

CW Results of the 2020 CQ World Wide DX Contest

A Different Contest from SSB — Bring on Cycle 25!

“My age is 99 years old — but I still love this contest!” – DL2AXM

BY JOHN DORR,* K1AR

Although the 72nd CQWW CW contest is in the rear-view mirror, the memories from the weekend continue. While SSB conditions were an improvement over the previous year, CW turned out to be a significant step above that.

In fact, your feedback tells the real story. Each year, we receive over 1,500 soapbox comments with your logs, mostly expressing enthusiasm and excitement over the conclusion of yet another successful CQWW contest. In a sample of this year’s group, you said:

“My first HF-CW-Contest! Thanks for all contacts!” – DB5DY
“Getting back on the air with indoor 10M dipole after 30+ years.” – KB2DSR

“First CQWW CW contest, and for sure not the last! Real fun!” – SEØP

“Great to see 10 meters alive!” – VK5GR

The 2020 CQWW CW contest was unique in many ways. Of course, the elephant in the room was COVID-19. A sharp reduction in both multipliers and multi-op entries dominated the landscape. Yet, at the same time, we had a record num-

ber of log submissions (9,107 entries). There’s just no stopping the world’s most popular operating event.

So, let me share the excitement with you. On to the results!

Some Amazing Scores This Year

Well, there’s nothing like a few new sunspots to make things really interesting in the CQWW contest. As Cycle 25 has arrived, we again witnessed the annual single-operator slugfest between T17W (KL9A) and ZF1A (N6MJ) with T17W taking the prize. Oh, did I mention that each entry made more than 10,000 QSOs (T17W: 11,643 and ZF1A: 10,964)? That’s a rough average of about 230 QSOs/hour for the entire contest. Simply amazing effort by both operators.

Speaking of extraordinary, take a look at the U.S. Single-Operator (SO) results. N2IC (operating remotely from N2QV) bested an equally incredible effort by NR3X (N4YDU) (operating remotely from Remote Ham Radio’s Jonestown, Maine, location) with a stunning total of 5,443 QSOs. Nate only had 5,201 QSOs, but pledges to improve, hi! By the way, to put these results in perspective, W3LPL worked only 1,149 QSOs in 1976 to win the U.S. Single-Operator All Band prize. My, how times have changed.

This was a memorable year for the Single-Operator Low Power category as COVID contributed to stopping a 7-year

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Completing his 100th entry in the CQWW contest as PS2T in November 2020; Ville, OH2MM/PY2ZEA (l), celebrates with Nicolas, PY2IG (r), of the Araucaria DX Group. (See sidebar for his story of how CQWW has changed in the past 50 years!)

Table 1

Year	Entities Worked
2020	166
2019	198
2018	194
2017	201
2016	260
2015	248
2014	263
2013	257
2012	249
2011	252
2010	254

Table 1. Number of DX entities that were worked in the CQWW CW contest by year.

win streak by V26K/AA3B (in addition to 16 of the previous 20 years). Ash, 3V8SS, achieved a winning 5.6-million (M) points from his modest 100-watt station, handedly beating his closest competitor, HC2GRC (op. HC2AO) by nearly 1.5M points. Alex, UA5C, stayed home this year from his usual travels to EF8R to win the world QRP title, achieving an impressive 942,000 while falling just short of 2,000 total QSOs.

There was some serious competition in the ever-popular Single-Operator Assisted category last year as three stations bested 10M points on the world stage. In the end, P3X (5B4AMM) prevailed over frequent-traveler P4ØW (W2GD) at 12.6M and UA7K (RW7K)'s score of 10.5M. Randy, K5ZD, showed that even when canceling his planned trip to V4, he

could still deliver an amazing 9.0M result, beating AA3B by over 1M points amongst U.S. competitors.

A look at the multi-op results quickly demonstrates how different the results were from nearly every other year. LZ5R won the World Multi-Single prize at 13.5M with W3LPL (yes, W3LPL!) coming in second. A solid 17.8M-point win was achieved by the team at RM9A, which operated as a Multi-Two entry, solidly beating the experienced team of OM7M by over 4M. And, in a result that hasn't happened in a long time, KC1XX won first place in the world in the Multi-Long category, racking up nearly 20M points. The remote operation of K1TTT took the U.S. plaque for the first time at 11.3M. Congrats to Dave and his team.

Finally, cheers to our rookies! This time around, VK2PW

2020 CQWW CW TROPHY WINNERS AND DONORS

SINGLE OPERATOR, ALL BANDS

World

T17W (Opr.: Christopher Hurlbut, KL9A)
Donor: Vibroplex

World - Low Power

3V8SS (Opr.: Ashraf Chaabane, KF5EYY)
Donor: Slovenia Contest Club

World - QRP

Alexandr Gimmanov, UA5C
Donor: Bob Evans, K5WA

World - Assisted

P3X (Opr.: Sergey Rebrov, 5B4AMM)
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.

Steve London, N2IC
Donor: Frankford Radio Club

U.S.A. - Low Power

Ed Sawyer, N1UR
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

Lary Schimelpfenig, K7SV
Donor: LA8W / LN8W & LA Contest Club

U.S.A. - Zone 3

NØ6T (Opr.: Axel W. Bruderer, K16RRN)
Donor: Arizona Outlaws Contest Club

U.S.A. - Zone 4

Mike Wetzel, W9RE
Donor: Central Texas DX and Contest Club - K6RV Memorial

U.S.A. - Zone 5

NR3X (Opr.: Nathan G. Moreschi, N4YDU)*
Donor: Carolina DX Association — N4ZC Memorial

Europe

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

Europe - Low Power

MU2K (Opr.: Oleg Borisov, RL5D)
Donor: Tim Duffy, K3LR

Europe - QRP

Gediminas Lucinskas, LY9A*
Donor: Sergio Cartoceti, IK4AUY — I4FAF Memorial

Europe - Assisted

UA7K (Opr.: Andy Kotovsky, RW7K)
Donor: IR4X Monte Capra Contest Team — I4IND Memorial

Europe - Assisted Low Power

Alexander Urzhumtsev, RG5A
Donor: Alex Goncharov, R3ZZ

Africa

Juan Hidalgo, EA8RM
Donor: Ralph "Gator" Bowen, N5RZ — K5KA Memorial

Asia

Aleksey Polevik, RA9P
Donor: DFW Contest Group — W5PG Memorial

Carib./C.A.

ZF1A (Opr.: Dan Craig, N6MJ)*
Donor: DFW Contest Group — W5PG Memorial

Carib. / C.A. - Low Power

VP5M (Opr.: James F. Jordan, K4QPL)
Donor: Albert Crespo, NH7A

Oceania

KH7Q (Opr.: Alex Tkatch, KU1CW)
Donor: Ken Hoppe, KH7R

South America

HC2GRC (Opr.: Alexey Ogorodov, HC2AO)
Donor: Dave Farnsworth, WJ2O

South America - Southern Cone (CE, CX, LU)

Sebastian Galeazzi, LU8MHL
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

VE2IM (Opr.: Yuri Onipko, VE3DZ)
Donor: John Sluymer, VE3EJ & Jim Roberts, VE7ZO

Canada - Low Power

Victor Androsow, VA2WA
Donor: Maritime Contest Club — VE1AL Memorial

Russia

Jack Danielyan, R2AA
Donor: Roman Thomas, R5AA

Japan - High Power

Masaki Masa Okano, JH4UYB
Donor: Phil Yasson, AB7RW

Japan - Low Power

Nob Watanabe, JH1EAQ
Donor: Juan Muñoz, TG9AJR

Japan - Assisted

Harumi Kukita, JR4OZR
Donor: Aki Nagi, JA5DQH

SINGLE OPERATOR, SINGLE BAND

World - 28 MHz

Ricardo Sawon, LU2DX
Donor: Joel Chalmers, KG6DX

World - 21 MHz

Jesus Maria Rubio, LU5FC
Donor: CWOps

World - 14 MHz

D4Z (Opr.: Luca Aliprandi, IK2NCJ)
Donor: North Jersey DX Assn. — W2JT Memorial

World - 7 MHz

KP2M (Opr.: Phillip Allardice, KT3Y)
Donor: John Rodgers, WE3C

World - 3.5 MHz

GM5X (Opr.: Keith Kerr, GM4YXI)
Donor: 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

K3LR (Opr.: John Golomb, Jr., N2NC)
Donor: Northern Illinois DX Association

U.S.A. - 7 MHz

Brian Edward, N2MF
Donor: Gene Shablygin, W3UA

U.S.A. - 3.5 MHz

Steven Sussman, W3BGN
Donor: Bill Feidt, NG3K

U.S.A. - 1.8 MHz

Rick Niswander, K7GM
Donor: Jeff Briggs, K1ZM

Europe - 28 MHz

CR2AA (Opr.: Joao Lima, CU3AA)
Donor: Jay Pryor, K4OOG

Europe - 21 MHz

CR2X (Opr.: Niko Halminen, OH2GEK)
Donor: John Rodgers, WE3C

Europe - 14 MHz

OH8X (Opr.: Pasi Luoma-Aho, OH6UM)
Donor: Maud Slater — G3FXB Memorial

Europe - 7 MHz

4O3A (Opr.: Radomir Jungio-Rade, E77W)
Donor: Ivo Pezer, 9A3A

Europe - 3.5 MHz

OK7W (Opr.: Stanislav Kostal, OK1CID)*
Donor: Frankford Radio Club — K3VW Memorial

was the world-high winner with nearly 300K. Although Adam claims to be taking a break due to family commitments, I'm guessing that he'll be back at it this fall. K6KM posted the winning U.S. Rookie score at 200K, beginning his contest career in just 2019 as a member of the N6RO Multi-Multi team. Retiring from the semiconductor industry in 2016, Roberto got his ham ticket in 2018 and has been steadily rising in various contest circles ever since.

Where Did the Multipliers Go?

