

Results of the 2020 CQWW DX SSB Contest

“Simply ‘THE’ contest.” – Beppe, IN3IKF

BY JOHN DORR, K1AR

I'm proud to say that the 72nd edition of the CQ World Wide SSB contest is in the books. And, what an edition it was! Just as we had hoped, the sun came back to life — at least by a small amount. Whether it was the new class of rookies or seasoned veterans, interest in the CQWW remained at all-time highs. DL3AO reported fond memories of his first CQWW contest operation in 1949 as he celebrates 72 years of ham radio this year. Leo, PP1CZ, expressed his excitement by simply saying, “I love this contest!” And, then there was the experience of Gio, IK2AIT, who shared his memory of participating in his first CQWW in 1954 as I1YCZ in the Trieste Free Territory.

Well, despite the temptation, I managed to get to the second paragraph of this year's write-up before mentioning the big elephant in the CQWW room — COVID-19. Who could have imagined the impact that the pandemic would have on the world's largest contest? Contest DXpeditions were almost nonexistent. The huge multi-multi operations of the past were either cancelled or scaled back to a shadow of their former selves. And, as has been seen in other contests, with everyone staying at home, worldwide activity was at record levels with 9,242 logs submitted in this year's contest, a 19.4% increase over last year's impressive total of 7,742 entries!

So, even with the impact of COVID, we have an exciting report to share with you this year.

How About Those Results!

With COVID-19 maintaining a full grip on the world's travel activity, the general trend for most entries in the 2020 CQWW SSB contest was producing similar scores with fewer multipliers when compared to last year. It was striking to note that only one single operator entry cracked the 10 million barrier, EA8RM, with an impressive 13 million points, blowing away his nearest competitor, VY2ZM, by more than 70%. Speaking of single operators, the impact from limited expeditions resulted in a number of home-based European stations making the Top-10, a group often reserved for traveling contesters. In the U.S., K5ZD was forced to cancel his planned trip to V4 and put together another one of his patented “casual” entries, while using only one radio in the Classic overlay category that became another winning score for his contest resume at 5.4 million.

It should be recognized that there were a number of stations who managed to navigate around the travel restrictions of last year, such as John, P4ØW, and Yuri, VE2IM (VE3DZ), posting impressive SOAB Assisted results along with top-scorer, PT5J (PP5JR) at 9 million.

**Email: <cqk1ar@gmail.com>*



Vitor, PY2NY, one of contesting's most enthusiastic participants and his impressive antennas.

In the ranks of single-band entries, DF7EE braved airline travel from Germany, posting an amazing 1.9 million score on 15 meters from CQ3W. Europeans continued to dominate the low band results with competition being fierce as home stations took over the limelight. Perhaps the most impressive single-band accomplishment this year was the amazing 1.6-million-point tally by N2NC, who piloted the K3LR 20-meter station, resulting in a world-high win. While it was sad to see the perennial K3LR multi-multi silenced this year, John's result softened the blow.

Speaking of multi-ops, a big change for many of the multi teams this year was a switch to remote operating. While a few stations continued to operate with appropriate COVID protocols (check out the W3LPL sidebar story), many dove into remote operating for the first time. Kudos to everyone who gave it a try, knowing that the real excitement of multi-

op contesting is the camaraderie that can only come while being face-to-face. For the first time in many years, a U.S. station won the world Multi-Multi category with the KC1XX team beating out PX2A, delivering a 15 million score.

It's always encouraging to see the accomplishments of our rookies. This class of 2020 was led by DL3PWR, who posted an impressive score of 670,000. For most of us who are a bit longer in the tooth, that score is about 669,000 higher than our first Worldwide score. Well done, Jochem.

There was a tight horse race in the Classic category this year, with P49Y (AE6Y) squeaking by P3X (5B4AMM) by only 6,000 or just a handful of QSOS at 4.77 million. It's a reminder that maintaining consistent intensity of operation can often make a difference for serious entries.

In the end, COVID-19 slowed us down a little. But, the CQWW contest and its participants have amazing resiliency.

There's no doubt that the 2021 edition will be even better!

The CQWW is Still a Worldwide Contest – But ...

One of the questions that was on everyone's mind during the 2020 CQWW SSB was, "Where are the multipliers?" Well, for most, the answer was obvious. Over the past year, COVID-19 had ravaged the travel industry and DX contest trips were among the victims. As a result, there was a precipitous drop in country totals (*See Table 1*) when looking at the results across every category. In the 2020 contest, we experienced over an 11% year-on-year drop in total worked entities. Serious contest planners certainly saw this coming as the popular NG3K Contest DXpedition website reported a minuscule number of announcements compared to previous years. Indeed, the final numbers tell the story with the

large multi-op stations (who generally work "anything that is breathing") having worked 10-20 fewer countries per band compared to just last year!

What's Your Category?

It's probably not surprising to very many of you to discover that the number of multi-operator entries in the 2020

Table 1

Year	# Entities Worked
2013	236
2014	235
2015	232
2016	224
2017	202
2018	199
2019	215
2020	193

Table 1. Total number of entities submitting logs in the 2020 CQWW SSB Contest and previous years.

2020 CQWW DX SSB PLAQUE WINNERS AND DONORS

SINGLE OPERATOR

- World**
Juan Hidalgo, EA8RM
Donor: Southern California DX Club
- World – Low Power**
Alexey Ogorodov, HC2AO
Donor: Slovenian Contest Club
- World – QRP**
Doug Zwiebel, KR2Q
Donor: Jeff Steinman, N5TJ
- World – Assisted High Power**
PT5J (Opr.: Sergio Almeida PP5JR)
Donor: Chick Allen, NW3Y
- World – Assisted Low Power**
Yaroslav Oleynik, UW7LL
Donor: Gail Sheehan, K2RED
- U.S.A. – High Power**
Randy Thompson, K5ZD
Donor: Potomac Valley Radio Club – KC8C Memorial
- U.S.A. – Low Power**
Thomas Poland, N9NC
Donor: North Coast Contesters
- U.S.A. – QRP**
Christopher M. Merchant, W1MR*
Donor: Pat Collins, N8VW
- U.S.A. – Assisted High Power**
Bud Trench, AA3B
Donor: John Rodgers, WE3C
- U.S.A. – Assisted Low Power**
Ken Low, KE3X
Donor: LA8W / LN8W & LA Contest Club
- U.S.A. – Zone 3**
NO6T (Opr.: Axel W. Bruderer, K16RRN)
Donor: Northern California Contest Club
- U.S.A. – Zone 4**
Mike Wetzel, W9RE
Donor: Kansas City DX Club
- Europe**
CR6K (Opr.: Jose Manuel Farto Lopes, CT1CJJ)
Donor: Potomac Valley Radio Club – W4BVV Memorial
- Europe – Low Power**
Laszlo Weisz, HA3NU
Donor: Tim Duffy, K3LR

