The Life and Times of a DXer

Jacques KN6VQ

Where Does “DX” Come From?

In the early 1900s, Marconi wireless machines were *the* new technology.

What segment of the population picks up new tech the easiest?

Young people!

Marconi wireless operators started training in their teens.

Most ship operators were late teens to mid twenties.

Jack George Phillips (left), the chief wireless operator aboard the RMS *Titanic*, was only 25 years old.

Teens: Leaders in Initialisms

Today, young people love to shorten things over texts:

"That was so funny, it made me laugh out loud!" LOL

BRB BTW OMG ROFL WTF

It was exactly the same over 100 years ago while operating CW:

"What's the weather like up there?" Weather became "WX"

TX RX CONDX TU UR FER ANT GUD FB OM

(Long) Distance = Dx

What Qualifies as DX?

“CQ DX…” Who is the station looking for?

It can mean different things to different operators:

If QRP (<10w) to a mag mount antenna, long-distance could be East Coast.

For me, DX means any *entity *except* the U.S., Canada, and Mexico.

For purposes of this presentation:

DX is any *entity that isn’t the contiguous U.S. (Lower 48)

DX Entities vs. Countries

There is a difference between ‘Countries’ and ‘DX Entities’:

195 - 197 different countries, depending on various factors.

However, there are 340 different DX Entities.

How can that be possible?

USA as an example:

USA, Alaska, and Hawaii are all separate DX Entities…

(...just wait for it!)

DX Entities That Are Part of the USA

The States (4)

Lower 48 (USA), Alaska, Hawaii, *Kure Island

Territories and Commonwealths (7)

Puerto Rico, *Desecheo, U.S. Virgin Islands, Guam, American Samoa, *Swains Island, Mariana Islands

Minor Outlying Islands (6)

Baker & Howland, Palmyra & Jarvis, Johnston Island, Midway, Wake, Navassa

Compacts of Free Association (3)

Palau, Marshall Islands, Federated States of Micronesia

Miscellaneous (1)

Guantanamo Bay

USA - 1 Country with at least 18 separate DX Entities

Why So Many Entities Just for the USA?

*Mostly because of the distance between them.

Example: CS7XXX in Lisbon, Portugal

Works a station in Bangor, Maine on 40m	3,040 miles
Wants to work a station in Honolulu on 40m	7,830 miles
Wants to work a station in American Samoa on 40m	10,415 miles

A random Tuesday 0300 local time

Upper Ojai Valley

Crickets and rust-beetles scuttle among the nettles of the sage thicket

A gentle alarm goes off for a rare DXpedtion, 3B5UO, in the Indian Ocean…

“ -.. -..- ”

“DX”

“Where am I? What time is it?? Why is my phone going off and what’s with this bright light?!?!”

HamAlert

Latest spots

22:20 RBN
CT7AUT (3.573 FT8)
DX de WA7LNW-#: 3573.0 CT7AUT FT8 -11 dB CQ 0620Z

22:14 PSKR
FJ/DK6AS (3.573333 FT8)
DX de N3AIU: 3573.3 FJ/DK6AS FT8 -22 dB 0614Z (WSJT-X v2.7.0 b4f9a4)

22:07 RBN
ZL2AIM (10.120 CW)
DX de KW7MM-#: 10120.0 ZL2AIM CW 2 dB 20 WPM CQ 0607Z

22:06 PSKR
R02 (3.574175 FT8)
DX de AF7KR: 3574.2 R-02 FT8 -25 dB 0606Z (N1DQ-KA9Q-Radio/1.1)

22:00 RBN
EA3CC (10.122 CW)
DX de KW7MM-2-#: 10122.0 EA3CC CW 9 dB 25 WPM CQ 0600Z

21:57 PSKR
CO7MS (3.574196 FT8)
DX de K9VIT: 3574.2 CO7MS FT8 -11 dB 0557Z (WSJT-X v2.8.0 i+)

21:57 PSKR
CT7AUT (3.574481 FT8)
DX de KW7MM: 3574.5 CT7AUT FT8 -14 dB 0557Z (CWSL_DIGI 0.88)

21:56 RBN
ZS1K (10.1109 CW)
DX de KW7MM-2-#: 10110.9 ZS1K CW 8 dB 24 WPM CQ 0556Z

What is a DXpedition

Lots of rare entities have no permanent residents.

The only way to work those entities is if someone travels there with radios and antennas, at great expense.

How do you know when a DXpedition will be on the air?

NG3K, DX-World, DX News, etc.

You *can* stumble across a DXpedition, but it's much easier to already know when and where they will be operating.

Start Date	End Date	DXCC Entity	Call	QSL via	Reported by	Info
2026						
January						
2026 Jan01	2026 Feb16	Grenada	J38WG [spots]	LoTW	OPDX 20251025	By WE9G fm IOTA NA-024 (FK92ef); 160-6m; mainly FT8, some CW SSB; QSL via Club Log OQRS or WE9G (B/d)
2026 Jan12	2026 Mar03	Desecheo I	KP5 [spots]	LoTW	DXW.Net 20251226	By NP4G and team as KP5/NP3VI fm FK68gj; 160-6m, incl 60m; CW SSB FT8; QSL via M0OXO
2026 Jan12	2026 Mar23	Martinique	FM [spots]	LoTW	TDDX 20260120	By F6BWJ as FM/F6BWJ; 12 10m; CW; 100w; groundplane
2026 Jan15	2026 Feb23	Guyana	8R1TM [spots]	LoTW	OPDX 20260114	By PY1SAD fm GJ06vs; 160-6m; CW SSB + digital; QSL via PY1SAD direct
2026 Jan15	2026 Feb28	Kenya	5Z4 [spots]	LoTW	OPDX 20251223	By OZ6ABL as 5Z4/OZ6ABL fm Watamu (LI06ap); 80-6m; CW SSB FT8 FT4; holiday style operation; QSL via OZ6ABL or Club Log OQRS
2026 Jan17	2026 Feb17	Tanzania	5H3DX [spots]	LoTW	OPDX 20260114	By NK8O fm Dodoma; 30-10m; CW SSB PSK31 FT8; QSL via Club Log OQRS or NK8O direct
2026 Jan22	2026 Mar31	Curacao	PJ2 [spots]	LoTW	OPDX 20250908	By W2APF as PJ2/W2APF; 80-10m; CW SSB FT8; QSL via W2APF direct
2026 Jan26	2026 Mar04	Curacao	PJ2 [spots]	eQSL	OPDX 20260124	By PD1DRE as PJ2/PD1DRE fm Willemstad (IOTA SA-009, FK52nc); 40 20 10m; SSB FT8 FT4
February						
2026 Feb01	2026 Feb27	Belize	V31DJ [spots]	LoTW	TDDX 20260120	By W0CP; also K0ZV using V31DK; fm Placencia; 160-10m; CW SSB FT8 FT4; 800w; wires; QSL via Club Log OQRS
2026 Feb02	2026 Feb23	Mauritius	3B8 [spots]	LoTW	TDDX 20260127	By OE6MBG as 3B8/OE6MBG; focus on 80 40m; SSB CW; perhaps FT4 FT8
2026 Feb04	2026 Mar09	St Kitts & Nevis	V4 [spots]	LoTW	K0YA 20260103	By K0YA as V4/K0YA and W5RCX as V4/W5RCX fm St Kitts; 160-6m; CW SSB FT8 FT4
2026 Feb05	2026 Feb16	Reunion	FR NEW [spots]	UR9IDX Direct	OPDX 20260209	By UR9IDX; HF; CW SSB
2026 Feb05	2026 Feb20	Sao Tome & Principe	S9BV [spots]	Club Log OQRS	DXW.Net 20250912	By S53BV; 60 40 30 15m; CW SSB; holiday style operation
2026 Feb06	2026 Feb19	Cape Verde Is	D4VR [spots]	DD0VR	DXW.Net 20251202	By DD0VR; HF; QRP; Feb 6-11 fm Boa Vista I (IOTA AF-005); Feb 11-19 fm Sao Tiago I (IOTA AF-086)

How to Find DX On The Air?