After seeing the effects of COVID-19 on the SSB contest multiplier count, I think we all knew the same thing was going to happen on CW. And, happen it did (see *Table 1*). The 2020 CQWW CW contest had the lowest number of worked entities

in over a decade with a dramatic drop of 16% from the previous year. Perhaps even more amazing is that the total was nearly 37% lower than the high of 2014. Of course, other factors also come into play, particularly solar performance. But, in spite of these challenges, the 2020 contest still had participants from a number of interesting places such as 5H, 5T, 5Z4, 8Q7, 9G, 9L, A9, T6, ZD7, and many others, who collectively generated tens of thousands of QSOs for the rest of us.

With pent-up demand solidly in place to get on airplanes and hopefulness for COVID-19 relief in 2021, the upcoming CQWW DX Contest is going to be very exciting indeed!

How Much Time Did You Spend on the Radio?

Even with a pandemic and solar minimum in play, it seems

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
Pavel Kukushkin, UN9L
 Donor: Rich Gelber, K2WR

Carib./C.A. (14 MHz)
KP2B (Opr.: Jaime Vazquez, WP3A)*
 Donor: David Hodge, N6AN

Canada (21 MHz)
Nick Lekic, VE3EY
 Donor: John Sluymmer, VE3EJ

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

Japan - 14 MHz
Yukihisa Yamashita, JA6LCJ
 Donor: Chris Terkla, N1XS

OVERLAY CATEGORIES

World - Classic
T6A (Opr.: Robert Kasca, S53R)
 Donor: CWops

U.S.A. - Classic
Ken Claerbout, K4ZW
 Donor: CWops

World - Rookie
Adam McCarthy, VK2PW
 Donor: CWops

U.S.A. - Rookie
Paul Cottone, K2PJC
 Donor: CWops

Europe - Rookie
Witold Zoloteni, SP5WAZ
 Donor: EA Contest Club

Asia - Rookie
Wei Peng, BD7NQA
 Donor: Jon Kimball, KL2A — VU2PAI Memorial

MULTI-OPERATOR, SINGLE TRANSMITTER

World
LZ5R (Oprs.: K1LZ, K3JO, LZ1INI, LZ1JZ, LZ1RGT, LZ1UK, LZ1YQ, LZ2BE, LZ2PL, LZ2XA, LZ3HI, LZ3ND, LZ3ZZ, LZ5DB, LZ5ZM, RN5M, S55M)
 Donor: Friends of Rich — KL7RA Memorial

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

U.S.A.
W3LPL (Oprs.: W3LPL, K3MM, K3RA, KD4D, KL2A, N3OC, NN3W, WR3Z)
 Donor: Douglas Zwiebel, KR2Q

U.S.A. - Low Power
W1FM (Oprs.: W1FM, N1SOH)
 Donor: CWops

Asia
RN9C (Oprs.: R9CW, RW9DX, RW9CQ, RL8C)
 Donor: Steve Merchant, K6AW

Carib. / C.A.
WP3C (Oprs.: WP3C, WP3TT, N2GK)
 Donor: CWops

Europe
ES9C (Oprs.: ES1BVG, ES2RR, ES4NY, ES4RD, ES5JR, ES5RY, ES5QA, ES5TV, ES6QC, ES7GM, YL3DW)
 Donor: Gail Sheehan, K2RED

Europe - Low Power
TM6M (Oprs.: F1AKK, F8DBF)
 Donor: Marco Holleyn, DJ4MH

Oceania
VK2IA (Oprs.: VK2IA, VK2PN, VK4CT)
 Donor: Junichi Tanaka, JH4RHF

South America
CE3CT (Oprs.: CE3CT, CE2LR)*
 Donor: Araucaria DX Group

Canada
VE6SV (Oprs.: KØXF, VE6RST, VE6SV)
 Donor: John Sluymmer, VE3EJ — VE3TA Memorial

Japan
JA7ZFN (Oprs.: JH7XMO, JI7GBI, JP7DKQ, JR7TEQ)
 Donor: Madison Jones, W5MJ

ASEAN (XZ, HS, XW, XU, 3W, 9M, 9V, V8, YB, DU)
E2A (Oprs.: E25KAE, E29TGW, E24OYI, E2ØNKB, E21EIC)
 Donor: Bruce Frahm, KØBJ

MULTI-OPERATOR, TWO TRANSMITTERS

World
RM9A (Oprs.: RG9A, RZ8A, RA9AA, RL9A, RK9A, RN9A, R9CM, UC9A)
 Donor: Array Solutions

U.S.A.
K1IR (Oprs.: K1IR, K1OA, KE1J, NH1, W1UE)
 Donor: Robert Kasca, S53R

Europe
OM7M (Oprs.: OM2KI, OM3PA, OM4AZF, OM5RM, OM5ZW)
 Donor: World Wide Radio Operators Foundation (WWROF)

ASEAN (XZ, HS, XW, XU, 3W, 9M, 9V, V8, YB, DU)
7A1A (Oprs.: YB1AR, YB1ACN, YB1TIA, YB1EGP, YB1AM, YE1AR, YB4GBN, YC1FMZ, YC1RIK)
 Donor: Champ C. Muangamphun, E21EIC — Siam DX Group

MULTI-OPERATOR, MULTI TRANSMITTER

World
KC1XX (Oprs.: KC1XX, KM3T, N5DX, NN1C, W1FV, WA1Z)
 Donor: The K2GL Operators — K2GL Memorial

U.S.A.
K1TTT (Oprs.: NT2X, W3MLJ, W1ZZ, K2KQ, W2ID, W1TO, KC1KUG, NF1D, K1BG, K1TTT, W1UE, NJ1F)*
 Donor: Ham Radio Outlet — W6RJ & N6RJ Memorial

Europe
LZ9W (Oprs.: LZ1PM, LZ2CJ, LZ1ZD, LZ1BJ, LZ2UU, LZ3FM, LZ3RR, LZ1FG, LZ4AE, LZ3UP, LZ1PJ, LZ1VS, LZ2HQ)
 Donor: Finnish Amateur Radio League

Asia
8Q7ZO (Oprs.: N5ZO, W6NV)
 Donor: Nodir Tursun-Zade, EY8MM

CONTEST EXPEDITIONS

World Single Operator
CR3DX (Opr.: Jozef Lang, OM3GI)
 Donor: Friends of Phil — N6ZZ Memorial

World Multi-Operator
8Q7ZO (Oprs.: N5ZO, W6NV)
 Donor: CWops

SPECIAL AWARDS

World SSB / CW Combined
Juan Hidalgo, EA8RM
24,307,929
 Donor: Hrane Milosevic, YT1AD

U.S.A. SSB / CW Combined
Steve London, N2IC
9,483,266
 Donor: Bob Shohet, KQ2M

Europe SSB / CW Combined
E7DX (Opr.: Emir-Braco Memic, E77DX)
14,099,883
 Donor: Ilya Semichastnov, R3XA

Triathlon Award - World RTTY / SSB / CW Combined
Manfred Wolf, DJ5MW
10,346,591
 Donor: DX Lodge Roatan (HQ9X)

Triathlon Award - Europe RTTY / SSB / CW Combined
Tine Brajnik, S5ØA*
4,055,455
 Donor: Bavarian Contest Club — DJ4PT Memorial

World Combined SSB / CW Score 160 Meters
NP2J (Opr.: Daniel Flaig, K8RF)
238,672
 Donor: Team IB9T/IR9Y — IT9ZGY Memorial

World Combined SSB / CW Score - Multi-Operator Multi-Transmitter
KC1XX (Oprs.: K1QX, KC1XX, KM3T, N5DX, NN1C, W1FV, WA1Z)
34,755,87Ø
 Donor: Friends and Family of Gene — N2AA Memorial

CLUB

U.S.A. SSB / CW
Frankford Radio Club
318,162,135
 Donor: Northern California Contest Club

DX SSB / CW
Bavarian Contest Club
232,436,576
 Donor: John Rodgers, WE3C

*Second place

Table 2

Hours	# Entries*	% of All	Cum %
0.1-5	758	13.1%	13.1%
5.1-10	1,166	20.1%	33.2%
10.1-15	1,010	17.4%	50.6%
15.1-20	893	15.4%	66.0%
20.1-25	749	12.9%	79.0%
25.1-30	478	8.2%	87.2%
30.1-35	355	6.1%	93.3%
35.1-40	183	3.2%	96.5%
40.1-45	152	2.6%	99.1%
>45	51	0.9%	100.0%
Total Logs 5,795			
Median Hours 14.7			
*SOAB entries only			



Here is Father Ed, OA4SS, putting Peru on the air as a CQWW regular since 1980!

Table 2. Single-operator operating time analysis.

