## DXing with DXLab



### **Better DXing Through Software**

DXing

The art and science of making two-way contacts with distant amateur radio stations using phone, CW, or digital modes

## DXLab: Better DXing Through Software

- 1. Automates QSL wrangling and award submissions to liberate more time for DXing
- 2. Makes time spent DXing more productive by helping you
  - Find the DX you need
  - Work the DX you need

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# Wrangling Electronic and Hardcopy QSLs

- Submit QSOs to LotW & eQSL, and download QSLs
- Request hardcopy QSLs by sending outgoing QSL cards
  - Find QSL routes
  - Track responses
- Update DXing objectives as QSLs are received
- Submit QSLs for Award Credit

## **Electronic QSL Automation**

### • eQSL.cc

- Database of known Authenticity Guaranteed (AG) participants
- Optional automatic upload as QSOs are logged
- One-click download of new confirmations and award progress update

#### • LotW

- Database of known participants with date of last submission
- Optional automatic upload as QSOs are logged
- One-click download of new confirmations and award progress update
- Show QSOs that should be confirmed via LoTW, but aren't

# Identifying Missing LoTW QSLs

- DXLab's LoTW database contains all stations known to participate in LoTW, and the date at which each last submitted QSOs to LoTW
- You can identify all unconfirmed QSOs with stations known to participate in LoTW that have submitted QSOs to LoTW after the QSO date
  - contact your QSO partner
  - Ask them to submit your QSO, or correct the mismatch and resubmit

## Hardcopy QSL Automation

- Generate QSL cards or Labels requesting confirmations needed for DXCC, IOTA, Marathon, VUCC, WAS, WAZ, and WPX
- Locate QSL routes from more than 80 web-accessible sources
- Generate address labels or print envelopes
- Use full-page printers and individual label printers

## **DXing Objectives Drive Automation**

You can specify the bands and modes you are pursuing for each of DXCC, IOTA, Marathon, VUCC, WAS, WAZ, and WPX

骨 DXKeeper Conf	figuration						- • •
General	Log	Awards	Reports	Callbook	Contest	User Items	Defaults
Automatically  C Automatically  Deduce CQ at  C Bands 1	recompute realtime aw nd ITU zones from US	vard tracking i callsigns	Include LotW QS	SLs in CQ (DX, Field CQSLs in DXCC, VL	ls), JARL, & Maidenhead JCC, WAS, WAC, & Maid	Grid progress lenhead Grid progress	
V     160M     V       V     80M     V       V     40M     V       V     30M       V     20M       V     17M       Us     15M       V     12M       V     10M	Phone HF CW Digital VHF T8 v eer-specified gital mode family FT8		Phone HF CW UHF Digital UHF Mixed ✓ Include QSOs with no prop 1500 Max TX power	<ul> <li>160M</li> <li>80M</li> <li>60M</li> <li>40M</li> <li>30M</li> <li>20M</li> <li>17M</li> <li>15M</li> <li>12M</li> </ul>	SSB HF CW Digital	IOTAmem4win     IOTAmem4win     Realtime Awards     CQ, WAE, Holy     DARC DOK reg     WAE 2 point lo     Subdivision val	update d Progress vland region select gion selection w-band QSOs idity checking
<ul><li>☑ 2M</li><li>☑ III ☑</li><li>☑ Hide unworke</li></ul>	QRP d in progress rprt	GM GM M Realtime A	Year, Category, Score Sheet Info ward Progress	☐ 6M	ward Progress	⊢WAZ Bands & M M i x S	R S D T S i
DXCC Submiss ✓ Submit deleted 75 Record Shi ✓ Confirmed QSI ✓ UCC & WAS S C QSL Card ← LotW DXCC Credits - ✓ Credit-only QS	ion d entities eet lines/page nission Os are low risk Submission	VUCC Bands           ✓         6M           2M         1.25M           70 CM         33 CM           23 CM         13 CM and           Satellite         13 CM and	s & Modes	WAS Bands           ✓         160M           80M         40M           30M         20M           17M         15M           12M         10M           ✓         6M           2M         1.25M           70CM         70CM	L Modes         Phone       HF         CW       HF         Digital       SSTV         Sat       QRP         Mixed (Basic)       Mixed (Basic)	e S C d B W Mixed □ □ 160M □ 80M □ □ 40M □ □ 30M □ □ 20M □ □ 17M □ □ 17M □ □ 15M □ □ 12M □ □ 10M □ □ 6M □	
QSL Config	Help	🔽 Realtime A	ward Progress	🔽 Realtime A	ward Progress	🔽 Realtim	e Award Progress