Stumble across it:

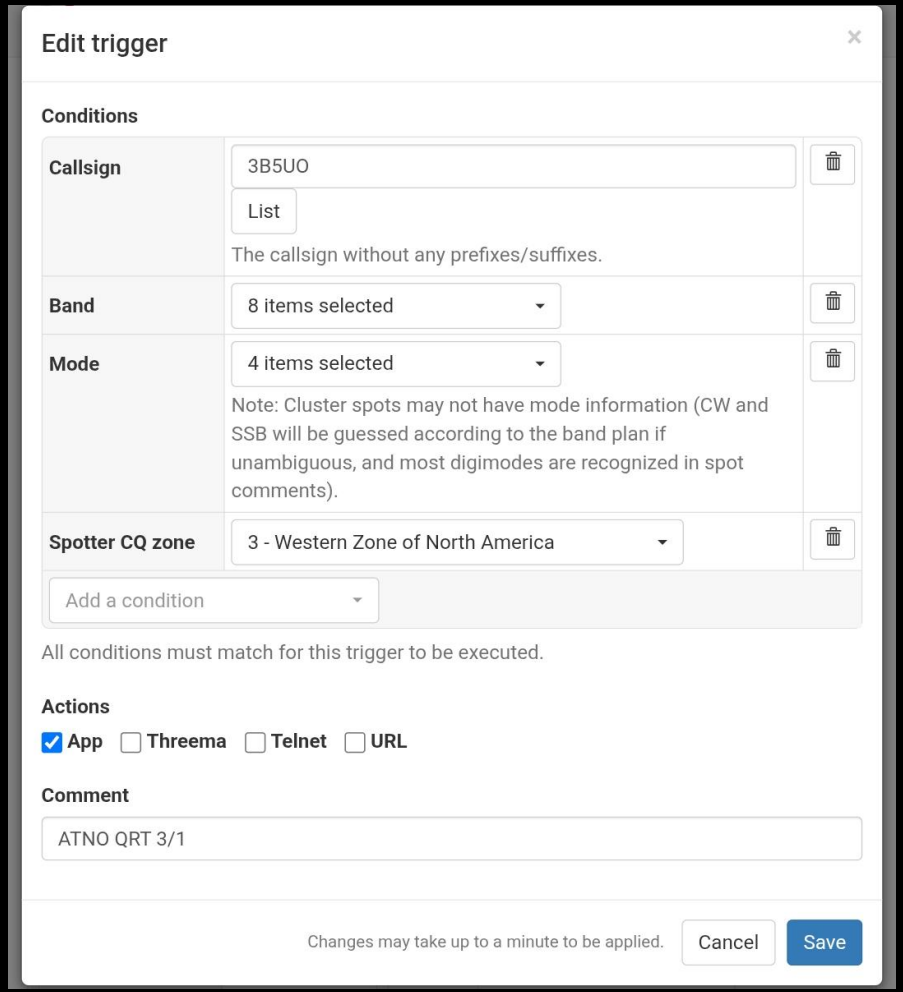
If you are on HF often, you will most likely happen upon DX now and again.

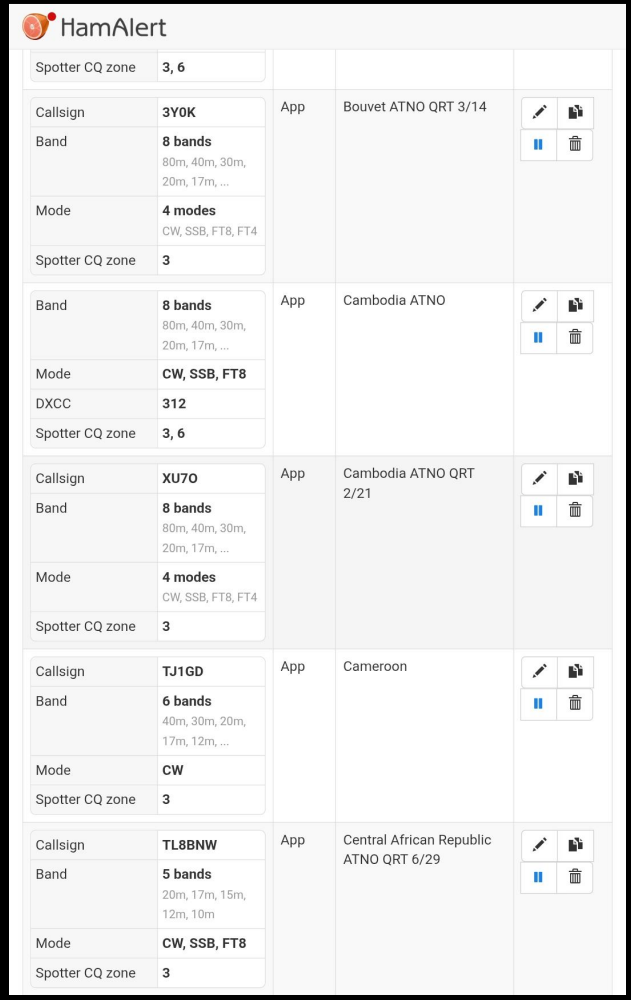
This is doable, but not the most efficient.

Use spotting assistance:

HamAlert phone app

VE7CC desktop program


Edit trigger
Conditions
Callsign
3B5UO
List
The callsign without any prefixes/suffixes.
Band
8 items selected
Mode
4 items selected
Note: Cluster spots may not have mode information (CW and SSB will be guessed according to the band plan if unambiguous, and most digimodes are recognized in spot comments).
Spotter CQ zone
3 - Western Zone of North America
Add a condition
All conditions must match for this trigger to be executed.
Actions
App
Threema
Telnet
URL
Comment
ATNO QRT 3/1
Changes may take up to a minute to be applied.
Cancel
Save


HamAlert
Spotter CQ zone 3, 6
Callsign 3Y0K
Band 8 bands 80m, 40m, 30m, 20m, 17m, ...
Mode 4 modes CW, SSB, FT8, FT4
Spotter CQ zone 3
App
Bouvet ATNO QRT 3/14
Band 8 bands 80m, 40m, 30m, 20m, 17m, ...
Mode CW, SSB, FT8
DXCC 312
Spotter CQ zone 3, 6
App
Cambodia ATNO
Callsign XU7O
Band 8 bands 80m, 40m, 30m, 20m, 17m, ...
Mode 4 modes CW, SSB, FT8, FT4
Spotter CQ zone 3
App
Cambodia ATNO QRT 2/21
Callsign TJ1GD
Band 6 bands 40m, 30m, 20m, 17m, 12m, ...
Mode CW
Spotter CQ zone 3
App
Cameroon
Callsign TL8BNW
Band 5 bands 20m, 17m, 15m, 12m, 10m
Mode CW, SSB, FT8
Spotter CQ zone 3
App
Central African Republic ATNO QRT 6/29


Off to the shack at 3:00am

What Makes a DXer?

