***  
Donor: Albert Crespo, NH7A

**Oceania**  
**VK6T (Opr.: Kevin Smith, VK6LW)**  
Donor: Ken Hoppe, KH7R

**Oceania - Assisted**  
**John Hillyer, NH7T**  
Donor: Koa Contest Club

**South America**  
**Alexey Ogorodov, HC2AO**  
Donor: Dave Farnsworth, WJ2O

**South America - Southern Cone (CE, CX, LU)**  
**CB3R (Opr.: Dercel Gonzalez (Willy) Williams, XQ3SK)**  
Donor: Dale Long, N3BNA

**Scandinavia (LA, OH, OZ, SM)**  
**Seppo Sisatto, OH1VR**  
Donor: Chas Weir, Jr., W6UM - W3FYS Memorial

**Baltic (ES, LY, YL)**  
**Jonas Urbonas, LY4T**  
Donor: Lithuanian Radio Sports Federation - LY2OO Memorial

**Canada - High Power**  
**VE2IM (Opr.: Yuri Onipko, VE3DZ)**  
Donor: John Sluymmer, VE3EJ & Jim Roberts, VE7ZO

**Canada - Low Power**  
**Igor Mordick, VA3FF**  
Donor: Maritime Contest Club - VE1AL Memorial

**Japan - High Power**  
**JE8RPM (Opr.: Katsuhiko Kondou, JH5GHH)\***  
Donor: Phil Yasson, AB7RW

**Japan - Assisted**  
**Hajime Hazuki, JR2GRX**  
Donor: Aki Nagi, JA5DQH

**ASEAN (XZ, HS, XW, XU, 3W, 9M, 9V, V8, YB, DU)**  
**Nikom Deesai, HS5NMF**  
Donor: Champ C. Muangamphun, E21EIC - Siam DX Group

**ASEAN (XZ, HS, XW, XU, 3W, 9M, 9V, V8, YB, DU) - Assisted**  
**Ron Schiltmans, DU3T**  
Donor: Champ C. Muangamphun, E21EIC - Siam DX Group

### SINGLE OPERATOR, SINGLE BAND

**World - 28 MHz**  
**PR5B (Opr.: Alan Laure Santamaría, PY2LSM)**  
Donor: Joel Chalmers, KG6DX

**World - 21 MHz**  
**PX2A (Opr.: Fabio Alexandre Azevedo, PY2BK)**  
Donor: CWOps

**World - 14 MHz**  
**OH8X (Opr.: Pasi Luoma-aho, OH6UM)**  
Donor: North Jersey DX Assn. - W2JT Memorial

**World - 7 MHz**  
**KP2M (Opr.: Phillip Allardice, KT3Y)**  
Donor: John Rodgers, WE3C

**World - 3.5 MHz**  
**4L/LY4ZZ (Opr.: Algis Sadaunikas, LY2BMX)**  
Donor: Family of Fred Capossela, K6SSS

**World - 1.8 MHz**  
**NP2J (Opr.: Daniel Flaig, K8RF)**  
Donor: Kenneth Byers, Jr., K4TEA

**U.S.A. - 28 MHz**  
**Jeff Stuparits, W4DD**  
Donor: John Rodgers, WE3C

**U.S.A. - 21 MHz**  
**Marvin Bloomquist, N5AW**  
Donor: Adrian Ciuperca, KO8SCA

**U.S.A. - 14 MHz**  
**Dan Handa, W7WA**  
Donor: Northern Illinois DX Association

**U.S.A. - 7 MHz**  
**Brian Edward, N2MF**  
Donor: Gene Shablygin, W3UA

**U.S.A. - 3.5 MHz**  
**K2ZW (Opr.: Hajime Kato, JO1RUR)**  
Donor: Bill Feidt, NG3K

**U.S.A. - 1.8 MHz**  
**John M Slusser, WF2W**  
Donor: Jeff Briggs, K1ZM

**Europe - 28 MHz**  
**Lluís Presseguer Capdevila, EA3NO**  
Donor: Jay Pryor, K4OGG

**Europe - 21 MHz**  
**Dmytro Pavlik, UZ5DX**  
Donor: John Rodgers, WE3C

**Europe - 14 MHz**  
**DMØA (Opr.: Heiko Marschollek, DK3DM)**  
Donor: World Wide Radio Operators Foundation

**Europe - 7 MHz**  
**4O3A (Opr.: Dragan Djordjevic, 4O4A)**  
Donor: Ivo Pezer, 9A3A

**Europe - 3.5 MHz**  
**OHØTA (Opr.: Pekka Holstila, OH2TA)**  
Donor: Frankford Radio Club - K3VW Memorial

**Europe - 1.8 MHz**  
**S5ØC (Opr.: Sine Mermal, S53RM)**  
Donor: Pat Barkey, N9RV & Terry Zivney, N4TZ

**Asia - 14 MHz**  
**UPØL (Opr.: Vladimir Vinichenko, UN9LW)**  
Donor: Ralph "Gator" Bowen, N5RZ - W5FO Memorial

**Asia - 7 MHz**  
**UP4L, Valeriy Zhilyayev, UN7LZ**  
Donor: Rich Gelber, K2WR

**Carib./C.A. (21 MHz)**  
**WP4WW (Opr.: Jose A. Rivera-Salaman, KP4JRS)\***  
Donor: David Hodge, N6AN

**Canada (14 MHz)**  
**Gabor Horvath, VE7JH**  
Donor: John Sluymmer, VE3EJ

**Japan - 21 MHz**  
**Akito Nagi, JA5DQH**  
Donor: Bob Wilson, N6TV

**Japan - 14 MHz**  
**Tsutomu Kubota, JK1OLT**  
Donor: Chris Terkla, N1XS

### OVERLAY CATEGORIES

**World - Classic**  
**Doug Grant, K1DG**  
Donor: CWOps

**U.S.A. - Classic**  
**W4CB (Opr.: Bud Hippisley, W2RU)\***  
Donor: CWOps

Despite conditions being slightly down from SSB, LU2DX still managed to make 1,910 QSOs on 10 meters to place first with a score of 670,000 (K). The “money” bands of 15 and 20 meters supported million+ winning scores from ZY5T (PP5JR) and ED8W (EA1DAV), respectively.

The Classic overlay folks were also out in force this time around as Doug, K1DG, captured the World high with a HP score of 3.5M. Winning the world from the U.S. is no easy

feat. One of our accuracy champions this year, VP9I (N6GQ), outpaced his competitors with a LP entry of 2.9M.

As already mentioned, the bands were again alive with multi-ops. It began to feel like the old days as P33W posted a 23M Multi-Single score, beating LZ5R by over 8M points. W3LPL stepped back from its usual Multi-Multi (MM) configuration to win U.S. Multi-Single with a fine score of 14.2M. The Multi-Two (M2) teams were led by the CR3DX team, who

**Japan – Classic**  
Kunishige Shimokawa, JA6BZI  
Donor: Hajime Kato, JO1RUR

**World – Rookie**  
LS2D (Daniel Dours, LU1DJK)  
Donor: CWops

**U.S.A. – Rookie**  
Stan Swanson, W4SSF  
Donor: CWops

**Europe – Rookie**  
Serge Kurskov, EU1VA  
Donor: EA Contest Club

**ASEAN (XZ, HS, XW, XU, 3W, 9M, 9V, V8, YB, DU) - Rookie**  
Setio Wahono, YC4SIZ  
Donor: Champ C. Muangamphun, E21EIC - Siam DX Group

**World – Youth**  
Janko Mihailovic, YT0C  
Donor: Zoli Pitman, HA1AG

**North America – Youth**  
Dawson Morton, KE8HBV  
Donor: IARU Region 2 for YOTA

**Europe – Youth**  
Sven Lovric, DJ4MX  
Donor: IARU Region I Youth Working Group

**Asia – Youth**  
Riku Suda, JR2KHB  
Donor: YOTA Japan

**Oceania – Youth**  
Karunya Saka Listianto, YD2UWF  
Donor: IARU Region 3

**World – Explorer Single Operator**  
9G5FI (Opr.: Tom Hitzner, DL2RMC)  
Donor: World Wide Radio Operators Foundation

**World – Explorer Multi-Operator**  
RW0A (Oprs.: RA0AM, RA0AAC, R0AI, RG0A, RM0A, RU0A, RU0AM, RV0AR, RW0AR, RZ0AT, UA0APV, UF0B, RC9O, UA9PM, RA9P, R9IR, RM9I, RU9I, RC9HB, RC9HC, RW9USA, RV9UP, UA9UR, RZ9UN, RK9UE, RA9USU, RX9UK)  
Donor: World Wide Radio Operators Foundation

