



Special Edition – 2020 DXCC Year End Review – by Joe Reisert, W1JR – January 5, 2020

2020 Overview: To say the least 2020 was a DX year like no others. The Orkney Islands DXpedition VP8PJ, one of the top 20 most needed entities came on the air in late February. Then the Covid-19 (CV) pandemic set in worldwide in March. It made travel difficult, especially to rare DXCC entities in Africa and Oceania. Dozens of planned DXpeditions after that date will either be rescheduled to a later date or cancelled altogether. Also most conferences and DX gatherings worldwide were cancelled. All of a sudden call signs with suffixes like StayHome or StaySafe became common.



Members of the Perseverance DX Group put on the February 2020 VP8PJ DXpedition to South Orkney.

On top of this, 2020 was also a difficult year for DXers since the solar flux hit rock bottom and band openings especially on 15 meters and above were all but non-existent. Then about mid-year it was announced that the solar scientists determined that solar cycle 24 finally ended statistically in December 2019 and solar cycle 25 began in January 2020. More on this later.

DX wise only about 265 entities were active during this year, far fewer than the usual 285 or so. January was very poor with only about 185 or so entities active versus a usual 225 in good DX years. For comparison, over the past thirty (30) plus years I try to work every available entity. My average is above 275 but in 2020 I only managed a meager 227! It will be interesting to see the CQ Marathon results this year.

The Bouvet DXpedition was delayed again due to CV. None of the top 10 most needed entities on the Club Log DXCC Most Wanted List were active this year and VP8PJ was the only one of the top 20 most needed. The pandemic caused many DXers to work from home. As a result, DX activity was high all year, especially in DX contests using CW, SSB and FT8 modes. CW was very active all year with many discovering the advantage of this mode under poor conditions. Likewise FT8 was extremely active since it can often get through when propagation is poor.

In November it was sadly announced that John Devoldere, ON4UN, author and one of the top Low Band DXers worldwide had become a silent key at age of 79. John's books on low band DXing were prized by many. His final book "Low-Band DXing-Fifth Edition" is a classic. He told me it would be his last as it takes too much effort to complete another edition. I dedicate the "2020 DXCC Year End Review" to John's memory.

Radio Propagation: As mentioned above, radio propagation was down most of this year. There were over 210 days (and some whole months) with zero sunspots through October. Typical solar flux during the first part of the year was 70-75 with a few small deviations until late October when solar flux abruptly soared to 88. Solar flux moving above 80 is a good indicator of improving DX on the upper HF bands. In late November the solar flux rose to 113. The increase greatly improved radio propagation especially during the CQ DX SSB and CW Contests.

As mentioned in last year's review, there have been dozens and dozens of papers predicting that solar cycle 25 would be a real downer. Now a recent report by Dr. Scott W. McIntosh et al from The National Center for

Atmospheric Research is predicting solar cycle 25 to be one of the best in history. They used (discrete) Hilbert Transforms on more than 270 years of monthly sunspots. Most experts agree that solar cycle 25 will peak around 2025. Time will tell. Let's fix those broken antennas and get on the air.



Here is the March 2020 4U1UN crew including (front row L-R) KO8SCA, K2QI, (middle row L-R) N2RJ, W2IRT, OH2BH (back row L-R) K1JT, G6CBR and VE7NY.

Club Log: This website is becoming the main place to check logs especially during DXpeditions. Their "DXCC Most Wanted List" is always up to date. The 10 most wanted DX entities in order of rarity are still P5, 3Y/B, FT5/W, BS7H, CE0X, BV9P, KH7K, KH3, 3Y0/P and FT5/X. Many other features are available such as OQRS (Online QSL Request Service), DXCC Charts, Log Search etc.

Digital Operations: Digital and especially FT8 took on more meaning in 2020. FT8 is known for its ability to copy very weak signals. Furthermore, it allows many smaller and low power stations to participate. During this low sunspot year the higher bands were sometimes open for FT8 contacts when CW or SSB were too marginal. Lately I'm hearing many DXers on FT8. Note that FT8 has a learning curve and users are less likely to spot DX on the DX Clusters. FT4, a higher speed version of FT8 that is slightly less sensitive is now becoming popular.