Europe – QRP

Vitas Krasnickas, LY5G
Donor: Steve "Sid" Caesar, NH7C

Europe – Assisted

Imanol Antofanzas, EC2DX
Donor: Martin Huml, OL5Y

Europe – Assisted Low Power

OMØR (Opr.: Jozef Lang, OM3GI)*
Donor: Alex Goncharov, R3ZC

Africa

3V8SS (Opr.: Ashraf Chaabane, KF5EYY)*
Donor: Chris Terkla, N1XS

Asia

P3X (Opr.: Sergey Rebrov, 5B4AMM)
Donor: Nodir Tursun-Zade, EY8MM

Caribbean / Central America – High Power

ZF1A (Opr.: Marty Sullaway, NN1C)
Donor: John Rodgers, WE3C

Caribbean / Central America – Low Power

Alfredo Velez, WP3C
Donor: Albert Crespo, NH7A

Oceania

NH6P (Opr.: Alex Tkatch, KU1CW)
Donor: Barbara Yasson, AC7UH

South America

P49Y (Opr.: Andrew L. Faber, AE6Y)
Donor: Yankee Clipper Contest Club

Canada

VY2ZM (Opr.: Jeffrey T. Briggs, K1ZM)
Donor: Contest Club Ontario – VE3WT Memorial

Indonesia

Ibrahim Noor, YC7YGR*
Donor: Karsono Suyanto, YBØNDT

Japan – High Power

Masa Okano, JH4UYB
Donor: Rush Drake, W7RM Memorial

Japan – Low Power

Nob Watanabe, JH1EAQ
Donor: Juan Carlos Munoz, TG9AJR

ASEAN (XZ, HS, XW, XU, 3W, 9M, 9V, V85, YB, DU) –

High Power
Yohanes Budhiolo, YB2DX
Donor: YB Land DX Club

SINGLE OPERATOR, SINGLE BAND

- World – 28 MHz**
Hamilton Oliveira Martins, PY2YU
Donor: Joel Chalmers, KG6DX
- World – 21 MHz**
Eugenio de Marino, CV7S
Donor: John Rodgers, WE3C
- World – 14 MHz**
K3LR (Opr.: John Golomb, Jr., N2NC)
Donor: North Jersey DX Assn. – K2HLB Memorial
- World – 7 MHz**
CR6T (Opr.: Antonio Rui Sousa Santos, CT1ESV)
Donor: Fred Laun, K3ZO – K7ZZ Memorial
- World – 3.7 MHz**
S53M (Borut Terpic, S57UM)
Donor: Fred Capossela, K6SSS
- World – 1.8 MHz**
OLØM (Opr.: Ondrej Kolonicky, OK1CDJ)
Donor: OL7M Contest Group; QRO.cz; RemoteQTH.com
- U.S.A. – 28 MHz**
Courtney Judd, K4WI
Donor: John Rodgers, WE3C
- U.S.A. – 21 MHz**
Marvin Bloomquist, N5AW
Donor: 11PM Dayton Pizza Gang
- U.S.A. – 14 MHz**
N7TU (Opr.: David Donnelly, K2SS)*
Donor: Yankee Clipper Contest Club – KC1F Memorial
- U.S.A. – 7 MHz**
Dan Handa, W7WA
Donor: Chuck Dietz, W5PR
- U.S.A. – 3.7 MHz**
Steven Sussman, W3BGN
Donor: John Rodgers, WE3C
- U.S.A. – 1.8 MHz**
K2ZW (Opr.: Hajime Kato, JO1RUR)
Donor: South Texas DX & Contest Club (STDXCC)
- Europe – 28 MHz**
Slaven Galic, E77A
Donor: John Rodgers, WE3C
- Europe – 21 MHz**
CR2X (Opr.: Martti Laine, OH2BH)
Donor: OH-DX-Ring, OH2AM – OH2SB Memorial

CQWW DX SSB experienced a dramatic drop from last year. In fact, the totals were 27% lower (2019 entries – 524; 2020 entries – 385). And, that doesn't even take into account that

there were a number of remotely operated multis this year. Not only has COVID-19 affected the DXpedition totals, but we have decidedly moved towards operating by ourselves (or at

least in very controlled small groups) until the pandemic subsides. When looking at the data in *Table 2*, you'll discover that 91% of all entries (excluding single-band participants) were operat-

Table 2

Category	AF	AS	EU	NA	OC	SA	ALL	% of total
SOAB High Assisted	4	79	587	643	22	38	1,373	22.0%
SOAB High Unassisted	8	122	384	390	46	29	979	15.6%
SOAB Low Assisted	5	72	574	282	21	54	1,008	16.1%
SOAB Low Unassisted	15	221	1,225	661	130	87	2,339	37.5%
SOAB QRP Assisted		2	32	6	3		43	0.7%
SOAB QRP Unassisted	1	11	74	20	2	3	111	1.8%
Multi-2	2	13	26	24	2	3	70	1.1%
Multi-Multi		5	15	11	5	1	37	0.6%
Multi-Single High Power		27	88	40	6	8	169	2.7%
Multi-Single Low Power	1	19	58	14	10	7	109	1.8%
Grand Total	36	571	3,063	2,091	247	230	6,238	100.0%
% by continent	0.6%	9.2%	49.1%	33.5%	4.0%	3.7%	100.0%	

*Single band entries not included in analysis.

Table 2. Number of logs received by entry class in 2020 CQWW SSB Contest.