**MULTI-OPERATOR, SINGLE TRANSMITTER**

**World**  
P33W (Oprs.: RA3AUU, RW4WR, UA4FER, R4FO, R3DCX, RA2FA)  
Donor: Friends of Rich - KL7RA Memorial

**World – Low Power**  
FY5KE (Oprs.: F5HRY, FY5FY, F6FVY)  
Donor: EA Contest Club

**U.S.A.**  
W3LPL (Oprs.: W3LPL, N11N, K3MM, N3OC, K3RA, W3UR, NN3W, WR3Z, KD4D)  
Donor: Douglas Zwiebel, KR2Q

**U.S.A. – Low Power**  
K1XM (Oprs.: K1XM, K1F)  
Donor: CWops

**Africa**  
CR3X (Oprs.: R7KW, RW7K, YL3JM)  
Donor: World Wide Radio Operators Foundation

**Asia**  
RA9Y (Oprs.: RA9Y, RW9OW, RZ9YI, RL9Y, R8OA, R8OM, R09O, RQ9O)\*  
Donor: Steve Merchant, K6AW

**Carib./C.A.**  
ZF1A (Oprs.: W9KKN, K16RRN, KN8U, WD6T, NT6V, N2NL)  
Donor: CWops

**Europe**  
LZ5R (Oprs.: LZ1NK, LZ2HM, LZ2PL, LZ2XA, LZ3ND, LZ3ZZ, LZ5DB)  
Donor: Gail Sheehan, K2RED

**Europe – Low Power**  
DP7D (Oprs.: E79AA, DH6JL, DH8AF, DC9RI, DL1REM, DJ4MH)  
Donor: Marco Holleyn, DJ4MH

**Oceania**  
DX9EVM (Oprs.: DU9XL, DU9CA, DU9HRG, DV9ARA, DV9BTO, DU9AQB, DV9ILK)  
Donor: Junichi Tanaka, JH4RHF

**South America**  
PJ4A (Oprs.: KU8E, K4BAI, PJ4NX)  
Donor: Araucaria DX Group

**Canada**  
VE3EJ (Oprs.: VE3EJ, VE3EK, VE3MM, VE5MX)  
Donor: John Sluymmer, VE3EJ - VE3TA Memorial

**Japan**  
JA7ZFN (Oprs.: JH7XMO, JG7PSJ, JI7GBI, JP7DKQ, JA1CTB)  
Donor: Madison Jones, W5MJ

**ASEAN (XZ, HS, XW, XU, 3W, 9M, 9V, V8, YB, DU)**  
E2A (Oprs.: E24OYI, E25KAE, E29TGW, E20NKB, E21EIC)  
Donor: Bruce Frahm, K0BJ

**MULTI-OPERATOR, TWO TRANSMITTERS**

**World**  
CR3DX (Oprs.: OM2VL, OM3BH, OM3GI, OM3RM, RC5A)  
Donor: Array Solutions

**U.S.A.**  
KC1XX (Oprs.: K1CC, K1QX, K1TR, KM3T, KC1XX, N1EZ, NN1C, W1FV, WA1Z)  
Donor: Robert Kasca, S53R

**Europe**  
ES9C (Oprs.: ES2MC, ES2NA, ES2RR, ES4RD, ES5JR, ES5NY, ES5QA, ES5RY, ES5TV, ES6QC, ES7GM, OK1JD, OZ1AA, OZ7AM, SM0OEK, YL3DW, YL3JA)  
Donor: D4C Monteverde Contest Team - IR4X Monte Capra Contest Team - 14EAT memorial

**ASEAN (XZ, HS, XW, XU, 3W, 9M, 9V, V8, YB, DU)**  
7A2A (Oprs.: YB0ECT, YC1SDL, YB2DX, YB2XVT)  
Donor: Champ C. Muangamphun, E21EIC - Siam DX Group

**MULTI-OPERATOR, MULTI TRANSMITTER**

**World**  
CR3W (Oprs.: DJ2YA, DK7YY, DL1CW, DL5AAX, DL5CW, DL5LYM, DL7UGN)  
Donor: The K2GL Operators - K2GL Memorial

**U.S.A.**  
K3LR (Oprs.: K3LR, DL1QQ, K4RO, K3UA, N2NC, W2RQ, N3SD, K5GN, N4YDU, N6TV, N6AN, N3GJ)  
Donor: Ham Radio Outlet - W6RJ & N6RJ Memorial

**Europe**  
TK0C (Oprs.: S53F, S53MM, S53BB, S53CC, S53WW, S53RM, S53ZO, S57AL, S57L, S57K, S55OO)  
Donor: Finnish Amateur Radio League

**Africa**  
3B8M (Oprs.: G0CKV, M0SDV, M0CFW, KX7M, W6NV)\*  
Donor: EA9EO Memorial

**Asia**  
JA3YBK (Oprs.: JG3KIV, JG3MRT, JG3WDN, JH4NMT, JR4ISF, JF4FUF, JM4MGM)  
Donor: Nodir Tursun-Zade, EY8MM

**CONTEST EXPEDITIONS**

**World – Single Operator**  
C56XA (Opr.: Alan Ibbetson, G3XAQ)  
Donor: Friends of Phil - N6ZZ Memorial

**World – Multi Operator**  
9X4X (Oprs.: 4X1VF, 4Z1DZ, 4Z4KX, 4Z5MU, 4Z5LA)  
Donor: CWops

**SPECIAL AWARDS**

**World SSB/CW Combined**  
Juan Hidalgo, EA8R  
24,349,929  
Donor: Hrane Milosevic, YT1AD

**U.S.A. SSB/CW Combined**  
Robert L. Shohet, KQ2M  
13,324,236  
Donor: Bob Shohet, KQ2M

**Europe SSB/CW Combined**  
Richard Tucek, OM7RU  
5,403,595  
Donor: World Wide Radio Operators Foundation

**Triathlon Award - World RTTY/SSB/CW Combined**  
Yuri Onipko, VE3DZ  
20,390,645  
Donor: DX Lodge Roatan (HQ9X)

**Triathlon Award - Europe RTTY/SSB/CW Combined**  
Andrius Ignotas, LY7Z  
15,540,569  
Donor: Bavarian Contest Club – DL8WXPX Memorial

**World Combined SSB/CW Score 160 Meters**  
NP2J (Opr.: Daniel Flaig, K8RF)  
232,644  
Donor: Team IB97/IR9Y - IT9ZGY Memorial

**World Combined SSB/CW Score Multi-Operator Multi-Transmitter**  
PJ2T (Oprs.: W0CG, NN3W, KL2A, G4BVI, G4XUM, M5RIC, K8PGJ, N2BA, ND8L, K1EP, NG7M, K08SCA, Y08WW, AC6ZM, N6AA, WI9WI, VE4GV)  
57,162,464  
Donor: Friends and Family of Gene – N2AA Memorial

**CLUB**

**U.S.A. SSB/CW**  
Frankford Radio Club  
407,770,996  
Donor: Northern California Contest Club

**DX SSB/CW**  
Bavarian Contest Club  
278,153,499  
Donor: John Rodgers, WE3C

\*Second Place





achieved a tremendous score of 31.1M. The MM giants were dominated by the effort of CR3W, beating the PJ2T group with a final score of 36.6M. The U.S. presence was alive and well with the K3LR group back on the air again as a MM, placing fifth in the world and first in the U.S. at 21.7M.

A well-deserved set of kudos go out to those of you who participated in our new overlays: Youth and Explorer. As a reminder, the Explorer overlay has been created to allow amateurs to competitively participate in the CQWW Contest while experimenting creatively with internet-linked stations and other new technologies. The goal is to encourage innovation in operating

strategies, station design, and technology adaptation.

It was exciting to see first-time Youth entry Janko, YTØC (YU3EEA), handily win the HP category with a final tally of 2.9M and Sven, DJ4MX, top the LP list with score of 2.4M. Our Explorers were out in force as 22 entries checked out the new category won by 9G5FI (SO) and RWØA (MO).

Finally, congratulations to this year's club winners — the Frankford Radio Club (U.S.) and the Bavarian Contest Club (DX). The number of club entries continues to grow as we received entries from 74 U.S.-based groups and 211 DX organizations. The criteria for being a valid club entry is simple: Any group with

**UNITED STATES  
SINGLE OPERATOR  
HIGH POWER**

**All Band**

N5DX (@N2QV).....	10,090,280
W1KM.....	7,479,282
KQ2M.....	6,595,160
N2IC.....	5,757,054
NN7CW.....	5,314,569

**28 MHz**

W4DD.....	24,420
K4WI.....	20,591
KJ9C.....	13,965

**21 MHz**

N5AW.....	537,180
KU2M.....	507,702
K2SSS.....	358,730

**14 MHz**

W7WA.....	455,295
N7TU.....	422,890
W6YA.....	389,532

**7 MHz**

N2MF.....	864,912
W7RM (N6TR).....	663,375
NN1N.....	572,859

**3.5 MHz**

K2ZW (JO1RUF).....	387,226
W3BGN.....	163,125
K9ZO.....	161,200

**1.8 MHz**

WF2W.....	41,625
W5ZN.....	33,291
N4XD.....	16,711

**LOW POWER  
All Band**

KØEJ.....	2,538,729
N4TZ.....	1,897,198
K4OAO.....	1,424,505
K1VUT.....	1,348,704
N8ll.....	1,342,920

**28 MHz**

K8FF.....	9,108
N4HA.....	4,968

**21 MHz**

WB4TDH.....	201,480
W1MU.....	122,520
W8JGU.....	70,914

**14 MHz**

WA7BNM.....	93,100
N6MA.....	76,410
W2TZ.....	63,578

**7 MHz**

W3EF.....	138,990
WA1FCN.....	137,830
W1NN.....	102,960

**3.5 MHz**

W3LL.....	69,635
NGØC.....	10,620

**1.8 MHz**

WD8DSB.....	1,656
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**QRP  
All Band**