Thanks to the help from my son Jim, AD1C, I finally got on FT8 late in 2019 hoping to work 3Y/Bouvet and any entities that were active only on FT8. It took only about three weeks to complete DXCC. In six months I had worked 5BDXCC and by now 7BDXCC with DXCC 210 plus.

Band by Band Activity (Frequencies in MHz):

160 Meters: Activity was low to moderate on CW except during contests when activity filled the band. The cancellation of most of the planned DXpeditions due to CV really hurt 160 DX. FT8 activity is increasing around 1.840. In April, Japan received increased spectrum. Try to avoid frequencies divisible by 5 (e.g., 1.820, 1.825, 1.830 etc.) since broadcast birdies are often there.

75/80 Meters: DX activity was low except during contests and was also hurt by the cancellation of most DXpeditions due to CV. FT8 activity on the other hand is increasing around 3.573.

60 Meters: More entities have now received permission to operate on this band albeit they are often limited to 15 Watts and a dipole antenna. Well over 200 DXCC entities have been active on the band. Most DX activity is now concentrated around the third channel at 5.357 and almost entirely on FT8. The FCC is still looking at non-channelized operation near channel 3 for USA stations. The ARRL DXCC program still does not recognize 60 meter contacts for DXCC credit. Remember that USA stations are limited to 100 Watts output power and a dipole antenna. Use of gain antennas require reduced transmitter power.

40 Meters: This is the workhorse band especially during the night and in the winter local time. SSB activity is especially good during contests and above 7.100. Remember that USA stations cannot operate SSB below 7.125 but best to stay above 7.128 for safety. FT8 activity is now very popular around 7.074.

30 Meters: 30 meters is very popular especially for low power stations. The band is usually open for a few hours before and after sunrise and can be open almost all day during local winter. FT8 can be found 10.136.

20 Meters: 20 meters continues to be the go to DX band especially during daylight although some of the activity has moved to the digital modes near 14.074. SSB activity is still high. The CV has cancelled many DXpeditions that usually park on this band.

17 Meters: The lack of sunspots has really hurt the higher bands. 17 meters has been less affected and is often open shortly after 20 meters opens. There is lots of FT8 activity around 18.100. All modes seem to be doing OK on this band.

10-15 Meters: 15 Meters and especially 12 and 10 Meters have been hit extremely hard by the lack of sunspots. Late in this year the solar flux increased slightly and vigilant DXers took advantage of improved radio propagation and openings on 15 through 10 Meters. There is occasional activity here during the summer months when sporadic E propagation occurs.

6 Meters: This band in recent years seems to have gone almost all digital. MSK144 is popular all year around 50.260 while FT8 is most popular around 50.313 during summer band openings. EME (Earth-Moon-Earth) DX using digital modes such as JT65 is becoming very popular during local moon rise and set.

Frank, W3LPL is now posting in The Daily DX solar updates on the HF bands based on NOAA/SWPC webpages.

2020 Month by Month DX Activity Sample:

January: This is always a tough month especially being at the bottom of the solar cycle. This month had only 185-190 active entities, about 30 less than January 2019. Notable rare to semi-rare active stations S01WS, 4U1UN, TR8CA, T6AA, 9G2HO, and 5A0YL were active on and off all year. 3D2AG/P (Rotuma), ZC4UW (26KQ), E44RU (19.6K), 8Q7BS, 9L1YXJ, VK9NK (58K), C21NH, 9Q1C, XZ2B, HU1DL (60K) and JT5DX (mostly 160 meters) were active.



S53R, Robert, is working in Kabul for the next few years and QRV as T6AA and T6A in contests.

February: Lots of DX contest activity plus TI9A (30K), 5I5TI (47K), 5I4CC (17K), E44CC, TZ1CE, 9N7AM, TN/UA9FGR, TU4PCT (29K), and VP8PJ (S. Orkney-83K) were active.