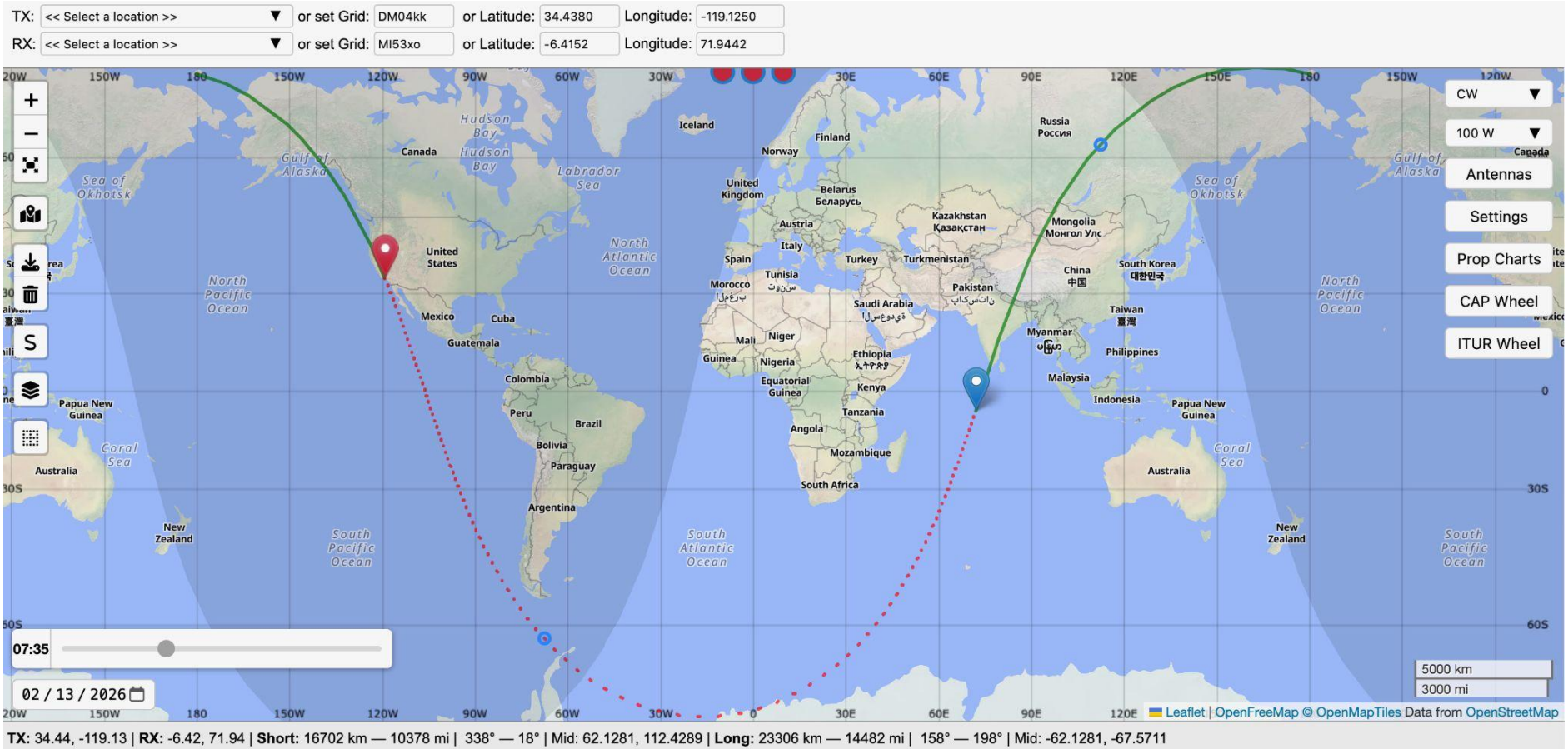
Hoping to stumble upon DX does work, but that isn't what makes a ***DXer***.

A DXer is:

- Someone who searches out rare DX with intent.
- Someone who knows when, and where, rare entities will be on the air.
- Someone who knows their operating patterns and tendencies.
- Someone who makes a plan to work them.