KR2Q.....	888,998
N3CZ.....	449,350
W6JTI.....	278,710
NDØC.....	203,625
WB2CPU.....	125,741

**21 MHz**

KW7R.....	15,488
KH6KG/W5.....	8,060
KF4AV.....	5,838

**14 MHz**

NK3U.....	87,300
K2GMY.....	15,876
N1AIA.....	15,372

**7 MHz**

AC2YD.....	33,046
N5ER.....	16,640

**3.5 MHz**

WØCW.....	9,844
KQ2RP.....	3,280

**ASSISTED  
HIGH POWER  
All Band**

K5ZD.....	8,943,750
K1ZZ.....	8,145,450
K3WW.....	7,359,330
AA1K.....	6,951,717
N3RS.....	6,413,205

**28 MHz**

N6SS.....	24,217
KU5B.....	12,430
K5FP.....	6,396

**21 MHz**

WB9Z.....	438,087
N7AT (K8IA).....	360,503
N4ZR.....	304,260

**14 MHz**

W8AV.....	445,704
W2UP.....	298,112
N5YT.....	262,636

**7 MHz**

NA3M.....	871,998
W1VE.....	593,640
WA3C.....	429,918

**3.5 MHz**

K9GS.....	293,733
W3NO.....	170,496
WA1T.....	147,196

**1.8 MHz**

N1PGA.....	26,122
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K2KW.....	17,608
W8UVZ.....	15,870

**ASSISTED  
LOW POWER  
All Band**

KS1J.....	2,042,975
NF3R.....	1,837,374
W3KB.....	1,710,345
W1QK.....	1,610,308
N1EN.....	1,476,540

**28 MHz**

NJ4Q.....	1,612
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**21 MHz**

W9XT.....	231,012
N3UA.....	123,318
WF7T.....	72,800

**14 MHz**

K4FN.....	47,544
K2RK.....	45,153
N2EIM.....	27,477

**7 MHz**

AA4NP.....	54,684
KØXP.....	54,611
W4RN.....	48,925

**3.5 MHz**

N4IJ.....	81,782
WB2AA.....	48,380
KU1N.....	20,060

**1.8 MHz**

K4YJ.....	2,790
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**ASSISTED  
QRP  
All Band**

K8ZT.....	415,820
KR4AE.....	104,139
N4NM.....	41,846
KA4RRU.....	15,288
KG7CW.....	11,900

**21 MHz**

KG1E.....	11,776
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**14 MHz**

W2VRK.....	21,483
K9AXT.....	9,486

**3.5 MHz**

N6MZ.....	1,886
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**MULTI-OP  
SINGLE TRANSMITTER  
High Power**

W3LPL.....	14,233,680
K1LZ.....	13,441,032
W2FU.....	9,683,139
K9RS.....	7,498,491
K8AZ.....	7,295,499

**Low Power**

K1XM.....	3,546,447
NJ4P.....	2,350,560

K1RQ.....	398,970
KT4XA.....	206,114
W1FM6.....	9,424

**MULTI-OP  
TWO TRANSMITTER**

KC1XX.....	17,591,384
K9CT.....	11,848,431
N4WW.....	11,145,765
K1RX.....	11,126,227
ND7K.....	8,072,136

**MULTI-OP  
MULTI-TRANSMITTER**

K3LR.....	21,666,486
NR4M.....	16,390,766
K1TTT.....	13,880,754
KØRF.....	8,302,584
K1KI.....	6,995,950

**EXPLORER  
SINGLE-OP**

W6CZ.....	121,912
KB2S.....	34,625
N1RBD.....	3,977

**EXPLORER  
MULTI-OP**

W9SN.....	10,080,180
W5NN.....	601,236

**ROOKIE  
High Power**

W4SSF.....	443,256
KD9PLD.....	364,180
AC3LZ.....	110,143
W6DMW.....	10,010

**Low Power**

N3AML.....	57,986
W1VKE.....	34,404
KD9OIN.....	11,520
KD2SGM.....	9,063
W7VC.....	6,815

**CLASSIC  
High Power**

K1DG.....	3,547,492
W4CB (W2RU).....	2,414,160
W1WEF.....	2,357,783
K2NV.....	1,916,112
K9MA.....	1,569,006

**Low Power**

N8ll.....	1,341,780
WQ5L.....	704,536
N1DC.....	670,677
K1HT.....	667,926
WB8JUI.....	507,863

**YOUTH  
High Power**

KE8HBV.....	85,932
W7AOF.....	51,182

**Low Power**

KG5HVO.....	35,061
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Category	Table 2A							% of Total Logs
	AF	AS	EU	NA	OC	SA	ALL	
SOAB High Asst	2	141	655	701	18	19	1,536	26.8
SOAB High U	5	155	277	248	26	13	724	12.6
SOAB Low Asst	4	126	700	347	20	41	1,238	21.6
SOAB Low U	10	285	868	427	28	37	1,655	28.8
SOAB QRP Asst	1	7	59	14	2	3	86	1.5
SOAB QRP U	1	27	112	38	6	5	189	3.3
Explorer M	0	2	6	2	0	0	10	0.2
Explorer S	1	1	6	3	0	1	12	0.2
Multi-2	1	13	23	19	3	2	61	1.1
Multi-Multi	2	6	13	12	2	1	36	0.6
Multi-Single High	0	22	66	32	1	2	123	2.1
Multi-Single Low	2	19	31	6	5	5	68	1.2
ALL	29	804	2,816	1,849	111	129	5,738	100.0
% by Continent	0.5	14.0	49.1	32.2	1.9	2.2	100.0	

Table 2A. Number of All Band / Multi-Op entries by category and continent

Type	Table 2B						
	AF	AS	EU	NA	OC	SA	Total
Assisted	30.4	37.0	52.9	59.8	40.0	53.4	52.7
Non-Assisted	69.6	63.0	47.1	40.2	60.0	46.6	47.3
Total Logs	23	741	2,671	1,775	100	118	5,428

Table 2B. % split between Assisted / Non-Assisted SOAB logs by continent

## 2021 CQWW DX CW BAND-BY-BAND BREAKDOWN — TOP ALL BAND SCORES

Number groups indicate: QSOs/Zones/Countries on each band

### WORLD SINGLE OPERATOR ALL BAND

Station	160	80	40	20	15	10
TI7W	474/14/47	1431/26/79	3039/29/101	2899/35/102	2923/31/94	534/17/25
CR6K	597/15/62	1367/20/74	2594/28/97	2064/33/91	2138/34/92	929/25/75
*V26K	263/12/41	1145/16/73	2232/26/96	2071/31/94	2091/30/91	323/15/44
*EA8RM	149/10/40	1004/18/64	1849/24/79	1309/22/67	2027/25/75	1219/23/69
N5DX	179/18/52	1041/27/85	1867/35/98	1695/28/91	1153/26/90	67/17/29

### USA TOP SINGLE OPERATOR ALL BAND

Station	160	80	40	20	15	10
N5DX	179/18/52	1041/27/85	1867/35/98	1695/28/91	1153/26/90	67/17/29
W1KM	208/15/48	1087/23/72	1175/27/87	1119/28/89	1153/26/92	60/13/23
KQ2M	100/12/45	544/18/69	1146/26/88	1151/33/96	1250/30/104	64/17/34
N2IC	37/16/20	194/23/59	1428/34/89	1213/32/94	1043/29/90	84/15/33
NN7CW	86/14/38	376/18/64	1270/23/82	1149/27/87	1103/25/84	26/9/10

### WORLD SINGLE OPERATOR ASSISTED ALL BAND

Station	160	80	40	20	15	10
P44W	328/18/59	825/22/81	1377/32/113	1083/33/107	1571/32/108	880/20/61
ZF5T	535/17/64	844/25/82	1065/31/103	1510/35/104	1848/34/103	158/15/28
K5ZD	124/16/58	564/25/87	1311/32/111	1417/32/113	1110/29/115	77/19/38
TO7A	235/13/41	896/22/70	1825/28/92	1634/30/95	1725/27/84	358/20/37
K1ZZ	92/16/53	500/27/93	1354/34/116	1616/32/116	456/30/115	72/18/40

### USA SINGLE OPERATOR ASSISTED ALL BAND

Station	160	80	40	20	15	10
K5ZD	124/16/58	564/25/87	1311/32/111	1417/32/113	1110/29/115	77/19/38
K1ZZ	92/16/53	500/27/93	1354/34/116	1616/32/116	456/30/115	72/18/40
K3WW	69/14/46	495/22/86	1376/34/119	1395/31/111	770/27/101	51/18/29
AA1K	113/17/56	463/26/89	1050/33/112	1380/34/113	841/29/108	41/16/24
N3RS	60/13/44	452/23/83	1039/33/115	1007/33/111	905/28/111	47/18/29

### WORLD MULTI-OPERATOR SINGLE TRANSMITTER

Station	160	80	40	20	15	10
P33W	421/21/80	1497/32/105	2846/37/131	2369/39/131	2159/36/129	399/30/87
LZ5R	181/19/73	1203/32/107	3183/38/137	2518/39/133	1804/37/133	175/29/87
PJ4A	150/16/50	925/25/82	1684/36/118	1732/36/110	1745/32/116	997/22/68
TM6M	178/18/74	1094/32/101	2513/37/130	2294/38/129	1857/37/130	355/27/78
W3LPL	73/21/70	1041/31/102	2150/39/128	1618/38/133	1433/33/124	57/22/54

### USA MULTI-OPERATOR SINGLE TRANSMITTER

Station	160	80	40	20	15	10
W3LPL	73/21/70	1041/31/102	2150/39/128	1618/38/133	1433/33/124	57/22/54
K1LZ	163/19/75	1099/28/100	2040/36/129	1266/36/124	1397/32/120	136/24/69
W2FU	102/17/54	763/26/93	1468/34/124	1292/37/124	1146/32/119	57/20/43
K1RX	61/17/49	451/26/92	1308/34/116	1165/35/118	923/30/117	31/18/29
K8AZ	64/17/54	505/26/88	1122/33/118	1191/34/118	828/31/117	42/20/41