March: YJ0NC, 9J2LA (35K), T32AZ and VP2VB (18K) were all active.

April: Lots of STAYHOME like HZ1STAYHOME, 9K2STAYHOME, A60SH and STAYSAFE were active due to CV worldwide. Many planned DXpeditions started to cancel due to CV.

May: Lots of odd call signs. SV2RSG/A (Mt. Athos) made a brief appearance on CW.

June: OJ0A, OJ0JR (I love that call sign) plus 6O1OO were active.

July and August: KH9/WW6RG, XW2DX, OJ0s and ZL7DX (FT8) were active. VK9NK was finally allowed to return home due to CV travel restrictions.

September: TO0Z (FJ) and OJ0JR.

October: Activity picked up with VQ9T, 5U4IHM, E51WL (N. Cook), 7Q6M, JX2US, NL7RR/KH9, Z66DX (33K) and TX0T (FO from a New IOTA).

November: Solar flux increased and 15 Meters and up improved. 7Q7RU, JG8NQJ/JD1 (JD/M), TZ1CE, D60AB and 8Q7ZO were all active.



Figure 1K6ZO, Don, was QRV as D60AB in October and November of last year.

December: This month has been designated **YOTA** (Youngsters on the Air) month with many stations using call signs with YOTA in same plus several USA stations using 1X1 call signs like K8Y. Give them a call and encourage them to join the DX community. 3DA0AQ, JX2US, VP6MW, 6O1OO and 3D2AG/P (Rotuma) were all active

Unauthorized Operations: As usual, many fake stations including many DXpeditions (before activation) were active. This is why DXpeditions are reluctant to give out their call signs before commencing operation for fear that their call sign will be pirated. Some of the pirated call signs during this year included many JXs, CE0X, VU4R, VU7AAV, EZ8CQ (EZ operation is illegal since August 2006), D1DX, and ZD9XF to name a few. WFWL (work first, worry later) still applies but if you know it's a pirate, don't waste your time or \$\$ to support that activity. K9EL often lists pirate call signs on the [CQ Magazine Marathon](#) page.

Furthermore, please **don't spot rare DX on the DX Cluster unless you know it's legit and surely don't spot rare DX call signs for test purposes.** It causes lots of bells to ring worldwide and unnecessary worry. Finally, don't post rare calls to thank someone for receiving a QSL etc. **No one who is watching cares or appreciates this type of boasting.**

CTU and CWA: Let's not forget Contest University under the direction of Tim, K3LR. It is now in its 14th year having had over 7,500 students in 8 DXCC entities so far. CW Academy by CWops, a program to improve CW skills. CWops just celebrated its 11th anniversary. "Improving Your CW" is another Morse Trainer by G4FON. Also K1USN now has weekly slow speed CW activity for beginners.

IOTA: Poor propagation and CV really almost shut down many rare and new IOTA (Islands on the Air) activity worldwide with many DXpeditions cancelled. Ironically, IOTA became the name of one of the North American hurricanes in November. CB0Z (CE0Z) put this new IOTA (SA101) on in January, 6F3A (NA153), RI0B (AS068), R207RRC new (AS207) and TX0T new (OC298) beat the odds. The IOTA program website is www.iota-world.org. It is filled with info on the program Remember that QSLing can now be conducted for some IOTA operations using LOTW.



IT9YRE, Nando, and K9AJ, Mike, activated CB0Z from Alejandro Selkirk Island (SA-101) in February 2020.

DX Contesting: DX contests were everywhere this year using CW, SSB and digital modes. Early reports are that it was a banner year with new record number of entries. Lots of operators worked from home instead of the large DX contest stations and of course lack of DXpeditions. Some larger stations sponsored smaller operations to YOTA operators. The [WA7BNM Contest Calendar](#) is a great source of contest activity. The [ARRL Contest Update](#) is a biweekly newsletter that often has interesting tidbits on operating etc.