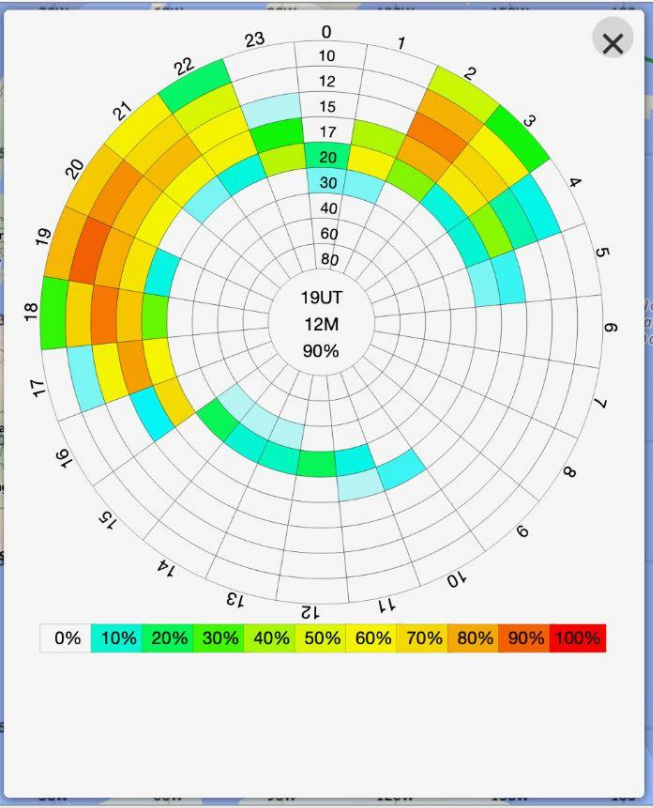

TAB

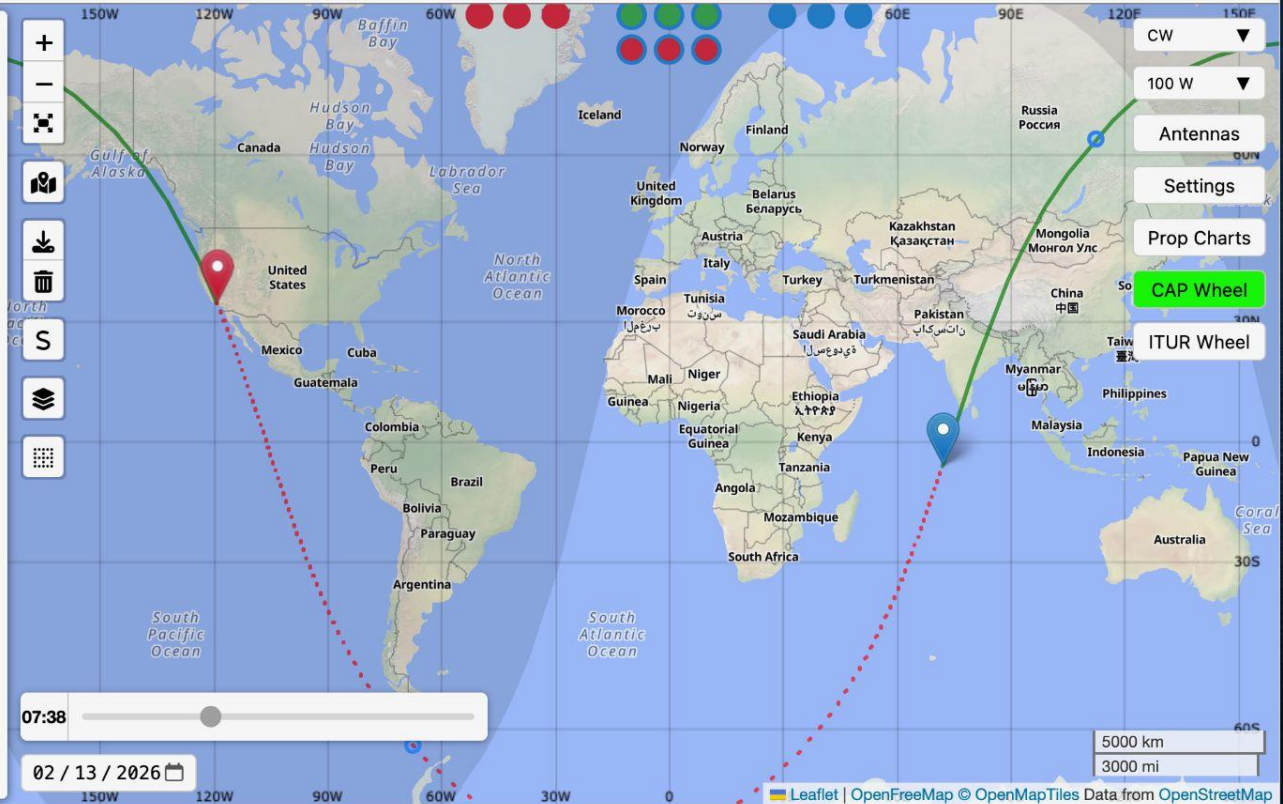
www.voacap.com/hf



TX: << Select a location >> ▼ or set Grid: DM04kk or Latitude: 34.4380 Longitude: -119.1250

RX: << Select a location >> ▼ or set Grid: MI53xp or Latitude: -6.3371 Longitude: 71.9601





TX: 34.44, -119.13 | **RX:** -6.34, 71.96 | **Short:** 16693 km — 10373 mi | 338° — 18° | Mid: 62.1695, 112.4562 | **Long:** 23315 km — 14487 mi | 158° — 198° | Mid: -62.1695, -67.5438

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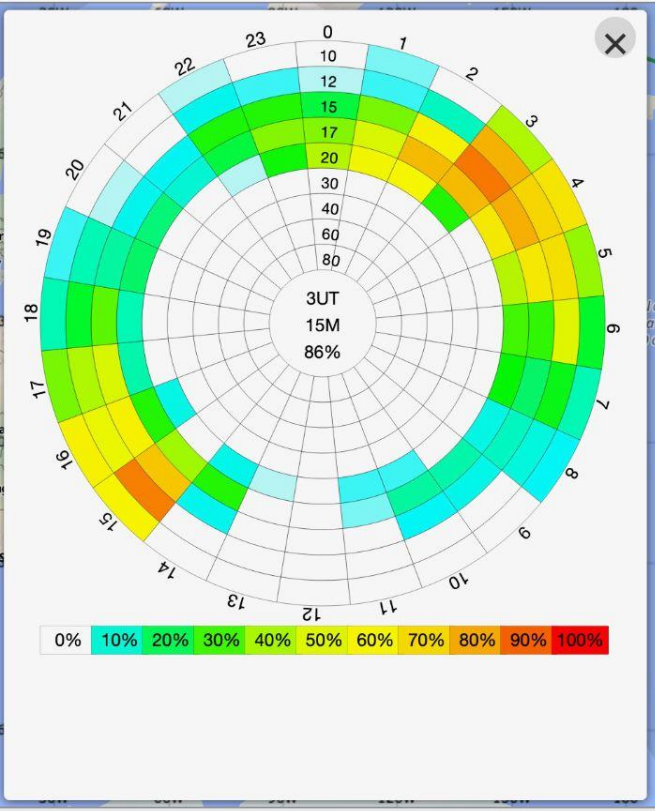

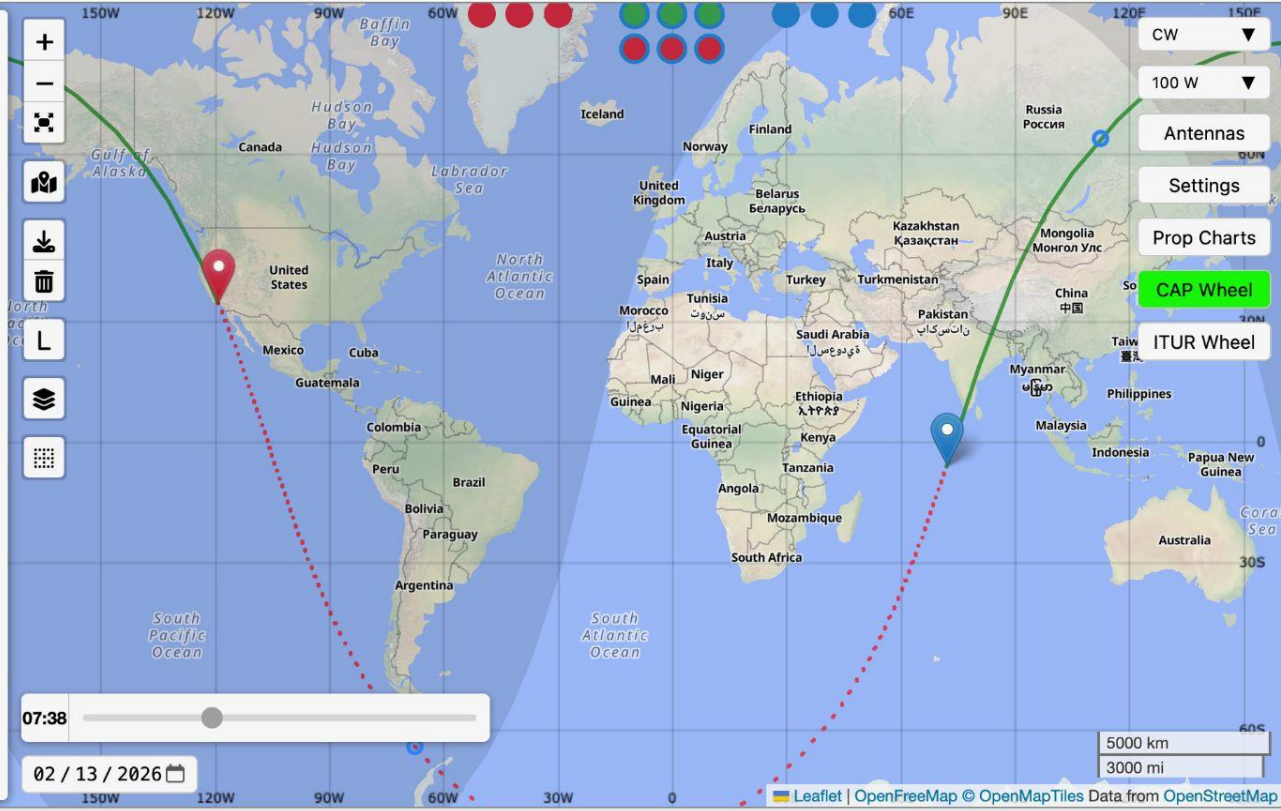

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What Equipment Do You Need for DXing?

A radio → Some coax → A wire antenna That's it!

QRP is doable, 100 watts is better.

Compromised antennas are ok, full sized are better.

Concentrate on improving your Receive first

"You can't work 'em if you can't hear 'em!"

Directional antennas, lowering local noise, less lossy coax.

Adding more power can come later.