# **QSL Card Printing**

Next     Print     Left margin: Top margin:       Dave Bernstein 25 Glezen Lane Wayland, MA 01778     AAA       Confirming a 22       Date     Time     Freq       02-Sep-10     20582     10.102     CW       printed by DXLab freeware       Dave Bernstein 25 Glezen Lane Wayland, MA 01778     AAA       Date     Time     Freq       Mode     R       26 Glezen Lane Wayland, MA 01778     AAA       Confirming a 22     Date       Time     Freq     Mode       19-Sep-10     23232     18.075	.117 in Width: .117 in Height: 6YQ X QSO with AP2 X QSO with AP2 S9 please!	10.333 in 8.267 in Middlesex County FN42hi USA 2TN	Dave Bernstein       Siglezen Lane       Middlesex County         Wayland, MA 01778       Confirming a 2X QSO with A51A       USA         Date       Time       Freq       Mode       RST       QSL?       Notes         10-Sep-10       2354Z       7.005       CW       599       pleasel       Sector         printed by DXLab freeware       www.dxlabsuite.com         Dave Bernstein       SGL220       AGAGOYO       Middlesex County         25 Glezen Lane       MAGAGOYO       Middlesex County       FN4250         Weight MA 01778       MAGAGOYO       Middlesex County       FN4250
Dave Bernstein 25 Glezen Lane Wayland, MA 01778 Confirming a 22 Date Time Freq Mode R 02-Sep-10 2058Z 10.102 CW 51 printed by DXLab freeware Dave Bernstein 25 Glezen Lane Wayland, MA 01778 Confirming a 22 Date Time Freq Mode R 19-Sep-10 2323Z 18.075 CW 51	6YQ X QSO with AP2 ST QSL? Notes 9 please!	Middlesex County FN42hi USA 2TN	Dave Bernstein       Scales (Lane Vayland, MA 01778)       Middlesse: County FN22hi         Date       Time       Freq       Mode       RST       Notes       10         Date       Time       Freq       Mode       RST       NSL?       Notes       10         Date       Time       Treq       Mode       RST       NSL?       Notes       10         Date       Time       Treq       Mode       RST       NSL?       Notes       10         printed by DXLab       Freeware       www.dxlabsuite.com       www.dxlabsuite.com       Middlesse: County       FN225         Dave Bernstein       Scales County       FN226       In Control (Lane Variand)       Middlesse: County       FN226         Solves Dernstein       Scales County       FN226       In Control (Lane Variand)       Middlesse: County       FN226         Variandi Ma 01778       Mate Control (Lane Variand)       Middlesse: County       FN226
printed by DXLab freeware Dave Bernstein 25 Glezen Lane Wayland, MA 01778 Confirming a 22 Date Time Freq Mode R 19-Sep-10 2323Z 18.075 CW 56	6YQ	www.dxlabsuite.com Middlesex County FN42hi USA	printed by DXLab freeware www.dxlabsuite.com Dave Bernstein 25 Glezen Lane KAA6YO FIN22hi Wavian JA001778
19-Sep-10 2323Z 18.075 CW 59	RST QSL? Notes	5DX	Confirming 2X QSOs with VQ9LA           Date         Time         Freq         Mode         RST         QSL?         Notes
	33		17-36p-09     15222     10.017     599       21-Feb-10     01122     10.117     CW     599       08-Aug-10     0144Z     7.002     CW     599       28-Aug-10     0101Z     3.508     CW     599
printed by DXLab freeware		www.dxlabsuite.com	printed by DXLab freeware www.dxlabsuite.com