<p>Europe – 14 MHz OH8X (Opr.: Pasi Luoma-aho, OH6UM) Donor: Charles Wooten, NF4A</p> <p>Europe – 7 MHz ED5R (Opr.: Angel Turpin Guillamon, EA5Z) Donor: Central Texas DX and Contest Club – NT5C Memorial</p> <p>Europe – 3.7 MHz OL9A (Opr.: Jan Sustr, OK2ZAW)* Donor: Ted Demopoulos, KT1V</p> <p>Europe – 1.8 MHz SN7D (Opr.: Mateusz Pigon, SQ7D) Donor: Robert Kasca, S53R</p> <p>Caribbean / Central America (21 MHz) Julio Cesar Garcia Canales, CM2RSV Donor: Nate Moreschi, N4YDU</p> <p>Oceania (21 MHz) Andrew Munson, VK4NM Donor: Bruce D. Lee, KD6WW</p> <p>Asia (14 MHz) UP0L (Opr.: Vladimir Vinichenko, UN9LW) Donor: Dallas / Fort Worth Contest Group – W5PG Memorial</p>	<p>MULTI-OPERATOR, SINGLE TRANSMITTER TM6M (Oprs.: F1AKK, F4DXW, F4FDA, F4FFZ, F8ARK, F8DBF, F8FKJ) Donor: Southern Calif. DX Club – W6AM Memorial</p> <p>World – Low Power FY5KE (Oprs.: F1HAR, F4CWN, F5HRY, FY5FY) Donor: Tennessee Contest Group</p> <p>U.S.A. W3LPL (Oprs.: W3LPL, N1SZ, W3IDT, K3MM, N3QE, K3RA, WR3Z, KD4D) Donor: Carolina DX Assoc. – Ted Goldthorpe, W4VHF and Ken Boyd, K4DXA Memorial</p> <p>U.S.A. – Low Power K1XM (Opr.: K1XM, KQ1F) Donor: KZ5DX – DX HOGS</p> <p>Canada VE6SV (Oprs.: K0XF, VE6RST, VE6SV) Donor: John Sluymmer, VE3EJ</p> <p>Africa EF8K (Oprs.: EA8DET, EA8DHH, EA8DKF, EA8DX, EA8TR) Donor: WRTC 2022</p> <p>Asia UP2L (Oprs.: UN0L, UN0LM, UN6LN, UN7LZ, UN9L, UN9LG) Donor: Willy Umanets, UA9BA</p> <p>Europe DR1A (Oprs.: DL1MGB, DL3BPC, DL3DXX, DL5CW, DL6FBL)* Donor: Gail Sheehan, K2RED</p> <p>Europe – Low Power ED7O (Oprs.: EA7EU, EC7MA, EC5AN) Donor: EA Contest Club</p> <p>Oceania ZM4T (Oprs.: ZL1HAZ, ZL4WW, ZL3IO) Donor: Junichi Tanaka, JH4RHF</p> <p>South America PR4T (Oprs.: PY1FI, PY1ZV, PY4BK, PY4BZ) Donor: Victor Burns, K16IM – The Cuba Libre Contest Club</p> <p>Caribbean / Central America KP3MM (Oprs.: KP3MM / KP4AA, AA4NC) Donor: Bob Raymond, WA1Z</p> <p>Japan JA7ZF (Oprs.: JA7ACM, JG7PSJ, JH7XMO, JI7GBI, JP7DKQ, JR7TEQ) Donor: Arizona Outlaws Contest Club</p> <p>ASEAN (XZ, HS, XW, XU, 3W, 9M, 9V, V8, YB, DU) – Low Power 4D3X (Oprs.: DU3JH, DU3LA) Donor: Bruce Frahm, K0BJ</p>	<p>MULTI-OPERATOR, TWO TRANSMITTERS World II2S (Oprs.: IZ2FOS, IK2QEI, IK2SGC, IZ2KXC, IU2IBU, IK2TDM, IK2UJS) Donor: Array Solutions</p> <p>U.S.A. ND7K (Oprs.: N6WIN, N6MJ, W9KKN, W6PH, W4IX) Donor: Kimo Chun, KH7U & Mike Gibson, KH6ND - Dan Robbins, KL7Y Memorial</p> <p>Europe HG7T (Oprs.: HA7TM, HA5CAR, HA9PP, HA0DU, HG5DX*) Donor: World Wide Radio Operators Foundation (WWROF)</p> <p>South America CB1D (Oprs.: XQ4CW, XQ1FM, XQ1KY, XQ1CR, CE3WW, CE1NAH, CA1FCS) Donor: Max Baratonio, IW1FRU</p> <p>Japan JA7YRR (Oprs.: JA7AUM, JA7FDY, JA7MSQ, JA7WSC, JE7KCI, JH7BVH, JR7BPM, JR7LVA) Donor: Yokohama DX Club (YDXC)</p> <p>ASEAN (XZ, HS, XW, XU, 3W, 9M, 9V, V8, YB, DU) 7A1A (Oprs.: YB1AR, YB1AM, YB1ACN, YE1AR, YB4GBN, YB1PEF) Donor: Champ C. Muangamphun, E21E1C – Siam DX Group</p>
<p>OVERLAY CATEGORIES</p> <p>World – Classic Steve Telenius-Lowe, PJ4DX* Donor: John Rodgers, WE3C</p> <p>U.S.A. – Classic Doug Grant, K1DG* Donor: BeLoud.US</p> <p>Europe – Classic Jose Miguel Femenia Herrero, EA5DFV Donor: Steve Cole, GW4BLE Memorial</p> <p>Asia – Classic T6A (Opr.: Robert Kasca, S53R)* Donor: Willy Umanets, UA9BA</p> <p>World – Rookie Jochem Scholtens, DL3PWR Donor: Tim Duffy, K3LR – NBSM Memorial</p> <p>U.S.A. – Rookie Jonathan Turner, AC1EV Donor: Tim Duffy, K3LR – K3TUP Memorial</p> <p>Europe – Rookie Ivan Surkov, R2ARR* Donor: EA Contest Club</p> <p>Asia – Rookie Safri Bin Muhiyuddin, 9M2SAF Donor: Joe Kimball, KL2A – VU2PAI Memorial</p>	<p>MULTI-OPERATOR, MULTI-TRANSMITTER World KC1XX (Oprs.: K1QX, KC1XX, KM3T, W1FV, WA1Z) Donor: Dave Leeson, W6NL & Barb Leeson, K6BL</p> <p>U.S.A. K1TTT (Oprs.: NT2X, W1TO, W3MLJ, N1TA, KC1KUG, K1NZ, N2HX, W1ZZ, K1KQC, W2JV, NJ1F, K1TTT)* Donor: Jim Lawson, W2PV Memorial</p> <p>Europe DF0HQ (Oprs.: DG1AKN, DG1ATN, DH1AKY, DK7YY, DK5KMA, DL1AUZ, DL2OBF, DL5ANT, DL7VOA, DM8HH) Donor: Finnish Amateur Radio League</p>	<p>CONTEST EXPEDITIONS</p> <p>World – Single Operator BD9XE (Opr.: Dale Yu, BA4TB) Donor: National Capitol DX Association - Stuart Meyer, W2GHK Memorial</p> <p>World Multi-Op JT1KAI (Oprs.: JT1BV, JT1BZ, JT1BU, JT1CH, JT1CF) Donor: Gail Sheehan, K2RED</p> <p style="text-align: right;"><i>*Awarded to second place finisher</i></p>