Location, Location, Location (and Power)

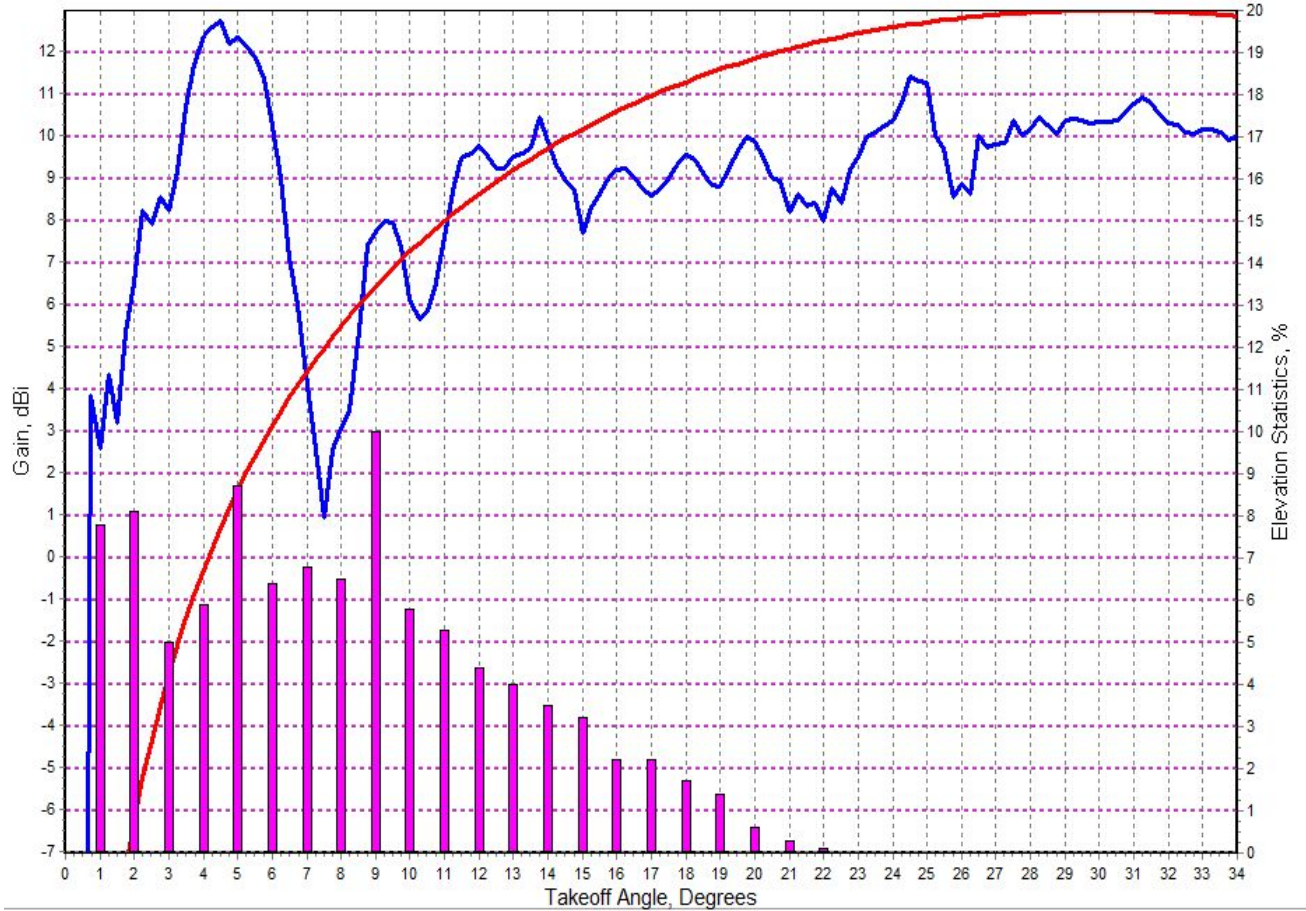
Unfortunately, DXing is not a fair game:

Some locations – top of mountains – are much better than others – bottom of valleys. You live where you live.

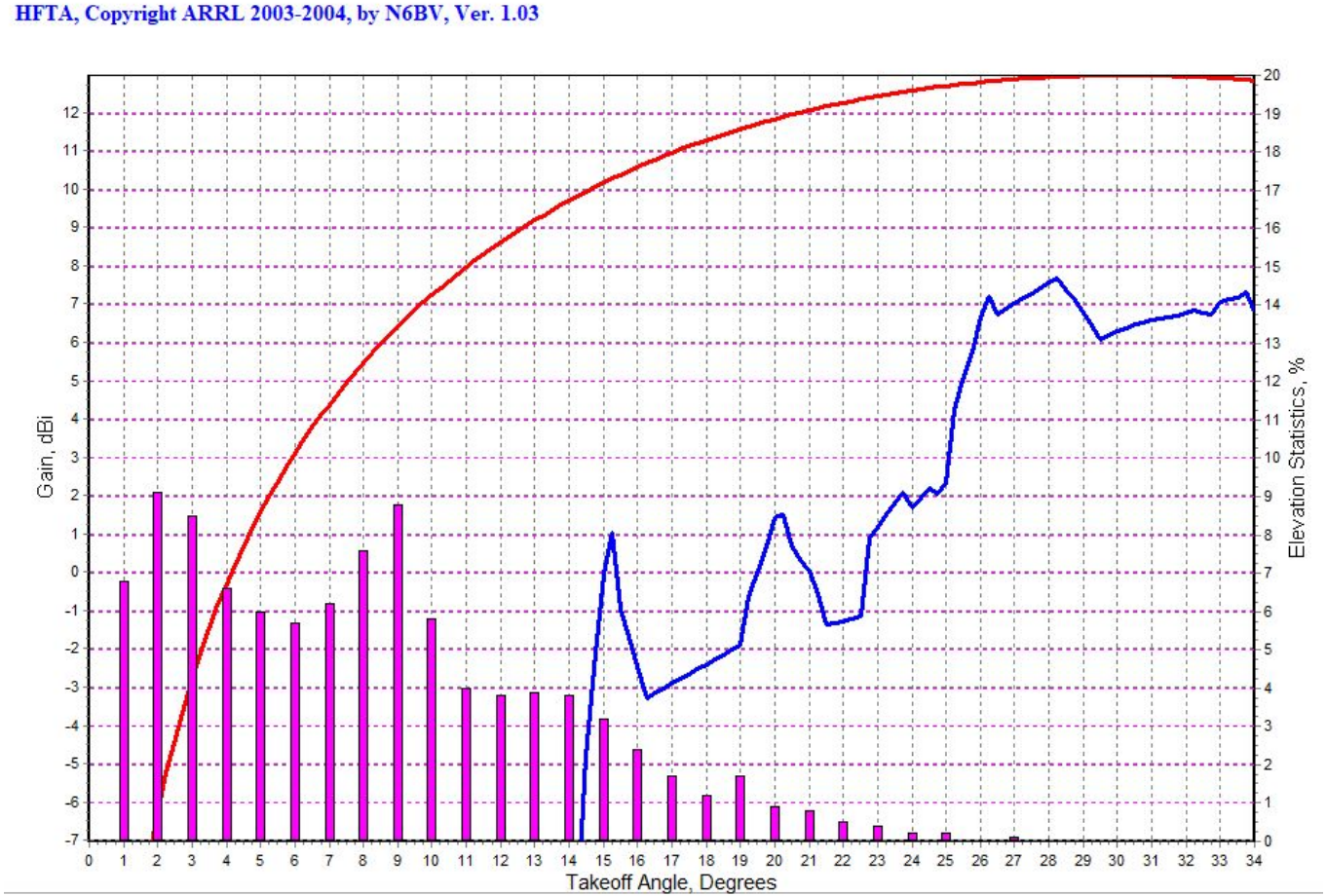
It's much easier to work DX from the top of a hill, with a 5 element monoband Yagi and 1kW…than from a valley, with a compromise antenna and 10W.

It isn't impossible, it just takes more patience and operating skill.

High Frequency Terrain Assessment



Now the Unfair Part



Finally, Let's Work Some DX!

"*CQ DX CQ DX 3B5UO 3B5UO listening five up…*"

A lot of times, rare DX is not easy to copy.

Long distances, weak paths, questionable accents… all make it more difficult than conversations on our local repeaters.

