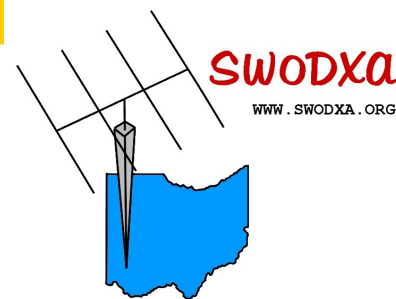




the exchange



SouthWest Ohio DX Association

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The Prez says.....Tom, NR8Z

Happy New Year! I hope the holidays have been everything you wished for with family and friends! If you were a nice ham last year perhaps you got something to add to your shack. If you were naughty, try to be nice in 2019!

I'm writing this after the SWODXA holiday party. The date change from our normal meeting night meant some members couldn't make it while others now could. It was a wonderful opportunity to meet many of our member's families and to have a relaxing dinner without the need to bang my gavel at any point. We gave away a number of prizes, both to members and non-members; I must say those Joneses are a lucky family!

Now that the calendar has clicked over into 2019, the preparations are gearing up for the DX Dinner® and DX Forum at Hamvention®. Ticket sales are now open; please talk it up with other DXers, we like to fill the room. Like many clubs, the heavy lifting falls to a subset of members, please offer help if you can spare some time. To be transparent, I'm looking for someone to lead the raffle ticket sales this year since Joe, W8JBL has a conflict. This is a very important activ-

ity for the club so please volunteer if you can, or I will voluntold someone.

The preparations are also underway for the W8DXCC™ convention in conjunction with the Milford ARC Hamfest in June. This is another chance for SWODXA to give back to the DX community with a focus on newer DXers.

I want to remind you of our new meeting location schedule. It will be on the website each month but here's the year ahead.

January, February, September, October, November—**Marions Piazza, 6176 Soundwave Blvd. Mason, OH**

March, April, May, June—**Marions Piazza, 8991 Kingsridge Dr. Dayton, OH**

Bill, AJ8B, has curated another informative newsletter.

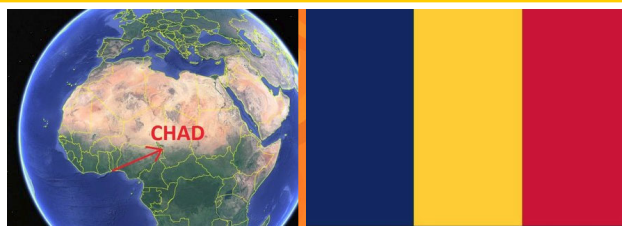
Some articles will help you make the best of these low sunspot times (e.g., our own K4ZLE) while others will introduce you to top notch DXers from around the globe. I plan to read my copy in front of a warm fire. Stay safe out there and Good DX.



Chad TT8KO DXpedition—Part 1

By Ken, LA7GIA

(Reprinted with the permission of Ken, LA7GIA. Originally appeared on the TT8KO website)



The Republic of Chad is a landlocked country in Central Africa and Africa's 5th largest country. The most popular religion of Chad is Islam (at 55%), followed by Christianity (at 40%). In 1960, Chad obtained independence from France as many other African countries did during that period. While many political parties are active, Chad is a centralized, authoritarian state, with little democratic tradition and a fragmented political opposition. Power lies firmly in the hands of President Déby who has been the President since 1990. According to the new constitution, President Déby can stay in power until 2033. Chad remains plagued by political violence and recurrent attempted coups d'état, and is ranked among the world's poorest countries on UN human development index.

PLANNING

I started planning to go to Chad just after I returned from Somalia as 6O6O in January. I was looking into a couple of options but knowing that Chad is ranked high up on lower bands made the difference. Getting the license wasn't that difficult except they had a somewhat strict licensing process. They required that I obtained a VISA as a proof of my stay in Chad. However, their European Embassy would not issue the Visa until 2 months prior to my arrival, and when my professional agent finally presented the application in person at the embassy in Germany, they refused to issue the VISA. My agent had to bring my passport back to Norway before we made a successful attempt some weeks later. After a long discussion with ARCEP (the regulator) I could file my license application without having the VISA, but I had to send a copy of the VISA when I received it, as that was necessary to have the license application approved. ARCEP also required the address of where I was staying. ARCEP also let me wire transfer the 30 USD license fee to their bank account. Wire transfer money to such countries like Somalia and Chad is not always easy, and only a few banks allow transactions to

these countries. Many of these countries do not use the IBAN/SWIFT details, and the transaction can very easily be stuck in the system or returned.

N'Djamena is the capital city with a population of about 750,000. I knew that the previous DXpeditions to Chad had problems with noise on lower bands. I chatted with several of them prior to going there. I tried to put some effort into choosing a good QTH – which isn't easy in such a city. The first hotel I dealt with refused to host my antennas and radios. They said this is a country where telecom is a sensitive issue and would not let me do the installation. Leaving the best option, I talked to the next one. They had a large plot which would accommodate my RX antennas (beverage), as well my low band verticals. After discussing the installation with them, they refused to do anything due to security until I sent a copy of the authorization. Obtaining the license took about one month. It was also forwarded to the security police. The reason was that there were a lot of Embassy's nearby the hotel, including the US Embassy, and the hotel wanted to check with the security police that transmission was ok. After security police had seen it, they confirmed the authorization was good. Hence, I had all permission that was necessary. I had the authorization issued by the Ministry, I had the security police confirmation, I had the Hotel Managers approval of my installation, and I also meanwhile had obtained equipment admission certificates to bring my equipment into Chad. All HF equipment to be imported temporary to Chad is by law subject to an admission fee (yes, I have a copy of the paragraphs).



I was really looking forward to this trip! I planned to install a 26-28m tall top loaded 160m vertical with 2-3 elevated radials, a 13m top loaded 80m vertical on Spider pole in the garden with ground radials. At the roof, 25m above ground level I planned to install my favorite Mosley mini 32AW 20-10m beam which has served me so well in the past 5 DX-pedition's. It's a great beam!



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Chad TT8KO DXpedition—Part 1 (cont.)

As well at the roof I would have my favorite homebrew fan dipole for 40+30m up about 25-30 meter. The dipole is made of spare parts, some left over antenna wire, base-board as spacers, and I put it in a plastic bag. All my equipment weighted about 105 kg / 230 pound, I had about 1700m/5500 feet of wire and coax with me to Chad. I had an upgraded Elecraft K3 radio, a 1 kW JUMA lightweight amplifier, and an Elecraft KX3 as backup. I had a Remote QTH RX antenna system; a directional beverage kit and K9AY RX loop (4 directions) (www.remoteqth.com), including a custom-made RX controller. I also had some 250 m/ 800 feet of receiving 75-ohm coax, some sponsored by DX Engineering.

GOING TO CHAD

The day of departure all gear was packed. I had a full working day at the office before I headed to Oslo airport in the afternoon. I checked-in on an Ethiopian Airlines flight going to N'Djamena with a change of flight in Addis Ababa, before the final leg to Chad.

Arriving in the very small airport in N'Djamena the following day, I was quite relieved to see all my luggage at the bag belt. I headed for baggage screening, but when they checked all my gear, they immediately took all my bags and locked them in a room out of my sight. I showed them all of the papers, but still had to wait for the big boss. There were 3-4 other people in same situation. I was worried, but after 30 min waiting time, I met the big boss in his office smoking a cigar. He checked all my papers, we had a brief chat, and he said I could go if I took the gear with me when I left Chad. I was very relieved when I headed for the hotel. Despite all the discussion with the hotel about my room location facing the North side of the building, they had failed to make a reservation in the part I wanted. It took a while to sort out this, but finally I was happy and could continue with the installation. The hotel manager wanted me to rest, but there was no time for resting in the schedule so after 2,5 hours my beam, dipoles and 200m beverage to EU/NA was up, and radio and all gear installed just prior to sunset. The installation was carefully planned upfront and all bags packed accordingly. The hotel had provided me with many detailed photos, so I knew exactly how it looked. I knew all about their satellite dishes, the weather station, the lightning arrestors, the security cameras, the router, dimensions of roof hotel, directions, heights of structures and so on.

I planned to install the 80m antenna the following day, and 160m the third day if the beverage worked well. The first night I started on 15m before I changed to 40m about 22 UTC. The signals were fantastic on 15 and 40m. The beam was excellent in that position up 25m. The beverage was located about 150m from the hotel and in a 500m/1500 feet radius there were almost no houses. The beverage was very quiet, and many NA stations had booming signals throughout the night on 40m (S9).

After 43 hours (!) with almost no rest, I slept for 3 hours that night before I continued. I had a great time! The next day at lunch time I installed the 80m vertical antenna, as I planned to be on 80m in the evening. At the same time, I had a phone call from the receptionist. There were some people looking for me, and in the reception the national security police waited. We had a talk about my 80m top loaded vertical, equipment, and authorization for about 20 minutes. They said they would return later that evening to check my station. I did not mind. I continued with the transmission. Still great signal all over! Late in the afternoon the Mosley beam failed! I had high SWR and the PA tripped, still I run the pileup with 3W for some minutes! After some checking's, I decided to continue with the backup dipole (yes always bring spare parts and backups...).

At 18 UTC, after exactly 24h operation I managed 2135 CW QSOs while sleeping, eating, doing the 80m vertical antenna installation, talking to national security police, meeting the hotel management, and dealing with a failed beam. I decided to have a few hours break before continuing 80m.