# **QSL** Card Printing



### **QSL Label Printing**

Net         Pint         Left margin:         117 in         Width:         8.267 in           AA6YQ cfms a 2X QSO with AP2TN         AA6YQ cfms a 2X QSO with A51A         AA6YQ cfms a 2X QSO with ITSDX           Data         Time         Freq. Mode         RST         Date         Time         Freq. Mode         RST           Date         Time         Freq. Mode         RST         Date         Time         Freq. Mode         RST           Date         Time         Freq. Mode         RST         Date         Time         Freq. Mode         RST           Date         Time         Freq. Mode         RST         Date         Time         Freq. Mode         RST           Date         Time         Freq. Mode         RST         Date         Time         Freq. Mode         RST           Date         Time         Freq. Mode         RST         Date         Time         Freq. Mode         RST         Date         Date	•
AA6YQ cfms a 2X QSO with AP2TN         AA6YQ cfms a 2X QSO with A51A         AA6YQ cfms a 2X QSO with JTSDX           Date         Tmma         Freq Mode         RST         0           10-Sep-1tp23242         RST         0         SS99         0           AA6YQ cfms 2X QSOs with VO9LA         AA6YQ cfms 2X QSOs with VO9LA         Date         Tmma           Date         Time         Freq Mode         RST         0         SS99           21-Feb-101012         10.117 Cw         S99         SS99         0         0         SS99           0B-Aug-1p11442         7.002 CW         S99         SS98         0         SS98         0	
AA6YQ cfms a 2X QSO wth AP2TN       AA6YQ cfms a 2X QSO wth A51A       AA6YQ cfms a 2X QSO wth JT5DX         Date       Time       Freq. Node       RST       Date       Time       Freq. Node       RST       Date	
AA6YQ cfms a 2X QS0 with AP2TN       AA6YQ cfms a 2X QS0 with AP2TN       AA6YQ cfms a 2X QS0 with JTSDX         Date       Time       Freq       Mode       RST       Date       Date       Time       Freq       Mode       RST       Date       Date       Time       Freq       Mode       RST       Date       Date       Date       Time       Freq       Mode       RST       Date       Date       Date       Time       Freq       Mode       RST       Date	
02-Sep-1(20582 10.102 CW       559       10-Sep-1(20582 7,005 CW       599       19-Sep-1(20232 7,18.075 CW       599         AA6YQ cfms 2X QSOs with VQ9LA         Date       Time       Freq       Mode       RST         17-Sep-0(91522 18.087 CW       599       08-Aug-1(0144 7,002 CW       599         08-Aug-1(0144 7,002 CW       599       010-Sep-1(012 A)       010-Sep-1(012 A)	
AA6YQ cfms 2X QSOs with VQ9LA       AA6YQ cfms 2X QSOs with VQ9LA         Date       Time       Freq       Mode       RST         17-Sep-0\$15222       18.087 C/W       599       Date       Time       Freq       Mode         06-Aug-1\$01442       7.002 C/W       599       S99       S00       S00       S00	
AABYQ cfms 2X QSOs with VQ9LA       AABYQ cfms 2X QSOs with VQ9LA         Date       Time       Freq       Mode       RST         17-Sep-0f152Z 18.087 CW       599       Bate       Time       Freq       Mode       RST         21-Feb-1t0112Z 10.117 CW       599       Bate       Time       Freq       Mode       RST         08-Aug-1t0144Z       7.002 CW       599       S99       S99       S99       S99	
17.Sep-0e15222       18.087       CW         21.Feb-1001122       10.117       CW       599         08-Aug-1011442       7.002       CW       599	
08-Aug-101442 7.002 CW \$99	
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- Locate QSL routes from more than 80 web-accessible sources
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- Use full-page printers and individual label printers
- Keep track of requested QSLs not yet received

## **QSL** Route Discovery

Pathfinder 5.2.7 {Script error no	otifications are hidden}: result	s from VK Callboo	k for VK3ZL								
2020 VK3	Buck     QI       CB     Club Log     QR2	<u>RU</u> Google	K2DSL 425D DB0SDX JJ1W	XN IK3QAR Cor /TL hamdb He	lp						
Astrikas Greenast	Register of F	Radiocommu	inications Licend	es							
Search Register Licences by Sub Service Site Location Man	Client Details							RRL data as of: 05/May/2021 15:25			
Spectrum Areas Map	Client Number		137687								
Frequency Range Search	Licensee		Arie Groen								
Access Areas Antennas	Postal Address		110 School Road BAL								
400MHz Search	Fee Status		Normal								
800MHz Search Direction Finder Site Photo Search	Licences Held										
Data Download	Results 1 - 2 of 2 licences.										
Offline RRL	BSL/Licence No	<u>Service</u>	Sub Service	Date of Expiry	Callsign(s)	<u>Ship Name</u>	Status				
Class Licences	9950204/3	Amateur	Advanced	14/Mar/2022	VK3ZL		Granted				
Help	1303411/1	Amateur	Advanced	11/Mar/2022	VK3AMZ		Granted				
	[ New Client Search ]		1	1							

communicating facilitating regulating

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## **QSLs Requested But Not Received**

