

Chasing DX: A Prescription for Success

Presented by Greg Mitchell KB1AWM

What is DX? What is a DXCC?

- In the HF world, DX refers to distant lands which are usually other countries or territories. E.g. Spain, China, Alaska, Guam
- DXCC (DX Century Club): An award that has alternative meaning
 - 340 Countries/Territories on a list published by ARRL
 - (Usually) Identified by prefix, or sometimes callsign published as an exception
 - Casual / Rare / Very Rare – Divide the 340 into most wanted thirds
 - Casual: Spain, Rare: Greenland, Very Rare: Bouvet Island
 - “Most Wanted” list published on clublog.org

What is DXing? Why DX?

- DXing is separate from DX rag-chewing because its strictly about making a contact and checking off a box in a log. Exchange is typically only a signal report.
- Why?
 - Thrill of making rare and/or distant contacts and seeing what bands and modes you can do that on.
 - Awards (whether you apply for the award or not)
 - DX Marathon Program (Annual)

Awards

- DXCC: 100 DXCCs.
 - By Mode: Mixed, SSB, CW, Digital, and by Band (e.g. 20M DXCC)
 - By Band: 160, 80, 40, 30, 20, 17, 15, 12, 10, 6, 2 meters, etc.
- 5BDXCC:
 - DXCC on 80/40/20/15/10. Endorsements for 160/30/17/12/6
- DXCC Challenge:
 - 1000 Challenge points, endorsements for 1500, 2000, etc.
 - 1 Challenge point = 1 Band Slot (DXCC/Band combo)

Awards (continued)

- DXCC Honor Roll: within 10 of all DXCCs (currently need 331)
- CQ Magazine Awards:
 - WAZ: Worked All Zones
 - WPX: Prefix Award
- QRZ
- EQSL
- Et al.

Station

- HF Radio, Wire Antenna
- Power
 - QRP works for digital and cw, difficult for phone
 - Amplifier not needed
- Receiver performance and receive antenna the most valuable things to focus on.
 - Dedicated Rx Antenna

Know How to Use Your TRX

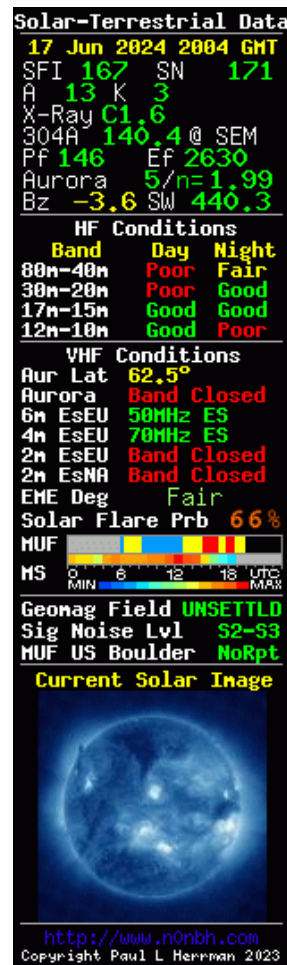
- RTFM
- Passband tuning (filters)
- Optimize RF Gain: pre-amp/attenuator/rf amp gain
- Know how and when to use:
 - Notch filters
 - Noise Reduction
 - Noise Blanker
 - Contour / APF filters

Working Split

- DX Says He/She is working up 1 on CW or up 5 on SSB
 - Means duplex, RX on one frequency, TX on another
 - DX on 14.225 MHz SSB, might be listening for you on 14.230+
 - Don't forget to periodically check your RX frequency so you don't cause QRM
 - Use Sub RX if you have it
 - If in a pile-up, periodically change your TX frequency, particularly to the last frequency DX worked.
- Use A/B VFOs and "Split" option on TRX. Use RIT/XIT if no A/B

Propagation

- Time of day – propagation and operators on air
- Solar Weather:
 - Solar Flux (SFI): 65-250+
 - A Index (geomagnetic): 0-400
 - K Index (geomagnetic): 0-9
 - MUF: Maximum Usable Frequency
 - <http://prop.kc2g.com>
- VOACAP
 - Voice of America Coverage Analysis
 - <https://www.voacap.com/hf/>
- Use “W1AW Propagation” Mailing List