### WORLD MULTI-OPERATOR TWO TRANSMITTER

Station	160	80	40	20	15	10
CR3DX	580/18/66	1419/29/91	3406/36/124	2743/38/121	3805/38/118	1553/30/89
PJ4K	473/18/64	1222/29/95	3901/37/125	3103/36/117	3210/34/116	815/21/65
KC1XX	197/20/69	1523/32/105	2199/38/126	2068/36/128	1768/32/124	155/24/63
ES9C	1047/23/82	2435/34/105	2733/39/133	2670/38/126	2059/36/127	324/28/78
UA4M	773/20/74	1827/33/103	2927/37/130	2029/38/124	1874/34/117	392/25/64

### USA MULTI-OPERATOR TWO TRANSMITTER

Station	160	80	40	20	15	10
KC1XX	197/20/69	1523/32/105	2199/38/126	2068/36/128	1768/32/124	155/24/63
K9CT	178/22/64	722/31/96	1675/37/121	1915/38/131	1276/32/120	133/19/38
N4WW	70/17/54	682/26/93	2045/37/126	1635/37/123	1220/32/119	106/16/37
K1RX	145/16/57	833/26/89	1499/29/105	2077/34/121	1375/29/104	91/19/38
ND7K	74/17/30	449/29/73	1625/38/116	1573/36/121	1223/34/113	88/16/25

### WORLD MULTI-OPERATOR MULTI-TRANSMITTER

Station	160	80	40	20	15	10
CR3W	1073/18/67	2328/31/97	3480/37/126	3419/37/130	3089/38/129	1624/29/94
PJ2T	756/21/68	1717/27/91	3123/32/109	2999/36/109	3205/34/109	1187/25/75
TKOC	1970/20/82	3435/33/107	4698/36/130	3666/36/119	2719/37/125	877/27/89
3B8M	201/13/44	670/32/76	1915/35/108	2880/38/117	3302/37/125	1897/30/98
K3LR	493/23/74	1621/32/105	2674/38/134	2656/38/136	1901/35/130	405/25/64

### USA MULTI-OPERATOR MULTI-TRANSMITTER

Station	160	80	40	20	15	10
K3LR	493/23/74	1621/32/105	2674/38/134	2656/38/136	1901/35/130	405/25/64
NR4M	364/20/68	1281/31/101	2301/37/129	2218/36/126	1701/29/117	209/20/49
K1TTT	425/20/68	1110/29/98	1888/36/122	2010/36/120	1213/29/114	355/21/54
K0RF	186/21/48	408/30/86	1227/37/117	1963/36/117	980/34/118	106/18/34
K1KI	90/15/54	499/25/90	1244/33/114	984/34/107	987/30/105	65/17/26





Often confused with a NASA ground control operation, here is the T17W station that Dan, N6MJ, steered to a solid #1 World SOAB win!

### EUROPE TOP SINGLE OPERATOR ALL BAND

Station	160	80	40	20	15	10
CR6K	597/15/62	1367/20/74	2594/28/97	2064/33/91	2138/34/92	929/25/75
EA6FO	498/12/51	1488/19/71	2276/28/83	1996/31/78	1438/26/76	374/15/46
YR8D	554/12/53	1565/20/70	1108/27/84	1914/28/84	757/30/85	32/9/13
J42L	341/9/42	791/22/58	1675/24/79	1692/29/73	1057/31/75	104/18/39
G4BUO	255/12/42	580/14/56	1022/25/81	1039/27/77	662/26/67	105/14/41

### EUROPE SINGLE OPERATOR ASSISTED ALL BAND

ERØDX	266/6/39	1561/25/86	1656/33/117	1552/35/110	1301/33/113	76/17/39
HA8A	380/13/60	670/21/74	1991/37/120	1064/34/109	642/36/117	115/25/58
SN7Q	290/17/65	1075/30/93	1009/35/115	1070/34/104	833/33/98	104/19/47
HG8R	285/17/60	716/26/82	1458/37/122	995/32/106	838/37/106	93/20/43
UW1M	94/10/48	614/19/76	2428/37/127	1489/34/108	751/33/105	112/22/42

### EUROPE MULTI-OPERATOR SINGLE TRANSMITTER

LZ5R	181/19/73	1203/32/107	3183/38/137	2518/39/133	1804/37/133	175/29/87
TM6M	178/18/74	1094/32/101	2513/37/130	2294/38/129	1857/37/130	355/27/78
IR4M	130/20/76	902/31/100	2223/38/137	2395/39/135	1432/37/122	93/29/83
OM7M	244/23/86	1317/35/107	2208/38/135	2289/39/131	1305/38/126	83/27/81
E7DX	204/19/79	1057/34/106	2339/37/133	2057/38/131	1435/38/134	151/30/79

### EUROPE MULTI-OPERATOR TWO TRANSMITTER

ES9C	1047/23/82	2435/34/105	2733/39/133	2670/38/126	2059/36/127	324/28/78
UA4M	773/20/74	1827/33/103	2927/37/130	2029/38/124	1874/34/117	392/25/64
ED1R	467/16/68	1408/29/95	2726/37/124	2339/34/109	2065/37/118	477/20/63
HG7T	519/17/68	1580/32/98	2364/37/129	2050/36/119	1136/36/111	108/20/48
SK3W	809/22/75	1467/33/97	2256/38/135	1944/35/117	1162/37/118	129/23/62

### EUROPE MULTI-OPERATOR MULTI-TRANSMITTER

TKØC	1970/20/82	3435/33/107	4698/36/130	3666/36/119	2719/37/125	877/27/89
M6T	1320/18/75	2841/37/114	3741/38/137	2509/39/132	1409/37/122	514/28/92
LZ9W	1326/17/75	2269/36/114	3969/36/135	2949/39/130	1716/37/124	290/26/65
OL3Z	1231/16/67	2399/30/95	3435/37/135	2296/37/125	1335/37/117	288/27/81
DFØHQ	1251/19/80	2061/32/101	3596/38/142	2113/38/128	1199/37/125	328/27/81

### TOP SCORES IN VERY ACTIVE ZONES

<b>Zone 3</b>	OM7RU .....	2,917,980
K6XX .....	2,950,973	
K6NA .....	1,870,506	
WJ9B .....	1,761,823	
VA7ST .....	1,110,417	
W7YAQ .....	1,054,620	
<b>Zone 4</b>	CF3A (VE3AT) .....	6,350,676
VE3JM .....	6,012,744	
N2IC .....	5,757,054	
W9RE .....	5,233,512	
N9RV .....	4,469,155	
<b>Zone 5</b>	N5DX (@N2QV) .....	10,090,280
VY2TT (K6LA) .....	8,035,280	
VY2ZM (K1ZM) .....	7,865,424	
W1KM .....	7,479,282	
KQ2M .....	6,595,160	
<b>Zone 14</b>	CR6K (CT1ILT) .....	12,055,652
EA6FO (EA3M) .....	7,577,968	
G4BUO .....	3,561,980	
G9W (MØDXR) .....	2,774,828	
MØX (MØRTI) .....	2,088,304	
<b>Zone 15</b>	*IY3A (IZ3EYZ) .....	3,347,729
OHØZ (OH6EI) .....	2,963,072	
<b>Zone 16</b>	EW2A .....	1,921,565
RD4F .....	1,637,820	
R5AJ .....	1,575,180	
UA6CC .....	1,422,891	
EW1I .....	1,362,030	
<b>Zone 20</b>	YR8D (YO8TTT) .....	5,142,790
J42L (N5ZO) .....	5,052,874	
C4W (5B4WN) .....	3,097,192	
YM7KA (TA7I) .....	1,847,040	
4Z4AK .....	729,864	
<b>Zone 25</b>	JH4UYB .....	4,541,460
JE6RPM	(JH5GHM) .....	3,965,890
JO4JKL .....	3,767,720	
JF2QNM .....	2,071,779	
DS4EOI .....	1,560,287	

\*Low Power

Call	Cont	Category	Raw QSOs	% Error Rate	Bad QSOs
VP9I (N6GQ)	NA	SOAB LP	5,014	0.84	42
W1KM	NA	SOAB HP	4,846	0.91	44
NN7CW	NA	SOAB HP	4,050	0.99	40
N2IC	NA	SOAB HP	4,031	0.79	32
OM7RU	EU	SOAB HP	3,360	0.98	33
LY4T	EU	SOAB HP	2,804	0.89	25
9N7AA (S53R)	AS	SOAB HP	2,280	0.88	20
VE6BBP	NA	SOAB HP	2,111	0.76	16
LB6GG	EU	SOAB LP	2,078	0.72	15
YL2VW	EU	SOAB HP	2,055	0.73	15
VA7ST	NA	SOAB HP	2,034	0.79	16
K8GL	NA	SOAB HP	1,853	0.70	13
RD4F	EU	SOAB HP	1,818	0.50	9
K6NA	NA	SOAB HP	1,645	0.85	14
SP1AEN	EU	SOAB LP	1,644	0.73	12
J11RXQ	AS	SOAB LP	1,496	0.60	9
HB9ARF	EU	SOAB LP	1,422	0.84	12
K1GU	NA	SOAB HP	1,235	0.65	8
9A2EY	EU	SOAB LP	1,230	0.81	10
JH1QDB	AS	SOAB HP	1,165	0.77	9
R5AK	EU	SOAB HP	1,150	0.96	11
RA3NC	EU	SOAB HP	1,147	0.52	6
UA4AGT	EU	SOAB LP	1,124	0.80	9
EA3ICJ	EU	SOAB LP	1,114	0.54	6
SP7IIT	EU	SOAB HP	1,104	1.00	11
NAØN	NA	SOAB LP	1,070	0.19	2
VE3KP	NA	SOAB HP	1,045	0.96	10
G3ZGC	EU	SOAB HP	1,041	0.38	4
W7YAQ	NA	SOAB HP	1,010	0.59	6
S58MU	EU	SOAB LP	1,010	0.69	7
UD6M	EU	SOAB LP	1,006	0.80	8
G4DDL	EU	SOAB LP	1,005	0.80	8