Part 2 in the next edition!



60 Meters—The Channel Band

By Joe, W8GEX

After the recent ice storm, we had a half inch of ice on everything. Thankfully we had electric, but thousands were without for days. As you know, ice storms are not a friendly thing to ham radio operators. My towers and beams did survive but my wire antennas weren't so lucky.

Being a 60m advocate, I have two wires for that band; a vertical with elevated radials and an inverted vee. I have two so that in case one fails I will still be on the air.

The ice storm proved that theory wrong. With that much ice they **both** came down! They were supported at the top of the tower with a seven foot treated 2 x 2 that broke under the weight.

To add to my misery, my 80m inverted vee on the 80 ft. tower came down. Falling down is bad enough but they also got tangled up in the guy wires. The next day was still icy and on day three the temperature warmed into the 40s so I went out to sort out the mess. My tower guy was coming at 3 p.m. to do the climbing, so the pressure was on. I called my friend Bruce AD8K and he said he could help. They both arrived at 2:30.

Before they arrived, to replace the 2 x 2 board, I took a piece of metal 8 ft long and added three eye bolts and good pulleys; two for the antennas and a spare.

I went over my plan of attack with Bruce and Brandon Brock, the climber. Brandon had to knock some ice off as he goes up the tower but the installation went perfectly and all three antennas had good SWR. I'm back on 60m and 80m again and actively chasing FT8.



How Well do you Know your Club Members? (Answer on last page)



I was born in.... Dayton, Ohio

My main occupation is/was... Telecommunications then switched to Information Technology

My other hobbies include : geocaching and a private pilot

My spouses name is.... Ex-spouse now, but her name was Karen

I have two dogs: Bella and Max

Something that will surprise you about me : In my younger years I played a Cornet. For a foreign language in high school I took Russian. Neither one worked out very well.

My ham radio mentor was Ralph Bruce, W8FJC (sk)

Who Am I #2?



Long long ago, I was born in Middletown. I was employed during the summer months as a general laborer by a plumbing business and a local steel company. I also worked for a General Motors division in an engineering test group, and NCR in their integrated circuit development group.

I spent most of my working life with a local fire dept advancing from firefighter through the ranks to fire chief for my final 15 years.

I have been licensed since 1956 and hold an extra class license. In addition, another hobby I enjoy is astronomy. My spouse's name is Marjorie, and we have been married for 58 years. In addition to

living in Ohio, I also lived in Florida for 7 years. That is where I started chasing DX. I currently have 302 confirmed

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How about a note about my achieving 80mtr DXCC. This was the truly the hardest one to achieve....

That gives 80 thru 10 meters 5 band +3 band endorsement's for 30, 17, 12 (8 Band) DXCC. 160M is the next radio quest!!!

Only.... (Only ?) took 15 years for this brass ring

Later..... Do I sound happy????

-73- Chuck D K8CR

I've attached a photo of how to extend a too short wire antenna without having to cut and add. I used this technique to extend a 75 (SSB) meter dipole to operate on 80 CW.

John—N8AA



Congrats to Tom, NR8Z, for finishing third overall nationally in the 1B - 1 Operator Battery category of the ARRL Field Day. Well Done!

Here are the stats:

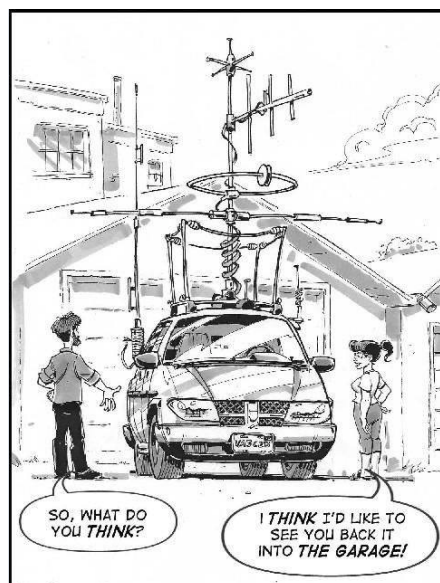
| Call | QSOs | Power | Ops | Score | Section |
|------|------|-------|-----|-------|---------|
| NR8Z | 348 | 5 | 1 | 3,930 | OH |



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Interview with Patrice—3B8FA

After working Patrice, 3B8FA, I took a moment to review his QRZ.com webpage and was very impressed in all that he had accomplished. He kindly agreed to answer a few questions for us..



AJ8B: How did you first get interested in amateur radio?

3B8FA: I got involved in amateur radio because I used to help my elder brother (3b8du) with his antenna setup. I started, like many of us, by being an SWL. I remember using 3B8-101 number sign, that was in +/-1976.

AJ8B: When did you get on the air?

3B8FA: I got my class A license in 1979 and was the youngest HAM at that time.

AJ8B: It appears that you have been on many modes and bands. Do you have a favorite?

3B8FA: One thing I never liked is CW even though I passed the 12 words/minute test easily.

AJ8B: In reviewing your QRZ.com page, I see that you have been very successful with chasing countries and with contests. Any secrets to your success?

3B8FA: I have never been a DXer or a contester but I did take part in a few contests, particularly when I discovered the SSTV mode. I am interested in most aspects of our hobby, the last one is EME which I started a few months ago with quite good results considering my modest station. I am also involved in tropo ducting on 2m between the Indian ocean countries (3B9,FR,ZS). I am very active in Low Earth Orbiting (LEO) satellite activity as well using all the V/U and FM birds, being amongst the first to receive AO94 lunar orbiting satellite with a 15 elements home made Quagi antenna.

AJ8B: Describe what you are currently using:

3B8FA: Actually I'm using a Kenwood TS2000 as main rig

also have a Yaesu FT897 spare rig.

AJ8B: Any QSLing hints?

3B8FA: Nothing particular about QSLing, only that I don't make paper QSL collection any more but I do have the paper cards for those interested.

AJ8B: I noticed on your webpage that you have also been active from 3B7 - Do you get there often?

3B8FA: Concerning 3B7, that was a trip my brother and I undertook to test his new sailing boat which he took 14 years to finish. So I brought my equipment in view to make SSTV active from there, that was a great first! I worked also in PSK mode and had a great time fishing there.

AJ8B: What coaching/advice would you give new amateurs?

3B8FA: Unfortunately I noticed very bad operating behavior since the last decade so I will ask to all new comer and seniors to keep the HAM spirit to its original values.

AJ8B: Thanks for taking the time to answer my questions. Is there anything you would like to share with us?

3B8FA: Here you can find more information about amateur radio in Mauritius, history and much more.

<https://mars3b8.wordpress.com/>

Best 73,
Pat—3b8fa



How can you keep up on all that is going on in Ham Radio?

ARRL OH Section Updates

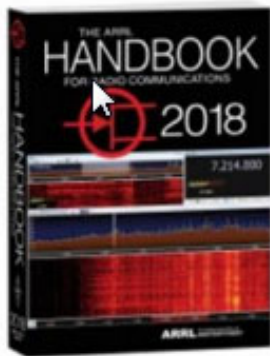
From our ARRL Section Manager, Scott, N8SY

Hey Gang, Do you get updates from your ARRL Ohio Section Manager via email? If not, go to: <http://arrl-ohio.org/handbook.html> and get registered.

What's the catch? I want to get everyone checking in to the Ohio Section website as often as possible, and in order to register each month, you have to visit the website often! There's nothing else to it. I pay all expenses, and from time to time, I Give Away more than just a Handbook. And, you'll never know just what months will be those special times that I will have more than just a Handbook to Give Away!!

Did you see the ad from ARRL recently? Well, they liked my idea so much that they've copied it. Yup, they were giving away a Handbook too!

Many of you ask me just how do I know when the drawing is on? Well, that's easy all you need to do is check in on the Ohio Section Website on a regular basis and watch for the big RED Arrow that will appear on the left side of the page. This is the sign that the drawing is on and you need to get registered. So, keep a sharp eye out on the website and check in often! <http://arrl-ohio.org>



The Monday Morning Memo...

If you aren't receiving this each Monday, you should!

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FT8—Avoiding Harmonics & Audio Settings

Update 12/6/2018 by Mike, W9MDB & Eric WA1SXX

As luck would have it, I worked VP6D the last few times on SSB and shut the rig down. The next time I was on the air was to check out FT8. I made a couple of QSOs. A day later, I received an email from an 00 indicating that my signal was far too wide. Turns out, I still had my SSB settings in place! The email that was sent to me turned in to a discussion with Mike, W9MDB, sending me the attached article along with his permission to reprint. Enjoy!

The FT8 sound card mode is an MFSK mode with redundancy and error checking. If you have been hearing about this new mode or have been using it, this article can aid you to set up and operate the FT8 data mode with good clean signals. FT8 allows you to view and decode dozens of signals at once with the waterfall display. This means your audio setup and bandpass settings will be of utmost importance while operating the FT8 sound card mode.