AA6YQ QSL agi	ing analysis @	05-May-	-2021														
missing DX	<pre>KCC entities:</pre>		0														
missing DX	<pre>(CC entity-ban</pre>	ids:	1														
missing DX	<pre>(CC entity-mod</pre>	les:	0														
missing IC	)TA groups:		0														
missing VU	JCC grid-bands	:	2														
missing WA	AS states:		0														
missing WA	AS state-bands		0														
missing WA	AS state-modes	:	0														
missing WA	AZ zones:		0														
missing WA	AZ zone-bands:		0														
missing WA	AZ zone-modes:		0														
missing WA	AZ zone-band-m	odes	0														
Call	Band	Mode	QSO Date	DXCC	ΙΟΤΑ	Grid1	Grid2	Grid3	Grid4	State	CQ	QSL Date	Weeks	Expired	QSL SENT VIA	Need	
LA6SL	6M	CW	21-Nov-2001	LA		JP50					14	24-Nov-2001	999			VUCC	
CE4WJK	6M	SSB	19-Sep-2011	CE		FF45					12	05-0ct-2011	500		D	VUCC	
5B4/YL2RR	6M	SSB	02-May-2014	5B							14	13-Jan-2021	16		D	DXCC	(entity-band)

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## **Award Submission Automation**

- Generate Award Progress Reports
- Identify confirmed QSOs for which award credit would advance progress towards your DXing objectives, and generate the required submission files (DXCC, IOTA, Marathon, VUCC, WAS, WAZ, WPX)
- Update confirmed QSOs to reflect award credit granted (DXCC, IOTA)

# **Award Progress Reports**

- DXCC & Challenge
- CQ DX
- CQ DX Marathon
- CQ Field
- Gridsquares
- IOTA
- TOPLIST
- VUCC
- Worked All Continents
- Worked All CQ Zones
- Worked All Europe
- Worked All ITU Zones
- Worked All Prefixes
- Worked All US States

- Worked All Belgian Provinces
- Worked All British Areas
- Worked All Canadian Provinces
- Worked All French Departments
- Worked All DARC DOKs
- Worked All Holyland Areas
- Worked All Hungarian Counties
- Worked All Italian Provinces
- Worked All Japanese Cities
- Worked All Japanese Guns
- Worked All Japanese Prefectures
- Worked All Korean Districts
- Worked All Russian Oblasts
- Worked All Russian Districts
- Worked All Summits on the Air (SOTA)
- Worked All Swiss Cantons
- Worked All US Counties
- Worked All US Gridsquares (FFMA)
- Worked All User-defined Counters