Table 3. Single Operator accuracy leaders (>1,000 QSOs)

Year	160	80	40	20	15	10	Total
2021	280	786	1,337	1,322	1,059	158	4,944
2020	278	873	1,350	1,367	1,133	213	5,213
2019	296	832	1,325	1,494	448	46	4,441
2018	290	791	1,382	1,485	402	16	4,367
2017	265	800	1,289	1,301	673	48	4,376
2016	257	747	1,175	1,247	672	78	4,175
2015	190	681	1,276	1,197	1,263	421	5,027
2014	180	557	1,104	1,090	1,268	1,399	5,598
2013	172	575	1,121	1,019	1,218	1,165	5,270
2012	193	601	1,016	1,058	1,193	852	4,913
2011	177	554	1,108	924	1,051	1,286	5,100
2010	246	744	1,181	1,147	905	169	4,392
2009	240	663	1,137	1,142	529	50	3,761
2008	244	691	1,043	1,133	284	21	3,415

Table 4. Number of total QSOs in CQWW CW per band by year (in '000s)

four or more entries can compete in this popular part of the CQWW contest.

Congratulations to everyone who participated and especially those who submitted your logs.

### How Much Time Did You Operate in the CQWW CW Contest?

Well, the Single Ops backed off just a little in median operating time for the 2021 contest (See *Table 1*). Last year's metric of 14.7 hours dropped by 5.5% to a level of 13.9 hours, still impressive when you consider that half of us operated at least 29% of the total available hours in the contest. For many of you, I think you can break down a typical CQWW this way:

- Friday night: Operate the contest until you get tired. Sleep.
- Saturday AM: Work the high bands for a few hours.
- Saturday Afternoon: Run errands for XYL / partner.
- Saturday Evening: Work contest for an hour or two. Go out to eat with XYL / Partner. Return to contest. Sleep.
- Sunday Morning: Work the high bands.
- Sunday Afternoon: Watch TV with XYL / Partner in between an occasional hour here and there to operate.
- Sunday Evening: Eat quick dinner with XYL / Partner and finish last hour or two of contest.
- Sunday Evening after contest: Brief conversation with XYL / Partner; Pass out.

And, of course, there is that "special" group of 45+ hour ops. That train has long since left my station, but it's exciting to see 34 operators making that level of commitment (I will add that there were 51 last year!).

### Which Category is Your Favorite?

The popularity of the Assisted category continues to grow as it has now become the dominant leader in all CQWW categories (see *Tables 2A* and *2B*). For example, when considering all assisted category groups, there were 2,860 entries vs. 2,568 unassisted logs. For the first time, more than half of this year's Single Operators used assistance, a 3% year-over-year increase from 2020. Use of assistance was particularly popular in North America and Europe, which is in striking contrast to Asia, where nearly 63% of entrants chose to be unassisted. As the sunspots light up the ionosphere, I expect this trend to continue.



**Table 5**

Entity	AS	EU	NA	OC	Total
BY	5	0	0	0	5
DL	0	2	0	0	2
E7	0	1	0	0	1
EI	0	1	0	0	1
I	0	4	0	0	4
JA	6	0	0	0	6
K	0	0	4	0	4
LY	0	2	0	0	2
SM	0	1	0	0	1
SP	0	1	0	0	1
UA	0	1	0	0	1
VE	0	0	1	0	1
YB	0	0	0	2	2
YO	0	1	0	0	1
YT	0	1	0	0	1
Total	11	15	5	2	33

Table 5. Total number of Youth entries received by entity / continent

### Accuracy at its Finest!

Yet again, there were some standout accuracy champions in the CQWW. It's a true accomplishment to see incredible sub-1% results (see Table 3) with so many competitors. Whether you marvel at VP9I (op. N6GQ) only busting 42 QSOs out of 5,014 contacts or NAØN logging just two bad QSOs in a log of over 1,000 contacts, the results are equally impressive for everyone making this chart. Congratulations on a job well done!

### Here Comes the Sun!

There's no debate that the CQWW contest is a QSO machine and the 2021 CW edition was no exception: ~4.9M QSOs (see Table 4). In fact, if you do the math, over the past 10 years (2011-2021), there have been approximately 53.4M QSOs made in the CQWW CW contest alone! That's 31 QSOs per second for all 480 hours of operation.

While the best is yet to come in Cycle 25, I'm happy to report that 10 meters is slowly coming back to life. A quick look at the peak years of Cycle 24 is the proof to that claim. Let's keep our fingers crossed for this fall being a banner year.

### Some Youthful Entries

While the total number of youth overlay CW entries in this first year was a little disappointing, there was broad participation from around the world (see Table 5). For the 2021 CQWW as a whole, however, we received 136 entries — a decent overall showing for the first year of this new overlay category. Several of this year's youth participants submitted logs for both modes. It's fair to say that 100% of you were enthusiastic and excited to participate in this new approach in the CQWW contest.

I'm optimistic that participation will grow as the word continues to spread. You can help us by passing the word — at your club meetings, on email reflectors, social media and, yes, even "on the air." Enthusiasm breeds enthusiasm as we strive to support more youth activity in the world's largest contest.

### Being Careless About Spots

I thought it would be helpful to provide some representative samples of busted callsigns that we found in this year's logs

**Table 6**

Real call	Bad spot	# QSOs made
TKØC	TK9C	62
	TKØK	8
	KØC	4
	AKØC	1
	EKØC	1
	TKØF	1
	TKØN	1
	TK1C	1
	<b>Total</b>	<b>79</b>
UA4S	UA4I	55
	UA4H	8
	UA4SE	6
	UA4A	2
	UA4N	1
	<b>Total</b>	<b>72</b>
RWØA	RMØA	16
	RW9A	10
	NWØA	4
	RWØW	3
	RUØA	3
	RW1A	2
	RWØT	2
	RWØI	1
	RWØAF	1
	RWØAE	1
	RWØAD	1
	<b>Total</b>	<b>44</b>
ES9C	EI9C	73
	IS9C	8
	ES6C	5
	ES9CE	2
	<b>Total</b>	<b>88</b>
JF1NHD	JF1NSD	56
	<b>Total</b>	<b>56</b>
EE3M	EI3M	55
	<b>Total</b>	<b>55</b>
VE7JH	VE7JS	47
	<b>Total</b>	<b>47</b>
DFØHQ	DLØHQ	12
	DF1HQ	10
	DLØSQ	8
	DFØSQ	7
	DFØFQ	5
	DFØHMT	2
	DFØQH	1
	<b>Total</b>	<b>45</b>
EA8RM	EA9RM	34
	EA8IM	11
	<b>Total</b>	<b>45</b>

Table 6. Representative sample of busted spots found in CW logs

# Being an Explorer — The RWØA Contest Story

The successful performance of UCØB in the Multi-Distributed category in last year's CQWW WPX CW contest stimulated our Siberian team (Krasnoyarsk, RWØA; Novosibirsk, RC9O; Tomsk, R8IZ; Kemerovo, RT8U; and Prokopievsk, UA9UR) for another experiment. This time, we decided to try the new CQWW category for Multi-Multi stations — M/M Explorer. The new category promised new possibilities. Why not try it?

All the distributed team positions had improved their antenna setups during the summer. A simple analysis of spring contests showed that the number of participants from YB on 21 MHz become larger than the traditionally active group of JAs! At RWØA, we built a new 2x5-element Yagi stacked beam antenna fixed at 135°, to take advantage of all the YB signals coming into our QTH. We also installed another 2x5-element 21-MHz system fixed into the direction of Europe. The guys from RT8U built a Spitfire antenna for 80 meters, switchable to EU/AS. The team from UA9UR also improved their stacked beams for 21 and 28 MHz. Not to be outdone, RC9O used a large crane to repair his 3-element 160-meter antenna.

Even with all the station improvements, we were realistic about achieving a top score. We simply hoped to have a lot of fun operating in the Explorer category with a multi-QTH distributed team. This pushed us to prepare and participate in all of the contest action.

Similar to the CQWW WPX, we organized a DXLOG network of 17 computers along with a central server located in Kemerovo. Our band-by-band operating schedule for each QTH (RUN and S&P) was made based on propagation analysis and the review of our logs from previous CQWW contests. The concept remained the same — maximize the time of operation from RWØA on each band with a minimum of three transmitters simultaneously. We also utilized permitted networked resources such as KiwiSDR and WEBSDR for remote receiving and for our own signal checking, which helped us to move a RUN station from position to position and stay away from bad frequencies.

The first 10 hours of the contest were especially exciting. Our QSO summary rate did not go below 400 per hour and actually hit more than 500 per hour with more than 15 QSOs per minute a few times! The 40-meter band turned out to be very effective and was open almost all the time except for two hours on Sunday morning when the level of our signals in EU dropped to almost zero. The first night surprised us with good propagation on 20 meters. We logged NA stations for about 2 hours, which



Explorer Team staffing the station from RWØA.