Equipment, Technology and Accessories : This was a very poor year for Amateur Radio suppliers. At least one closed shop and others consolidated. The lack of DX gatherings due to CV surely took its toll on displaying new gear etc. There are new gadgets, gear and software but you'll likely have to shop around perhaps on the internet.

Safety: This can never be stressed enough, especially when towers or antennas are involved. Professional expertise is highly recommended. There were some tower related deaths and at least one experienced tower specialist was seriously injured this past year.

Safety equipment is very important on tower or antenna work. Better yet, have a professional tower crew do the work. K1IR has a video showing "Tower Safety" and is well worth viewing www.maarc.ca/news/tower-safety-video. Also Zero Falls Alliance. This reminds us that **every tower climber injury or death is usually preventable**.

Ham Radio and the Internet: The internet plays an important part in Ham Radio. Most DX clusters are now on the internet as well as LOTW (more on this shortly) and Club Log to mention a few. Also many contests require logs to be submitted via the internet within a few days after the contest. Please remember to show modes such as SSB, CW, FT8, FT8 F/H when spotting stations near band mode overlaps that can confuse operators.



RA9USU, UA3AB, TI2JV and SM6LRR were the team behind the February 2020 TI9A DXpedition.

QSLing and DXpedition Costs: QSLing is now becoming a lost art. Costs are skyrocketing. As a result of the CV, mail services were discontinued to over 50 countries at one time this year, some for long periods of time. As a result, LOTW (Logbook of the World) at ARRL has become very popular (see ARRL below). OQRS on Club Log is helping to obtain QSLs especially from DXpeditions and very active DX stations. See Note 1.

Operating techniques: This past year was a tough one worldwide. Needless to say, the RST report on CW is now almost always 599 and 59 on SSB! FT is more complex. Split frequency operation on rare DX stations is almost always a must. Unfortunately many call right on the DX frequency and hence cause panic! Please don't tune up your **transmitter on the common DX frequencies. The old adage still applies: Always Listen Listen Listen before you start to transmit.** Since poor operating procedures seem to be repeated over and over and to save space in this report, please refer to note 1.

Silent Keys (SK): This is always a tough subject to write about and is even tougher with the CV pandemic. They meant so much to our great hobby. In the past years, they had grown to over 200 in each monthly issue of QST, but the recent lists have decreased below 150. Hopefully this is a good sign and not just under reporting. The following is a partial list of notable DXers, contesters, DXpedition operators, designers or officials in Amateur Radio that I have noted in no particular order who became SKs during 2020.

They include in no particular order: DK5DC, K8LEE, K9HMB, W8ILC, W3AZD, KV4FZ, K2RIW, KB8RQ, K1LPS, PY2NX, W9SR, W3YOZ, F2MA, DK3KR, K1LU, W4QM, HP1AC, W3NQN, 3W2LI, ZP6CW, W5FU, A41KT, OH3VV, N8PR, KN4F, YL2DX, PY0FF, W1AX, ON4UN, G3TEV, IK2DIA, DL9GFB, K2QBV, WF5E, K8CC and K4SSU.

2020 DXCC and ARRL Matters: Rumors in the news media tell us that Bougainville, an autonomous region in Papua New Guinea (P29), has voted to become an independent nation. This could take years to happen before it is added to the active DXCC list.

The DXCC yearbook has been published mid-year for many years but now it only lists those who submitted DXCC updates during the prior year. If you want to see the latest DXCC standings, first go to www.arrl.org. Next click “on the air, and then DXCC Standings.” Of course, the ARRL runs LOTW and it is constantly being updated. The LOTW now has over 1.280 billion QSOs on file. New publications were published in 2020 which were primarily aimed at assisting newcomers to the hobby. The ARRL QSL bureau is another service for league members.



KO8SCA, VE7NY, OH2GEK and OH2BH were part of the VP2VB Yasme Sails Again DXpedition in March 2020.

And now the Drum Roll: There were approximately 74 entities that are NOT believed to have been active during 2020. DX was severely affected by travel restrictions due to CV.*

Africa (23): 3B6, 3C, 3C0, 3X, 3Y/B, 5N, 7P, 9U, E3, FH, FT/G, FT/J, FT/T, FT/W, FT/X, FT/Z, J5, S9, TJ, TL, VK0H, ZD9 and ZS8.