Don't let it discourage you!

Time to put your operating skills to the test!

Tips For Working DX

Listen, listen, listen!

Learn to operate you radio to its full capacity:

- SNR is the key for weak signals
  - Ride the RF gain.
  - When to use, and not use, preamp and attenuator.
  - Adjust your Rx bandwidth

What Does “Listening Up” Mean?

SSB - “Listening up” “Up five” “Up five to ten”

CW - “UP”

It means the DX is working ‘split’:

Transmitting on one frequency, but listening on a different frequency.

SSB - Usually listening 5 kHz above the transmit frequency

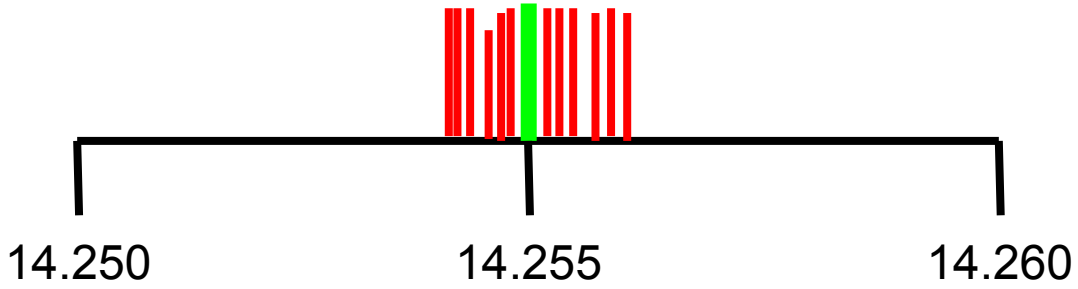
CW - Usually 1 kHz to 3 kHz above

FT8 - Similar to running in Fox/Hound Mode

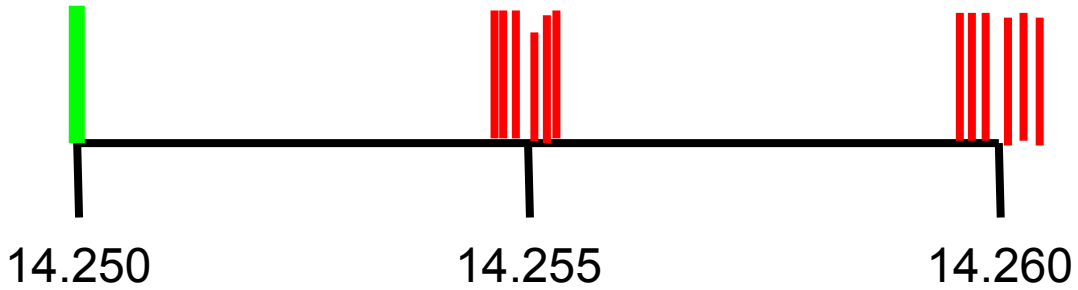
Most important: Listen before transmitting… don’t get caught by the Up Police!

Visual “Representation” of Split Operations

Simplex



Split



Tips For Working Split

Listen before you transmit:

When the DX station calls someone, switch VFOs and try finding the station who responds.

Now you know exact where the DX station was listening for that call.

Look for patterns:

Maybe the DX calls two stations at 5 kHz up, then two at 10 kHz.

Once you know the pattern, you can adjust your transmit frequency to maximize your chances of breaking through the pileup.


TAB

Success!

We got 3B5UO in our log! Well…now what?

Time to confirm our contact.

Ways to confirm:

- Logbook of the World - ARRL
- QRZ.com
- Old fashioned QSL cards

CLUBLOG

KP5/NP3VI

Watchers: 2,049 | 21:44:42 | 38,179 QSOs | Rate: 2 QSOs/min

	160	80	60	40	30	20	17	15	12	10	6	4	2	70
Phone														
CW														
Data									■	■				

30:	2026-01-26	21:38:30	24.922	FT8	KE6GLA
29:	2026-01-26	21:38:30	28.090	FT8	W7AAD
28:	2026-01-26	21:38:30	28.090	FT8	KA6RWL
27:	2026-01-26	21:39:00	24.922	FT8	WA3WZR
26:	2026-01-26	21:39:00	28.090	FT8	N7VZU
25:	2026-01-26	21:39:30	24.922	FT8	KN6VQ
24:	2026-01-26	21:40:00	28.090	FT8	NN4NT
23:	2026-01-26	21:40:00	24.922	FT8	KE6GLA
22:	2026-01-26	21:40:00	24.922	FT8	KG4GSY
21:	2026-01-26	21:40:30	24.922	FT8	KN6VQ
20:	2026-01-26	21:40:30	28.090	FT8	KD9VTR
19:	2026-01-26	21:41:00	24.922	FT8	KO4PSQ
18:	2026-01-26	21:41:30	24.922	FT8	WA8ZID
17:	2026-01-26	21:41:30	24.922	FT8	W9JJ
16:	2026-01-26	21:42:00	24.922	FT8	WA8ZID
15:	2026-01-26	21:42:00	28.090	FT8	N2XK
14:	2026-01-26	21:42:30	24.922	FT8	KE6GLA
13:	2026-01-26	21:42:30	28.090	FT8	VE1RMR
12:	2026-01-26	21:42:30	28.090	FT8	KA6RWL
11:	2026-01-26	21:43:00	28.090	FT8	W9ILY
10:	2026-01-26	21:43:00	28.090	FT8	N3YZ
09:	2026-01-26	21:43:30	24.922	FT8	AD4K
08:	2026-01-26	21:43:30	24.922	FT8	KE6GLA
07:	2026-01-26	21:43:30	28.090	FT8	AD6HF
06:	2026-01-26	21:43:30	28.090	FT8	K8NWD
05:	2026-01-26	21:43:30	28.090	FT8	LU2BN
04:	2026-01-26	21:44:00	28.090	FT8	W9ILY
03:	2026-01-26	21:44:00	24.922	FT8	K4LVW
02:	2026-01-26	21:44:00	28.090	FT8	VE1RMR
01:	2026-01-26	21:44:30	28.090	FT8	W1EG

21:44:00 — 21:44:41

Last QSO: 13 seconds ago

Log Search | DX Spots

Live Stream by Club Log
Documentation | Wrong locator?

Awards Programs

ARRL DXCC Awards - LoTW

Starts at 100 confirmed entities

Mixed, Mode, Band, 5BDXCC, Challenge, Honor Roll, #1 Honor Roll

Endorsements for 150, 200, 250, 275, 300, 305, 310…

QRZ.com

DX World Award, World Continents, Master of Radio Communication - Each Continent

Keeping Track

	DX ENTITY	DXCC #	Most Wanted USA - West	CONT	PH	CW	Date	10m	12m	15m	17m	20m	30m	40m	80m
1	ALAND ISLANDS	5	176	EU	PH	CW	5/26/24			X	X	X			
2	ALASKA	6	335	NA	PH	CW	1/21/23	X	X	X		X	X	X	X
3	AMERICAN SAMOA	9	192	OC	PH	CW	7/14/23	X	X	X	X	X		X	X
4	ANDAMAN & NICOBAR ISLANDS	11	66	AS		CW	3/18/25	X							
5	ANGOLA	401	242	AF		CW	7/27/25					X			
6	ANGUILLA	12	254	NA		CW	2/5/25		X	X					
7	ANTARCTICA	13	221	AN		CW	3/29/24				X				
8	ANTIGUA & BARBUDA	94	222	NA	PH	CW	10/29/23	X		X		X		X	
9	ARGENTINA	100	329	SA	PH	CW	3/26/23	X		X		X			
10	ARUBA	91	284	SA	PH	CW	10/29/23	X		X		X		X	
11	ASIATIC RUSSIA	15	331	AS	PH	CW	10/29/23	X		X	X	X		X	
12	AUSTRAL ISLANDS	508	186	OC	PH	CW	4/2/24	X	X	X	X	X	X	X	
13	AUSTRALIA	150	332	OC	PH	CW	3/4/23	X		X		X		X	
14	AUSTRIA	206	287	EU	PH	CW	2/18/24	X		X		X			
15	AZORES	149	292	EU	PH	CW	2/17/24	X		X		X		X	
16	BAHAMAS	60	245	NA		CW	1/15/25			X		X			
17	BALEARIC ISLANDS	21	249	EU	PH	CW	2/17/24	X		X		X		X	
18	BARBADOS	62	294	NA	PH	CW	3/4/23	X		X		X		X	
19	BELARUS	27	255	EU	PH	CW	7/9/23			X		X			
20	BELGIUM	209	308	EU	PH	CW	2/17/24	X		X		X			
21	BELIZE	66	322	NA	PH	CW	9/13/23	X		X	X	X		X	
22	BENIN	416	142	AF		CW	4/5/25					X		X	