# **DXCC Progress Report**

Confirmed DXCC Countries (ex	cludes deleted cour	tries)																
mixed 340																		
phone 340																		
cw 339																		
digi 336																		
FT8 222																		
160m 258																		
80m 312																		
40m 333																		
30m 325																		
20m 339																		
17m 336																		
15m 338																		
12m 331																		
10m 331																		
6m 111																		
2m 002																		
Sat 003																		
toplist 3918																		
Entity	Prefix Deleted	Mixed	Phone	CW	DIGI	FT8 160	M 80M	40M	30M	20M	17M	15M	12M	10M	6M	2M Card	LotW	Sat
Sov. Military Order Of Malta	1A	v	v	v	v	С	v v	v	v	v	v	v	v	v		v	v	
Spratly Islands	15	V	v	V	V		v	v		v	v	v	v	v		V	v	
Monaco	ЗA	V	v	V	V	W	v	V	V	V	v	v	v	v		V	C	
Agalega & St Brandon Islands	3B6	v	V	V	V		v v	V	V	V	V	v	v	v		V	C	
Mauritius Island	3B8	v	v	V	V	C	v v	V	V	V	V	v	v	v		V	C	
Rodriguez Island	3B9	V	v	V	V	С	v v	V	V	V	V	v	v	v		V	C	
Equatorial Guinea	3C	V	v	V	V		v v	V	V	V	V	v	V	V		V	V	
Annobon	3C0	V	v	V	V		v v	V	V	V	v	v	v	v		V	V	
Conway Reef	3D2-C	V	v	V	V	W	V	V	V	V	V	v	v	V		V	V	
Fiji Islands	3D2-F	V	v	V	V	C	v v	V	V	V	V	v	v	v		V	V	
Rotuma	3D2-R	V	v	V	V	W	v	V	V	V	v	v	v	V		V	C	
Swaziland	3DA	V	V	V	V	С	v	V	V	V	v	v	V	V		V	C	
Tunisia	3V	V	v	V	V	W	v v	V	V	V	v	v	v	V		V	С	
Viet Nam	ЗW	V	V	V	V		v	V	V	V	V	v	v	v		V	V	
Guinea	3X	V	V	V	V		v v	V	V	V	V	v	v	v		V	C	
Bouvet Island	3Y-B	V	v	V				V		V	V	v	v	v		V	C	
Peter 1 Island	3Y-P	v	v	v	v		v v	V	V	V	V	V	V	V		v	C	

## **Award Submission Automation**

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## Generated DXCC Record Sheet

AA6YQ	DXCC LotW Record	Sheet 30-Dec-202	20		
	Call	QSO Date	Band	Mode	Entity
0001 0002 0003	YE3WIL E44RU HL5BLI	27-11-2020 11-01-2020 26-11-2020	30M 160M 30M	FT8 FT8 FT8	Indonesia Palestine Republic of Korea

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#### Introduction to the DXLab Suite

- Drivers
- Architecture
- Multiple Views of Active DX
- Finding the DX You Need
- Working the DX You Need

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## Drivers

#### 1. User-driven iterative development

- Online group with 4700+ participants
- Defect repairs get highest priority; goal is < 24 hours</li>
- Public enhancement lists
- Frequent releases (several per month)

#### 2. Powerful and Easy to Use

- Primarily for DXers
- Secondarily for casual operators

#### 3. Runs on Windows NT, 2000, XP, Vista, 7, 8, 10, and 11

- and Mac in a virtual machine
- and Linux in a virtual machine

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### the DXLab Suite

# Eight free applications that run individually but when run simultaneously sense each other's presence and

interoperate automatically







- Modular
- Loosely-coupled



## A Suite of DXing Applications



## Single Point of Control: DXLab Launcher



- Installation
- Upgrade
- Startup
- Shutdown
# **DXing With DXLab**

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## **Active DX Database**



Active DX Database

**DX Spot Sources** 



What DX stations are QRV ?

**DX Spot Sources** 



Which DX stations can I likely copy ?





What QSOs and QSLs are "Needed" for the awards I'm pursuing on the bands and modes I've specified ?