FT8 is a very popular sound card mode thanks to the WSJT-X team's efforts. See <http://physics.princeton.edu/pulsar/K1JT/wsjt.html> for the software and check out the references for lots of details. A sound card mode is what you might call a poor-person's SDR (since the software is free you can be poor to enjoy it). All the FT8 relevant modulation/demodulation/bit-correction/error-checking is taking place in the WSJT-X software. During this process your FT8 messages (exchanges) are being encoded with additional information that allows for error detection and bit corruption correction which the receiving side can use to process and validate the received message. The WSJT-X software sound card modes can be used with any rig, new or old. FT8 can demodulate dozens of signals (50hz wide each) in up to 5000Hz of bandpass including overlapping signals. As you can see, many hams can operate at the same time in the same bandwidth. This approach allows new operating paradigms like FT8 Fox & Hound mode that DXCC teams are now using where they can process multiple QSOs simultaneously (see http://physics.princeton.edu/pulsar/k1jt/FT8_DXpedition_Mode.pdf).

One of the areas that seems to be misunderstood while operating FT8 is the how the radio's bandpass settings affect the operations of this mode. Many of the hams who operate some of the other modes like SSB and CW, use the default bandpass settings in their rig which are frequently too narrow for FT8. Note that most rigs can set the overall bandpass and not separate the Rx/Tx

bandpass. Your rig's bandpass is hopefully at least 200Hz-2400Hz and preferably 200Hz-3000Hz since there are quite a few operators who transmit above 2500 (see Figure 1 with 200Hz-3000Hz). You can view your

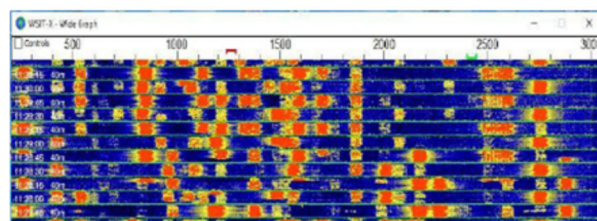


Figure 1 – Example noise typically seen

bandpass in the WSJT-X waterfall by turning off “Flatten”, below that change the pulldown to “Current” and set “N Avg” to 3 or less and “Start 0 Hz” so we can see the changes more easily. What you should see is something like Figure 3, where you have a noise level signal rolling-off at lower and upper ends of the bandpass. You should adjust the Bins/Pixel and window width, so

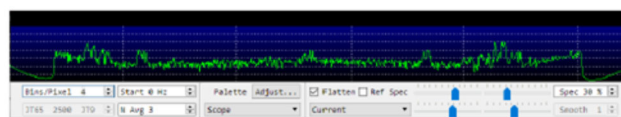
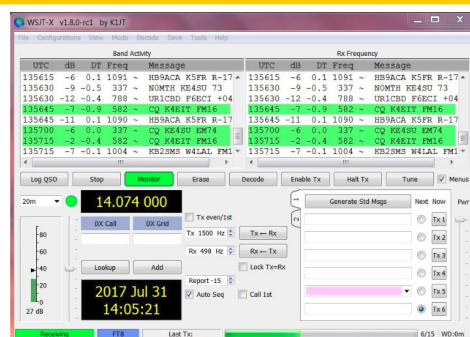


Figure 3 – Bandwidth view

you can see your entire FT8 signal bandwidth. Then you need to learn your bandwidth controls in your rig, so you can maximize both the low end and high end cutoff points. Once you have your bandwidth set in your rig as wide as you can make it you can change the “Start 0 Hz” to “Start 200 Hz”. Then adjust the right side of graph until it is inside your upper bandwidth limit. Then turn on “Flatten”.

(Continued on Net Page)



FT8—Avoiding Harmonics & Audio Settings (cont.)

Note that Flatten does not like having the edges of your bandpass in the waterfall and will not behave as well if you adjust this incorrectly. The signal bandpass area between the lower and upper limits of the waterfall window is where the FT8 signals will be displayed and decoded in the software. The frequency limits of the waterfall determine what gets decoded.

Remember your goal for FT8 is to adjust your rig for as much TX/RX bandwidth as possible...you can run it up to 5kHz for WSJT-X (as much as WSJT-X can do right now). Most rigs should do at least 200-2400Hz. Many rigs have bandwidth settings called NAR/MID/WID filters and the WID settings should always be used and it can usually be adjusted for the largest bandwidth. If you can't find your rig's bandwidth settings after consulting with your manual feel free to contact one of the authors.

Once you have your bandwidth set correctly you are now ready to set up your receive signals path:

#1 Open the sound control panel on your computer, right-click your rig sound device, select Properties, and set the Level of your sound card Playback device (and Recording device) to 0dB. You can get to the sound control panel in Windows 10 by right-clicking the speaker icon and select "Open Sound Settings" and find the "Sound Control Panel" entry and your audio is probably called "USB Audio CODEC". Right-click the device for your rig and select "Properties". Select the Level tab and right-click in the level slider to set the scale to dB instead of the default percentage.

#2 In the Advanced tab set your sample rate to 48kHz 16-bit. Also, ensure all enhancements or spatial sound effects are turned OFF.

#3 You are now ready to adjust the level in the WSJT-X meter to minimum 30dB and not more than 40dB when you have your rig's VFO tuned on a quiet spot. You can adjust your external sound card knobs if you are using one, and your rig's output level to achieve this. Do NOT make this adjustment using sound controls on the computer...in most cases that is not necessary. The meter in WSJT-X should look something like Figure 4. Again, note this is on a quiet spot on the band with no signals present.

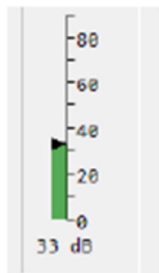


Figure 4

Now let's talk about your transmit signal path:

A rig that has too much input audio will create a dirty tx signal with very significant harmonics that can disrupt a QSO and everybody can see on the waterfall.... but...here is the problem...you won't know about it unless you can monitor your own transmitted signal. Any harmonics will show up at multiples of your Tx offset setting in the WSJT-X waterfall of everybody that receives your signal. For example, you can clearly see the noise bars at around 2480 in Figure 1 which

is the 3rd harmonic of the signal at 829. In Figure 2 you can see an extreme example with multiple harmonics. Running WSJT-X's optional rig split mode or fake it mode will prevent harmonics from showing up in your transmitted signal since

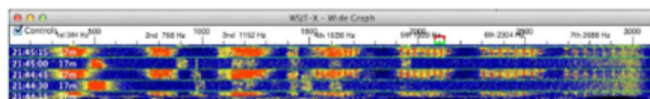


Figure 2 – Thanks to Dave K4DET for generating this image of clipping noise.

harmonics will show up above 3000Hz which is normally outside your transmit passband. But it's better not to generate them in the first place as your signal also gets affected by the clipping. ALC (Automatic Level Control) is one indicator of clipping and is an easy, roundabout way to know if you are clipping your signal. Another way is to ensure that dB level controls in WSJT-X and your soundcard behave as they should.

To set your transmit levels use the procedure below. This procedure is designed to ensure your signal is just enough to drive the rig without any ALC taking place.

You MUST understand what your ALC meter is telling you. Things you need to know to do this procedure:

- How much power your rig can transmit for FT8. Many rigs cannot use full power for this type of mode and some rigs can't even do their rated power on a constant envelope signal without hitting the ALC.
- How to read and understand your rig's ALC meter. Anything above 0dB ALC is bad for FT8/digital modes. The question is, how does your rig show 0dB ALC? For most older rigs 0dB is the left-hand side of the meter or just a red-light indicator when ALC is in effect. On newer SDR rigs you do want to see some ALC action as 0dB is not the left-hand side of the meter...read your manual. The procedure below will help you confirm how your meter behaves.
- How to set the rig output power level
- How to set rig audio input level (RAIL) – this is the audio level that the rig sees from the computer or the external sound card. We will also be adjusting any external sound card like a SoundBlaster or Signalink (if you have one) and the RAIL together.

(Continued on next page)

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FT8—Avoiding Harmonics & Audio Settings (cont.)

#1 Set your rig power level to the maximum it can do for CW mode (look at the rig specs – could be anywhere from 30-100% of full power). We just need to ensure we have enough “room” in the rig setting so that we can feed a signal and not be any more than 50% of the rig’s power setting.

#2 Set WSJT-X to full power on the Pwr slider

#3 Confirm your sound card playback device is 0dB and 48kHz sample rate. Recording should be the same 0dB, 48kHz. Also ensure your sound card audio playback is NOT the default device. If you make it the default than all your windows sounds (beeps, YouTube, etc.) will playback through your rig.

#4 Set your RAIL to minimum and your playback/ outgoing/transmit sound card to minimum.

#5 Set the TX offset to 1500 – we want to ensure the tone we generate is in this “sweet spot”.

#6 Press "Tune" on WSJT-X – at this point you should have no power being transmitted. If you see power go check your settings again.

#7 Increase RAIL and external audio device level SLOWLY until you get about 20W (assuming your rig is set at 100W or use 20-50% of whatever your rig power setting is). Whatever your ALC meter says at that point is probably what you want and is below 0dB. On most rigs the ALC meter won't even move or barely move. If your ALC is more than minimal at this setting, then you probably have an Elecraft K3 which wants 4 bars + tickling the 5th bar to operate at capacity. It's important you understand what your ALC meter is telling you. You do not want any ALC on an FT8 signal (or any other digital signal).

#8 Bring up RAIL until ALC starts increasing, then decrease gain back to where it was. For the K3 and such you should be able to put out max power without exceeding the K3's bars+5th.