Table 3

# logs	QTH							% of All	Cum. %
op hours	AF	AS	EU	NA	OC	SA	ALL		
0-5	4	134	594	579	38	37	1,386	23.7%	23.7%
5.1 – 10	4	113	695	514	53	56	1,435	24.5%	48.2%
10.1-15	5	74	561	333	49	37	1,059	18.1%	66.3%
15.1-20	7	66	356	228	36	28	721	12.3%	78.6%
20.1-25	5	51	305	167	21	25	574	9.8%	88.4%
25.1-30	3	31	155	76	14	18	297	5.1%	93.5%
30.1-35	1	22	102	51	5	6	187	3.2%	96.7%
35.1-40	2	6	47	35	6	2	98	1.7%	98.4%
40.1-47.9	2	8	57	18	3	2	90	1.5%	99.9%
48		2	4	1			7	0.2%	98.9%
Grand Total	33	507	2,876	2,002	224	211	5,853	100.0%	

Median time: 10.5 hours

Table 3. Operating times for 2020 CQWW SSB Contest Single-Op All Band entries.

F4IAR160,060	K0EJ278,274	3.7 MHz	N4WW44,616	21 MHz	W7DG.....53,848
E77SH149,420	K5RX264,840	N4OO3,955	W9NO42,911	KG1E14,104	K5LRW31,464
SQ3M147,126					
YC1RKT145,340	14 MHz	QRP All Band	1.8 MHz	14 MHz	ROOKIE High Power
LY5GT136,800	K3LR (N2NC)1,577,414	KR2Q530,000	N2ZX7,014	NA5NN (K2FF)10,998	AC1EV237,200
	N7TU304,792	W1MR119,852	K0RF5,145	K7SS9,061	W9KEY139,650
	K1RU303,050	W6QU (W8QZA)54,579	K3JO4,795		K6KM78,228
CLASSIC High Power		NA4RR44,688		MULTI-OP SINGLE TRANSMITTER High Power	W4IPC68,595
P49Y (AE6Y)4,776,414	7 MHz	KA8SMA40,097	ASSISTED LOW POWER All Band	W3LPL8,068,090	KD9JSY26,696
PJ4DX3,715,362	W7WA339,664	ND0C28,300	KE3X679,760	N2NT4,926,639	AB4BA24,560
K5ZD3,349,430	K6EZ (JK3GAD)61,226	N3CI8,778	KS1J646,945	NV9L3,666,876	KE0VRT22,446
K1DG2,389,725	W1XX54,020	KE0WPA7,200	N4XL602,027	K4RM1,808,550	K15O22,116
EA5DFV1,975,180		WR4I4,752	WE9R552,948	W8PR1,794,312	K4SHW12,089
CE3CT1,922,680	3.7 MHz	W7LG2,405	WB1DX530,112	AD4ES1,732,605	N9TCA7,076
EA4KD1,832,441	W3BGN51,696		W3KB510,720	KQ3F1,556,255	Low Power
PW2L (PY2MNL) 1,685,037	NE8P24,070	21 MHz	NE9U442,001	KA1ZD1,456,240	W4BTV63,228
OL8K (OK1GTH) 1,617,588	N0OK9,450	WE6EZ20,463	N2SQW374,480	K5KG1,266,288	K15GNH58,500
			WA1FCN322,920	W1CSM1,082,750	W2ASC51,084
CLASSIC Low Power	1.8 MHz	ASSISTED HIGH POWER All Band	KA2KON283,360		K2PJC44,164
UA9BA1,404,102	K2ZW (JO1RUR)2,912	AA3B4,166,151		Low Power	N2OMD41,808
WP3C1,370,642	AG4W2,050	N3RD3,836,416	28 MHz	K1XM743,660	W4SSF37,518
HA5PP644,022		K3WW3,539,620	W4RN12,950	N8YXR241,011	N8BAP37,145
V3A (V31MA)521,050	LOW POWER All Band	K1KI (KM1P)3,474,744		NM1C115,814	K3RLW22,624
LY9A495,296	N9NC1,108,020	N3RS3,446,436	21 MHz	N4GAS71,994	K04BVB20,564
EA1R484,861	N9NB1,007,688	AA1K3,342,768	AA9A182,952	W3ZGD26,320	N8CUB16,910
IK1JJM475,272	N4TZ699,018	AB3CX3,283,984	K4MM76,505	W4TMD21,093	CLASSIC High Power
N4TZ397,575	AD5A536,500	N4UU2,469,840	KS2G26,792	WA1F18,270	K5ZD3,349,430
MM1E (MM0GOR)391,058	N1DD382,402	N2SR2,094,825		W8AJT12,150	K1DG2,389,725
UA3BL378,417	W6YX (N7MH)380,380	NW3Y1,958,220	14 MHz	AD4XT9,250	N2IC1,385,384
	K6XX301,378		N4IJ91,451	NS1A6,345	KU2M1,343,947
UNITED STATES SINGLE OPERATOR HIGH POWER All Band	K3SU283,800	28 MHz	N9TGR71,934		K4RO619,324
K5ZD5,454,575	KV8O (K8PGJ)263,835	N4XD27,270	N3UA58,380	MULTI-OP TWO TRANSMITTER	KD7RF578,272
NN3W (@NR4M)4,612,856		K3AJ5,976		ND7K4,011,036	K9JF7 (N7GL)573,123
K4ZW4,202,216	28 MHz	K6MR1,890	7 MHz	K2AX3,310,182	W6YA540,800
N1UR4,195,076	WB8WKQ4,350		W7PP10,773	K2LE2,980,596	K1RM501,354
W9RE3,098,067	KK7AC1,444	21 MHz	K6JS2,408	AA4VT2,104,704	K4BAI468,160
K5TR3,081,208		K3UA (@K3LR)864,354		NJ3I1,771,147	Low Power
N2QV2,804,052	21 MHz	K1MM623,604	3.7 MHz	NC1CC1,642,460	N4TZ397,575
K1DG2,796,570	N8II138,810	K9CT475,440	W3LL20,276	W2CG1,638,730	NG1M165,232
K3ZO2,750,878	K1VSJ66,521		AJ6T4,028	K3CCR1,201,719	KD3HN130,320
KQ2M2,580,952	K0KT45,552	14 MHz		K7ZS976,614	KC4TEO123,861
		KV2K (K2NG)857,150	ASSISTED QRP All Band	WA3EKL876,280	K1HT111,074
	14 MHz	KV0Q296,234	K6ND (N2KW)170,601		WA3LXD107,388
	K6GHA30,988	N7DD276,705	W6NCB87,780	MULTI-OP MULTI-TRANSMITTER	N1EK105,165
	WD0BGZ29,568		K8ZT75,123	KC1XX14,926,080	N7ZZ104,676
	KZ5OH19,089	7 MHz	KD8DNS8,142	K1TTT8,070,671	NOYO100,152
		W1TJL102,120	N3HCN3,807	WW2DX4,263,514	WOPI98,819
	7 MHz	W6KW92,840	NO5V1,767	K3EST2,797,144	
	AA4NP3,564	W4TTY49,770		NE3F1,506,340	
	WA3FAE2,378		28 MHz	W3MF1,116,750	
	WB7FJG1,768	3.7 MHz	K2GMY2,460	N5AA84,119	
		W6NV58,826			