TIME	160m	80m	40m	30m	20m	17m	15m	12m	10m	6m	2m	PS
01	RUUN	RUUN	RUUN	RUUN	RUUN	RUUN	RUUN	RUUN	RUUN	RUUN	RUUN	01
02	RUUN	RUUN	RUUN	RUUN	RUUN	RUUN	RUUN	RUUN	RUUN	RUUN	RUUN	02
03	RUUN	RUUN	RUUN	RUUN	RUUN	RUUN	RUUN	RUUN	RUUN	RUUN	RUUN	03
04	RUUN	RUUN	RUUN	RUUN	RUUN	RUUN	RUUN	RUUN	RUUN	RUUN	RUUN	04
05	RUUN	RUUN	RUUN	RUUN	RUUN	RUUN	RUUN	RUUN	RUUN	RUUN	RUUN	05
06	RUUN	RUUN	RUUN	RUUN	RUUN	RUUN	RUUN	RUUN	RUUN	RUUN	RUUN	06
07	RUUN	RUUN	RUUN	RUUN	RUUN	RUUN	RUUN	RUUN	RUUN	RUUN	RUUN	07
08	RUUN	RUUN	RUUN	RUUN	RUUN	RUUN	RUUN	RUUN	RUUN	RUUN	RUUN	08
09	RUUN	RUUN	RUUN	RUUN	RUUN	RUUN	RUUN	RUUN	RUUN	RUUN	RUUN	09
10	RUUN	RUUN	RUUN	RUUN	RUUN	RUUN	RUUN	RUUN	RUUN	RUUN	RUUN	10
11	RUUN	RUUN	RUUN	RUUN	RUUN	RUUN	RUUN	RUUN	RUUN	RUUN	RUUN	11
12	RUUN	RUUN	RUUN	RUUN	RUUN	RUUN	RUUN	RUUN	RUUN	RUUN	RUUN	12
13	RUUN	RUUN	RUUN	RUUN	RUUN	RUUN	RUUN	RUUN	RUUN	RUUN	RUUN	13
14	RUUN	RUUN	RUUN	RUUN	RUUN	RUUN	RUUN	RUUN	RUUN	RUUN	RUUN	14
15	RUUN	RUUN	RUUN	RUUN	RUUN	RUUN	RUUN	RUUN	RUUN	RUUN	RUUN	15
16	RUUN	RUUN	RUUN	RUUN	RUUN	RUUN	RUUN	RUUN	RUUN	RUUN	RUUN	16
17	RUUN	RUUN	RUUN	RUUN	RUUN	RUUN	RUUN	RUUN	RUUN	RUUN	RUUN	17
18	RUUN	RUUN	RUUN	RUUN	RUUN	RUUN	RUUN	RUUN	RUUN	RUUN	RUUN	18
19	RUUN	RUUN	RUUN	RUUN	RUUN	RUUN	RUUN	RUUN	RUUN	RUUN	RUUN	19
20	RUUN	RUUN	RUUN	RUUN	RUUN	RUUN	RUUN	RUUN	RUUN	RUUN	RUUN	20
21	RUUN	RUUN	RUUN	RUUN	RUUN	RUUN	RUUN	RUUN	RUUN	RUUN	RUUN	21
22	RUUN	RUUN	RUUN	RUUN	RUUN	RUUN	RUUN	RUUN	RUUN	RUUN	RUUN	22
23	RUUN	RUUN	RUUN	RUUN	RUUN	RUUN	RUUN	RUUN	RUUN	RUUN	RUUN	23

Organizing five distributed Explorer teams across six bands and 24 hours from RWØA. Not an easy task!



is usually very rare. It was also unusual to see the QSO rate on the 80-meter band being nearly the same as 20 meters. The ionosphere was quiet for the whole contest, so we had good openings on the 21- and 28-MHz bands during daytime.

There is no contest without Mr. Murphy playing jokes on us. The team at Kemerovo had to repair a Beverage antenna during a cold night in the forest. One of the amplifiers became intermittent in Krasnoyarsk. Our team members in Prokopievsk were spending time fixing a high-voltage power supply. But every problem we encountered was successfully overcome by the team. In the end, we finished with 13,000 QSOs and 24M points on Monday morning!

Of course, we have lots of log data, but here is the rough distribution of QSOs for each station:

**RWØA:** 4,000 QSOs  
**R8IZ:** 2,700 QSOs  
**RC9O:** 2,550 QSOs  
**RT8U:** 1,700 QSOs  
**UA9UR:** 1,700 QSOs

Perhaps even more exciting was the fact that we had 27 Siberian operators participating on the “**Central Siberia DX Club**” team from five positions:

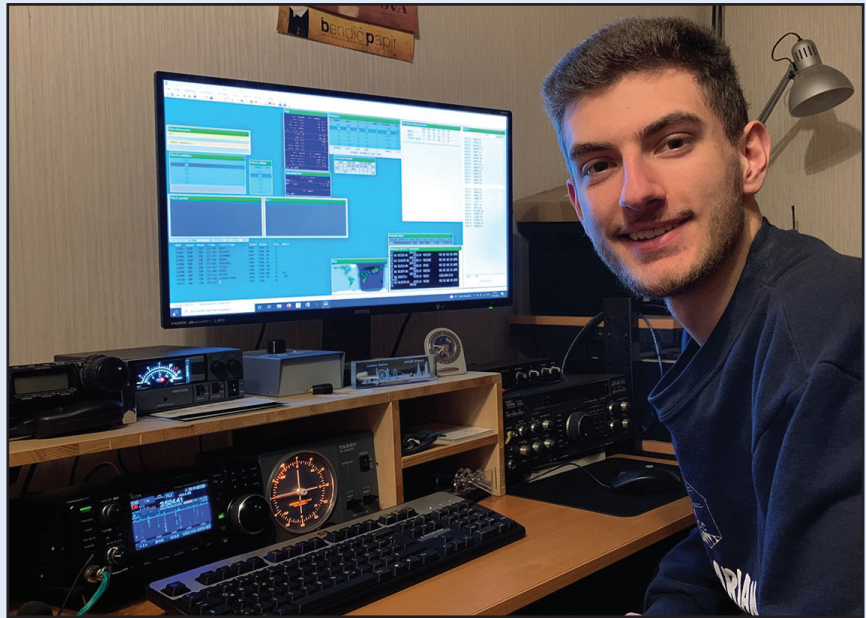
**RWØA:** RAØAM, RAØAAC, RØAI, RGØA, RMØA, RUØA, RUØAM, RVØAR, RWØAR, RZØAT, UAØAPV, UFØB  
**RC9O:** RC9O, UA9PM, RA9P  
**R9IZ:** R9IR, RM9I, RU9I, RC9HB, RC9HC  
**UA9UR:** RW9USA, RV9UP, UA9UR  
**RT8U:** RZ9UN, RK9UE, RA9USU, RX9UK

We hope it was not our last team effort. Thank you to all who called us and who answered our calls! Special thanks to the teams of CR3W and TKØC who stimulated us to concentrate and work harder!

– 73, Leonid, RAØAM, on behalf of the RWØA team

## A Youthful CQWW

BY SVEN, DJ4MX (19 years old!)



CQWW CW Low Power Youth champion, Sven, DJ4MX, ready for action.

**T**his past CQWW was my first serious entry in the world’s best contest. It was a blast! Although having received my license in 2017, I officially fell in love with CW contesting just 18 months ago.

My initial strategy was to participate with a Multi-Op team. The plan was that my dad (DJ2MX) and I travel to Bosnia and join the Multi-Single team at E7DX. Unfortunately, we had to cancel the trip, so I decided to try out the new Youth overlay as a single operator from our home station in Munich after my dad found a local club station to use. With just a few days to go and the contest rapidly approaching, I was really motivated to get the best results possible. My goal was to operate more than 40 hours, even though I had never previously operated so many hours. But, before the contest even started, I unknowingly made the mistake of going into the contest with 15 hours of “awake time.”

After the first 24 hours and having 1,200 QSOs in my log without a break, I was thrilled to see what was possible with 100 watts from our modest station. Additional motivation came from my real-time standing in the online scoreboard. As a result, I somehow got the crazy idea to operate the next 24 hours without a break! But, even at my young age of 19 years, it wasn’t easy! Within just a few hours after my crazy idea began, I struggled to stay awake, hoping for sunrise and the expectation that daylight and new action on the high bands would keep my eyes open. My wish came true as the band was filled with JAs on 15 meters, keeping me really busy. However, the inevitable feeling of tiredness came again as I fell asleep a few times, albeit for only one or two minutes.

It turned out that the last four hours were the hardest, and especially the 35 minutes right before the end of the contest. At that point, I decided to stop, because I was simply too tired to get any new QSOs into my log. In the end, however, I logged almost 2,200 QSOs with my logging program showing an operating time of 47:26 hours, an accomplishment that makes me especially proud.

The new youth overlay is a great addition to the CQWW, and I really hope it gets more people of my age into CW operating and contesting overall. Thanks for a great contest and see you in the next one!