#9 Sanity check – the Pwr slider on WSJT-X should show 50% power loss for every 3dB down. So if you are 100W at full scale (0dB on the Pwr slider) then -3db should be

50W and -6dB should be 25W. If your power does not decrease then your audio is still wrong. You could be overdriving the A/D in your rig which may also clip your signal. An example is the FT-450D which has a 60mV input with a Signalink that provides up to 100mV. If you put over 60mV into the FT-450D your signal will clip. The Pwr slider in WSJT-X is an indicator when this is occurring since dropping from 100mV to 80mV won't matter to the rig and the -3dB Pwr slider setting will still show 100W.

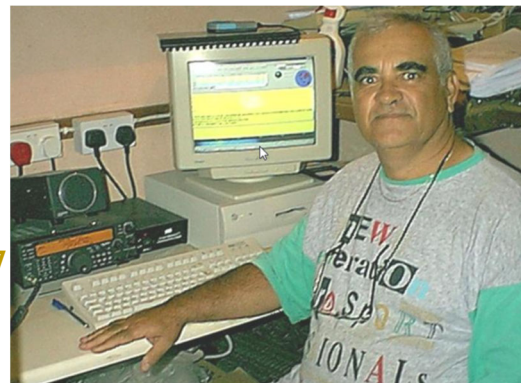
#10 Repeat #9 for the lower and upper limits of what you believe is your bandpass. You should see the same power level behavior for your entire bandpass. If you see the maximum power level reduce at any point then your bandpass or notch filters may be the reason...double check them. If you run WSJT-X in either “Rig Split” or “Fake It” (in Settings/Radio) than your audio will always be 1500-2000Hz and actually allow you to work signals beyond your bandwidth (i.e. if you can decode them you can work them). You should now be seeing maybe 80-100% of your rig's power level (depending on rig) with no ALC being tickled (or the 4bars+ as explained above). That's how you want to operate FT8 to ensure a clean signal. You can leave your rig power level at the maximum and adjust your transmitted power from WSJT-X (except for the K3 where you should adjust on the rig only due to the K3's power hunting feature) and your signal will always be clean. Changing rig power on the rig or audio levels in the rig or sound card that you have already set may end up triggering the ALC again so be vigilant that the ALC is always where it should be.

Hope to see you on the bands with a clean FT8 signal!

www.PhotoQSLs.com

Interview with John—ZD7JC

I first worked ZD7JC in 1999 on RTTY and still recall the QSO. He took the time to give me a tip or two on calling for DX in a RTTU pileup. I have worked him 3 other times using FT8 on 3 different bands. John responded instantly when asked to answer my questions.



AJ8B: How did you first get interested in amateur radio?

ZD7JC: I was introduced to amateur radio through a very good friend of mine, Desmond Peters, ZD7DP in 1997 and haven't looked back since.

AJ8B: When did you get on the air?

ZD7JC: In 1997

AJ8B: It appears that you have been on many modes and bands. Do you have a favorite?

ZD7JC: I particularly like the digital modes. My favorite now is FT8.

AJ8B: Any secrets to your success on the air?

ZD7JC: No, there are no secrets. Having the right equipment is most important.

AJ8B: Are you interested in contests? If so, any tips that you can share?

ZD7JC: I don't normally engage in contests but I did the FT 8 RTTY RU contest over the weekend and made some successful contacts

AJ8B: What is propagation like in your area?

ZD7JC: Propagation is pretty good during the Summer months, October to March but pretty poor otherwise.

AJ8B: What license levels do you have on St. Helena Island?

ZD7JC: There are no license levels on St Helena. You apply for a license and if you have the necessary equipment, a license is normally granted.

AJ8B: Describe what you are currently using:

ZD7JC: I am using the Yaesu FT-991, an excellent piece of equipment. A Cushcraft R-8 vertical antenna, an MFJ-939 automatic antenna tuner and software is JTDX.

AJ8B: What advice do you have for those of us trying to break pileups to work DX?

ZD7JC: I would strongly recommend the JTDX program as it has a unique filtering feature that blocks out all other stations whilst you are in contact with another.

AJ8B: What coaching/advice would you give new amateurs?

ZD7JC: I would strongly recommend amateur radio to anyone who might be interested. It's a great hobby.

AJ8B: Thanks for taking the time to answer my questions. Is there anything you would like to share with us?

ZD7JC: I think I have covered all my bases and hope that amateur radio will continue long into the future.



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The Gray Line

Submitted by Jay, K4ZLE

Jay is a prolific author and has kindly agreed to let me traverse his collection of articles. As much as I would like to publish them all at once, I will discipline myself to re-print one at a time. Thanks Jay for sharing—Enjoy!



This month we will review The Long Gray Line, otherwise known as the twilight zone or the terminator. Contrary to first impressions we will not be talking about the long line of West Point alumni, Rod Serling's old TV program or a movie by Arnold Swarzenegger. Our gray line is the band of transition from daylight to dark on one side of the earth and from dark to daylight on the other. Gray line conditions exist for 30 minutes each side of local sunrise and sunset and act as a conduit for radio signal propagation for frequencies below VHF. That gives us two hours per day for gray line communications. It is especially effective for work on 160, 80 and 40 meter DX. With the sunspots down and winter upon us, evening DX is most effective on these lower frequency bands.

In a column this short we do not have time to fully develop *why* gray line works. We will spend our time on *how* to predict coverage area. However, for those technically inclined, the short answer for why is that the D layer is absent in the twilight zone. The D layer absorbs MF/HF signals and is fading rapidly for the area in dusk and not yet formed for the area in dawn.

Generally speaking, for gray line work we should orient our antenna to radiate north-south. Depending upon the date and whether it is sunrise or sunset, the actual gray line follows a path 23 degrees east or west of north, or 23 degrees east or west of south. The twilight zone actually extends completely around the earth and signals can travel in either direction. Unless you have a highly directional antenna, do not worry that there is a 46 degree wide path. The half power beam-width for a 1/2 wave dipole is 78 degrees and a vertical radiates equally poorly in all direc-

tions. If you have a rotatable antenna, aim it according to the discussion below. Be sure to check both north and south paths to determine which has the strongest signal.

In order to determine which countries lie on the gray line for a given date, we can use the following sunrise table:

| Month/Day | Angle | Month/Day | Angle |
|-----------|-------|-----------|-------|
| Jan 1, | 23 E | Apr 5, | 5 W |
| Dec 12 | | Sep 8 | |
| Jan 21, | 20 E | Apr 19, | 10 W |
| Nov 22 | | Aug 25 | |
| Feb 8, | 15 E | May 5, | 15 W |
| Nov 3 | | Aug 9 | |
| Feb 23, | 10 E | May 26, | 20 W |
| Oct 20 | | Jul 19 | |
| Mar 8, | 5 E | Jun 21 | 23 W |
| Oct 6 | | | |
| Mar 23, | 0 | | |
| Sep 23 | | | |

(The table has been abridged in the name of space.) For a given date extrapolate between the ones shown in the table:

Let's work through an example. For illustrative purposes we will assume it is Jan 10th and our location is Cincinnati, OH. From the chart above, we find the angle to be 21 or 22 degrees E. If you extend a great circle line starting at an angle of 22 degrees E you will find it passes through the following countries: Southern Greenland, W. European Russia, W. Kazakhstan, Uzbekistan, Turkmenistan, Afghanistan, Pakistan, Laccadives, Chagos, Easter Is. and Central America.

The Gray Line (cont.)

That takes care of sunrise; how about sunset? For sunset swing the same number of degrees depicted in the chart, but to the other side of north. In the Jan 10th example we swing 22 degrees west of north to circumscribe our circle ($360 - 22 = 338$). Such a line passes through the following countries: W. Asiatic Russia, Korea, Taiwan, Spratley, E. Malaysia, Brunei, and Indonesia.

Notice for dates near March 23rd and September 23rd, otherwise known as the equinox, the sunrise and sunset gray line paths are near identical since the angle is zero degrees. Countries on a north-south path from Cincinnati are Central Russia, Mongolia, Myanmar (Burma), Andaman, Cocos (Keeling), Cocos, San Felix, Juan Fernandez and Peter I.

To determine sunrise or sunset on the Packet Cluster use the command SH/SUN without a qualifier for local sunrise and sunset. Add the prefix for the desired country to find out sunrise and sunset times at a remote location; for ex-

ample, SH/SUN VQ9 returns the times for the Chagos. If you suspect a given country is on today's gray line, you can check it on Packet Cluster by first finding out your sunrise/sunset times and then finding the same for the country in question. If two of the times are within half hour of each other, a gray line path exists. Computer programs exist that do gray line calculations and provide visual presentations of the path for any day, sunrise and sunset. Look for ads in the various ham journals.

Gray line is easy and gray line is fun. It is possible to work very exotic DX at reasonable times of the day. Just make sure your low band dipole is oriented for a north-south path and be on the air a half hour each side of sunrise or sunset. Then Listen, Listen, Listen. You will be surprised what you can hear AND work.

M&K:0194

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¹For those interested in a useful book on propagation, including a more detailed explanation of gray line propagation, I highly recommend *The Shortwave Propagation Handbook* by George Jacobs, W3ASK, and Theodore J. Cohen, N4XX, CQ Publishing, Inc.

²*The ARRL Antenna Book*, ed. Gerald Hall, K1TD, 16th edition, (Newington: The American Radio Relay League, 1991), pp. 2-16

³PacketCluster is a trademark of Pavillion Software, Marlborough, MA



As of 12/19/2018, some 999,319,979 QSOs have been entered into the LoTW system. We probably will see the first billionth QSO sometime later this month.