Multi-Operating Under COVID-19 Conditions

BY FRANK DONOVAN, W3LPL

When COVID-19 cases began to accelerate in October, W3LPL team members collaborated to develop a plan for safely operating in the CQWW SSB and CW contests. Understandably, most of our team members were not comfortable operating as part of a large, traditional multi-multi team during the pandemic, so a decision was made to enter both contests in the Multi-Single category with a four-person daytime team and a non-overlapping four-person nighttime team. The station was configured in its usual two transceiver-per-band multi-multi configuration with excellent in-band receiving capabilities in place.

Ventilation improvements were implemented to bring a large volume of outdoor air into the ham shack along with enough velocity to provide air movement throughout the shack. Multiple 1-kilowatt portable heaters were installed throughout the shack to compensate for the cold outdoor air.

In addition, physical changes were made to the stations to reduce the likelihood of spreading COVID-19 viruses because our two transceivers per band configurations are only 3 feet apart, a separation between operators that most considered unsafe. In response, we used NASA's procedures for increasing the physical separation between operators deployed at their space launch and satellite operations centers by installing floor-to-ceiling, clear shower curtains between each operator position. This quite effectively increased the physical separation between operators but did not impede their team efficiency.

As you might imagine, we also had to modify other protocols that are generally not an issue during normal environmental conditions. In particular, all of our operators agreed to the following mandatory operator requirements:

As you might imagine, we also had to modify other protocols that are generally not an issue during normal environmental conditions. In particular, all of our operators agreed to the following mandatory operator requirements:

- Everyone agreed to wear a mask 100% of the time when in the ham shack.
- Operators agreed to depart immediately after the end of their operating shift.
- Handwashing was required immediately after entering the ham shack.
- When an operator was in the ham shack, he was required to be operating a transceiver. No standing around to watch others.
- During the SSB contest, all CQs and exchanges were recorded, only call signs were spoken.
- Loud talking or yelling was strictly prohibited. Talking was kept to a minimum.
- Everyone agreed to no indoor socializing; all socializing was outdoors.
- Everyone brought their own food and drinks. Shared food and drinks were not allowed. Our shared refrigerator was turned off with everyone bringing their own cooler.

2020 CQWW DX SSB 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
EA8RM	155/10/39	487/14/48	1470/24/74	2220/28/94	2706/27/93	1365/17/67
VY2ZM	366/14/47	785/18/65	1104/21/74	2280/28/87	1035/21/77	333/9/37
CR6K	121/8/29	733/17/62	1238/22/69	2074/28/86	2191/28/100	575/12/33
E7DX	169/7/43	991/19/67	1746/32/103	2181/33/107	1811/29/99	463/12/50
UB7K	177/7/45	533/18/69	2070/34/108	2643/34/103	1353/32/99	660/13/54

USA TOP SINGLE OPERATOR ALL BAND

Station	160	80	40	20	15	10
K5ZD	54/9/24	317/13/57	348/21/71	1662/29/104	1394/25/97	169/11/36
NN3W	24/7/6	266/17/59	633/25/82	1530/32/107	1146/21/86	104/8/22
K4ZW	19/8/10	213/19/60	668/26/81	1417/32/102	866/22/74	84/10/28
N1UR	23/7/11	362/15/55	667/21/73	1324/29/91	1054/21/72	173/12/39
W9RE	26/10/11	135/19/47	340/27/67	1296/29/106	880/28/87	78/8/14

WORLD SINGLE OPERATOR ASSISTED ALL BAND

Station	160	80	40	20	15	10
PT5J	7/5/6	96/20/47	711/33/88	1258/33/96	2299/34/119	1207/23/82
EC2DX	152/10/50	570/21/81	1464/27/99	1797/32/103	1419/32/110	564/18/56
P40W	26/7/9	442/19/52	1124/26/76	1665/28/92	1739/28/97	490/17/38
VE2IM	192/9/17	859/17/61	1238/23/78	1858/26/91	1356/26/94	113/14/33
IR4M	241/11/53	465/18/74	1692/32/106	1514/34/109	902/32/98	167/15/50

USA SINGLE OPERATOR ASSISTED ALL BAND

Station	160	80	40	20	15	10
AA3B	36/8/18	290/17/62	223/23/72	1441/30/100	971/25/94	153/12/38
N3RD	32/10/13	172/18/50	197/24/71	1164/30/108	1070/26/105	149/15/38
K3WW	58/11/27	190/20/61	260/23/77	1156/27/104	770/26/100	101/12/36
K1KI	10/7/8	94/13/43	289/26/66	1067/32/105	897/26/100	299/11/44
N3RS	42/9/22	167/20/56	272/24/76	1027/30/113	755/27/100	82/15/42

WORLD MULTI-OPERATOR SINGLE TRANSMITTER

Station	160	80	40	20	15	10
TM6M	33/9/26	476/20/76	1592/31/101	3133/36/128	1830/32/113	425/18/66
DR1A	112/12/52	670/19/81	1580/34/109	2568/38/128	1562/33/125	323/17/64
RL3A	94/13/56	899/27/90	2632/34/121	2518/38/133	1135/33/123	653/18/72
ES9C	347/14/59	1015/26/88	1862/33/115	2558/40/131	1707/33/122	598/14/64
LZ5R	113/8/47	799/21/81	2323/32/109	1958/37/115	1889/36/123	330/17/60

USA MULTI-OPERATOR SINGLE TRANSMITTER

Station	160	80	40	20	15	10
W3LPL	40/13/37	334/23/76	1010/32/101	1916/34/129	1271/27/112	48/16/47
N2NT	29/10/23	369/19/65	402/24/78	1558/33/115	1012/27/99	88/14/36
NV9L	16/11/11	206/22/58	271/28/73	937/34/111	1082/32/95	115/14/25
K4RM	20/6/8	174/18/55	204/26/60	641/28/89	522/29/97	74/14/20
W8PR	5/4/4	118/15/47	293/29/68	715/31/90	480/27/82	66/10/19