2020 CQWW DX CW TOP SCORES

WORLD SINGLE OPERATOR HIGH POWER All Band		3.5 MHz		14 MHz	
CR2AA (CU3AA).....	136,595	S57M.....	49,414	UR5QU.....	203,875
LU4HK.....	83,582	OK1FKD.....	38,064	UT1DX.....	150,192
		OZ4UN.....	30,894	R3KQ.....	142,448
		1.8 MHz		7 MHz	
TI7W (KL9A).....	15,202,971	UA2FF.....	41,230	EA3O.....	172,183
ZF1A (N6MJ).....	12,969,774	DL1EFW.....	22,385	OK2AP.....	78,480
EA8RM.....	11,297,799	HB9CPS.....	7,683	LY2OU.....	54,405
CR3DX (OM3GI).....	11,279,124			3.5 MHz	
CR6K (CT1ILT).....	10,269,280			ROOKIE High Power	
VE2IM (VE3DZ).....	8,880,313			VK2PW.....	299,208
N2IC (@N2QV).....	8,097,882			IU1LCU.....	201,894
NR3X (N4YDU).....	7,643,904			K6KM.....	200,400
R2AA.....	7,533,973			LB5GI.....	162,140
RA9P.....	7,270,450			41EBC.....	80,192
				EA5IU.....	79,920
				DD3FH.....	32,130
				R1QAL.....	11,189
				KB2S.....	5,684
				AG5VG.....	3,731
				Low Power	
				K2PJC.....	295,698
				9M2TDX.....	247,596
				SP5WAZ.....	229,152
				YC1RKT.....	182,528
				EU1ADY.....	154,212
				IU0LFO.....	140,693
				OK5MAX.....	75,001
				VA3TMV.....	65,120
				LY0NAS.....	62,976
				BD7NQA.....	48,006
				CLASSIC High Power	
				T6A (S53RF).....	3,608,220
				VA2EW.....	2,848,943
				KH7Q (KU1CW).....	2,730,915
				S50A.....	2,671,488
				K4ZW.....	2,507,284
				DC4A (DL4NAC).....	2,405,868
				I2S (IK2QE).....	2,325,210
				H5AJ.....	2,124,334
				W4CB (W2RU).....	2,067,840
				PS2T (PY2ZEA).....	2,027,448
				Low Power	
				UA9BA.....	2,742,732
				VP5M (K4QPL).....	2,065,378
				N8II.....	1,780,360
				UP7L (UN6LN).....	1,525,438
				H3Y.....	1,188,810
				M7Q (G4PIQ).....	1,159,422
				VE3KI.....	1,002,500
				LZ7J (LZ1CL).....	960,768
				K3AU (K2YWE).....	931,104
				NM5M.....	927,843
				MULTI-OP MULTI-TRANSMITTER	
				KC1XX.....	19,829,790
				21 MHz	
5H3EE (DM2MX).....	542,927	P3X (5B4MM).....	12,610,026	9G5FI (DL2RMC).....	834,779
XE1CT.....	454,410	P4QW (W2GD).....	11,554,326	PQ3B (PP5BZ).....	529,848
LU1ICX.....	291,924	UA7K (RW7K).....	10,465,770	HK3TU.....	500,825
		K5ZD.....	8,992,263	1.8 MHz	
		4X6FR.....	8,232,255	GW5R (GW3YDX).....	800,766
		AA3B.....	7,919,814	RA9AP.....	448,766
		K1ZZ.....	7,629,550	UK9AA.....	425,824
		K3WW.....	7,612,290	7 MHz	
		K1IG.....	7,527,576	OL9R (OK6RA).....	479,225
		HA3NU.....	7,499,008	I04X (IK4ZGO @IR4X).....	460,224
				UA9W.....	406,410
				3.5 MHz	
				XE2X.....	288,189
				YL3CW.....	225,378
				S56M.....	201,930
				1.8 MHz	
				8S0DX (SMODSG).....	96,924
				LY4ZZ (LY2BMX).....	68,586
				SN0R (SQ9IAU).....	64,789
				ASSISTED QRP All Band	
				DM2M (DK3WE).....	1,304,160
				RMF5.....	909,226
				I28JFL.....	712,256
				RD9D.....	619,520
				E74Y.....	618,375
				OL4W (OK1IF).....	617,960
				G4ZFE.....	349,250
				YU1LM.....	317,015
				DL4YAO.....	308,646
				K8ZT.....	297,959
				28 MHz	
				YT2T.....	14,472
				CT1FPQ.....	12,060
				3G3Q (XQ3OP).....	10,120
				ASSISTED LOW POWER All Band	
				P3AA (RN3QO).....	4,972,775
				VP9I (K08SCA).....	3,657,267
				RG5A.....	3,452,832
				NP3X (N2TTA).....	3,188,802
				21 MHz	
				4X0A (4X1VF).....	124,786
				OK2FD.....	101,736
				HA3JB.....	58,695
				28 MHz	
				EA2FF.....	41,230
				DL1EFW.....	22,385
				HB9CPS.....	7,683
				28 MHz	
				PY3OZ.....	255,948
				L17D.....	129,546
				PY1VOY.....	126,720
				21 MHz	
				9G5FI (DL2RMC).....	834,779
				PQ3B (PP5BZ).....	529,848
				HK3TU.....	500,825
				14 MHz	
				GW5R (GW3YDX).....	800,766
				RA9AP.....	448,766
				UK9AA.....	425,824
				7 MHz	
				OL9R (OK6RA).....	479,225
				I04X (IK4ZGO @IR4X).....	460,224
				UA9W.....	406,410
				3.5 MHz	
				XE2X.....	288,189
				YL3CW.....	225,378
				S56M.....	201,930
				1.8 MHz	
				8S0DX (SMODSG).....	96,924
				LY4ZZ (LY2BMX).....	68,586
				SN0R (SQ9IAU).....	64,789
				ASSISTED QRP All Band	
				DM2M (DK3WE).....	1,304,160
				RMF5.....	909,226
				I28JFL.....	712,256
				RD9D.....	619,520
				E74Y.....	618,375
				OL4W (OK1IF).....	617,960
				G4ZFE.....	349,250
				YU1LM.....	317,015
				DL4YAO.....	308,646
				K8ZT.....	297,959
				28 MHz	
				YT2T.....	14,472
				CT1FPQ.....	12,060
				3G3Q (XQ3OP).....	10,120
				ASSISTED LOW POWER All Band	
				P3AA (RN3QO).....	4,972,775
				VP9I (K08SCA).....	3,657,267
				RG5A.....	3,452,832
				NP3X (N2TTA).....	3,188,802
				21 MHz	
				4X0A (4X1VF).....	124,786
				OK2FD.....	101,736
				HA3JB.....	58,695
				28 MHz	
				EA2FF.....	41,230
				DL1EFW.....	22,385
				HB9CPS.....	7,683
				28 MHz	
				PY3OZ.....	255,948
				L17D.....	129,546
				PY1VOY.....	126,720
				21 MHz	
				9G5FI (DL2RMC).....	834,779
				PQ3B (PP5BZ).....	529,848
				HK3TU.....	500,825
				14 MHz	
				GW5R (GW3YDX).....	800,766
				RA9AP.....	448,766
				UK9AA.....	425,824
				7 MHz	
				OL9R (OK6RA).....	479,225
				I04X (IK4ZGO @IR4X).....	460,224
				UA9W.....	406,410
				3.5 MHz	
				XE2X.....	288,189
				YL3CW.....	225,378
				S56M.....	201,930
				1.8 MHz	
				8S0DX (SMODSG).....	96,924
				LY4ZZ (LY2BMX).....	68,586
				SN0R (SQ9IAU).....	64,789
				ASSISTED QRP All Band	
				DM2M (DK3WE).....	1,304,160
				RMF5.....	909,226
				I28JFL.....	712,256
				RD9D.....	619,520
				E74Y.....	618,375
				OL4W (OK1IF).....	617,960
				G4ZFE.....	349,250
				YU1LM.....	317,015
				DL4YAO.....	308,646
				K8ZT.....	297,959
				28 MHz	
				YT2T.....	14,472
				CT1FPQ.....	12,060
				3G3Q (XQ3OP).....	10,120
				ASSISTED LOW POWER All Band	
				P3AA (RN3QO).....	4,972,775
				VP9I (K08SCA).....	3,657,267
				RG5A.....	3,452,832
				NP3X (N2TTA).....	3,188,802
				21 MHz	
				4X0A (4X1VF).....	124,786
				OK2FD.....	101,736
				HA3JB.....	58,695
				28 MHz	
				EA2FF.....	41,230
				DL1EFW.....	22,385
				HB9CPS.....	7,683
				28 MHz	
				PY3OZ.....	255,948
				L17D.....	129,546
				PY1VOY.....	126,720
				21 MHz	
				9G5FI (DL2RMC).....	834,779
				PQ3B (PP5BZ).....	529,848
				HK3TU.....	500,825
				14 MHz	
				GW5R (GW3YDX).....	800,766
				RA9AP.....	448,766
				UK9AA.....	425,824
				7 MHz	
				OL9R (OK6RA).....	479,225
				I04X (IK4ZGO @IR4X).....	460,224
				UA9W.....	406,410
				3.5 MHz	
				XE2X.....	288,189
				YL3CW.....	225,378
				S56M.....	201,930
				1.8 MHz	
				8S0DX (SMODSG).....	96,924
				LY4ZZ (LY2BMX).....	68,586
				SN0R (SQ9IAU).....	64,789
				ASSISTED QRP All Band	
				DM2M (DK3WE).....	1,304,160
</					

Table 3

Category	AF	AS	EU	NA	OC	SA	ALL	% of total
SOAB High Assisted	3	132	678	783	20	22	1,638	27.1%
SOAB High Unassisted	7	136	313	288	25	10	779	12.9%
SOAB Low Assisted	3	126	750	366	17	31	1,293	21.4%
SOAB Low Unassisted	7	298	998	472	29	37	1,841	30.4%
SOAB QRP Assisted		6	55	17	1	1	80	1.3%
SOAB QRP Unassisted		23	98	39	2	2	164	2.7%
Multi-2		9	13	14	2	1	39	0.6%
Multi-Multi		5	9	12		1	27	0.4%
Multi-Single High		21	71	24	7	2	125	2.1%
Multi-Single Low		11	36	8	4	1	60	1.0%
ALL	20	767	3,021	2,023	107	108	6,046	100.0%
% by continent	0.3%	12.7%	50.0%	33.5%	1.8%	1.8%	100.0%	

*Single band entries not included in analysis.

Table 3. All Band/Multi-Op entry category totals by continent.