<https://lotw.arrl.org/lotwuser/default>



Interview with ZS6JES—Jess

I recently worked Jess on FT8 and asked him to please answer a few questions. He agreed, so, I sent them along! I have worked Jess 3 times, on three bands, all on FT8. I hope to work him on CW someday so I can chat a bit.



AJ8B: How did you first get interested in amateur radio?

ZS6JES: I started out with CB Radio back in 1987 and from there my interest just kept growing.

AJ8B: When did you get on the air?

ZS6JES: I got my Ham license in 1991...

AJ8B: It appears that you have been on many modes and bands. Do you have a favorite?

ZS6JES: At this point I am into digital (FT8) mostly on HF bands try to work all the hf bands from 10 to 80m

AJ8B: In reviewing your QRZ.com page, I see that you have been very successful with chasing countries and with contests. Any secrets to your success?

ZS6JES: Well I keep my eyes on all the different webpages and look when new expeditions are coming up...and sometimes it is just luck I would say..

AJ8B: You are an extremely accomplished contest operator. Any tips that you can share?

ZS6JES: I am not really a contest operator taking part in the Arrl Grid Chase 2018 but sitting down at the tip off Africa makes it a bit difficult with the band conditions.

AJ8B: What license levels do you have in South Africa?

ZS6JES: We used to have 3 levels: ZR restricted to VHF (needed to do 12 words CD to move up to ZS but that has been phased out now you just do your test and an assessment), ZS is your unrestricted and then ZU that is mainly for the youngster that wants to get into Ham Radio.

AJ8B: Describe what you are currently using:

ZS6JES: My equipment at this point is Radio Icom ic-7610 and ic-7100, The antenna is a Hy-Gain TH 6 DX and amp is a Kenwood TL-922

AJ8B: What other hobbies do you have?

ZS6JES: Hunting and Fishing.

AJ8B: What advice do you have for those of us trying to break pileups to work DX?

ZS6JES: Just keep on trying you will get them.

AJ8B: Any QSLing hints?

ZS6JES: Register with QRZ and Lotw for me that works great it is quick and easy....

AJ8B: What coaching/advice would you give new amateurs?

ZS6JES: Believe in yourself give it your best shot and enjoy it after all it is one of the most interesting hobbies you can get into..

AJ8B: Thanks for taking the time to answer my questions. Is there anything you would like to share with us?

ZS6JES: If you want to become a good Ham pay attention to the bands and know which band to use when with that you can get those scores one in the log.



New Member Profile WD8NVN—Robert

I was licensed in 1977, after four years of low activity, I dropped out of ham radio from 1984 to 2001. In 2001, several factors came together renewing my interest, so I decided to achieve at least the basic DXCC award. Now I stand at 329/331 countries, with nearly 1300 DXCC Challenge points. My other amateur radio interests include the NTS, some ARES activity, and traveling in my campervan to all the U.S. National Parks while attending as many Hamfests and DX conventions nationally as possible.

My station is very simple: Icom 756 PRO III, Alpha 9500, all aluminum 40 foot self-supporting tower topped with a 3 element SteppIR antenna with the 30/40 element, and an 80 meter dipole.

My favorite mode is the mode that puts my station in their logbook. Also, I am part of the Hamvention Flea Market Committee and a member of several radio clubs.



The VP6D Insider—Final Edition

Thanks to Joe, W8GEX, for sending this along

It's been an exciting 18 months of planning, meeting people and finally getting on airplanes and boats to bring VP6D to life. By all measures that we can see, and from the e-mails we're receiving, the DX community seemed happy with VP6D.

We were very happy with how the project unfolded. The voyage aboard Braveheart was smooth and quick, arriving Ducie Island 12 hours sooner than expected. All the planning paid off, we hit the island running.

Our campsites were already cleared of bush, the same areas used by previous DX-peditions. We were not permitted to remove large areas of bush.

Unloading the boat went relatively quickly and by sundown Friday Oct 19th we had the sleeping tents and radio tents assembled. At the next sunrise we were back at it working on antennas and finalizing the setup activity. The ship's crew built a kitchen, complete with a kitchen sink, BBQ pit, gas fired grill and a covered eating area. The refrigerator was stocked with food and some liquid refreshments. They installed a freshwater shower near the lagoon, each team member was allocated enough fresh water for one shower a day, and all one's drinking needs. Three meals a day were prepared by 1 or 2 of the ship's crew who remained on the island 7X24.

As the days went on more antennas were assembled and radio operations were busy. The CW camp was about a kilometer from the SSB and main campsites. The walk was not possible through the dense jungle-like vegetation. To go between camps, one would walk about 100+ meters to the lagoon, follow the lagoon along its rough exposed coral beach and after several hundred meters walk back into the bush to transverse the island to arrive at the CW camp. Initially

the walk took about 25 – 30 minutes,

but after markers were installed it could be done in about 15 – 20 minutes. We had to be extremely careful walking on the exposed coral, it was uneven, very sharp, slippery when wet, and easy to get injured, some footwear was ruined by the sharp coral.

The first few days were hot and humid, followed by several days of rain, heavy at times. Some of the sleeping tents were wet inside and the SSB tent had water on the floor. Eventually the weather settled down and for the remaining days it was tolerable. We didn't need many clothes, Braveheart provided laundry service every 2 days, several DX foundations, clubs and suppliers provided shirts, we went home with more clothes than we brought.

Radio operations opened with a bang. Most bands were wide open and QSOs were rolling down the laptop screens. We did have some issues with the network caused by the wet vegetation between the camps and a few unexpected power failures. We raised the WiFi antennas to get over the trees and put the local network switch on a UPS.

We had 4 BGAN terminals (2 on-line and 2 backup). When one of the prepaid accounts had a problem, we swapped BGAN terminals and the problem continued. We called the service provider in California on the sat phone to understand what was happening. We acted to resolve the problem and things got back to normal. These were the reasons you saw DXA dropping out. DXA itself worked perfectly, but it has a dependency on rock solid local area and satellite network connections to present near real time reporting, lose either and reporting is delayed.

(Cont. on Next Page)



The VP6D Insider—Final Edition (cont.)

The pilot team lead by Glenn KE4KY and staffed by: Luke VK3HJ, Mason KM4SII, Hiro JA1WSX, Andre V51B, Alex 4L5A, Tomi HA8RT and Cesar PY2YP were sending regular updates, where possible we made operating adjustments, but we knew it's impossible to satisfy everyone. They also forwarded some of your e-mails. As propagation allowed all 8 stations were manned. When propagation dropped out we'd shift to FT8. During the night shift it was not unusual for one operator to be running 2 or 3 FT8 stations, 24,400 FT8 QSOs was the result.

We had N1MM – WSJT-X logging issues. After the DX-pedition our log team in Europe (Pista HA5AO) cleaned and merged the logs, removing over 5,000 FT8 dupes generated by the WSJT-X software. As we uploaded the logs Tim MOURX processed LoTW confirmations for the early donors, and afterwards for all donors. We will review the wisdom of having both DXA and the on-line log which was updated once a day. Many callers didn't understand the difference and sent countless e-mails and social media comments, we won't make that mistake again. When we returned to Papeete we learned of LoTW upload issues, after investigation we reported the problem to ARRL, a few days later all was working fine.

Every morning we reviewed the previous 24 hours of logs and saw about 10,000 QSOs a day, it was looking like we would exceed our estimate. Of course, propagation was with us on most days / bands.

On about Oct 30th the skipper announced the seas were getting more unpredictable and we had to plan our departure around the tide, we expected to leave sooner than planned. There is no natural harbor, our only way on and off the island was to find beach areas where the zodiac can get close enough to shore so we could safely walk out into the surf to meet the zodiac.

Arrival day was easy, the sea was calm, we walked out into the surf and set up a chain gang, removing items from the zodiac and handing items to people down the line until it

reached the narrow beach. Departure was a different story, more like what you see in action movies with the zodiac being pushed around by the surf and people being "helped in" at just the right moment before the skipper hit the throttle.

Departure was in 2 phases, Phase 1 in the afternoon when the team was removed from the island. All equipment and personal gear remained on the island overnight. For the second phase on the next morning 4 (younger) team members assisted the crew with retrieving everything from the island, it was a long and wet task. They walked the campsites, cleaned and raked out the areas we used and left the island.

36 hours later we arrived at Pitcairn Island to rain, wind and choppy seas. The island residents sent out the longboat to bring us ashore, it was a very wet and exciting 40-minute ride. There is no harbor at Pitcairn (one of many reasons the mutineers selected the island) and the approach is dangerous, with rocks and unpredictable surf conditions. Visitors to the island are brought ashore by the islanders who have worked the longboats since they were children, learning to navigate the choppy waters.

We were greeted by a Pitcairn Island Police and Immigration officer, the Quarantine Officer and several of the residents. After passport and arrival card formalities we were free to look around the island. Several residents arrived with their quad bike and showed us around the island. Some team members hiked to high points on the island.

We were invited to the home of Steve and Brenda Christian for a wonderful lunch and stopped at the local gallery for souvenirs. It was Saturday, the Sabbath for many of the island's residents who attend the Seventh Day Adventist Church on the island.

The sun actually came out while we were on the island and it turned out to be a pleasant day. By the time we were ready to return to Braveheart the seas had calmed and the trip back in the longboat was relatively smooth.