– 73, Sven, DJ4MX



## CLUB SCORES

### UNITED STATES

Club	# Entrants	Score
FRANKFORD RADIO CLUB	271	407,770,996
YANKEE CLIPPER CONTEST CLUB	250	370,916,531
POTOMAC VALLEY RADIO CLUB	256	189,861,299
SOCIETY OF MIDWEST CONTESTERS	175	87,903,698
SOUTHERN CALIFORNIA CONTEST CLUB	76	72,709,639
FLORIDA CONTEST GROUP	96	67,807,030
NORTHERN CALIFORNIA CONTEST CLUB	99	54,156,776
NORTH COAST CONTESTERS	22	54,073,386
ARIZONA OUTLAWS CONTEST CLUB	70	39,771,679
MINNESOTA WIRELESS ASSN	131	37,759,237
TENNESSEE CONTEST GROUP	50	31,910,518
SOUTHEAST CONTEST CLUB	49	28,838,318
CENTRAL TEXAS DX AND CONTEST CLUB	28	25,692,346
WILLAMETTE VALLEY DX CLUB	54	20,213,427
DFW CONTEST GROUP	41	17,737,700
MAD RIVER RADIO CLUB	30	16,378,060
ALABAMA CONTEST GROUP	30	15,884,909
NE MARYLAND AMATEUR RADIO CONTEST SOCIETY	36	14,777,587
BAY AREA DXERS	17	14,564,287
GRAND MESA CONTESTERS OF COLORADO	36	14,221,240
HUDSON VALLEY CONTESTERS AND DXERS	33	12,823,759
WESTERN WASHINGTON DX CLUB	49	12,791,964
SWAMP FOX CONTEST GROUP	26	11,431,180
CAROLINA DX ASSOCIATION	27	11,172,920
KENTUCKY CONTEST GROUP	24	9,401,579
NIAGARA FRONTIER RADIOSPORT	22	8,489,032
GEORGIA CONTEST GROUP	5	7,590,051
SPOKANE DX ASSOCIATION	26	6,497,770
KANSAS CITY CONTEST CLUB	14	6,299,259
BIG SKY CONTESTERS	7	6,092,283
TEXAS DX SOCIETY	15	5,036,406
THE VILLAGES AMATEUR RADIO CLUB	16	4,067,968
DEEP DIXIE CONTEST CLUB	12	3,410,596
ROCHESTER (NY) DX ASSN	20	3,315,558
CWOPS	11	3,185,108
NORTH TEXAS CONTEST CLUB	8	3,181,429
CTRI CONTEST GROUP	10	3,015,399
HILLTOP TRANSMITTING ASSN	5	2,770,354
ARKANSAS DX ASSOCIATION	9	2,605,417
NORTH CAROLINA DX AND CONTEST CLUB	7	2,529,857
SILVER SPRINGS RADIO CLUB	7	2,477,214
BRISTOL (TN/VA) ARC	12	2,149,655
LOUISIANA CONTEST CLUB	5	1,858,218
NORTHEAST WISCONSIN DX ASSN	7	1,779,098
IOWA DX AND CONTEST CLUB	4	1,555,877
FORT WAYNE RADIO CLUB	6	1,404,188
MILFORD OHIO AMATEUR RADIO CLUB	4	1,337,064
MOTHER LODGE DX/CONTEST CLUB	13	1,075,694
KANSAS CITY DX CLUB	7	1,022,235
MERIDEN ARC	12	969,594
SOUTH JERSEY RADIO ASSOCIATION	8	957,908
BELLBROOK AMATEUR RADIO CLUB	6	846,494
CENTRAL VIRGINIA CONTEST CLUB	4	667,945
SOUTHWEST OHIO DX ASSOCIATION	7	517,459
METRO DX CLUB	9	491,973
MISSISSIPPI VALLEY DX/CONTEST CLUB	6	480,309
SKYVIEW RADIO SOCIETY	5	450,775
NEW PROVIDENCE ARC	7	450,104
HEARTLAND DX ASSOCIATION	7	407,237
GREAT PLACES CONTEST CLUB	4	383,541
PORTAGE COUNTY AMATEUR RADIO SERVICE	4	352,904
NORTHERN ARIZONA DX ASSN	5	256,341
ARC EMCMM SRVC	7	201,742
PANHANDLE AMATEUR RADIO CLUB	4	189,493
ALEXANDRIA RADIO CLUB	4	153,921
REDWOOD EMPIRE DX ASSOCIATION	4	153,393
BOLINGBROOK ARS	5	116,416
LAKE AREA AMATEUR RADIO KLUB	5	91,387
STERLING PARK AMATEUR RADIO CLUB	4	70,258
UTAH DX ASSOCIATION	4	55,841
LONG ISLAND CW CLUB	5	28,266
OH-KY-IN ARS	4	22,080
NORTH SHORE RADIO CLUB IL	4	13,942
DOWNEY ARC, INC.	4	6,438

### DX

Club	# Entrants	Score
BAVARIAN CONTEST CLUB	327	278,153,499
ITALIAN CONTEST CLUB	269	235,056,854
RUSSIAN CONTEST CLUB	130	156,872,655
EA CONTEST CLUB	94	146,376,317
RHEIN RUHR DX ASSOCIATION	168	133,767,930
CONTEST CLUB ONTARIO	103	108,603,466
BALTIC CONTEST CLUB	32	96,589,338
UKRAINIAN CONTEST CLUB	181	82,061,536
ARAUCARIA DX GROUP	72	71,544,438
CONTEST CLUB SERBIA	57	55,249,019
CLIPPERTON DX CLUB	27	53,297,454
CROATIAN CONTEST CLUB	61	51,931,579
BELOKRANJEC CONTEST CLUB	22	50,945,302
CONTEST CLUB FINLAND	56	46,904,745
KAUNAS UNIVERSITY OF TECHNOLOGY RADIO CLUB	56	38,388,482
LZ CONTEST TEAM	4	37,166,882

Club	# Entrants	Score
LU CONTEST GROUP	43	35,149,174
CONTEST CLUB BELGIUM	60	34,049,850
HA-DX-CLUB	18	32,419,199
LA CONTEST CLUB	13	32,063,479
SP DX CLUB	116	27,626,169
CHILTERN DX CLUB	26	26,044,175
SLOVENIA CONTEST CLUB	43	24,342,313
VK CONTEST CLUB	41	21,201,613
RIO DX GROUP	93	18,900,031
CZECH CONTEST CLUB	30	16,854,397
CONTEST GROUP DU QUEBEC	15	14,070,495
SOUTH URAL CONTEST CLUB	19	13,559,366
LATVIAN CONTEST CLUB	36	13,554,654
ORCA DX AND CONTEST CLUB	39	13,445,966
BELARUS CONTEST CLUB	31	12,944,628
CATALONIA CONTEST CLUB	25	12,319,383
URAL CONTEST GROUP	24	11,925,032
RSGB CONTEST CLUB	11	11,418,058
SIAM DX GROUP	23	10,560,938
NICOSIA CONTEST GROUP	4	10,385,416
5NNDXCC	35	10,280,120
CENTRAL SIBERIA DX CLUB	8	10,095,623
MARITIME CONTEST CLUB	16	9,786,894
RUSSIAN CW CLUB	60	9,395,298
599 CONTEST CLUB	18	9,118,325
BOSNIA AND HERZEGOVINA CONTEST CLUB	9	8,845,795
WEST SERBIA CONTEST CLUB	11	8,446,059
RTTY CONTESTERS OF JAPAN	4	8,333,160
DANISH DX GROUP	36	7,870,859
RADIO AMATEUR ASSOCIATION OF WESTERN GREECE	6	7,664,042
NORFOLK AMATEUR RADIO CLUB	13	7,340,880
ARCK	32	6,761,842
INTEREST GROUP RTTY	9	6,238,392
J5FC	4	6,159,002
ASSOCIACAO DOS RADIOAMADORES DO PARANA	10	6,098,997
THRACIAN ROSE CLUB	43	5,822,661
VU CONTEST GROUP	18	5,565,899
ARIPA DX TEAM	10	5,564,713
ARABIAN GULF DX GROUP	5	5,484,742
SKY CONTEST CLUB	4	4,913,906
EUROPEAN DX CONTEST CLUB	4	4,881,644
THREE A'S CONTEST GROUP	9	4,859,892
CS PETROLUL PLOIESTI	7	4,483,772
CE CONTEST GROUP	16	4,338,929
GIPANIS CONTEST GROUP	13	4,264,659
GMDX GROUP	9	3,889,761
RADIOSPORT MANITOBA	3	3,887,123
KEYMEN'S CLUB OF JAPAN	44	3,699,668
COCKENZIE AND PORT SETON ARC	6	3,586,290
SOUTHERN OSAKA CONTEST CLUB	11	3,563,084
WORLD WIDE YOUNG CONTESTERS	17	3,546,893
ORARI LOKAL KAB BOGOR	12	3,509,079
IRKUTSK RADIO CLUB	9	3,489,762
RADIOCLUBUL RADU BRATU	6	3,471,437
YB-LAND DXING PASSION IS	177	3,277,362
VERON A63 FRIESE WOUDEN	4	3,134,327
RADIO CLUB BUNSHOTEN	5	2,833,168
ARCTIKA	14	2,809,128
CDR GROUP	39	2,739,356
VLADIMIR CONTEST GROUP	12	2,677,874
UNION FRANCAISE DES TELEGRAPHISTES	10	2,606,379
GUNMA CONTEST CLUB	9	2,564,348
VYTAUTAS MAGNUS UNIVERSITY RADIO CLUB	14	2,533,688
SASKATCHEWAN CONTEST CLUB	10	2,523,314
INDIOS DX TEAM	4	2,164,210
CABREUVADX	47	2,056,385
LITHUANIAN CONTEST GROUP	5	2,023,742
UA2 CONTEST CLUB	12	1,918,614
SHARKS DX TEAM	10	1,916,718
SP-CW-C	8	1,904,482
SANTIAGO DE CUBA CONTEST TEAM	4	1,839,194
CLUB DE RADIO EXPERIMENTADORES DE OCCIDENTE	6	1,786,914
IVANOVO DX CLUB	7	1,785,165
KOREA DX GROUP	6	1,763,126
SPANDAU DXERS	8	1,748,043
UBRO	8	1,711,397
RIIHIMAEN KOLMOSET	6	1,662,311
FUCHU AMATEUR RADIO CLUB	10	1,644,540
S51DSW	7	1,539,539
NORTHERN GREECE CONTEST TEAM	4	1,521,633
DE MONTFORT UNIVERSITY ARS	4	1,511,194
ZRHB	7	1,462,083
YU1ANO & YU1A CONTEST TEAM	13	1,408,682
OKAYAMA DX CLUB	10	1,408,539
VOT PZK	13	1,384,626
STOCKPORT RADIO SOCIETY	7	1,364,405
SAO PAULO CONTEST GROUP	8	1,335,548
599 DX GROUP	20	1,309,206
ALRS ST PETERSBURG	11	1,287,414
YB LAND DX CLUB	13	1,246,467
GUARA DX GROUP	43	1,099,964
LKK LVIV SHORTWAVE CLUB	15	1,073,219
RADIO CLUB VENEZOLANO CARACAS	7	1,032,921
SHAKHAN CONTEST CLUB	6	1,012,122
ALBERTA CLIPPERS	4	953,081
NOVOKUZNETSK RADIO CLUB	11	941,177
SK3AA VASTERAS RADIOKLUBB	15	938,837
JAPAN LID CLUB	4	924,735