<p>UNITED STATES SINGLE OPERATOR HIGH POWER All Band</p> <p>N2IC (@N2QV)8,097,882 NR3X (N4YDU)7,643,904 W1KM6,802,376 KQ2M5,645,169 NO6T (K16RRN @WA6TQT)5,238,210</p> <p>28 MHz</p> <p>W4DD56,595 K4WI48,440 KU5B18,981</p> <p>21 MHz</p> <p>N5AW527,952 K1RM524,032 N4OGW521,875</p> <p>14 MHz</p> <p>K3LR (N2NC)979,806 KD2RD714,531 NR5M (K5GA)621,764</p> <p>7 MHz</p> <p>N2MF685,270 K9CJ86,496 W8TWA52,105</p> <p>3.5 MHz</p> <p>W3BGN126,933 W0EWD119,968 NE8P78,186</p> <p>1.8 MHz</p> <p>K7GM85,794 N0NI19,500 W2VO13,572</p> <p>LOW POWER All Band</p> <p>N1UR2,917,286 N9NB2,002,702 N8II1,780,360 N4TZ1,616,600 W4KZ (K65HVO)1,392,236</p> <p>28 MHz</p> <p>W5GAI9,720 N4NM4,983 K7EAU1,377</p> <p>21 MHz</p> <p>WB4TDH195,764 AB1J62,866 W3DF51,590</p> <p>14 MHz</p> <p>K8AJS204,600</p>	<p>K1VSJ150,660 K1EFI62,153</p> <p>7 MHz</p> <p>W3EF133,964 NI0G59,232 WA3FAE54,954</p> <p>3.5 MHz</p> <p>KZ1W (N6MZ)40,866 NB2P6,747 AC8CE5,632</p> <p>1.8 MHz</p> <p>KH6KG/W53,404</p> <p>QRP All Band</p> <p>KR2Q838,242 W6JTI255,932 W6QU (W8QZA)161,755 ND0C154,251 W1UU131,290</p> <p>28 MHz</p> <p>WE6EZ1,176</p> <p>21 MHz</p> <p>W4IOP14,732 WA6FGV9,548 KK0U8,300</p> <p>14 MHz</p> <p>N8ET69,433 W1IG11,781 W2VRK9,010</p> <p>7 MHz</p> <p>N5ER6,192</p> <p>ASSISTED HIGH POWER All Band</p> <p>K5ZD8,992,263 AA3B7,919,814 K1ZZ7,629,550 K3WW7,612,290 K1IG7,527,576</p> <p>28 MHz</p> <p>N4BP49,848 N6SS35,360 K9LA13,696</p> <p>21 MHz</p> <p>K3UA (@K3LR)669,438 K2SSS485,595 W4NZ383,872</p> <p>14 MHz</p> <p>N5RZ567,300 N7DD401,792 K2LNS382,302</p>	<p>7 MHz</p> <p>K9OM546,912 K7NJ342,432 W9PA316,820</p> <p>3.5 MHz</p> <p>W3NO154,132 W8AV117,342 W3LL94,500</p> <p>1.8 MHz</p> <p>W8UVZ10,670 W7RH8,442 KA7T2,816</p> <p>ASSISTED LOW POWER All Band</p> <p>K7SV2,454,333 KS1J2,128,092 W1NT1,633,140 K4OAQ1,513,932 W3KB1,442,815</p> <p>21 MHz</p> <p>K4MM122,555 A1TT (W1WBB)118,860 AC5O48,321</p> <p>14 MHz</p> <p>W3IQ47,637 K2RK39,130 N6MA20,121</p> <p>7 MHz</p> <p>N5JR90,287 AA4NP86,388 K9EL72,820</p> <p>3.5 MHz</p> <p>N4J65,758 N3AC33,726 WB2AA32,731</p> <p>1.8 MHz</p> <p>K6ND (N2KW)7,650</p> <p>ASSISTED QRP All Band</p> <p>K8ZT297,959 K2AL34,947 N3HCN26,001 N4MJ20,274 KU4A19,350</p> <p>21 MHz</p> <p>K2GMY13,432 KG1E11,481</p> <p>14 MHz</p> <p>KR4AE12,276 NK5G2,070</p>	<p>MULTI-OP SINGLE TRANSMITTER High Power</p> <p>W3LPL12,616,048 W3UA9,697,480 W2FU8,809,398 K2QMF6,742,008 K5KG4,725,711</p> <p>Low Power</p> <p>W1FM539,874 AB9YC285,825 K1SU8,970</p> <p>MULTI-OP TWO TRANSMITTER</p> <p>K1IR9,586,329 ND7K6,506,265 K2LE6,114,048 N4UU5,686,789 N7AT4,827,390</p> <p>MULTI-OP MULTI-TRANSMITTER</p> <p>KC1XX19,829,790 K1TTT11,303,516 K0RF7,155,624 K1KI5,792,280 N6WM5,287,560</p> <p>ROOKIE High Power</p> <p>K6KM200,400 KB2S5,684 AG5VG3,731</p> <p>Low Power</p> <p>K2PJC295,698 K04GBD25,553 KN4SMO25,200 W5CUY23,154 WU6P18,150</p> <p>CLASSIC High Power</p> <p>K4ZW2,507,284 W4CB (W2RU)2,067,840 W1WFE1,959,012 WB9Z1,819,590 N4CW1,639,360</p> <p>Low Power</p> <p>N8II1,780,360 K3AU (K2YWE)931,104 NM5M927,843 K1HT539,643 K4SXT526,990</p>
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that nothing stops us from making a serious investment in operating time during the CQWW contest. As seen in *Table 2*, this year was no exception. In fact, the pandemic may have actually contributed to an increase in our operating time with this year's median operating time more than 53% higher than last year. Where else would one want to spend their spare time than playing in the CQWW? Yet another Zoom call? I don't think so.

For starters, there are those single-op guys. You know who you are. The ones who somehow managed to operate all 48 hours of the contest. For this director, that goal is an item of the distant past. But for 14 operators, the marathon was achieved — wow! This elite group included: P3X, RM9I, JH4UYB, UT5C, R2AA, E7DX, HG3N, S57K, YT6W, UA7K, OM2VL, TI7W, ZF1A, and VE2IM.

What's Your Favorite Category?

Yet again, the Single-Op Assisted category was your most popular choice in the 2020 CW contest. When considering all of the entries in the contest (excluding single-band logs), nearly 50% of them were Single-Ops using assistance, (see *Table 3*).

Coming as no surprise to anyone, however, was the lack of multi-operator entries with only 251 received log submissions out of a record 9,107 logs. That's in sharp contrast to 335 entries last year (a 25% year-on-year decline). When you consider that many of the 2020 multi-ops used remote access, the reduced number of actual "in person" entries is even more dramatic. There's



Now you know why Dan, NP2J, has such a booming low-band signal as his vertical array overlooks nothing but water and Buck Island to the north.

no doubt that many station owners are champing at the bit to open their front doors this fall. As exciting and opportunistic as remote operating may be, nothing beats the camaraderie of a friend sitting in the chair next to you.

There's Accuracy and Then There's ACCURACY!

All of us know the real point of this contest thing, right? Of course — it's to have fun and enjoy the competition. But there is another goal (beyond the points), which is to *accurately* copy and log the stations that you work. Our job on the committee is to ensure that you, in fact, do that and operate according to the rules of the contest. For a very small group of outstanding operators, tremendous accuracy was achieved in the 2020 CW contest as seen in *Table 4*. Kudos go out to these amazing contesters and their ability to achieve ACCURATE results.

Where Did You Make Your QSOs?

We all have our favorite band(s). Some like the excitement of low-band activity. Others prefer the higher rate and lower

2020 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
CR3W	1359/17/66	2402/24/89	3627/29/96	4298/36/123	3270/34/123	2189/26/88
TI7W	452/16/31	1399/25/71	2764/29/85	2847/32/89	3028/31/96	1153/20/42
ZF1A	495/15/36	1480/25/68	2830/30/85	2452/31/78	2979/24/85	728/15/29
EA8RM	118/9/30	712/15/52	2152/25/79	1145/25/61	2010/27/88	1732/23/79
CR3DX	252/12/41	763/18/55	2024/24/70	1326/24/60	1840/26/85	1554/24/69

USA TOP SINGLE OPERATOR ALL BAND

Station	160	80	40	20	15	10
N2IC	139/13/42	884/23/71	1525/31/90	1690/32/93	1166/24/79	39/12/17
NR3X	202/12/43	602/19/62	1516/25/86	1568/30/89	1234/26/91	79/19/36
W1KM	131/12/43	1010/25/73	1159/23/78	1136/25/78	1132/25/82	93/17/37
KQ2M	52/13/31	689/18/60	1083/24/83	1003/33/88	1367/23/89	52/15/26
NO6T	69/14/18	512/28/52	1332/32/84	1137/35/96	753/27/72	160/22/30

WORLD SINGLE OPERATOR ASSISTED ALL BAND

Station	160	80	40	20	15	10
P3X	284/13/53	1173/23/78	1981/32/107	1318/29/98	1680/33/108	554/13/52
P40W	391/17/50	820/22/72	1404/29/96	1209/32/104	1589/28/96	1073/23/52
UA7K	333/24/71	1131/32/100	2466/35/125	1997/36/121	1162/35/126	350/26/86
K5ZD	127/15/48	668/23/80	1605/32/110	1235/34/112	1170/29/108	79/20/40
4X6FR	17/5/12	388/11/62	2078/33/106	842/32/99	1422/31/96	579/14/48

USA SINGLE OPERATOR ASSISTED ALL BAND

Station	160	80	40	20	15	10
K5ZD	127/15/48	668/23/80	1605/32/110	1235/34/112	1170/29/108	79/20/40
AA3B	95/13/42	749/22/73	1319/30/100	1360/31/100	1017/26/102	113/20/47
K1ZZ	61/13/40	438/26/82	1438/32/110	1022/35/110	97/21/106	107/23/58
K3WWW	81/17/50	596/22/82	1255/31/106	1330/32/104	1078/26/100	66/21/39
K1IG	78/16/52	488/25/82	1198/34/111	921/35/118	1128/29/114	113/22/54