Tabular

#### **Selected Bands and Modes**

🙀 Sp	otCollec	tor 7.6.6 @ 201	17-04-16	19:20 Z [	CC,DXK,I	DXV,PV,WW	] 8168 entrie	es (log: AA6	YQ.mdb)																	•	x
E	→ SF	<b>₩V 04-16 18</b> I 73 His	05 Z	Outgoin Call	g spot —		14,085.0	Freq Clust	er O	sourc	e sta	tus D 🔴 (														◖▶	Þ
Q:	1 4	6	1 К	Notes				X Loca	Beport	t Sta	its	Prop Cor	nfig Help	>													
	Nee	d Call	Prefix	Band	Mode	FirstTime	LastTime	Freq	QSX	Pri	CQ	IOTA	DXGrid	ODX	EU	AF	SA	NA-E	NA-M	NA-W	AS	OC	SP SNR	SP P	LP SNR	LP P	
		TA7I	TA	20M	C₩	16 1919	16 1919	14,027.4			20		KM69	3830	Y								29	82	-40	1	
		HB20MDC	HB	20M	SSB	16 1915	16 1919	14,216.0			14		JN47	515			Y		Y				28	65	-62		1
		HA7JIV	HA	30M	C₩	16 1918	16 1919	10,138.0			15		JN97	3931	Y								13	55	-155		
		PY1TJ	PY	10M	C₩	16 1914	16 1919	28,035.0		BJ	11		GG87	4137			Y						-5	23	-56		
		N2MM	ĸ	20M	C₩	16 1911	16 1919	14,028.8		NJ	5		FM29	3727	Y								14	63	-103		
		CE7VPQ	CE	10M	SSB	16 1909	16 1919	28,445.0			12		FE 33	4311			Y						15	41	-61		
		5K4R	HK	20M	SSB	16 1839	16 1919	14,214.0			9		FJ15	2304	Y		Y						35	92	-66		
		KM4TVU	K	20M	SSB	16 1919	16 1919	14,316.5		GA	5		EM73	3727	Y								43	86	-88		
		) 3YORY	3Y-B	20M	RTTY	16 1920	16 1920	14,085.0			38	AN-002	JD14	1	Y								11	52	-50		1
		KC1YL	ĸ	20M	SSB	16 1903	16 1920	14,315.0		CT	5		FN31	319	Y			Y					27	70	-73		
		HI8/KB1KK	HI	20M	RTTY	16 1920	16 1920	14,074.0			8		FK49	3830	Y								44	100	-82		
		8Q7VB	8Q	30M	C₩	16 1717	16 1920	10,107.0	10,108.0		22	AS-013	MJ64	3486	Y							Y	-5	1	-117		l
		PU2KOB	PY	10M	RTTY	16 1920	16 1920	28,076.0		SP	11		6657	1047				Y					-8	18	-63		
►		V31MA	٧3	15M	CW	16 1920	16 1920	21,004.1			7		EK57	2503						Y			37	91	-49		
																											-
																										•	I
_ So	t ——		r: Band	and Mod	le and O	rigin ———										Colo	r coe	des —									
0	First 🔘	Call		×	AH	Need	Call D	XCC Fre	eq Tag	3	Band	Mode	Cont	Origin	n	ver	ified		unwrkd B	or M	Lot	v					
•	Last 🔿	Freq Audio	Ade	LotW e	QSL Mrt	hn 0.0										<b>u</b> ni	needed		unwrkd co	ounter	- •QS	SL AG					
0	Rev O	Az 🔽				െം	160 1	test1 W9	OL Quixe	ote I	Veed5	0 SQL 29	SQL 30	160wa	as	une une	confrm	d 📕	special ta	9	Lot	W & cQ	SL AG				

Font color indicates "needed" DX stations

Background color indicates LotW and eQSL participation

# **Band Filter**

T Spot	Collector B	and Filter							
$\leftarrow$ $\rightarrow$	Tran	isceiver Band O	Inly			🔽 Enat	ole Start/End &	Max Origin DX F	Filtering
Band	Enable	Start UTC	End UTC	Max origin DX	Band	Enable	Start UTC	End UTC	Max origin DX
630m					8m				
160m	<b>V</b>	SS-30	SR+45		6m	$\checkmark$			500
80m		SS-60	SR+90		5m				
60m					4m				
40m	$\checkmark$				2m				
30m	$\checkmark$				1.25m				
20m	$\checkmark$				70cm				
17m	$\checkmark$				33cm				
15m	$\checkmark$				23cm				
12m	$\checkmark$				12cm				
10m	$\checkmark$				?				
Non	ie	Top l	Low	Tri Warc	HF	VHF		- Micro	All
	Sunrise & Sunrise UT	Sunset C 0935	Sunset	UTC 2349		<b>Ignore</b> ☐ Sta	art & End times	🥅 Max orig	in DX

