

Expanded Results of the 2016 CQ World Wide DX CW Contest

This article expands the results write-up that appeared in May 2017 CQ Magazine and is also available on the cqww.com web site in PDF form. You can find detailed scores in every category there, as well as the trophy winners. This article provides additional commentary on some of the more interesting aspects of the event.

Despite declining solar activity, participation was excellent. There were some outstanding efforts and some close races in the various categories. Let's take a look at some of them...

World Single Operator All Bands High Power

Many serious contesters consider this the unofficial world championship. Top operators travel to favorable locations, build or borrow high-performance stations, and put in a full 48-hour effort to "win the world".

Their stations are generally equipped with two radios and amplifiers, with sufficient filtering to allow the operator to hear on one band while transmitting on another. For the past couple of decades, this Single Operator, Two Radio (SO2R) technique has allowed the operator to call CQ and run stations on one band while tuning a second band for multipliers.

This year, the top five competitors all used the emerging operating technique known variously as "dueling-CQ", "alternating-CQ", or as Jose, CT1BOH, calls it "2BSIQ" (Two Band Synchronized Interleaved QSOs). He has produced an excellent explanation of this technique, which is available at wwrof.org/wp-content/uploads/2017/04/2BSIQ-20170331.pdf

In short, the technique represents a major advance in a single-operator's capabilities, using the second radio to also call CQ and run stations. In the past, the highest QSO rate achieved running on a single radio was 289 QSOs/hour, set by W2GD operating as P4ØW in 2004. That record was broken in 2015 by Dan, N6MJ, (operating as ZF2MJ) with an insane 371

QSOs in a single hour...then in the 2016 contest he stepped it up to an astonishing 387 QSOs.

Bud, AA3B, (operating as V26K) used this technique in the Low Power Category to log 314 QSOs in one hour. Bud ran away with the World Low Power prize, with almost double the score of runner-up Ash, KF5EYY (operating as 3V8SS).

QSOs	Station (operator)	Year
387	ZF2MJ (N6MJ)	2016
371	ZF2MJ (N6MJ)	2015
362	TI5W (KL9A)	2016
343	V47T (N2NT)	2016
314	*V26K (AA3B)	2016
301	V47T (N2NT)	2015
300	CR3OO (CT1BOH)	2016
290	8P5A (W2SC)	2016
289	P4ØW (W2GD)	2004
279	D4B (4L5A)	2004

Table 1 - CQWW CW 1-hour QSO records

The battle for the op was intense, with Dan, N6MJ (at ZF2MJ) finishing on top with over 9700 QSOs and 14.2M points. That works out to an average of over 200 QSOs per hour for the entire contest!

Chasing 'MJ was his WRTC2014 teammate, Chris, KL9A, operating as TI5W. He had 13.5M points, and about 9300 QSOs.

Dan and Chris had nearly identical QSO totals on 160, 80, and 40 meters. Chris had more success on 10 meters, outgunning Dan by about 500 QSOs there, but MJ focused on his strengths on 20 and 15 with a 900-QSO advantage.

Note that these two stations were at an apparent scoring disadvantage due to their North American locations, giving them two points per QSO with other NA stations. However, their massive QSO totals (and outstanding multiplier totals) overcame that handicap. In fact, North American stations took 4 of the top 5 spots.

CT1BOH, operating at CR3OO, was the non-North-American, placing third with almost 8200 QSOs and 13.3M points.

USA Single Operator All Band High Power

It was a close finish in this category, which establishes bragging rights in the U.S. The top three finishers were within a few percentage points.

Winner Greg, W1KM, and third-place scorer Doug, K1DG, both took advantage of their coastal locations to pound the low bands. Second-place finisher Kevin, N5DX, operating at the central New York mountaintop station of N2QV, focused on 40 meters, where the station sports stacked 4-element Yagis. Kevin had an amplifier fail the second night, and the replacement amplifier was cutting off the first part of his transmissions, slowing him down considerably for the rest of the contest with many stations asking for repeats.

Note that these stations all scored around 5 million points, about half of the sunspot-peak scores. Their QSO totals were in the 3200-3400 range, well down from the 5000+ the same operators and stations produced at the sunspot peak.

Single Operator All Band Assisted

While the hard-core operators have generally preferred to operate without using assistance from the various DX Cluster sources, more and more of the top operators are beginning to operate this way. It allows them to run up a higher score, primarily by increasing their multiplier.

Take the USA for example. The top three SOA scorers were single-op veterans K5ZD, K1ZZ, and KØDQ (operating at K8PO). Randy's 6.1M was about 10% higher than non-assisted W1KM's score, while the other two were only slightly behind N5DX.

The SOA battle for second place was decided in the log-checking, with K1ZZ's legendary accuracy sailing past KØDQ, who had the higher claimed score.

The Single-op Assisted High Power race for the World High score was also close, with KU1CW (at P4ØC) tangoing past LU5DX (operating as LP1H) by about 6%. The Low Power Assisted World competition was not as close, with veteran John, W2GD (at P4ØW), more than doubling the score of runner-up G4XUM (at MD4K). In the U.S., KE3X (at N3HBX) squeaked past W1NT.