WORLD MULTI-OPERATOR SINGLE TRANSMITTER

Station	160	80	40	20	15	10
LZ5R	220/21/69	1730/30/94	2719/37/129	2358/37/134	1695/36/126	177/27/94
W3LPL	160/20/69	1107/32/98	1756/36/118	1440/37/128	1305/29/118	116/26/67
ES9C	830/25/79	1997/33/102	1722/36/125	2407/37/130	1550/36/132	128/24/85
RL3A	511/27/85	1793/32/106	2216/37/130	1995/38/132	1441/37/131	97/27/94
RT6A	323/15/64	1261/30/95	2664/34/125	2013/37/128	1647/35/125	122/24/85

USA MULTI-OPERATOR SINGLE TRANSMITTER

Station	160	80	40	20	15	10
W3LPL	160/20/69	1107/32/98	1756/36/118	1440/37/128	1305/29/118	116/26/67
W3UA	131/15/52	802/25/84	1525/35/112	1498/32/116	1242/29/107	94/21/52
W2FU	87/19/57	800/26/85	1139/36/111	1406/36/125	1174/28/107	53/22/50
K2QMF	56/14/43	444/25/83	1170/31/105	1149/35/116	973/27/98	55/20/40
K5KG	37/14/28	224/18/63	1031/34/109	803/33/112	717/27/97	104/20/48

WORLD MULTI-OPERATOR TWO TRANSMITTER

Station	160	80	40	20	15	10
RM9A	642/15/56	1779/30/92	2708/35/117	1653/34/110	1703/34/116	735/19/74
OM7M	560/15/65	1480/26/87	2882/35/128	2483/37/130	1356/36/128	174/24/73
DR1A	441/17/66	1684/30/97	2369/36/126	2384/36/128	1522/36/128	164/23/66
OL3Z	637/11/56	2149/28/86	2367/36/122	2113/35/121	1116/36/118	134/25/71
HG7T	389/13/57	1761/29/94	2117/36/124	1956/34/110	1370/35/124	121/22/54

USA MULTI-OPERATOR TWO TRANSMITTER

Station	160	80	40	20	15	10
K1IR	99/15/49	682/22/81	1575/31/107	1887/32/104	1182/26/99	79/19/32
ND7K	50/17/24	300/26/70	1308/35/101	1284/38/110	1056/33/108	105/21/34
K2LE	92/11/37	552/22/71	1025/32/105	1067/33/109	896/26/102	80/20/40
N4UU	80/14/41	450/22/74	716/31/94	1217/36/118	1048/29/103	187/21/46
N7AT	67/13/16	278/24/58	1154/36/101	932/34/103	908/32/90	128/18/30

WORLD MULTI-OPERATOR MULTI-TRANSMITTER

Station	160	80	40	20	15	10
KC1XX	330/22/68	1632/31/97	2629/36/123	2611/37/129	1927/30/119	375/25/73
LZ9W	1203/23/77	2373/29/100	4243/36/122	2673/35/128	1894/36/125	365/27/76
YT5A	1268/14/64	2637/29/93	3562/36/125	2819/36/129	1745/36/131	329/27/81
LN8W	1345/24/66	2111/28/91	2577/36/118	2179/35/110	1350/35/118	251/22/70
K1TTT	275/18/60	804/30/88	1745/33/110	1920/36/115	1236/27/105	327/23/62

USA MULTI-OPERATOR MULTI-TRANSMITTER

Station	160	80	40	20	15	10
KC1XX	330/22/68	1632/31/97	2629/36/123	2611/37/129	1927/30/119	375/25/73
K1TTT	275/18/60	804/30/88	1745/33/110	1920/36/115	1236/27/105	327/23/62
K0RF	181/22/38	310/26/73	1293/37/114	1562/37/113	912/32/112	214/22/43
K1KI	86/16/45	420/22/80	1249/32/104	1034/35/114	622/24/93	46/18/28
N6WM	306/23/32	456/25/45	1266/34/78	969/36/102	922/32/93	252/22/34



Youthful operating at its best as 11-year-old twins Min and Chen operate the CQWW contest from their dad's (Carlos) efficient BH4CAC station in Shanghai.

Min and Chen's freshly minted ham radio licenses add two more operators to the ranks of the contesting community.

QRN that is found on the high bands. Or, maybe you have one band at your station that has a high-performance antenna that you like to use. Regardless, these factors combined with propagation resulted in an interesting spread of QSOs, especially when viewed from one year to the next. Table 5 displays this analysis in detail. With a nearly record number of total QSOs last year (which is amazing considering where

we are in the solar cycle —JD), it's no surprise that 10 meters was depressed. But you'll recall that conditions were improved on CW and so were the number of QSOs made on 15/10 meters. Take a look back just two years to 2018 when only 16,000 QSOs were completed on 10 meters (0.4% of all reported QSOs).

It's not surprising, however, that the low bands continue to thrive. After all, with 20 meters effectively closing down for much of the world after darkness, there's nowhere to go but lower in frequency. With 2020 on the rise and Solar Cycle 25 well underway, I expect next year's numbers to see a huge increase on the high bands. Let's keep our fingers crossed.

EUROPE TOP SINGLE OPERATOR ALL BAND

Station	160	80	40	20	15	10
CR6K	440/15/49	1615/20/70	2534/31/88	2105/29/79	2209/26/78	602/19/56
R2AA	399/17/58	1328/25/85	2238/34/117	1566/32/95	1078/33/115	194/20/60
EA2W	124/10/39	1142/16/57	2037/30/78	1598/26/67	1497/28/88	392/18/57
E7DX	434/11/43	1408/22/71	2147/31/88	1710/29/82	1223/32/79	120/17/40
DJ5MW	291/9/45	1045/16/57	1524/30/80	1846/28/73	1050/31/83	151/23/47

EUROPE SINGLE OPERATOR ASSISTED ALL BAND

UA7K	333/24/71	1131/32/100	2466/35/125	1997/36/121	1162/35/126	350/26/86
HA3NU	217/10/52	822/26/81	1764/35/115	1131/33/108	965/36/110	102/27/71
OM2VL	305/16/61	828/27/91	1818/33/107	853/29/98	1057/36/105	278/26/68
SN7Q	298/17/56	1493/25/87	1119/32/104	940/32/100	912/34/106	132/23/69
IR2Q	177/14/59	728/24/83	1618/35/117	1085/33/103	1051/36/101	115/16/42

EUROPE MULTI-OPERATOR SINGLE TRANSMITTER

LZ5R	220/21/69	1730/30/94	2719/37/129	2358/37/134	1695/36/126	177/27/94
ES9C	830/25/79	1997/33/102	1722/36/125	2407/37/130	1550/36/132	128/24/85
RL3A	511/27/85	1793/32/106	2216/37/130	1995/38/132	1441/37/131	97/27/74
RT6A	323/15/64	1261/30/95	2664/34/125	2013/37/128	1647/35/125	122/24/85
EA5RS	222/14/59	708/27/91	2116/36/122	1335/36/125	1455/37/126	765/31/92

EUROPE MULTI-OPERATOR TWO TRANSMITTER

OM7M	560/15/65	1480/26/87	2882/35/128	2483/37/130	1356/36/128	174/24/73
DR1A	441/17/66	1684/30/97	2369/36/126	2384/36/128	1522/36/128	164/23/66
OL3Z	637/11/56	2149/28/86	2367/36/122	2113/35/121	1116/36/118	134/25/71
HG7T	389/13/57	1761/29/94	2117/36/124	1956/34/110	1370/35/124	121/22/54
OH5Z	860/19/66	1988/28/96	2500/37/120	2385/35/123	745/34/119	123/20/74

EUROPE MULTI-OPERATOR MULTI-TRANSMITTER

LZ9W	1203/23/77	2373/29/100	4243/36/122	2673/35/128	1894/36/125	365/27/76
YT5A	1268/14/64	2637/29/93	3562/36/125	2819/36/129	1745/36/131	329/27/81
LN8W	1345/24/66	2111/28/91	2577/36/118	2179/35/110	1350/35/118	251/22/70
UZ21	460/13/54	1425/22/82	2437/31/108	1804/34/104	1269/33/109	202/20/58
LY2ZO	441/10/44	1299/11/52	515/16/58	355/16/67	139/27/81	0/0/0

The CQWW Has Some Human Rate Machines!

In addition to accuracy, another metric of contest performance is rate — the number of QSOs worked per hour being

TOP SCORES IN VERY ACTIVE ZONES

Zone 3		Zone 15	
NO6T (KI6RRN @WA6TQT)	5,238,210	E7DX (E77DX)	6,774,895
K6XX	2,235,342	S53MM	4,880,676
N7ZG	1,357,085	S57K	4,580,563
N6TV	1,094,704	YT6W	3,952,044
N6AA	1,084,020	S50A	2,691,360
Zone 4		Zone 16	
VE3JM	6,522,444	R2AA	7,533,973
CJ3T (VE3AT)	6,170,397	EW2A	1,626,982
W9RE	6,802,376	UA3EDQ	1,617,968
K5GN	4,393,332	EV1R	1,472,591
VE3VN	4,099,620	EW1I	1,165,860
Zone 5		Zone 20	
N2IC (@N2QV)	8,097,882	YR8D (YO8TTT)	4,888,624
NR3X (N4YDU)	7,643,904	C4W (5B4WN)	4,481,100
W1KM	6,802,376	*TA7I	1,434,116
KQ2M	5,645,169	*LZ1BP	1,040,194
NN7CW	4,067,250	P3C (5B4AOF)	995,287
Zone 14		Zone 25	
CR6K (CT1ILT)	10,269,280	JH4UYB	3,750,689
EA2W	6,778,118	DS4EOI	1,601,656
DJ5MW	6,273,918	JF2QNM	1,501,920
*MU2K (RL5D)	3,479,558	*JH1EAQ	1,272,544
G4BUO	3,215,988	*JA1BJI	1,206,123