Most Wanted

Entities are ranked #1 to #340 for how “wanted” they are.

A good gauge of how difficult they are to contact.

I use the ClubLog ranking filtered for North America West Coast.

TRINDADE & MARTIM VAZ ISLANDS	SA	24
HEARD ISLAND	AF	23
GLORIOSO ISLAND	AF	22
JUAN DE NOVA, EUROPA	AF	21
MACQUARIE ISLAND	OC	20
PALESTINE	AS	19
JOHNSTON ISLAND	OC	18
LIBYA	AF	17
KURE ISLAND	OC	16
BOUVET ISLAND	AF	15
TROMELIN ISLAND	AF	14
SAINT PETER AND PAUL ROCKS	SA	13
AVES ISLAND	NA	12
PETER 1 ISLAND	AN	11
SOMALIA	AF	10
SAN FELIX ISLANDS	SA	9
PRINCE EDWARD & MARION ISLANDS	AF	8
TURKMENISTAN	AS	7
MOUNT ATHOS	EU	6
SCARBOROUGH REEF	AS	5
PRATAS ISLAND	AS	4
SYRIA	AS	3
KERGUELEN ISLAND	AF	2
NORTH KOREA	AS	1

When to Work New DX

Winter is better than Summer

Why? For this presentation: because it is.

Contests

Even if you are not into contesting, a ton of DX gets on the air that otherwise wouldn’t be.

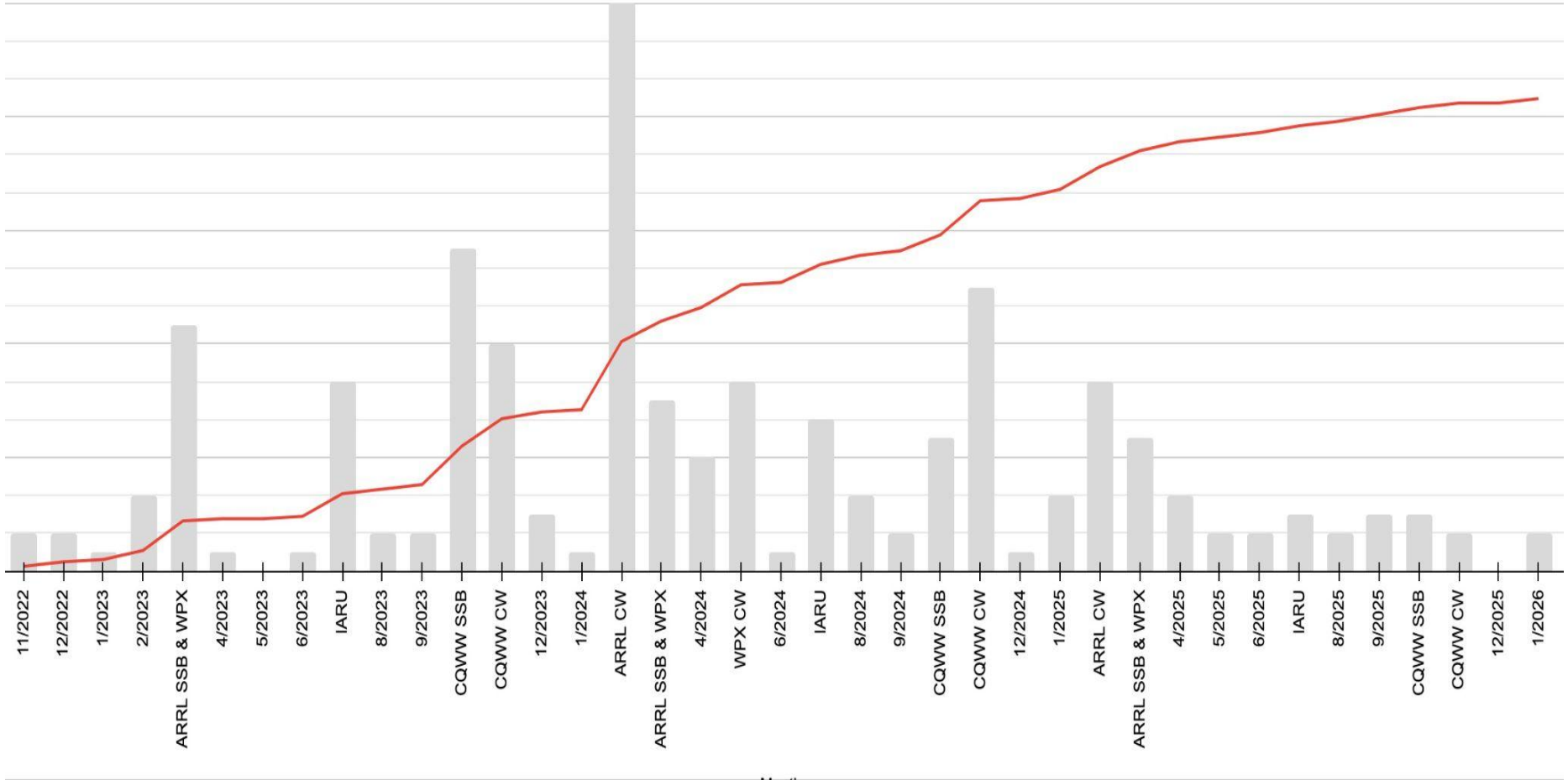
DXpeditions

They are there specifically to work *you*, so get on the air and hunt them!