Multi Operator Single Transmitter

This category began a long time ago as a way for several operators to share a single station. When one operator got tired and needed a break, another could take over. The category evolved over time to allow a second radio to work new multipliers on another band, but only as long as the "multiplier station" stayed on a band for at least ten minutes.

Some innovative groups determined that it was possible with multiple antennas and reasonable physical separation to call CQ and run stations on two frequencies on the same band (with only one signal transmitting on the air at a time). This was later disallowed in the rules. However, these stations found that the second "in-band" station could still add a lot of QSOs by tuning around and/or chasing cluster/Skimmer spots on the "run band" with an interlock to prevent multiple signals on the same band. At the same time, one or more "multiplier stations" could chase cluster/Skimmer spots on the other bands.

The top four World Multi-Single stations all used this sort of setup to run up big scores. When the dust had settled, the 13 operators at CN2AA had put EF8R (18 ops), ED8X (15 ops), and P33W (a mere 7 ops) in their rear-view mirror. In the fifth spot was a more traditional Multi-Single at KP2M with just two operators (KT3Y and K9VV).

The top scores in the USA Multi-Single category were closely bunched together at slightly over 5 million points but spread out geographically. W3UA/1 in New Hampshire bested two Texan stations (K5TR and NR5M), with NY4A (at N4AF's station) in North Carolina not far behind.

The relatively new Multi-Single Low Power category produced one of the closest finishes of the contest. The submitted scores had VP5M

ahead of CT9/R7KW by a slim 1.4%. After log-checking, the lead had dwindled to a barely-measurable 0.06%. That works out to about a 2 QSO difference! A few less static-crash-induced copying errors could have made a difference (or a shorter callsign for CT9/R7KW).

The race in the U.S. was neither close nor particularly competitive, with W1FM (operated by Jake, W1FM, and his son Ethan, N1SOH) winning the trophy with just 10% of the Single-op Low Power leader. However, it was double the next-highest score (WQ2N).

Multi-Operator Two Transmitter

Like the Multi-Single category, Multi-2 has evolved to the point where the top stations have large teams of operators and at least two stations assigned to each band and often another station to determine the best time to change bands.

It is interesting to see that the top Multi-Single stations had higher multipliers than the top Multi-2 stations. This is most likely due to the band-change rules limiting the M2 transmitters to 8 band changes per hour each, and a reluctance to give up a good run band to chase a handful of multipliers. On the other hand, the MS multiplier station is free to move every 10 minutes to a new band and can be very efficient at tracking down newly-spotted multipliers.

Station	Score (Mpts)	Cat	Q	Z	C
CN2AA	28.4	MS	10779	197	719
EF8R	26.7	MS	9930	202	730
ED8X	25.5	MS	9742	194	718
P33W	23.9	MS	9890	193	686
CR3W	27.5	M2	11502	178	652
CN2R	26.9	M2	11758	175	631
PJ4A	22.1	M2	10442	163	574
PJ4Q	20.8	M2	10038	158	557

Table 2. Comparison of top MS and M2 Multipliers

Martti, OH2BH, looking for a suitable place to celebrate his 70th birthday, managed to secure the J7ØBH callsign on the island of Dominica. Operating with Brian, K1LI, and Dan, K1TO, he took home top honors in the North American Multi-two category. QHB, OM!

Multi-Operator Multi-transmitter

HK1NA won the Multi-Multi category for the first time. Their multi-national team included operators from Colombia, Finland, Denmark, and Argentina. They held on to their lead through the log-checking process over PJ2T. In Europe, 9A1A continued their streak with their third win in a row. In the U.S., W3LPL repeated as winners over friendly rival K3LR.

Looking at the World High Multi-multi standings, we see that the top 7 scores came from 5 different continents, with only Africa missing.

Low-Band Factoids

As we approach the bottom of the sunspot cycle, stations tend to spend more time on the low bands, and conditions there are perceived to be better than at the top of the cycle. This year, many stations across many categories managed to make DXCC in one weekend on 80 meters. Sixteen of the top 20 Multi-Multis, eleven of the top 20 Multi-Twos, fifteen of the top 20 Multi-Singles, and sixteen of the top 20 Single-band 80M entrants pulled it off.

Only one entrant in the contest completed DXCC on 160 Meters (UD4F, Single-band Assisted 160), with 102 countries in 27 zones. ES9C (M2) was next closest with 97, followed by Multi-Singles UA4M (95) and CN2AA (94).

New Records

With conditions as they were, there were very few new records at the World level. F6FVY (at FY5KE) established a new benchmark for 20 meter single band high power. FY5FY did the same for 80 meter single band assisted, low power. OK1IF (at OL4W) raised the record for QRP Assisted on 80 meters while HA3MY did the same for 160 meters.

There were no new USA records for any category.

The only new records for Europe were the two QRP Assisted entries mentioned above.