WORLD MULTI-OPERATOR TWO TRANSMITTER

Station	160	80	40	20	15	10
II2S	161/10/49	1294/23/84	2079/32/112	2606/33/119	1350/32/120	558/19/57
HG7T	193/6/39	1176/18/73	1975/29/97	1533/34/103	1495/34/112	1008/11/43
RT4F	292/10/46	883/18/71	2516/34/111	2103/32/102	1023/29/105	253/7/40
PI4COM	432/9/52	878/14/67	1155/31/99	1590/32/107	812/29/98	256/15/51
IQ4FA	276/7/48	665/14/66	1097/26/92	1032/32/98	1297/32/98	467/19/64

USA MULTI-OPERATOR TWO TRANSMITTER

Station	160	80	40	20	15	10
ND7K	48/10/10	314/22/34	1147/30/69	1503/33/100	1237/32/93	128/16/22
K2AX	62/8/21	256/20/61	212/22/60	870/31/108	797/27/103	223/16/42
K2LE	31/5/7	185/15/52	326/24/78	1219/27/103	660/24/85	92/9/18
AA4VT	28/6/7	175/18/52	314/27/76	755/27/97	465/25/87	100/12/30
NJ3I	18/7/9	176/16/48	225/24/62	743/28/100	381/24/80	73/8/15

WORLD MULTI-OPERATOR MULTI-TRANSMITTER

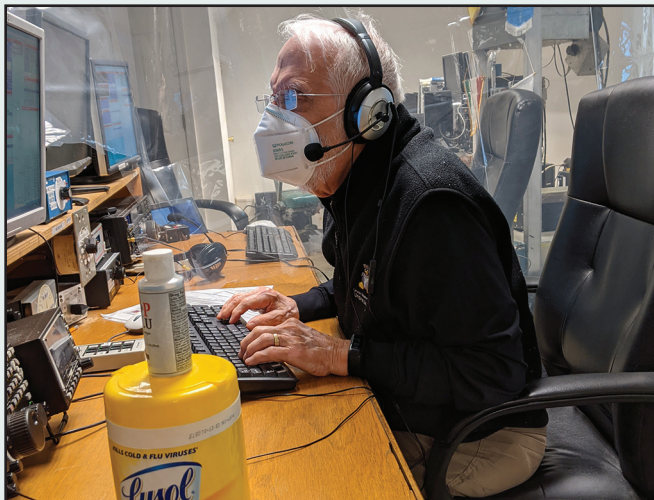
Station	160	80	40	20	15	10
KC1XX	105/12/34	803/26/83	1696/31/105	3065/34/132	2143/27/118	618/17/57
PX2A	4/2/3	223/20/41	1114/33/88	2216/32/104	2965/31/112	1394/24/83
DF0HQ	1052/12/62	1891/20/82	3428/35/121	2484/37/125	1775/34/125	747/16/74
LZ9W	779/10/57	2152/24/93	3466/33/112	2523/35/107	1776/35/111	902/14/56
YT5A	531/9/56	1741/21/86	3005/33/119	3815/36/125	1220/34/109	944/13/51

USA MULTI-OPERATOR MULTI-TRANSMITTER

Station	160	80	40	20	15	10
KC1XX	105/12/34	803/26/83	1696/31/105	3065/34/132	2143/27/118	618/17/57
K1TTT	383/11/32	501/20/63	878/26/82	2557/32/119	1411/26/101	588/17/52
WW2DX	125/9/28	463/14/59	721/22/71	1419/27/94	759/19/66	206/10/35
K3EST	78/7/7	185/16/18	934/30/68	930/34/85	850/31/69	170/14/19
NE3F	13/4/3	196/14/41	200/22/47	518/26/93	457/26/90	136/12/32

- Our bunk room was off limits, everyone slept at home.
- Operators could take breaks only if they were at least six feet from every other operator.

Needless to say, this year's COVID response was a different contest environment for everyone; a different level of commitment for sure. But, this is the CQWW and the show must go on! And, on it did.



Even COVID-19 can't silence Rol, K3RA, while operating the 40-meter position at W3LPL.



Built like a Swiss watch, here's the pristine shack behind the voices of the HB9CC gang.

EUROPE TOP SINGLE OPERATOR ALL BAND

Station	160	80	40	20	15	10
CR6K	121/8/29	733/17/62	1238/22/69	2074/28/86	2191/28/100	575/12/33
E7DX	169/7/43	991/19/67	1746/32/103	2181/33/107	1811/29/99	463/12/50
UB7K	177/7/45	533/18/69	2070/34/108	2643/34/103	1353/32/99	660/13/54
OM3BH	249/7/40	850/13/57	1621/30/85	2081/31/92	1823/31/95	278/7/38
EA2W	96/6/30	568/15/59	891/19/71	2011/25/79	2067/30/96	373/14/48

EUROPE SINGLE OPERATOR ASSISTED ALL BAND

EC2DX	152/10/50	570/21/81	1464/27/99	1797/32/103	1419/32/110	564/18/56
IR4M	241/11/53	465/18/74	1692/32/106	1514/34/109	902/32/98	167/15/50
9A5Y	249/9/47	992/21/78	1337/27/91	1461/36/110	1171/34/107	160/15/58
EB5A	53/7/25	389/16/59	1211/25/76	1718/25/78	1362/29/93	159/15/40
LY7Z	380/9/47	674/17/69	1130/29/98	1202/34/103	980/26/95	679/13/55

EUROPE MULTI-OPERATOR SINGLE TRANSMITTER

TM6M	33/9/26	476/20/76	1592/31/101	3133/36/128	1830/32/113	425/18/66
DR1A	112/12/52	670/19/81	1580/34/109	2568/38/128	1562/33/125	323/17/64
RL3A	94/13/56	899/27/90	2632/34/121	2518/38/133	1135/33/123	653/18/72
ES9C	347/14/59	1015/26/88	1862/33/115	2558/40/131	1707/33/122	598/14/64
LZ5R	113/8/47	799/21/81	2323/32/109	1958/37/115	1889/36/123	330/17/60

EUROPE MULTI-OPERATOR TWO TRANSMITTER

II2S	161/10/49	1294/23/84	2079/32/112	2606/33/119	1350/32/120	558/19/57
HG7T	193/6/39	1176/18/73	1975/29/97	1533/34/103	1495/34/112	1008/11/43
RT4F	292/10/46	883/18/71	2516/34/111	2103/32/102	1023/29/105	253/7/40
PI4COM	432/9/52	878/14/67	1155/31/99	1590/32/107	812/29/98	256/15/51
IQ4FA	276/7/48	665/14/66	1097/26/92	1032/32/98	1297/32/98	467/19/64