*Low Power

CLUB SCORES

UNITED STATES


Club	# Entrants	Score
FRANKFORD RADIO CLUB.....	270	318,162,135
YANKEE CLIPPER CONTEST CLUB.....	278	289,221,357
POTOMAC VALLEY RADIO CLUB.....	283	164,415,854
ARIZONA OUTLAWS CONTEST CLUB.....	78	62,402,191
SOCIETY OF MIDWEST CONTESTERS.....	158	53,636,367
FLORIDA CONTEST GROUP.....	100	47,528,097
NORTHERN CALIFORNIA CONTEST CLUB.....	95	33,743,453
SOUTHERN CALIFORNIA CONTEST CLUB.....	77	32,606,343
MINNESOTA WIRELESS ASSN.....	142	25,946,856
NORTH COAST CONTESTERS.....	30	24,777,824
TENNESSEE CONTEST GROUP.....	52	21,860,069
CENTRAL TEXAS DX AND CONTEST CLUB.....	35	20,570,863
WILLAMETTE VALLEY DX CLUB.....	58	19,090,069
MAD RIVER RADIO CLUB.....	38	15,858,344
GRAND MESA CONTESTERS OF COLORADO.....	39	15,680,946
WESTERN WASHINGTON DX CLUB.....	59	13,576,871
ALABAMA CONTEST GROUP.....	33	11,192,263
CAROLINA DX ASSOCIATION.....	40	10,901,835
SOUTH EAST CONTEST CLUB.....	37	9,127,763
CTRI CONTEST GROUP.....	15	8,432,788
HUDSON VALLEY CONTESTERS AND DXERS.....	35	8,051,930
KANSAS CITY CONTEST CLUB.....	22	7,870,573
TEXAS DX SOCIETY.....	19	7,707,645
KENTUCKY CONTEST GROUP.....	22	7,410,283
DFW CONTEST GROUP.....	43	6,980,003
GEORGIA CONTEST GROUP.....	15	6,584,149
NORTHEAST MARYLAND AMATEUR RADIO CONTEST SOCIETY.....	30	6,411,282
SWAMP FOX CONTEST GROUP.....	19	5,701,550
BIG SKY CONTESTERS.....	10	5,205,069
NIAGARA FRONTIER RADIOSPORT.....	17	4,972,557
THE VILLAGES AMATEUR RADIO CLUB.....	9	4,682,619
BAY AREA DXERS.....	14	4,028,960
BRISTOL (TN/VA) ARC.....	8	3,320,914
NORTHEAST WISCONSIN DX ASSN.....	7	3,242,384
CENTRAL VIRGINIA CONTEST CLUB.....	7	2,500,199
SPOKANE DX ASSOCIATION.....	21	1,753,552
SILVER SPRINGS RADIO CLUB.....	8	1,705,749
DEEP DIXIE CONTEST CLUB.....	10	1,568,507
LOUISIANA CONTEST CLUB.....	6	1,541,148
METRO DX CLUB.....	15	1,524,912
ROCHESTER (NY) DX ASSN.....	18	1,483,911
REDWOOD EMPIRE DX ASSOCIATION.....	7	1,167,484
NORTH TEXAS CONTEST CLUB.....	7	1,087,585
NORTH CAROLINA DX AND CONTEST CLUB.....	5	940,807
IOWA DX AND CONTEST CLUB.....	6	822,464
MOTHER LODE DX/CONTEST CLUB.....	17	759,074
HILLTOP TRANSMITTING ASSN.....	8	647,206
599 DX ASSOCIATION.....	5	615,669
SOUTHWEST OHIO DX ASSOCIATION.....	8	567,908
SILVER COMET AMATEUR RADIO SOCIETY.....	7	545,935
PORTAGE COUNTY AMATEUR RADIO SERVICE.....	4	499,713
MERIDEN ARC.....	4	459,776
FORT WAYNE RADIO CLUB.....	13	458,754
NOT QUITE WORKABLE CONTEST CLUB.....	4	455,485
SPLINTER GROUP ARC.....	4	399,149
BELLBROOK AMATEUR RADIO CLUB.....	6	384,042
MISSISSIPPI VALLEY DX/CONTEST CLUB.....	7	370,299
SOUTH JERSEY RADIO ASSOCIATION.....	6	307,832
CWOPS*.....	5	268,934
HAMILTON AMATEUR RADIO CLUB.....	7	260,896
NORTHERN ARIZONA DX ASSN.....	8	249,692
LAKE AREA AMATEUR RADIO KLUB.....	4	237,265
BOLINGBROOK ARS.....	5	236,951
PORT LAVACA AMATEUR RADIO CLUB.....	4	182,832
NEW PROVIDENCE ARC.....	6	177,661
BERGEN ARA.....	4	138,580
MILFORD OHIO AMATEUR RADIO CLUB.....	5	127,699
ALEXANDRIA RADIO CLUB.....	4	91,434
UTAH DX ASSOCIATION.....	11	75,301
NORTH FULTON AMATEUR RADIO LEAGUE.....	5	33,248

DX

Club	# Entrants	Score
BAVARIAN CONTEST CLUB.....	336	232,436,576
EA CONTEST CLUB.....	106	133,662,649
RUSSIAN CONTEST CLUB.....	108	102,892,985
ITALIAN CONTEST CLUB.....	290	94,086,100
UKRAINIAN CONTEST CLUB.....	174	87,156,688
CONTEST CLUB ONTARIO.....	108	74,867,520
RHEIN RUHR DX ASSOCIATION.....	171	73,074,946
ARAUCARIA DX GROUP.....	74	60,519,698
BALTIC CONTEST CLUB.....	20	51,629,355
CONTEST CLUB SERBIA.....	58	45,127,966
CROATIAN CONTEST CLUB.....	48	42,362,566
SLOVENIA CONTEST CLUB.....	65	37,216,002
CLIPPERTON DX CLUB.....	36	36,657,966
CONTEST CLUB FINLAND.....	68	36,188,302
KAUNAS UNIVERSITY OF TECHNOLOGY RADIO CLUB.....	69	32,958,126
LZ CONTEST TEAM.....	5	30,392,634
CONTEST CLUB BELGIUM.....	72	29,542,800
HA-DX-CLUB.....	28	29,468,414
BELOKRANJEC CONTEST CLUB.....	29	29,086,557
BELARUS CONTEST CLUB.....	36	29,030,459
URAL CONTEST GROUP.....	25	25,975,452
RIO DX GROUP.....	80	25,593,108

Club	# Entrants	Score
LA CONTEST CLUB.....	14	23,163,223
LU CONTEST GROUP.....	70	23,009,594
SOUTH URAL CONTEST CLUB.....	17	21,087,793
VK CONTEST CLUB.....	31	19,911,617
SP DX CLUB.....	108	19,038,965
LATVIAN CONTEST CLUB.....	36	18,105,721
WORLD WIDE YOUNG CONTESTERS*.....	19	16,652,409
CENTRAL SIBERIA DX CLUB.....	7	15,554,002
DANISH DX GROUP.....	28	14,246,713
MARITIME CONTEST CLUB.....	18	14,084,901
CHILTERN DX CLUB.....	39	13,154,198
ORCA DX AND CONTEST CLUB.....	35	12,539,528
CONTEST GROUP DU QUEBEC.....	17	11,163,660
CATALONIA CONTEST CLUB.....	21	9,843,886
CZECH CONTEST CLUB.....	15	9,376,538
YB LAND DX CLUB.....	138	7,813,841
RUSSIAN CW CLUB.....	50	7,535,924
RTTY CONTESTERS OF JAPAN.....	5	6,994,842
SASKATCHEWAN CONTEST CLUB.....	8	6,922,389
CROWS CONTEST TEAM.....	6	6,195,503
SIAM DX GROUP.....	15	6,111,978
RSGB CONTEST CLUB.....	12	5,930,386
BOSNIA AND HERZEGOVINA CONTEST CLUB.....	11	5,794,502
RIIHIMAEN KOLMOSET.....	5	5,606,111
5NNDXCC.....	32	5,439,196
ARCK.....	37	5,395,958
HEREFORD AMATEUR RADIO SOCIETY.....	13	4,966,207
INTEREST GROUP RTTY*.....	11	4,849,956
CS PETROLUL PLOIESTI.....	9	4,801,129
S59ACP.....	4	4,661,196
THRACIAN ROSE CLUB*.....	57	4,545,523
599 CONTEST CLUB.....	14	4,379,912
UA2 CONTEST CLUB.....	9	4,142,769
GMDX GROUP.....	12	4,030,031
MAUI AMATEUR RADIO CLUB.....	4	3,962,391
GIPANIS CONTEST GROUP.....	22	3,899,273
VU CONTEST GROUP.....	28	3,692,976
CE CONTEST GROUP.....	10	3,607,069
JSFC.....	5	3,579,655
SAUDI CONTEST GROUP.....	5	3,552,471
UKEICC.....	5	3,280,415
WEST SERBIA CONTEST CLUB.....	13	3,255,297
THREE A'S CONTEST GROUP.....	12	3,192,918
ARKTIKA.....	16	3,129,048
RADIOSPORT MANITOBA.....	6	3,096,182
OKAYAMA DX CLUB.....	11	3,025,672
YO DX CLUB.....	23	2,991,556
VRHNIKA CONTESTERS.....	6	2,919,686
VYTAUTAS MAGNUS UNIVERSITY RADIO CLUB.....	15	2,781,989
KEYMEN'S CLUB OF JAPAN.....	41	2,763,778
IRKUTSK RADIO CLUB.....	6	2,683,300
CDR GROUP.....	51	2,546,627
RADIOCLUBUL RADU BRATU.....	4	2,415,930
RC THREE VICTORIA.....	6	2,261,254
LITHUANIAN CONTEST GROUP.....	8	2,244,980
RADIO CLUB BUNSCHOTEN.....	4	2,162,356
CSA STEAUA BUCURESTI.....	5	2,149,570
SHARKS DX TEAM.....	13	2,114,291
TERESINA DX GROUP.....	4	2,112,477
ASSOCIACAO DOS RADIOAMADORES DO PARANA.....	4	2,083,516
UNION FRANCAISE DES TELEGRAPHISTES.....	9	2,062,824
KRIVBASS.....	9	1,828,351
ISRAEL AMATEUR RADIO CLUB.....	6	1,672,818
NOVOKUZNETSK RADIO CLUB.....	7	1,634,381
NATIONAL CHILDREN'S PALACE.....	8	1,550,635
RIVER PO DX TEAM.....	4	1,484,390
YU1ANO & YU1A CONTEST TEAM.....	9	1,447,458
SKY CONTEST CLUB.....	4	1,426,380
IVANOVO DX CLUB.....	7	1,375,342
SHAKHAN CONTEST CLUB.....	5	1,267,086
GRUPO DX DE CUBA.....	7	1,227,059
CSU PITESTI.....	5	1,225,044
ARIPA DX TEAM.....	8	1,207,113
LZ2KSB.....	4	1,197,667
FUCHU AMATEUR RADIO CLUB.....	13	1,196,234
TRAC IZMIR.....	5	1,184,994
GUARA DX GROUP.....	16	1,181,287
RADIO AMATEUR ASSOCIATION OF WESTERN GREECE.....	7	1,128,300
SHARP HAM CLUB.....	10	1,125,471
NORFOLK AMATEUR RADIO CLUB.....	11	1,092,109
CLUB DE RADIO EXPERIMENTADORES DE OCCIDENTE.....	4	1,087,044
BRIMHAM CONTEST GROUP.....	5	1,086,671
S51DSW.....	7	1,066,358
HAROS RADIO CLUB.....	4	1,050,511
LA-DX-GROUP.....	14	1,022,813
SK0QO SODERTORNS RADIOAMATORER.....	6	1,019,412
JAPAN LID CLUB.....	4	1,019,293
SK6AW HISINGENS RADIOKLUBB.....	8	963,782
RU-QRP CLUB.....	19	956,565
ZRHB.....	7	945,337
NEWBURY AND DISTRICT ARS.....	8	879,862
OK1KQJ CONTEST CLUB.....	6	828,088
SOUTHERN OSAKA CONTEST CLUB.....	14	811,217
ALBERTA CLIPPERS.....	4	776,253
FLIGHT REFUELLING AMATEUR RADIO SOCIETY.....	4	761,169
MEDITERRANEAN DX CLUB.....	9	754,783
SP CONTEST CLUB.....	4	729,826
VLADIMIR CONTEST GROUP.....	12	709,060
LZ1KAA.....	4	696,153