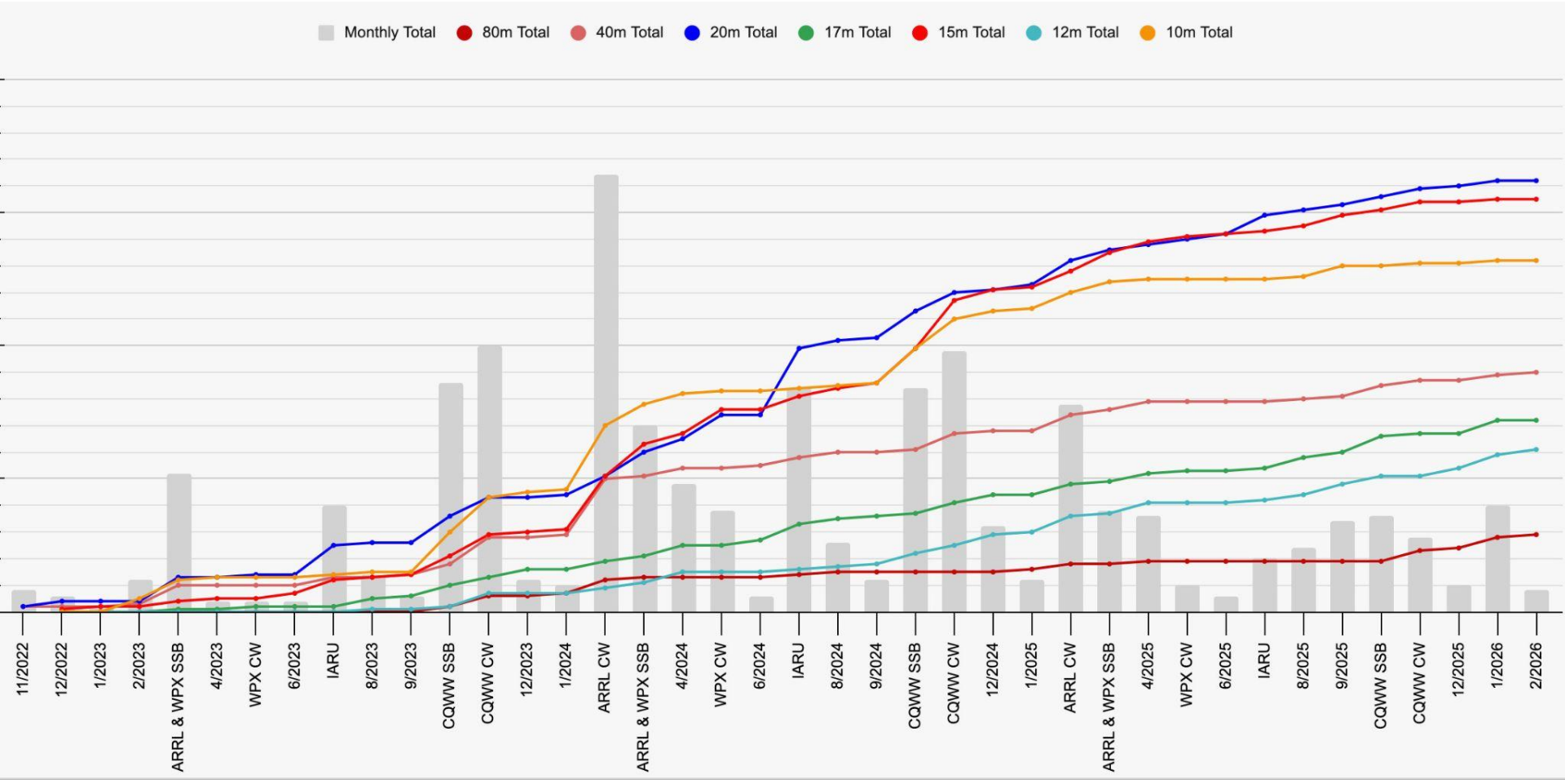
Bands

In general, 20m to 10m (high bands) are easier than 160m to 40m (low bands).

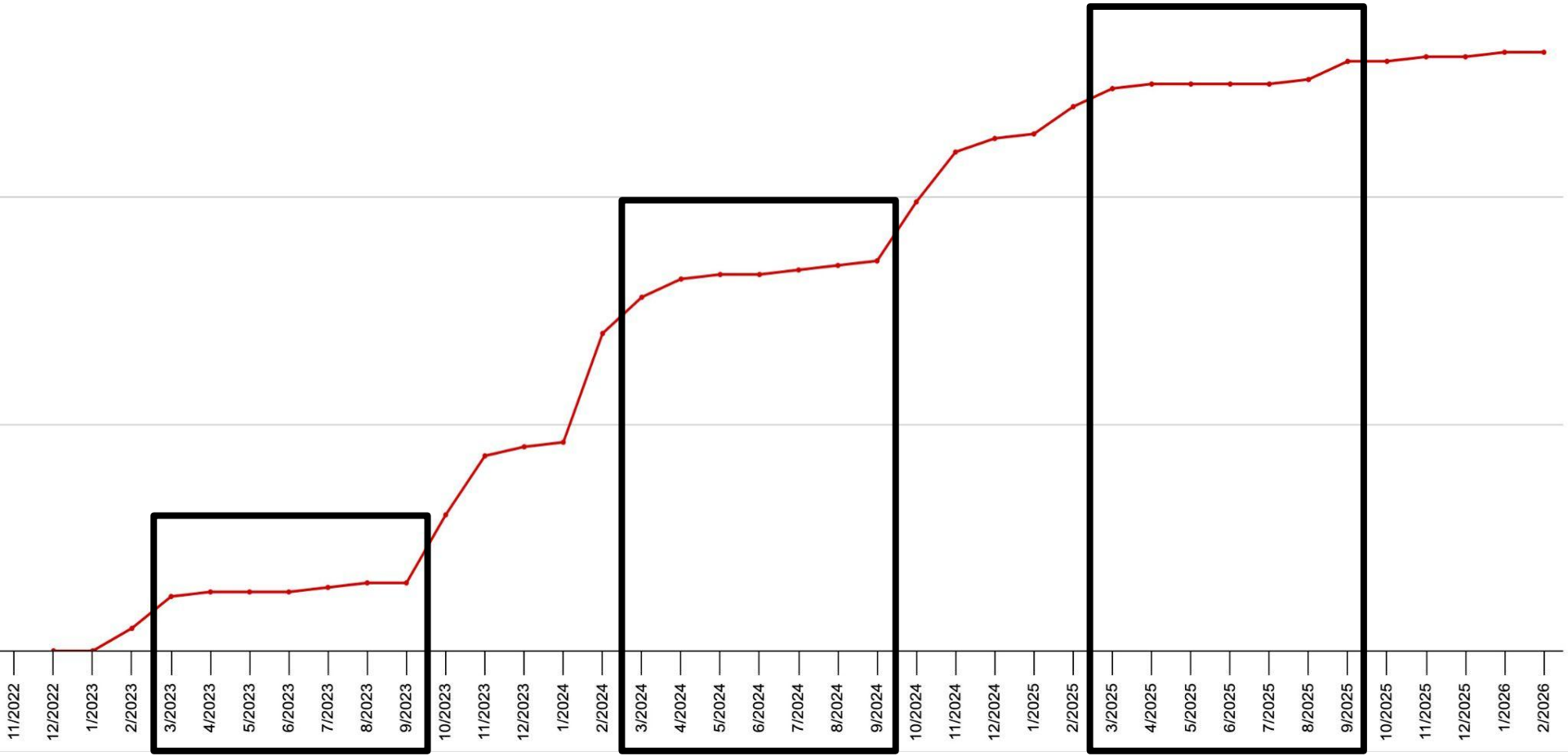
New DXCC Entities



DXCC Band Fills



DXCC 10m Band Fills



Working DX on FT8

Things I've found in my short time using digital modes, using Desecheo as my starting point:

Know where the DX station will be operating.

Don't check "CQ Only" box.

For stations like KP5/NP3VI, WSJT-X can have trouble decoding the full call.

If they are weak, make sure you ride your RF gain.

Why Do I Love DXing?

Most importantly, it's fun!

The thrill of a successful (or even unsuccessful) chase.

Receiving a confirmation for a new DXCC entity is, for me, a thrill.

Getting an envelope with an 'old school' QSL card is exciting and different.

Lots of awesome tools and programs to play with:

Planning bands and modes with VOACAP.

Using HFTA to graph different antenna performance at my home QTH.

Updating spreadsheets, charts, and graphs to track my progress.

DXing Resources

The Complete DX’er

Bob Locher W9KNI

ON4UN’s Low-Band DXing

John Devoldere ON4UN (SK)

Here to There: Radio Wave Propagation

ARRL

The ARRL Antenna Book

I hope to hear you on the air soon!

GUD DX HPE CU AGN SOON ES 73