(Cont. on Next Page)



CQ is pleased to announce that online log submission is now available for the annual DX Marathon. Email submissions are still OK, but if you prefer to submit online, the upload page is: <http://www.dxmarathon.com/logupload.htm> The online system will do basic checks to make sure that your log entry is complete.



The VP6D Insider—Cont

It was an uneventful journey back to Mangareva. At the wharf the Braveheart crew had a BBQ for us on the fantail. There is only one flight a week between Mangareva and Tahiti, miss the flight and you spend a week waiting for the next one, we made it with plenty of time to spare.

On our departure morning we removed personal gear from the ship. We walked across the wharf to the waiting ferry which would take us to the airport, located on a strip of coral, a 45-minute ferry ride from the wharf. We had about a 2 hour wait for the flight, then a 4-hour flight to Tahiti.

Back at our Papeete hotel by 6PM we met in the restaurant for a well-deserved dinner, we celebrated the birthday of one of the team members with a prearranged cake. The team was tired but in good spirits, team members left for home over the next several days.

We think you'll agree, the pileups were mostly well behaved, and we had a lot of fun, we hope you had fun working VP6D. The team worked well together during the entire project.

Of course, we want to thank - you - our individual donors for your trust and confidence in our team. We met every goal, and then some, including the first 6-meter EME and FT8 contacts from Ducie Island.

Many of the VP6D team members will be attending the upcoming events at: Visalia, Dayton and Friedrichshafen. We hope to meet as many of you as possible at these events.

Where are we going next? We'll be discussing a future project at Visalia, sorry - no hints.

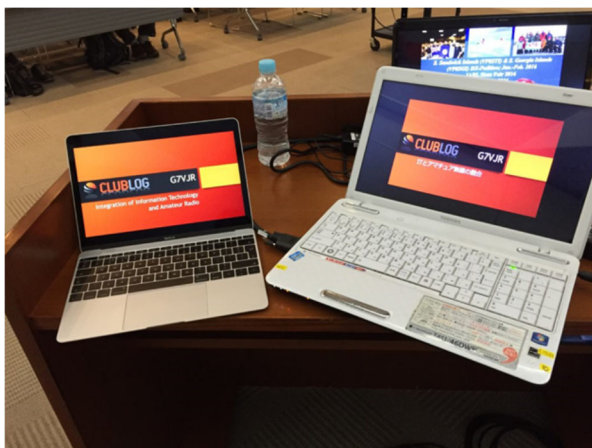
Thanks again for your help with VP6D and please have a happy holiday season.

Team Ducie, 2018

Celebrating 10 years of Club Log

Posted on November 22, 2018 by Michael Wells

It's now been 10 years since the first few features of Club Log were put together. This feels like longer than I expected – probably because the whole story of Club Log has rushed by. They say that time flies when you're having fun! I wanted to share a few reflections and say a few thank-yous, to mark this decade. In the early days, where about 2 million QSOs (all from members of UK DX clubs) were stored in Club Log, you could expect quite a bit of difficulty with



DXCC mappings, as we just had the main prefixes at that time. Alan 5B4AHJ was just starting to propose some exceptions via email. These were small beginnings and a great deal of head-scratching and trial and error was needed to get past the practical issues. But, if we fast-forward to today, Club Log has grown to half-a-billion records, under more than 75,000 callsigns (held by 55,000 users) and is dealing with 2,300 uploads every day. Expedition logs have been searched 43 million times, and the amazing OQRS facility that Marios, 5B4WN wrote has processed \$2 million (and €327,000 – plus other currencies another \$50,000 or so) of requests for cards. Given that each OQRS transaction has halved the postage and material costs for the card requested, we can begin to guess how much money has been pulled back into the hobby by this step-change in how QSL requests are typically made. Not only did Marios write these

wonderful tools, but he contributed the amazing expedition log search, propagation and activity tools as well. It is a huge privilege to work on Club Log with Marios, who is so passionate about inventing new features. Thanks, Marios, 5B4WN!

Looking at the record now in November 2018, there are 530 million QSOs stored, each of which passed through the upload logic of Club Log in the blink of an eye. Every callsign is studied to make sure the date and time and the callsign are accurately mapped to an entity. To get those callsigns assigned to DXCCs needs 4,320 prefixes, and an incredible 22,700 exceptions – all of which have been painstakingly curated and managed by Alan 5B4AHJ, by hand.

Bear in mind, in 2008 there were no exceptions, that's equivalent to adding 6 new pieces of research every day of every year – for a decade. I'd like to make a special thank you to Alan for this amazing contribution. Making a DXCC database has needed ongoing support of some very well-learned DXers, who have made this feat more achievable, but still represents an extraordinary personal undertaking of time, effort and focus.

Almost all modern logging software now relies on and uses the Club Log database to get DXCC mappings right, not only today but over all of the dates of modern amateur radio (right back to 1945). Although the software and features in Club Log are a prominent part of the DXpedition world (and many individual DX clubs who use it for leagues, propagation and even funding and grant decisions), it's true to say that all of those features – every part of Club Log – is resting on the foundation of the research in the DXCC database. Thank you so very, very much for your tireless work, Alan, 5B4AHJ.

(Cont. on Next Page)

Celebrating 10 years of Club Log (cont.)

I must also mention our helpdesk service. As you know, anyone using Club Log can ask for some assistance with features, queries about DXCCs or other matters. The Helpdesk is staffed by people you'll know – like Joe, WL7E, our resident LoTW expert, and Jim KE8G who gives friendly backup to anyone struggling with getting Club Log to work for them, along with Alan, Marios and me. Like everything in Club Log, it's all about ham spirit and we get a lot of satisfaction from being able to help. We use a tool called Freshdesk to manage the volume of queries we get. In fact, between the five members of the team, we've dealt with 2,200 pieces of correspondence in the last 12 months – quite a bit more than I thought it would be, when I looked!

That brings me to the most important thing I have to say. I'd like to extend my sincere thanks to everyone who saw what we were doing and gave us a donation to help make it possible. Ten years has seen the Club Log equipment repeatedly get upgraded, with only donations to unlock each new bit of outlay for bandwidth, and all the other parts involved. Today, running on servers that are right at the limits of modern storage capabilities, things are really in great shape. While Club Log is in the middle of so much of what we do as DXers, it can still exist without any advertising. We're able to confidently keep this service going this way.

Our supporters made this happen, and on behalf of all five of us (and the many others who've also been able to enjoy Club Log), please accept my heartfelt thanks and appreciation.

If you're settling down for Thanksgiving, or if you're just about to take a shift at CQWW, may I wish you a happy and peaceful end to the year 2018, and here's to another 10 years of Club Log and 'big data' in amateur radio!

With best wishes,
Michael G7VJR & the team at Club Log:
Alan 5B4AHJ, Marios 5B4WN,
Jim KE8G, Joe WL7E,

Alan, 5B4AHJ asked me to include this post-script:

"Michael, G7VJR has been very generous in his comments on the contributions made by the various Club Log team members to the project. In his typically modest style, Michael hasn't made any comment on his own contribution. I have had the privilege of working with Michael since almost the beginning of Club Log. I have seen the architecture evolve from those early days into what it is now. I well remember the time when it dawned on Michael that the unexpectedly high rate of database growth meant that there were upcoming scalability and performance issues that needed to be dealt with in fairly short order. I remain impressed by the scaleable database architecture and caching strategy that was put in place, coupled with the choice of state of the art hardware that donor's contributions have enabled to be purchased. There continue to be on-going tweaks to improve performance. Having spent my entire career in the electronics/software industry at both technical and management levels, I feel that I am qualified to say that Michael's vision, technical and interpersonal skills make him absolutely the right man for the job. Thank you, Michael – you ARE Club Log.

Finally, I would like to acknowledge the contribution made Jim AD1C, with whom I have collaborated over probably the last eight years, and hope that he has found our collaboration as beneficial as I have."

This entry was posted in [Clublog](#), [Info](#), [News](#) by [Michael Wells](#). Bookmark the [permalink](#).