# Mode Filter

🕆 SpotCo	llector Mo	de Filter						• 💌
SSB	Г АМ	I∏ FM		<b>▼</b> Cw	□ ccw	<b>₽</b> RTTY	□ ?	
□ Amtor	C AmtorFEC	∏ Ascii		∏ Hell	☐ FMHell	□ PSKHell	☐ Hell80	
∏ ATV	□ FAX	□ SSTV		□ HFSK	E PAX	□ PAX2		
□ Packet	Clover	□ GTOR		☐ Pactor	□ Pactor2	□ Pactor3	□ WINMOR	
₽ PSK31	I▼ PSK63	₽ PSK125	D PSK250	□ PSK63F	□ PSK220F		П МТ63	
D QPSK31	D QPSK63	D QPSK125	D QPSK250	D PSK10	D PSKFEC3	1	□ Q15	□ Q65
PSKAM10	E PSKAM31	□ PSKAM50		□ MFSK8	□ MFSK16	FSK31	□ FSK441	
□ Chip64	□ Chip128	□ ROS	□ Thor	□ DominoE×	□ DominoF		□ ALE	
∏ Olivia	□ Contestia	□ RTTYM	∏ Voi	∏ Throb	□ ThrobX	□ JS8	□ JT9	
□ JT44	∏ JT4A	□ JT4B	□ JT4C	∏ JT4D	□ JT4E	□ JT4F	□ JT4G	
I▼ FT4	□ FST4	I▼ FT8	□ WSPR	□ ЈТ6М	□ JT65	□ JT65A	□ JT65B	□ JT65C
	□ MSK144	C QRA64	D QRA64A	C QRA64B	C QRA64C	QRA64D	D QRA64E	
			None	All				

### **Propagation Forecasting**

<b>#9</b> 5	Spot	Collecto	or 7.6.6 @ 201	17-04-16	19:20 Z [	CC, DXK, E	DXV,PV,WW	] 8168 entrie	es (log: AA6	YQ.mdb)																	•	×
÷		SFI	<b>V 04-16 18</b>	05 Z	Outgoin Call	g spot —		14,085.0	Freq Clust	er O	sourc	e sta	tus D 🔴 (	D														
Q:	1	Α	6	1 К	Notes				X Loca	al Report	Sta	ts I	Prop Cor	nfig Help	)													
	Т	Need	Call	Prefix	Band	Mode	FirstTime	LastTime	Freq	QSX	Pri	CQ	IOTA	DXGrid	ODX	EU	AF	SA	NA-E	NA-M	NA-W	AS	OC	SP SNR	SP P	LP SNR	LP P	
			TA7I	TA	20M	CW	16 1919	16 1919	14,027.4			20		KM69	3830	Y								29	82	-40	1	Г
			HB20MDC	HB	20M	SSB	16 1915	16 1919	14,216.0			14		JN47	515			Y		Y				28	65	-62		
			HA7JIV	HA	30M	CW	16 1918	16 1919	10,138.0			15		JN97	3931	Y								13	55	-155		
			PY1TJ	PY	10M	CW	16 1914	16 1919	28,035.0		RJ	11		6687	4137			Y						-5	23	-56		
			N2MM	K	20M	CW	16 1911	16 1919	14,028.8		NJ	5		FM29	3727	Y								14	63	-103		
			CE7VPQ	CE	10M	SSB	16 1909	16 1919	28,445.0			12		FE33	4311			Y						15	41	-61		
			5K4R	HK	20M	SSB	16 1839	16 1919	14,214.0			9		FJ15	2304	Y		Y						35	92	-66		
			KM4TVU	K	20M	SSB	16 1919	16 1919	14,316.5		GA	5		EM73	3727	Y								43	86	-88		
		D	3YORY	3Y-B	20M	RTTY	16 1920	16 1920	14,085.0			38	AN-002	JD14	1	Y								11	52	-50		
			KC1YL	K	20M	SSB	16 1903	16 1920	14,315.0		CT	5		FN31	319	Y			Y					27	70	-73		
			HI8/KB1KK	HI	20M	RTTY	16 1920	16 1920	14,074.0			8		FK49	3830	Y								44	100	-82		
			8Q7VB	8Q	30M	CW	16 1717	16 1920	10,107.0	10,108.0		22	AS-013	MJ64	3486	Y							Y	-5	1	-117		
			PU2KOB	PY	10M	RTTY	16 1920	16 1920	28,076.0		SP	11		6657	1047				Y					-8	18	-63		
			V31MA	<b>V</b> 3	15M	C₩	16 1920	16 1920	21,004.1			- 7		EK57	2503						Y			37	91	-49		
																												-
_ S	ort –			r: Band	and Mod	e and O	rigin ——										- Cola	r co	des —									
C	Firs	t 🔿 0	Call		X	AH	Need	Call D	XCC Fre	eg   Tao		Band	Mode	Cont	0 rigir	1	ve	rified		unwrkd B	or M I							
	Las	et i O F	reg Audio	A de	Lofw e	USL Met									·	_		needed	- 2	unwrkd co	ounter	- 60	SLAG					
0	Re	v 0 4					ြင် <sup>s</sup> e _	160 t	est1 W9	OL Quixe	te M	leed5(	0 SQL 29	SQL 30	160wa	as	<u>un</u>	confrm	a 🗖	special ta	9	Lot	:W & e(	RSL AG				