[Www.hamqsl.com/solar.html](http://www.hamqsl.com/solar.html)

Modes

- Digital: FT8 and FT4 are the kings, easy DX with 100W and a wire
- CW: almost as effective as digital, very popular with rare and very rare DX (non-English speaking being one reason)
- SSB: Can be done with 100W and a wire. Requires much more dedication and patience.
 - Really benefits from contests
- Amateur Extra license pays dividends for CW/SSB DX Chasing

I don't know CW

- How to work DX without being conversational in CW:
 - Learn your callsign at speed. Use computer program and repeat until you can pick it out of 100 words.
 - Program 2 memories: callsign and "5NN TU"
 - Go to spotted DX Frequency, looking at his spotted callsign, wait to see if you hear those letters (may take many QSOs to copy)
 - Start sending your callsign every time he sends TU (dah, di-di-dah)
 - Listen for your callsign, if he gets it right, send "5nn TU", if you think he's calling you but missed your call (KB1AM instead of KB1AWM), resend your call until he gets it right.

Who's On

- Use DXCluster:
 - Good logging software will support the cluster and band map
 - Use telnet directly
 - Use a website like dxwatch.com or dxsummit.fi
 - Learn how to filter
- RBN for CW: Reverse Beacon Network – Can also use dx cluster connected to RBN
- PSKReporter: Digital

Who's On

- Periodicals: QST, CQ Magazine list of Dxpeditions
- “W1AW – DX” Mailing List: pay special attention to groups
- ClubLog: Dxpeditions list
 - possibly “live stream”: see what bands/modes/who they are working (if you work them, check for your callsign in the live stream)
- DxNews.com: Calendar
- Individual Dxpedition websites

DXpeditions

- Expeditions to DX locations (primary or secondary purpose)
- Best (and sometimes only) way to work rare and very rare dx
- Can be casual “vacation-style” or serious
- 1 individual, up to a large group
- Big Dxpediton groups use top-tear equipment in the rarest locations with the best operators.
- If you are diligent, the odds of your “little pistol” station working a large group Dxpediton are high

Contests

- Lots of big stations on the air
- They want to work everyone
- Can work DXCC in a weekend
- CQ WW, ARRL Int'l DX are big ones, but there are others like Oceania DX
- You don't need to turn in a log to make use of these contests for casual operating, but if part of the exchange is a serial number, you will need to keep up with that.

ClubLog.org

- “Most Wanted”
- “Expeditions”
 - Live Stream
 - Log verification
- Leagues/Clubs
- Leaderboards
- DX Charts
- QSL Charts
- Maps

	23cm	70cm	6m	10m	12m	15m	17m	20m	30m	40m	60m	80m	160m
MFSK	NEW	NEW	NEW										
PKT		NEW											
FT8			NEW	✓	✓	✓	✓	✓	✓	✓	NEW	✓	NEW
SSB				NEW	✓	✓	✓	NEW		✓			
CW				NEW	✓	✓	✓	✓	✓	NEW		NEW	NEW
RTTY						NEW							
PSK								NEW		NEW	NEW		

My TX5S (Clipperton Isl) Contacts

Prescription:

- Plan the Week:
 - Use periodicals, dx news calendar and W1AW mailing list to figure out who is on the air to work.
 - Cross reference with your logs to figure out bands/modes you need/want. Use VOACAP and Solar Weather (current and predicted) to have an idea of time of day/bands to use.
 - Read relevant websites (like dxpedition websites or qrz pages) to see what bands/modes they will use and how you can verify contacts.
 - Monitor “Live stream” if available

Prescription (continued):

- Operate:
 - Listen, Listen, Listen
 - Setup split
 - When calling, vary TX frequency. If possible, TX on frequency DX last RX'd on.
 - Do not send a signal report until he/she has your callsign correct.
 - On phone, use international phonetics, don't make them up
 - Log details correctly
 - Don't cause QRM

Prescription (continued):

- Afterwards:
 - Upload logs: LoTW, QRZ, etc.
 - Verify contacts on ClubLog or via Dxpedition website
 - Order QSLs if wanted/needed