EUROPE MULTI-OPERATOR MULTI-TRANSMITTER

DFØHQ	1052/12/62	1891/20/82	3428/35/121	2484/37/125	1775/34/125	747/16/74
LZ9W	779/10/57	2152/24/93	3466/33/112	2523/35/107	1776/35/111	902/14/56
YT5A	531/9/56	1741/21/86	3005/33/119	3815/36/125	1220/34/109	944/13/51
DP7D	263/6/42	934/18/71	1202/26/96	1955/35/106	1240/30/94	744/13/51
LN8W	914/12/56	1293/18/74	1140/24/81	1727/36/107	1005/27/88	980/14/59

TOP SCORES IN VERY ACTIVE ZONES

Zone 3		Zone 15	
NO6T (KI6RRN @ WA6TQT).....	2,195,207	E7DX (E77DX)	7,324,988
K7RL.....	2,004,057	OM3BH.....	6,287,804
K6NA.....	646,935	S53MM.....	4,590,938
VA7RR.....	616,680	OL8K (OK1GTH)	1,617,588
K9JF/7 (N7GL)	573,123	*HA3NU.....	1,531,200
Zone 4		Zone 16	
XL3T (VE3AT).....	6,196,623	UB7K.....	7,090,160
W9RE.....	3,098,067	UW5Y (US2YW).....	3,810,288
K5TR.....	3,081,208	EW2A.....	1,057,131
VE5MX.....	1,667,157	EV1R.....	1,019,160
K4AB.....	1,654,696	RM2U (RU3UR).....	954,230
Zone 5		Zone 20	
VY2ZM (K1ZM).....	7,588,026	P3X (5B4AMM).....	4,770,010
K5ZD.....	5,454,575	C4W (5B4WN).....	3,524,952
NN3W (@NR4M).....	4,612,856	YPØC (YO3CZW).....	1,884,807
K4ZW.....	4,202,216	4Z5LY.....	1,339,704
N1UR.....	4,195,076	4Z4AK.....	507,282
Zone 14		Zone 25	
CR6K (CT1CJJ).....	7,356,154	JH4UYB.....	3,047,568
EA2W.....	6,052,584	JG7AMD.....	653,346
DJ5MW.....	4,049,265	*JH1EAQ.....	540,408
G6XX (G4FAL).....	2,405,925	*JH1OGC.....	517,370
EA5DFV.....	1,975,180	JA2AXB.....	512,540

*Low Power

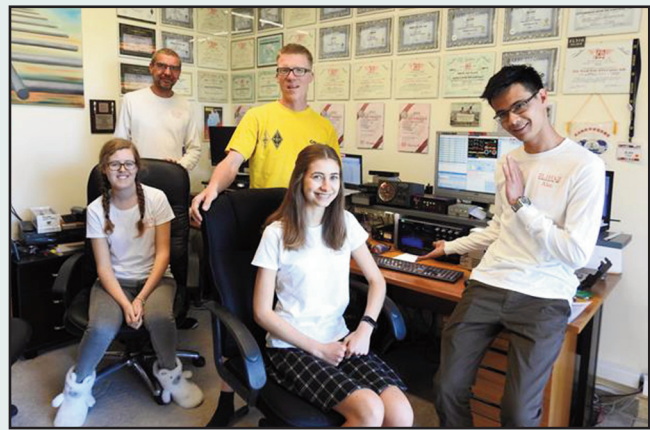
The Youth Team of ZM4T

BY HOLGAR HANNEMANN, ZL3IO

In the 2020 CQWW SSB contest, we hosted a team of kids operating from ZM4T. Fortunately, we are COVID-19-free in New Zealand and our life is normal compared to the rest of the world. Due to my own health issues, I have limits to what I can physically do and as a result planned for some antenna work to be done the same weekend as the contest.

Our guests over the weekend were Jaidyn, ZL4WW (17 years old); Alec, ZL1HAZ (25 years old); and Saskia, ZL2GQ (24 years old). We took down a 5-element, 15-meter Yagi for repair (wind damage) and installed a 3-element, 20-meter Yagi on the tower for the SA / EU long path.

Did I also mention there was a contest that weekend? The team operated the CQWW in difficult conditions as a multi-single entry. The result didn't set any startling records, perhaps due to the lack of competition from KH6. The kids managed to finish in first place for Oceania and potentially qualify for a plaque. It is of particular note that none of the kids on our team own their own stations other than handhelds. For them to operate on HF they mostly run a remote connection into ZM4T. Alec (an electronics engineer) lives in Auckland (~300 miles away) and does this regularly. Jaidyn is a high school student who lives nearby (~20 miles) and visits us from time to time to operate. Saskia now lives in Wellington. She finished university in 2019 and started her career as a



The youth team at ZM4T is hoping for another big Oceania win in the CQWW (2019 photo, Standing l. to r. ZL3IO (host), OK1MV, ZL1HAZ; Sitting l. to r. ZL2EM and ZL4YL).

policy advisor. While she was happy to help the team and be around for support, she wasn't as keen to operate.

Some of the other kids we had here in the past were unable to join us this year. Alice, ZL2EM, and Xenia, ZL4YL, for example, were in the middle of their first year exams at Auckland University. They both finished with excellent results and got accepted into medical school.

In short, we were proud to operate as a youth team in this year's CQWW contest. Their enthusiasm is infectious. We can't wait until the next one.

hard enough, a couple of them accomplished this while operating with two radios in various configurations.

It turns out that there really isn't any geographical difference in operating times. We all fall into the same groupings regardless of location. My guess is that as the sun continues to come to life, the average operating times will increase as well. Maybe you'll be in the "48" club some day?

Accuracy Champions Extraordinaire!

In every contest, there is a group of operators that produces amazingly accurate logs. I want to personally applaud this list of first-class contesters as summarized in *Table 4*, some of whom are regular members of this enviable club. Congratulations for a job well done!