Club	# Entrants	Score
DEBRECEN UNIVERSITY RADIO CLUB	4	864,001
HEREFORD AMATEUR RADIO SOCIETY	8	834,703
CSA STEAU BUCURESTI	5	822,202
RU-QRP CLUB	16	798,630
KING'S LYNN AMATEUR RADIO CLUB	6	791,676
VERON A03 AMERSFOORT	6	785,402
UR-QRP CLUB	12	772,916
GRUPO ARGENTINO DE CW	5	771,207
SK6AW HISINGENS RADIOKLUBB	7	770,722
ADMIRA ARAD	8	705,521
PEMBROKESHIRE CONTEST GROUP	7	695,610
NEWBURY & DISTRICT ARS	5	693,686
CWJF GROUP	5	692,597
VRZA VERENIGING VAN RADIO ZEND AMATEURS	5	689,331
JAPAN CONTESTER'S CLUB	4	640,637
YO DX CLUB	12	627,073
CSR BRAILA	8	621,403
CLUB RADIOAMATEUR VE2CQW	6	621,080
SK6QA STENUNGSUND AMATEUR RADIO CLUB	6	616,239
YYP CLUB	6	608,284
UNIO DE RADIOAFECIONATS DEL VALLES ORIENTAL	4	551,730
RADIO CLUB VENEZOLANO	4	544,248
R4F-DX-G	5	532,936
BAHIA DX GROUP	4	523,895
SWINDON & DISTRICT AMATEUR RADIO CLUB	4	522,919
KRIVBASS	7	521,491
MDXC	4	484,963
GERMAN DX FOUNDATION	6	484,561
VOLYN CONTEST GROUP	7	476,521
OBNINSK QRU CLUB	5	452,223
YB6_DX COMMUNITY	18	437,561
9M HF & DX CONTEST GROUP	6	428,839
CHILEAN PACIFIC DX GROUP	8	428,620
CMDXGROUP	14	411,162
FALCONS DX GROUP	13	391,654
BLACKWOOD & DISTRICT AMATEUR RADIO SOCIETY	4	388,086
SK6EI SKOVDE AMATORRADIOKLUBB	6	387,420
RADIO CLUB KVARNER RIJEKA	11	384,169
JUST FOR FUN CONTEST CLUB	8	356,914
NATIONAL CHILDREN'S PALACE	8	355,559
CSM BOTOSANI	6	346,674
CWSP	8	338,966
CS SATU MARE	4	337,055
RUSSIAN DIGITAL RADIO CLUB	7	327,051
MOSCOW RADIO CLUB	4	321,296
MEDITERRANEO DX CLUB	8	317,731
SHARP HAM CLUB	5	317,614
GRUPO DXXE	10	300,336
OK QRP KLUB	6	294,354
7A DX-CONTEST CLUB	10	290,486
LA-DX-GROUP	5	282,047
CSM CRAIOVA	6	281,569
LITTLE GUN CLUB	4	280,432
FIFTH OCEAN	5	274,652
GRIMSBY AMATEUR RADIO SOCIETY	4	271,399
SAYAN DX CLUB	6	268,561
PHILIPPINE AMATEUR RADIO LEAGUE	7	267,709
VFDB	4	255,610
GLOUCESTER AMATEUR RADIO & ELECTRONICS SOCIETY	4	254,558
HARWELL AMATEUR RADIO SOCIETY	4	242,342
YO3KEX	4	235,085
TDR	4	209,821
TORBAY ARS	6	209,461
CS SILVER FOX DEVA	5	185,345
MISSISSAUGA ARC	4	182,942
SP9PGE	4	172,204
TALL TREES CONTEST GROUP	6	161,339
DONBASS CONTEST CLUB	4	153,822
KOREA CONTEST CLUB	5	134,571
MUMBAI AMATEUR RADIO INSTITUTE	7	122,545
KIROVOGRAD REGION RADIO CLUB	4	110,790
SPORT CLUB MIERCUREA-CIUC	4	108,262
YB7-DX CLUB	15	106,891
LA4O	4	102,028
ECHELFORD ARS	4	99,238
DX2EVM SCAN INTERNATIONAL	6	95,686
TRAC	5	94,229
THE AKITA DX ASSOCIATION	7	91,987
SP9PBB	5	87,822
CSM CLUJ-NAPOCA	4	68,187
LOMZA AND DISTRICT RADIO SOCIETY CONTEST GROUP	4	67,484
IFM DX-TEAM	4	63,360
RADIO CLUB DE PANAMA	4	55,717
RADIO CLUB ETERNAUTAS	6	55,298
HAMILTON ON ARC (AGGREGATE)	5	55,259
DX1EVM SCAN INTERNATIONAL	5	47,315
G8AMC	4	44,930
ORARI LOKAL KEDIRI	18	44,594
SPDXT	5	34,934
ORARI LOKAL BOGOR	5	34,808
SATARA INSTITUTE OF HAMS	4	34,026
EDIT14	5	30,066
BOGOR DX CLUB	5	25,220
SINGLE FIGHTER DX GROUP	5	22,776
NORTHEAST RADIO GROUP	4	21,356
OLDHOUSERADIOCLUB	4	8,326
LABRE-RS	4	2,259

coming from bad Cluster spots (and the occasional RBN reporting error) (see *Table 6*). I'll admit, especially when you are in search & pounce (S&P) mode, that it's tempting to engage in the "click, work, next" mode of operating. What's missing? LISTEN! As with previous years, there were literally thousands of bad calls in submitted logs that came from logging a bad call on the screen vs. the one that was actually being used on the air. Taking a few extra seconds to listen and ensure you have it right is just good operating!

## Some Thoughts From Your Director

Well, after countless hours of work, thousands of text and email messages, phone calls, Zoom sessions, and other methods of communicating, I'm happy to say the results for the 2021 CQWW contest season are now complete. I'm proud of the progress we have made as a committee in advancing the state of the art in log-checking as each year more progress is made to ensure the results that we publish are as accurate as possible. It's almost unfathomable to think of the days of paper logs and checking without computers. But we are still years away from simply hitting a magic function key to generate the results that you read each year. Manual intervention is inevitable as we strive to "get things right."

One piece of advice I can offer to everyone — experienced or not — is to be sure to read the rules as there are almost always a few updates from one year to the next. A significant number of warnings were issued to some entrants this year that came from their lack of reading and understanding the rules of the game.

As I mentioned in the SSB results, one of the ongoing challenges we face continues to be the lack of recording your audio during the contest as clearly stated in the rules for top competitors. My suggestion is to view this requirement as a tangible way to improve your operating skills vs. a burdensome act by the log-checkers. I learn something new every time I listen either to my own recordings or those of someone else. Don't put yourself in the position of being reclassified (or worse) if asked to supply this log-checking tool that we use, albeit on rare occasion, when needed.

## Some Closing Words

Unfortunately, I only get two opportunities per year to publicly offer my sincere thanks to a special group of dedicated contesters — the CQWW Contest Committee. With respect and great pride I acknowledge the following members who helped produce the results you are reading: CT1BOH, José Nunes; EA4KD, Pedro Vadillo; ES5TV, Tonno Vahk; F6BEE, Jacques Saget; GØMTN, Lee Volante; HA1AG, Zoli Pitman; IK2QEI, Stefano Brioschi; JH5GHM, Katsuhiko (Don) Kondou; K1DG, Doug Grant; K1EA, Ken Wolff; K3LR, Tim Duffy; K3WW, Charles Fulp; K3ZO, Alfred A. (Fred) Laun, III; K5ZD, Randy Thompson; KR2Q, Doug Zwiebel; LA6VQ, Frode Igland; LU5DX, Martin Monsalvo; MØDXR, Mark Haynes; OH6LI, Jukka Klemola; PA3AAV, Gert Meinen; RA3AUU, Igor (Harry) Booklan; S5ØA, Tine Brajnik; S5ØXX, Kristjan Kodermac; UA9CDC, Igor Sokolov; VE3EJ, John Sluymmer; VK2IA, Bernd Laenger; and YO3JR, Andrei (Andy) Ruse. Without a doubt, this is the best team in all of contesting!

As I finish writing these results, the Solar Flux Index is sitting at 101 (156 two weeks ago!). Indeed, the sun has come to life, creating great promise for another amazing CQWW this year. I hope to hear you on SSB on October 29<sup>th</sup> and 30<sup>th</sup> and CW on November 26<sup>th</sup> and 27<sup>th</sup>, 2022!

– 73, John, K1AR