Club	# Entrants	Score
CABREUVADX.....	39	682,707
YB6_DX COMMUNITY.....	27	671,550
VOLYN CONTEST GROUP.....	5	661,641
PHILIPPINE AMATEUR RADIO LEAGUE.....	9	645,305
BLACK SEA CONTEST CLUB.....	6	633,974
OBNINSK QRU CLUB.....	5	610,394
ALRS ST PETERSBURG.....	9	570,520
VERON A63 FRIESE WOUDE.....	8	562,907
FAZENDA ACTIVITY CONTEST GROUP.....	4	558,378
CSM CRAIOVA.....	7	544,516
GRUPO TORTUGASCW.....	10	534,015
GRIMSBY AMATEUR RADIO SOCIETY.....	5	529,301
COCKENZIE AND PORT SETON ARC.....	11	512,550
SHEFFIELD & DISTRICT WIRELESS SOCIETY.....	6	510,124
599 DX GROUP.....	14	499,204
ADMIRA ARAD.....	7	495,523
SCAN INTERNATIONAL.....	14	488,342
SK5AA VASTERAS RADIOKLUBB.....	10	483,480
CRIMEAN CONTEST CLUB.....	5	475,386
JAPAN CONTESTER'S CLUB.....	6	465,210
SPEKTR.....	4	462,065
YYP CLUB.....	6	458,118
RADIO CLUB VENEZOLANO CARACAS.....	7	456,742
LKK LVIV SHORTWAVE CLUB.....	13	456,242
UNIO DE RADIOAFECCIONATS DEL VALLES ORIENTAL.....	4	427,157
CS SILVER FOX DEVA.....	4	408,471
DE MONTFORT UNIVERSITY ARS.....	4	405,354
CS DX CLUB ORADEA.....	4	404,576
KOREA CONTEST CLUB.....	4	397,503
CMDXGROUP.....	8	395,409
RADIO CLUB VENEZOLANO.....	6	389,813
CHILEAN PACIFIC DX GROUP.....	8	359,306
RUSSIAN DIGITAL RADIO CLUB.....	7	344,585
SOUTH GERMAN DX GROUP.....	4	315,110
ESSEX CW AMATEUR RADIO CLUB.....	6	309,627
TALL TREES CONTEST GROUP.....	7	298,822
GERMAN DX FOUNDATION.....	7	293,004
THAILAND DX ASSOCIATION.....	5	285,702
FALKOPINGS RADIOCLUB.....	5	284,430
RADIO CLUB KVARNER RJEKA.....	7	271,032
AMSTERDAM DX CLUB.....	5	270,121
R4F-DX-G.....	6	269,313
CS SATU MARE.....	4	268,567
UR-QRP-CLUB.....	12	268,085
HARWELL AMATEUR RADIO SOCIETY.....	10	266,404
VERON A03 AMERSFOORT.....	6	266,242
YOKOHAMA DX CLUB.....	4	264,333
HAM SOCIETY OF THE PHILIPPINES DX3H.....	6	256,989
TORBAY ARS.....	7	247,662
WORTHING RADIO EVENTS GROUP.....	7	241,846
WEST LITHUANIA RADIO CLUB SVYTURYS.....	5	238,436
SAYAN DX CLUB.....	6	232,110
STOCKPORT RADIO SOCIETY.....	11	231,761
GRUPO DXXE.....	4	226,096
SK5DB UPPSALA RADIOKLUBB.....	5	197,235
PAPUA CONTEST CLUB.....	7	191,778
MANITOULIN AMATEUR RADIO CLUB.....	4	185,763
RUSSIAN EXTREME.....	5	177,408
CSM TIMISOARA.....	4	173,914
SPANDAU DXERS.....	4	157,338
SP6PAZ.....	9	153,455
VRZA VERENIGING VAN RADIO ZEND AMATEURS.....	6	152,311
XE-DXERS.....	4	150,641
SWINDON AND DISTRICT AMATEUR RADIO CLUB.....	4	145,873
BRISTOL CONTEST GROUP.....	5	145,721
FALCONS DX GROUP.....	7	138,352
THE AKITA DX ASSOCIATION.....	4	136,219
EDIT14.....	12	130,191
WATERLAND.....	4	128,163
PETERBOROUGH AMATEUR RADIO CLUB.....	4	121,582
LEICESTER RADIO SOCIETY.....	5	115,724
SK3BG SUNDSVALL RADIOAMATEURS.....	4	113,146
SK2AT FORENINGEN UMEA RADIOAMATORER.....	5	112,181
SK6QA STENUNGSUND AMATEUR RADIO CLUB.....	5	88,480
JUST FOR FUN CONTEST CLUB.....	4	81,326
KILMARNOCK AND LOUDOUN ARC.....	5	79,924
RADIO CLUB PERUANO.....	4	79,315
ORARI LOKAL KEDIRI.....	9	77,745
ZRHB CONTEST CLUB.....	4	65,700
WEST BORNEO DX CLUB.....	11	58,316
CWJF GROUP.....	5	50,570
CSM IASI.....	4	48,852
CSM CLUJ-NAPOCA.....	4	39,987
ARAF.....	4	39,699
BOLTON WIRELESS CLUB.....	4	30,040
YOGYAKARTA DX CONTEST.....	5	29,554
YB-LAND DXING PASSION IS.....	4	28,946
ORARI LOKAL BOGOR.....	18	28,538
WEST BORNEO HF RADIO CLUB.....	6	27,696
CS PANDURII TARGU JIU.....	4	24,198
LA4O.....	6	19,464
SPORT CLUB MIERCUREA-CIUC.....	5	18,814
OLDHOUSERADIOCLUB.....	5	18,106
BENGKULU DX CLUB.....	4	13,199
NIAR.....	7	12,495
MANADO CAKRAWALA DX CLUB.....	4	10,087
SATARA AMATEUR RADIO ASSOCIATION.....	5	7,603
SINGLE FIGHTER DX GROUP.....	5	7,383



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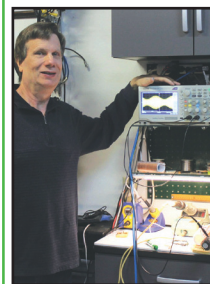
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On the Cover

So you think kids aren't interested in Morse code? Think again. Eleven-year-old twins Min (center) and Chen (right) Li scored more than 100,000 points to earn 5th place in China in the multi-operator/single-transmitter (multi-single) low power category of the 2020 CQ World Wide DX CW Contest. They operated from their home station in Shanghai, using their father's callsign of BH4CAC. Even though both earned their amateur radio operator's licenses (equivalent to U.S. General Class) at age 9, hams in China cannot receive individual callsigns until they turn 18.

Dad "Carlos" Li says Min and Chen have been contesting since earning their licenses in 2019, operating in the All Asia, IOTA (Islands on the Air), CQWW, and CQ WPX Contests. In the 2020 WPX CW contest, they placed second in China in the multi-single low power category (and #18 in the world). They learned CW with the help of Morse Runner software. Min and Chen also enjoy operating FT8 and slow-scan TV, as well as building kits. They are in fifth grade.