Some Direction from the Director

I'd be remiss if I didn't point out a few operating concerns that continue to appear in the CQWW contest. In some cases, these are minor infractions of the

Cont	Rank	Call	Cat	Raw QSOs	QSO accuracy*
AS	1	JL3MCM	Low Power	518	99.61%
AS	2	T6A	High Power	2,304	99.26%
AS	3	JH7QXJ	High Power	919	99.24%
AS	4	UA9BA	Low Power	1,532	99.09%
EU	1	DK1KC	Low Power	900	99.89%
EU	2	SP2GMA	Low Power	1,047	99.71%
EU	3	OK6T	Low Power	2,058	99.71%
EU	4	SQ3WW	High Power	634	99.68%
EU	5	OH6ECM	Low Power	626	99.68%
EU	6	UT4EK	Low Power	612	99.67%
EU	7	G4NBS	Low Power	906	99.67%
EU	8	DL7UGT	Low Power	528	99.62%
EU	9	HB9AA	Low Power	513	99.61%
EU	10	MM1E	Low Power	1,063	99.44%
NA	1	KD7RF	High Power	752	99.60%
NA	2	KR2Q	QRP	731	99.45%
NA	3	WE9V	High Power	506	99.41%
NA	4	VE6BBP	High Power	1,872	99.36%
NA	5	CO2VDD	Low Power	552	99.28%
NA	6	N2IC	High Power	1,765	99.15%
NA	7	WP3C	Low Power	2,919	99.14%
NA	8	K5ZD	High Power	3,979	99.12%
NA	9	K4ZW	High Power	3,296	99.12%
NA	10	WW4XX	Low Power	567	99.12%
OC	1	WH7W	High Power	549	99.27%
OC	2	KH6CJJ	Low Power	1,241	99.03%
SA	1	PY2EX	High Power	1,112	99.19%
SA	2	OA4SS	High Power	1,410	99.01%

*Accuracy defined as percentage of fully copied received call signs and exchanges.

Table 4. Continental overview of most accurate 2020 CQWW SOAB Unassisted entries. →

rules. In other cases, as you can see in this year's scores, they result in disqualification. Let's review each category in more depth.

Out-of-Band Operation

There are a few examples of out-of-band operation that we have discussed in the past but continue to persist. Aside from logging stations that are simply not in your country's allocated frequency spectrum (e.g., a European station working someone on 7233 kHz), we are also discovering stations operating on frequencies outside of their license privileges, transmitting on band edges such as 14350 kHz and so on.

Cluster spots are among the contributors to this issue. The tendency to quickly jump, call, and work a spotted station has become a standard part of many operating methods. The advice, however, is simple. Take an extra two or three seconds to ensure the station you're calling is in your allocated band. And, if you are looking to establish a run frequency, make sure you're "in the band," avoiding the temptations of a clear 7126 or 21349.8 kHz in the U.S. as an example.

Use of Spotting Assistance as a Single-Operator

Unlike the recent changes in the CQWW WPX contests, the CQWW DX continues to maintain separate single operator categories for Assisted and Unassisted operations. We are regularly evaluating this issue but for now plan to maintain the status quo.

All being said, there continues to be abuse of spotting assistance tools by a small minority of entries, claiming to be unassisted operators. Finding these cases is one of the most labor-intensive aspects of the committee's work. Fortunately, we have the combination of dedicated committee members along with amazing SDR capabilities and other technologies to sniff out the majority of the cheaters. So, be advised that claiming something you're not is a sure path to being listed at the end of the results — a "spot" you don't want with your callsign!

Signal Quality

To some degree, we've all been guilty of this one — myself included. Whether we are using a small station trying to get every dB into our modest antennas or we're in a pile-up attempting to work that needed zone, there is a huge temptation to "crank up the audio" or use other

audio-enhancing means to give us a competitive advantage. The downside is obvious: Bad audio and / or broad signals / QRM to adjoining stations that makes few friends with others on the bands. You may not have noticed, but the CQWW DX rules call this out (see Rule XII.A that speaks to unsportsmanlike conduct). The contest committee continues to look at this on-air behavior and has the tools to take action as necessary.

And, Finally ...

Unfortunately, it's not very often that I get the chance to publicly express my appreciation for the amazing commitment that our incredible team of CQWW Contest Committee members demonstrates each and every year. There is no doubt that this team of dedicated log checkers is as good as it gets. On behalf of myself and everyone who enjoys the CQWW

each year, thank you for making our contest the premier operating event in all of ham radio, producing accurate and fairly scored results. Our team members include: CT1BOH, José Nunes; EA4KD, Pedro Vadillo; ES5TV, Tonno Vahk; F6BEE, Jacques Saget; GØMTN, Lee Volante; HA1AG, Zoli Pitman; IK2QEI, Stefano Brioschi; JH5GHM, 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 Igland; 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.

– See you in October! 73, John, K1AR,
CQWW Contest Director

Building and Operating a New Superstation at ND7K

BY DAN CRAIG, N6MJ

In 2018, Tim, N6WIN, reached out to me and said he was going to build a nice station at his retirement ND7K QTH in Arizona. After asking him what he was planning on putting up, he said that he wanted a station that could compete in domestic contests while allowing for some fun in DX contests as well. Tim's plan was to put up a 90-foot tower with some tri-banders on it. At that point, my task was to politely explain to him that our main competition would be N2IC in New Mexico and WA6TQT in California and that tri-band stacks would not be able to compete. This early conversation started the ball rolling, and after months of planning, we came to the conclusion that three 130-foot towers would get us what we wanted; a bit of an adjustment from the original plan.

At ND7K, we now have separate stacks to EU and JA on 10, 15, and 20 meters. And, as of CQWW DX SSB, we are about 85% complete — at least for now, with a few more Yagis to go and an 80-meter 4-square being the biggest remaining projects. I'm happy to say that there have already been some really big scores put up from Tim's station and expect many zone 3 records to fall over the next few years.

While it may seem difficult to be safe during this pandemic, we tried our best as one of the few onsite multi-ops during the 2020 CQWW SSB contest. We had the radios well separated, each op had their own headsets, and we sanitized the station during each op change.

Like everyone else, we were pleasantly surprised with conditions on the high bands. Being able to work both EU and JA on 10 meters during a contest hasn't happened in this part of the U.S. in years, so it was a nice surprise with 15 meters also performing above expectations.

We had a great team of guys. Some of us have never operated together but everyone worked great as a newly formed team. W6PH was our grizzled veteran putting in lots of hours throughout the weekend. W4IX was a brand-new team member and was able to help with some projects prior to the start of the contest as well as operate more overall hours than anyone else on the team. W9KKN was a late addition to the team, but offered a lot of experience, having been a major part of our ZF1A team. Not only was he diagnosing issues with the onsite ND7K station, he was also on-call to help

solve issues with the ZF1A station being used in remote operation.

Tim, N6WIN, has put so much work into this station over the last year. Having recently returned from K3LR's QTH with a snowbird set of recently retired LR OWA Yagis, he and Hector, XE2K, got to work to immediately place them into service right before the CQWW contest. The old LR antennas definitely thanked us for their new life in sunny Arizona.

At last, Tim finally experienced the benefits of his hard labor at ND7K! We can't wait to work you in the next one!



Here is the new ND7K station that is ready for big-time contesting!