Club Log Top 100 Most Needed—12/1/2018

| | | | | | | | | |
|----|-------|--------------------------------|----|-------|----------------------------------|-----|------|-----------------------------|
| 1 | P5 | N. Korea | 34 | FT/T | TROMELIN ISLAND | 66 | 3C | EQUATORIAL GUINEA |
| 2 | 3Y/B | BOUVET ISLAND | 35 | ZL8 | KERMADEC ISLAND | 67 | VP6 | PITCAIRN ISLAND |
| 3 | FT5/W | CROZET ISLAND | 36 | XF4 | REVILLAGIGEDO | 68 | CE0Z | JUAN FERNANDEZ ISLANDS |
| 4 | BS7H | SCARBOROUGH REEF | 37 | KH8/S | SWAINS ISLAND | 69 | T30 | WESTERN KIRIBATI |
| 5 | CE0X | SAN FELIX ISLANDS | 38 | VP8G | SOUTH GEORGIA ISLAND | 70 | 4W | TIMOR-LESTE |
| 6 | BV9P | PRATAS ISLAND | 39 | KH9 | WAKE ISLAND | 71 | CY9 | SAINT PAUL ISLAND |
| 7 | KH7K | KURE ISLAND | 40 | T33 | BANABA ISLAND | 72 | VK9C | COCOS (KEELING) ISLAND |
| 8 | KH3 | JOHNSTON ISLAND | 41 | VK9M | MELLISH REEF | 73 | FO/A | AUSTRAL ISLANDS |
| 9 | VKOM | MACQUARIE ISLAND | 42 | ZK3 | TOKELAU ISLANDS | 74 | Z8 | REPUBLIC OF SOUTH SUDAN |
| 10 | FT5/X | KERGUELEN ISLAND | 43 | FT/J | JUAN DE NOVA, EUROPA | 75 | FW | WALLIS & FUTUNA ISLANDS |
| 11 | 3Y/P | PETER 1 ISLAND | 44 | VK9W | WILLIS ISLAND | 76 | E3 | ERITREA |
| 12 | FT/G | GLORIOSO ISLAND | 45 | FO/C | CLIPPERTON ISLAND | 77 | 9U | BURUNDI |
| 13 | YV0 | AVES ISLAND | 46 | H40 | TEMOTU PROVINCE | 78 | R1F | FRANZ JOSEF LAND |
| 14 | KH4 | MIDWAY ISLAND | 47 | HK0/M | MALPELO ISLAND | 79 | T2 | TUVALU |
| 15 | ZS8 | PRINCE EDWARD & MARION ISLANDS | 48 | Z6 | REPUBLIC OF KOSOVO | 80 | 5A | LIBYA |
| 16 | VP80 | SOUTH ORKNEY ISLANDS | 49 | KP1 | NAVASSA ISLAND | 81 | S2 | BANGLADESH |
| 17 | PY0T | TRINDADE & MAR TIM VAZ ISLANDS | 50 | XZ | MYANMAR | 82 | KH8 | AMERICAN SAMOA |
| 18 | PY0S | SAINT PETER & PAUL ROCKS | 51 | VP6/D | DUCIE ISLAND | 83 | TT | CHAD |
| 19 | KP5 | DESECHEO ISLAND | 52 | ZD9 | TRISTAN DA CUNHA & GOUGH ISLANDS | 84 | VK9N | NORFOLK ISLAND |
| 20 | SV/A | MOUNT ATHOS | 53 | 70 | YEMEN | 85 | JX | JAN MAYEN |
| 21 | VP8S | SOUTH SANDWICH ISLANDS | 54 | FT5Z | AMSTERDAM & ST PAUL ISLANDS | 86 | YJ | VANUATU |
| 22 | EZ | TURKMENISTAN | 55 | B7 | AGALEGA & ST BRANDON ISLANDS | 87 | H4 | SOLOMON ISLANDS |
| 23 | JD/M | MINAMI TORISHIMA | 56 | VU7 | LAKSHADWEEP ISLANDS | 88 | ZL7 | CHATHAM ISLAND |
| 24 | KH5 | PALMYRA & JARVIS ISLANDS | 57 | VU4 | ANDAMAN & NICOBAR ISLANDS | 89 | D6 | COMOROS |
| 25 | KH1 | BAKER HOWLAND ISLANDS | 58 | C21 | NAURU | 90 | E6 | NIUE |
| 26 | YK | SYRIA | 59 | 1S | SPRATLY ISLANDS | 91 | VK9L | LORD HOWE ISLAND |
| 27 | T31 | CENTRAL KIRIBATI | 60 | T5 | SOMALIA | 92 | 1A0 | SOV MILITARY ORDER OF MALTA |
| 28 | ZL9 | NZ SUBANTARCTIC ISLANDS | 61 | CY0 | SABLE ISLAND | 93 | XX9 | MACAO |
| 29 | TI9 | COCOS ISLAND | 62 | FO/M | MARQUESAS ISLANDS | 94 | VK9X | CHRISTMAS ISLAND |
| 30 | 3D2/C | CONWAY REEF | 63 | E5/N | NORTH COOK ISLANDS | 95 | TN | REPUBLIC OF THE CONGO |
| 31 | VK0H | HEARD ISLAND | 64 | 3C0 | ANNOBON | 96 | 9L | SIERRA LEONE |
| 32 | FK/C | CHESTERFIELD IS. | 65 | 3D2/R | ROTUMA | 97 | A5 | BHUTAN |
| 33 | 4U1UN | UNITED NATIONS HQ | | | | 98 | 5U | NIGER |
| | | | | | | 99 | V6 | MICRONESIA |
| | | | | | | 100 | TL | CENTRAL AFRICAN REPUBLIC |



DXers are Different—Paul, VE1DX

Paul, VE1DX, has given me permission to reprint any or all of this published stories. The style is different and each has made me think a bit about the point that was trying to be made. I hope you find these interesting. Paul explains "The stories below are based on the characters and writing style developed by Hugh Cassidy, WA6AUD (SK), the editor of the West Coast DX Bulletin from 1968 until 1979. While I'm no Hugh Cassidy, I found it easy to copy the writing style and use the characters he'd invented in the WCDXB to get my message across. Now and then, an interesting, controversial, or just plain funny topic surfaces in the DX world. If I have the time and inclination, I write about it"

There are advantages to living on a hillside. We had often wondered if fate had a part in this when we had picked this QTH many years ago. Beaming east, we had a clear shot at Europe, and any DX that raised its head out of the trenches was usually in the log within minutes. We soon learned, however, that the DX that exists in the Pacific, far out in those distant lands over the western horizon, had better be coming in long path. For try as we might, beaming into solid rock has its disadvantages. There is balance in nature.

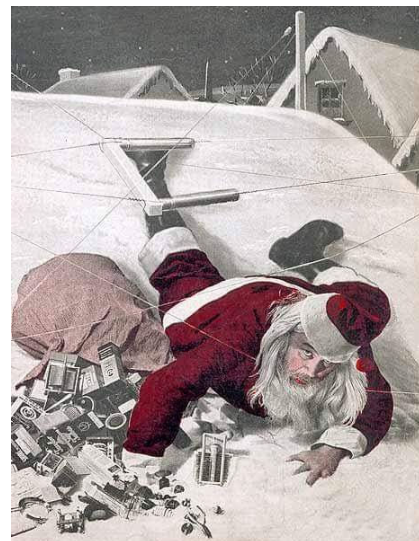
We also found that living on a hillside provided two different perspectives on DX knowledge and advice. We learned to anticipate the Old Timer making his way down the hill from time to time, often stopping in to discuss many things, but mostly DX. And, even more often, we found that the local QRPers made their way up the hill, seeking answers to DX questions or offering suggestions on how things might be improved. Again, we had to reflect on the balance nature had provided in this area. Just the other day, we were thinking about this when one of the locals came up the hill to talk of DX and DXers.

"Maybe you can tell me something", he said, after finding himself a comfortable chair on the verandah. "When I first started DXing, things were different than today. I realize that things change, and that technology is far different today than it was even five years ago. But there is a fundamental change in DXers. All they do now is fight on the Internet and on the packet systems. It seems to me that DXers spend more time sending rude E-mail and playing 'one-

upmanship' at club meetings than anything else. Why is this?"

We thought about what the QRPer had asked and we were at a bit of a loss as to where to begin. We were beaming west on this one . . . for on the surface the QRPer seemed to have a point. Just as we were about to give it a shot, we saw the Old Timer making his way down the hill. As usual, he stopped and drew up a chair. In hindsight, he may have wished he had kept on going. The QRPer turned his attention to the Old Timer and repeated the question. We heaved an inward sigh of relief. The relief pitcher was on the mound! The Old Timer thought for a moment and then replied, "Why is this? You really don't know?"

The QRPer shrugged and said slowly, "No, not really. I don't know. When I first got on the air, things were a lot different, that's all I know. I want to know what has changed. What made the DXers change so radically?"



DXers are Different (cont.)

The Old Timer took a deep breath. It was clear that the answer was obvious to him and he couldn't see why the QRPer was even asking the question. "Do you remember Bill, W7PHO?" he began. The QRPer nodded enthusiastically. "I sure do! He may have run a DX net, but he ran a tight ship. A real DXer." The Old Timer continued, "Then you remember Lloyd and Iris Colvin too, right? And Don Wallace, W6AM? And how about Dick, WOMLY? Remember when they all were active on the bands?"

"Yes, of course I do", the QRPer replied, "and they all were great DXers. That's my point. What has changed?" We were starting to see the Old Timer's point, but it was clear the QRPer wasn't even getting a glimmer. The Old Timer continued: "Do you remember Gus, W4BPD?" The QRPer shook his head, "No, but I read all about him and I heard the stories of the times when he activated all the rare ones. He was a true blue DXer, just like the others you mentioned. All this has changed. Why?" The Old Timer simply wasn't getting anywhere, but he continued on anyhow, "OK, how about Dick Spenceley, KV4AA, and Stew Perry, W1BB who carried the word for 160 DX for so many years. And the great DXers who are still active, The QRPer shrugged and said slowly, "No, not really. I don't know. When I first got on the air, things were a lot different, that's all I know. I want to know what has changed. What made the DXers change so radically?"



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What about Ron, ZL1AMO? Did you ever work Reinhard, DL1UF and Boulder, DJ6SI? Did you know that Kan, JA1BK is a member of the DX Hall of fame?

(cont. on Next Page)

DXers are Different—(cont.)

And how many times have you heard Al Hix, W8AH, blast his way through the pileups?"

"Yes, yes! I remember all that. And everyone you mentioned was, or still is, a true blue DXer! Every one of them. Why I even recall some of the guys at the club talking about a fellow name Don Miller who was a great DXer in the early days. . . but they said nobody could explain or understand him." The Old Timer held up his hand and stopped the QRPer. "He was a special case and someday I'll tell you about Don. But right now, you have to concentrate on those we've already discussed. There are many more, but these are enough to make the point. Now do you understand?"