Carlos has been on the air since 2012. He and the twins are currently using a Begali Sculpture key, Elecraft KX3 transceiver, and RM power amplifier on HF to a delta loop antenna on top of their 5-story apartment building. (Cover photo by Carlos Li, BH4CAC)

Table 4

Cont	Rank	Call	Power	Raw QSOs	QSO Accuracy
AF	1	ZR2A/4	Low	1,144	99.21%
AF	2	ZD7BG	High	1,390	99.06%
AS*	1	JL3MCM	Low	754	99.73%
AS	2	UAØZAM	High	684	99.56%
AS	3	JA8RWU	Low	593	99.49%
AS	4	JH1EAQ	Low	1,392	99.43%
AS	5	R9QQ	Low	500	99.40%
EU	1	ES2MC	Low	1,218	99.92%
EU	2	SP9CXN	Low	522	99.81%
EU	3	SM7CIL	Low	509	99.80%
EU	4	OH5YU	High	507	99.80%
EU	5	F5JNT	Low	505	99.80%
NA	1	WB8JUI	Low	535	100.00%
NA	2	K1HT	Low	635	99.69%
NA	3	NF8R	Low	560	99.64%
NA	4	NS2N	Low	546	99.63%
NA	5	K4SXT	Low	545	99.63%

Table 4. Single Operator accuracy leaders with more than 500 logged QSOs.

Table 5

Year	160	80	40	20	15	10	Total
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 5. CQWW CW number of total QSOs per band by year (in '000s).

the common measurement. When looking at the top performers through this lens, there are some amazing numbers to report (see *Tables 6A* and *6B*).

The Multi-Multi operators at YT5A for example, had 534 QSOs in their log after only the first hour of operation. And, perhaps more amazingly, the single-operator guys at T17W and ZF1A were right behind with about 400 each, achieving this ground-breaking number by themselves utilizing the increasingly popular two-band synchronized interleaved QSO (2BSIQ) operating technique. Try doing a search for 2BSIQ on YouTube where you'll find a

number of real-world recordings. Just watching for a few minutes will make most of us tired; actually doing it for 48-hours is unimaginable.

Some Thoughts from Your Director

As is the case most years, there are a few issues that seem to persist with a very small percentage of the participants in the CQWW. These include use of assistance as an unassisted single operator, self-spotting, operating on unauthorized frequencies (either with intention or due to sloppy technique),

Table 6A

YT5A	534
LZ9W	507
KC1XX	496
LN8W	424
C6AGU	384
OM7M	374
LZ5R	356
K1IR	344
DR1A	340
UA4M	332

Table 6A. Top hourly rates by Multi-Operator stations.

Table 6B

ZF1A (N6MJ)	409
TI7W (KL9A)	397
CR6K (CT1ILT)	350
NR3X (N4YDU)	329
EF1A (EA1X)	303
UA7K (RW7K)	284
EA6FO (EA3M)	284
EA8RM	281
YR8D (YO8TTT)	280
P4ØW (W2GD)	276


Table 6B. Top hourly rates by Single-Operator stations.

use of remote RX/TX systems, and high power. I won't belabor the point except to say that the CQWW committee continues to improve its ability to find "cheaters" and will vigorously enforce our rules to the benefit of those who support fair play.

Finally, a relatively new issue has emerged. After a significant amount of investigation using SDR recordings and other techniques this past year, we have discovered that some Multi-Single entrants are deleting QSOs from their logs to avoid band change violations. Not only does this cause harm to "the other guy" who is penalized with a "not in log" instance, it is contrary to the rules and supporting information found in the CQWW FAQ as well as being unsportsmanlike. Looking forward, we will be taking a stricter position with this behavior that may include penalties, category reclassifications, and possible disqualifications.

Some Closing Words

My heartfelt thanks goes out to each and every one of you for the dedicated members of the CQWW Contest Committee, who include: CT1BOH, José Nunes; EA4KD, Pedro Vadillo; ES5TV, Tonno Vahk; F6BEE, Jacques Saget; GØMTN, Lee Volante; HA1AG, Zoli Pitman; IK2QEI, Stefano Brioschi; JH5GHM,





A Few of the Milestone Years...

- 2001** The original Patented FluidMotion SteppIR Yagi is introduced at Hamvention, Dayton Ohio
- 2002** BigIR (40m-6m) and SmallIR (20m-6m) Continuous frequency coverage verticals
- 2008** Dream Beam DB36 Four element loop Yagi with 40% less physical length
- 2011** DB42 Five element loop Yagi, 40% shorter physical length
- 2017** UrbanBeam 2 element short boom, reduced length 40m-6m Yagi
- 2018** OptimizIR SDA 2000 Smart controller w/ custom settings & antenna models

20 years of operations – thank you for being there!

Back in May of 2001 when Mike Mertel (K7IR), John Mertel (WA7IR) and Jim Thomas (K7IRF) launched SteppIR Antenna Systems out of Jim's garage and made their debut at the 2001 Dayton Hamvention with a single, "mostly" ready product, the trio had no idea what a fantastic journey they were embarking on, or how many incredible friendships and memories were waiting to be made. As we celebrate our 20th anniversary, we would like to express a special THANK YOU to all the people that we have worked with these last two decades, for your support, patience, conviction and passion - without you, there is no SteppIR. The reward truly is in the journey, and it's been a good one - we look forward to many more years to come!

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Katsuhiro (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 Iglund; LU5DX, Martin Monsalvo; N8BJQ, Steve Bolia; OH6LI, Jukka Klemola; PA3AAV, Gert Meinen; RA3AUU, Igor (Harry) Booklan; S5ØA, Tine Brajnik; S5ØXX, Kristjan Kodermac; UA9CDC, Igor Sokolov; VE3EJ, John Sluymer; VK2IA, Bernd Laenger; and YO3JR, Andrei (Andy) Ruse. This team is the best that contesting has to offer. My heartfelt thanks goes out to each and every of you for your incredible contributions.

Finally, a special thank you to each of you who operated in the 2020 CQWW CW Contest. It hasn't gone unnoticed by everyone in the CQ magazine community that you and your participation is what makes the CQWW the largest and most successful operating event in amateur radio. Congratulations to everyone who joined in the fun!

As with all of you, I'm excited about the possibilities of improved propagation this fall along with some long-awaited relief from the COVID-19 pandemic. See you on SSB on October 30, 31st and CW on November 27, 28th, 2021!

– 73, John, K1AR



Enthusiasm abounds as the “big gun” team from PX2A (PY2BK, PY2IQ, PY2LED, PY2LSM, PY2PT, PP5NY) enjoys another CQWW contest.

(Scores on page 93)

Then and Now – A Perspective of a Half Century of Operating the CQWW

BY VILLE HIILESMAA, OH2MM

I've been operating the CQWW DX Contest for 50 years. Needless to say, the CQWW has undergone quite a metamorphosis during the past half century. What follows are some of the more fundamental changes that I've observed. Maybe you share some of the same experiences:

- **Calls are now much shorter** in most countries. WA6EPQ is now N6AR. WD8LLD (*I loved that call!*) became W8AV — sorry. SM5AJV turned into SE5E. Calls used to be issued as “the next one from the list”. But now, you can choose — or buy — the call you want. Only Japan continues rigorous sequential call issuing.

- **CW speed has steadily increased** in CQWW from 22-28 to 28-36 wpm and higher. Vibroplex and hand key users have virtually disappeared. CW now comes from computers and e-bugs. Homemade rigs became rare. Fewer key clicks and less chirpy, “creeping” signals.

- **The exchanges have shrunk.** 59911 is now ENNAA. On SSB, five-nine-zero-nine is like “fi-ni-ni.” A pioneer in stripping GL, 73, BK, etc. from the messages was Don Miller, W9WNV, operating as HL9KH in the 1960s. He is also credited with creating the ubiquitous 5NN.

- **DX info (spotting) was shifted** from 2-meter nets to the internet in the 1980s.

- **The enlargement of HF phone bands in the U.S.** greatly facilitated QSOs between the U.S. and the rest of the world. In the old days, U.S. stations were restricted to transmitting SSB above 28.5 and 14.2 MHz. On 40 meters, The EU phone band ended at 7100 kHz while the U.S. band started at 7200 KHz. Thus, the only way to work Ws was split.

- **The scores have tripled** in all categories (or even more in some cases). The complexity of competitive stations has vastly expanded. Two radios are a “must” to be a winner in SOAB (with 2BSIQ starting to take that position). In-band multiplier pick-ups are now required in multi-op stations.

- **Going on a contest expedition became easier.** There are more scheduled and charter flights than ever before. Getting licenses abroad has been simplified. Customs formalities have diminished. And our radios are now much lighter than before.

- **The new 100- and 5-watt categories** added three decades ago allowed meaningful competition with low power. Low-power stations used to make search-and-ponce QSOs — now they run their own pileups. Rookie and Classic categories as well as the Multi-Two class were also very welcome additions.

- **The increased noise level on HF** from switching power supplies, LED lamps, etc. has become a significant global RX problem. It didn't exist in the “good old days.” On the other hand, we “seniors” suffered from Radio Peking and others sending propaganda on 40 meters with hundreds of kilowatts. Furthermore, the Russian “woodpecker” sometimes blocked HF bands with its QRM that sounded like a machine-gun.

- **No more paper logs** — or six weeks to mail the logs. Computers created a revolution in logging and log adjudicating, not to mention station design and operation. This improved the quality, credibility, and transparency of the results.

- **Ham QSOs are now free of politics.** A few decades ago, the international crises were reflected upon us — the innocent hams! For example, QSOs with Israel were forbidden by a few governments. Discussions about life, family, or work were strictly forbidden in many cases.

Along with these changes, there have been some aspects of the CQWW that have fortunately remained the same. Of particular note, the competition for top scores was very intense in the old days and still is today! For many, the Classic style of operating — one op, one radio — remains as it was in the 1960s. **Most importantly, the excitement and fun remains the same as it was 50+ years ago.**

Hope to see you in my 101st CQWW in 2021!

– 73 de Ville, OH2MM/PY2ZEA