Antarctica (1): 3Y0/P

Asia (9): 1S, 7O, A5, BS7H, BV9P, EZ, P5, VU4, and YK.

Europe (2): 1A0 and R1F

North America (7): CY0, CY9, FO/C, KP1, KP5, XF4 and YV0.

Oceania (25): 3D2 (Conway Reef), E6, FK/C, FO/A, FW, H40 (Temotu), KH1, KH3, KH5, KH7K, KH8, KH8/S, T2, T30, T31, T33, VK0M, VK9C, VK9M, VK9W, VK9X, VP6D, ZK3, ZL8 and ZL9.

South America (7): CE0/X, HC8, HK0/M, PY0/S, PY0/T, VP8 (S. Georgia), and VP8 (S. Sandwich).

*Please note that some rare entities may not be on this list for 2020 because some operations were short, set up schedules or only on VHF, EME (Earth-Moon-Earth) etc.

The DXCC entities that are not believed to have been activated in ten (10) or more years has increased and now includes: 3Y/B, 3Y/P, BV9P, BS7H, CE0X, EZ, FT/G, FT/W, KH7K, KH3, P5 and YV0. This means that an avid DXer working hard at DXCC may take over 13 years to make it to the DXCC Honor Roll. This list also serves as a guide to those planning DXpeditions to rare entities. As for me, the top of my need list for the DX Challenge has not changed in many years and not surprisingly goes to P5, BS7H, FT5/W and BQ9P in that order.

Upcoming DXpeditions: There is still a chance for 3Y0I to activate Bouvet Island late in 2021. Due to the CV, many DXpeditions planned for 2020 may be activated late in 2021 but that is very speculative. Unless CV comes more under controlled, it may be a dull DX year with less entities active similar to 2020. Stay tuned and check the www.ng3k.com/misc/adxo.html and Daily DX calendars at: <http://www.dailydx.com/the-daily-dx-calendar/> for future operations.

Looking ahead to 2021 and Beyond: As stated above, solar cycle 25 should be gearing up in 2021. DX has really changed in the last few years with FT8 and CV problems. Some DXers chase the DXCC Honor Roll, the DXCC Challenge or the DX Marathon. 1,625 DXers have confirmed all 340 entities on the present DXCC list including nearly one thousand DXers from outside the U.S. More than 200 DXers have now achieved the very difficult DXCC Challenge 3000 level. Fernando, EA8AK now has an amazing 3264 entities and still leads the DXCC Challenge.

It's time to improve your 10 thru 15 meters as well as keeping your 80 and 160 meter antennas in repair. Then there are the never ending DX Contests, DX Marathon, DXCC Challenge and IOTA chasing. There are lots of

things to do. Don't let the airways die for lack of activity. HF radio conditions on the upper HF bands are improving. Try to stay active and join the fun. Also don't forget to support the various DX Foundations around the world that help make DXpeditions possible!

Finally: We hope this review has been informative especially for historical purposes. Using DX publications and the Internet are a great way to keeping us up to date on what is happening now and in the future. Once again, I am honored to be asked by Bernie, W3UR to write this review for the 16th year and for his valuable inputs and critique. Thanks also to John, K9EL, Michael, G7VJR and especially Frank, W3LPL for their valuable inputs as well as my son Jim, AD1C for his computer help! Previous reviews can be read on the K8CX Ham Gallery website.

73, Joe Reisert, W1JR

Note 1. To keep the size of this report under control, some additional information which may be repetitive has been in my 2019 or prior reports on the K8CX website especially on the Colvin QSLs.

NOTE: Obviously all the opinions etc. expressed are solely mine as are any errors that I have made. **This End of Year Review is copyrighted.** Therefore copies or use of this review **MUST** first be approved by Bernie, W3UR and then a courtesy copy of the reprint sent to Joe, W1JR. Best of DX to you in 2021. I'll see you in the pile ups.