"Understand what?" the QRPer replied, "I understand all these Hams were, or still are, great DXers. Some went on DXpeditions, some worked everything that moved, and some did both. But I don't understand why all the DXers stopped this and have taken up fighting on the Internet. That was my question and, while you've brought back a lot of great DX memories, you haven't answered my question. Why have all the DXers changed?"

The Old Timer was not to be deterred. "But I have answered your question, son. These ones you say are fighting and arguing on the Internet and packet. Do you remember their calls? What are their DX totals? How many DXpeditions have they been on?"

The QRPer sat back and stared at the two of us like he had just been clubbed between his beady little eyes. It took a few moments for it to sink in. "I don't remember their calls", he said slowly, "I don't think I've ever heard any of them on the air, either." He shook his head slowly as realization set in. "They aren't very active, are they?" The Old Timer looked right back at him and replied, "No, not at all. They don't have the time. They are not DXers. DXers work DX! DXers

tune the bands. DXers go on DXpeditions. And DXers use the Internet and packet systems to exchange DX information. And that is why they are different. Subscribing to a DX Reflector does not make you a DXer! No more than subscribing to a DX Bulletin made Hams DXers in the Early Days."

The QRPer was starting to understand. "You're right!" he chimed in, "absolutely right. Why didn't I see it before? DXers haven't changed at all! Not one bit. I was mixing up DXers and non-DXers."

The Old Timer looked at him for a minute or so and then gave the final pitch, "The road to understanding is often slow and not always straight. But this afternoon you've made a leap forward. DXers are an unusual bunch", he continued on, "and true blue DXers are the top echelon of amateur radio. They are the ones who establish friendships that bring so many together from around the world. And they do this even though most will never meet face to face, but nevertheless they are close. They don't argue and fight on packet or the Internet or anywhere else. Those that do are not DXers! They may claim to be, but they are not, and they never will be. You are a DXer, son! Stand tall and be proud. Understand this but don't try to extend this understanding to one of these argumentative types who is not a DXer. It is a waste of time and energy. Let them fight it out on packet and on the Internet. You are different. Absolutely. Always remember that and don't let anyone tell you otherwise!" And with that he stood up, looked at us for few seconds and then made his way down the hill and over to the DX club meeting.

(Cont. on Next Page)

DXers are Different (cont.)

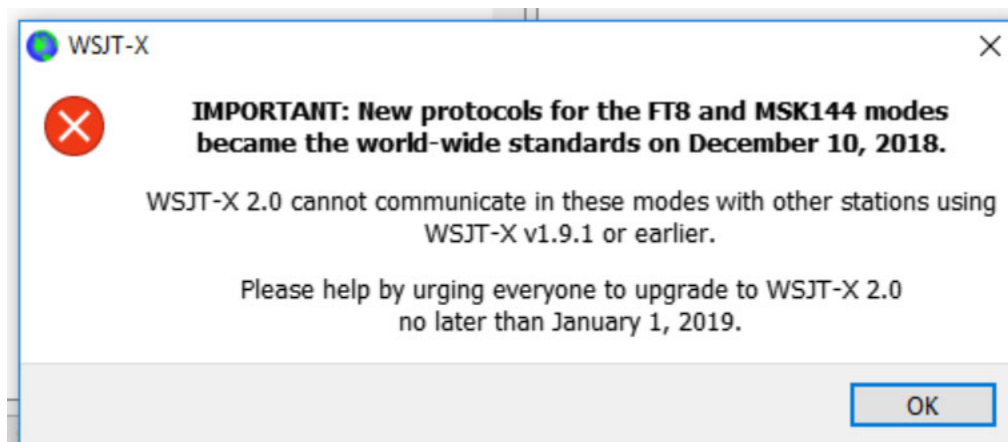
Son of a Gun! It was hard to find fault with the Old Timer's thinking. Most DXers, when they stop and think about it, can find instances where because they were a DXer and DXing was a way of life that they did things, or refrained from doing things, not often done by non-DX types. We had known this Inevitable Truth but had never thought it applied to the situation the QRPer had described. When the Old Timer speaks, it is like the fireworks over the Potomac on the 4th of July! DX IS!

FT-8 V 2.0—Download NOW!

If you are getting the reminder shown below, It is time to download the newest version of [WSJT-X](#). Co-developer Joe Taylor, K1JT, has announced that major changes are coming to the FT8. Taylor ticked off a few possibilities *WSJT-X* version 2.0 will bring to the table:

- ARRL Field Day operation with standard Field Day exchanges.
- ARRL RTTY Roundup operation with standard contest exchanges.
- NA VHF contest operation with full support of grid exchanges & Rover (/R) call signs.
- European VHF contest operation with the exchange of six-digit grids, QSO serial numbers, and portable (/P) call signs.
- Better and more user-friendly support for compound and nonstandard call signs.
- A special “telemetry” message format for exchanging arbitrary information up to 71 bits.
- Support for the existing “FT8 DXpedition Mode,” with a more powerful DXpedition Mode

“All of these features work seamlessly and automatically,” Taylor said. “No ‘contest mode’ checkboxes are needed. In most situations, decoding sensitivity will be slightly better than at present for FT8; for MSK144 it will sometimes be about 0.5 dB worse. Occupied bandwidths will be the same as they are now, and false-decode rates will be significantly lower.”



SouthWest Ohio DX Association (SWODXA)

DX Donation Policy

The mission of SWODXA is to support DXing and major DXpeditions by providing funding. A funding request from the organizers of a planned DXpedition should be directed to the DX committee by filling out an online funding request.
(<https://www.swodxa.org/dx-grant-application/>)

The DX Grant committee will determine how well the DXpedition plans meet key considerations (see below). If the DX Grant committee recommends supporting the DXpedition in question, a recommended funding amount is determined based on the criteria below. The chairman of the committee will make a recommendation at the general meeting on the donation.

Factors Affecting a DXpedition Funding Request Approval

| | |
|---|--|
| DXpedition destination | Website with logos of club sponsors |
| Ranking on the ClubLog Most Wanted Survey | QSLs with logos of club sponsors |
| Online logs and pilot stations | Logistics and transportation costs |
| Number of operators and their credentials | Number of stations on the air |
| LoTW log submissions | Bands, modes and duration of operation |

| | | | | | |
|----------|-----------|-------|-------|--------|--------|
| H40GC | H44GC | ZL9HR | XX9D | HK0NA | FT4TA |
| KH1/KH7Z | EP2A | FT5ZM | C21GC | VK9WA | NH8S |
| K4M | CY9C | VK9MA | PT0S | FT4JA | YJ0X |
| 6060 | VP6D | T04E | XR0ZR | VP8STI | SP8SGI |
| W1AW/KH8 | K1N | 3D2C | VK0EK | S21ZBB | E30FB |
| ST0RY | TI9/3Z9DX | VK9MT | K5P | 9U4M | TX3X |
| VU7AB | 3Y0Z | 3C0L | TX7EU | CE0Z | 3C1L |
| | | 3B7A | K9W | | |

SouthWest Ohio DX Association (SWODXA)

Club Fact Sheet

Who We Are: SWODXA is comprised of active DX'ers and contesters with a deep passion for all aspects of Amateur Radio. We welcome everyone who is interested in joining our club to please contact us. SWODXA members are active in all facets of DX and Contesting. We also travel to, and fund various DXpeditions all over the world. SWODXA sponsors the annual DX Dinner held on the Friday evening of Hamvention weekend in Dayton, Ohio. In addition, SWODXA members moderate the Hamvention DX Forum. SWODXA is proud sponsor of the prestigious *DXPedition of the Year Award*.

DX Donation Policy: The policy supports major DXpeditions that meet our requirements for financial sponsorship. Details are available on the website at: <https://www.swodxa.org/dxgrant-application/> and elsewhere in this newsletter

Club History: The Southwest Ohio DX Association (SWODXA) is one of the country's premier amateur radio clubs. Though loosely formed in mid-1977, the club had its first formal organizational meeting in August of 1981 where Frank Schwob, W8OK (sk), was elected our first President. While organized primarily as a DX club, SWODXA members are active in all aspects of our hobby.

Requirements for Membership: We welcome all hams who have an interest in DXing. It doesn't matter whether you're a newcomer, or an old-timer to DXing; everyone is welcome! Visit <http://swodxa.org/member.htm>

Meetings: The club meets on the second Thursday of each month alternating locations between at Marions Piazza on Kingsridge Dr. in Dayton, OH or Marions Piazza in West Chester. (Check the website) Members gather early in the private room for dinner and then a short business agenda at 6:30 PM, followed by a program. If you enjoy a night out on the town with friends, you'll enjoy this get together. Meeting attendance is NOT a requirement for membership.

Club Officers: Four presiding officers and the past president (or past VP) make up the Board of Directors. The current roster of officers are: President Tom Inglin, NR8Z; Vice President Kevin Jones, W8KJ; Secretary Mindi Jones, KC8CKW, and Treasurer Mike Suhar, W8RKO.

Website: We maintain websites at www.swodxa.org and www.swodxaevents.org managed by Bill, AJ8B. These sites provide information about a variety of subjects related to the club and DXing.

Who Am I #1—Mike Suhar, W8RKO

Who Am I #2—Jim Frey, W8ISZ