On 80m through 10m, PropView's VOACAP engine computes

- Short path SNR and probability
- Long path SNR and probability

#### Needed DX on Selected Bands and Modes

<b>#9</b> S	potO	Collector 7.6.6	@ 201	17-04-16	19:25 Z [	CC,DXK,E	DXV,PV,WW	]6 entries (l	og: AA6YQ.	mdb)																		x
<b>⊢</b> Q:	→ 4	SFI 73 A 6	6 18 Hist	tory	Outgoin Call Notes	g spot —		14,085.0	Freq Cluste	er Spot	Source C ( Stal	e sta D C	tus D 🛑 ( Prop   Cor	<b>)</b> hfig Help														
	Т	Need Call		Prefix	Band	Mode	FirstTime	LastTime	Frea	QSX	Pri	CQ	IOTA	DXGrid	ODX	EU	AF	SALI	NA-E	NA-M	NA-W	AS			SP P	LP SNB	LP P	B
		D DS5U	6H	HL	30M	PSK63	14 1802	14 1802	10,140.9	4		25		PM47	4179	Y								-6	2	-112		
		D DS4A0	W	HL	30M	CW	15 1556	15 1714	10,108.0	10,109.0		25		PM47	3983	Y						Y		-7	1	-113		
		D DS4A0	W	HL	30M	CW	15 1819	15 1944	10,108.0	10,109.0		25		PM47	3539	Y		Y						-5	2	-111		
		S KC3BV	۲L	K	6M	SSB	16 1521	16 1606	50,280.0		PA	5		FN20	228				Y									
		D DS4A0	)W	HL	30M	RTTY	16 1613	16 1618	10,146.0			25		PM47	3444	Y								-5	3	-110		
		D 3YORY		3Y-B	20M	RTTY	16 1920	16 1920	14,085.0			38	AN-002	JD14	1	Y								11	52	-50		
																												_
	ort Firs Las Rov	t O Call st O Freq v O Az	Filte	ar: Band Age	and Mod	AH QSL MrtH	n CC	Unconfirme Call D 160 (	d DXCC, M4 0XCC Fre rest1 W9	erathon, V eq Tag OL Quixo	UCC, V	WAS] Band Jeed5(	Mode SQL 29	Cont	Origin 160wa	1	Colo Ver unr	rified needed confrmd		unwrkd B unwrkd co special ta	orM   punter   g	Lot cQ: Lot	V \$LAG V & cQS	LAG				

### Needed DX on Selected Bands and Modes spotted from NA-E

🙀 SpotCollector 7.6.6 @ 2017-04-16 19:26 Z [CC,DXK,DXV,PV,WW] 1 entries (log: AA6YQ.mdb)	- • •
WWV 04-16 1805 Z       Outgoing spot       Spot source status         SFI       73       History       Call       14,085.0 Freq       Cluster         Q:       1       A       6       1 K       Notes       X       Local	
Need Call Prefix Band Mode FirstTime LastTime Freq QSX Pri CQ IOTA DXGrid ODX EU AF SA NA-E NA-M NA-W AS OC SP SNR SP P LI	P SNR LP P Re
S KC3BVL K 6M SSB 16 1521 16 1606 50,280.0 PA 5 FN20 228 Y	
	► ►
Sort       Filter: Band and Mode and Origin and [Unconfirmed DXCC, Marathon, VUCC, WAS]       Color codes                First             Call             ALH             Need             Call             DXCC             Freq             Tag             Band             Mode             Cont             Origin             Audio             Age             LotW             eQSL             Mithn             Sc             To             Sc             Sc	

### Needed DX on Selected Bands & Modes with SP Prob > 50%

M SpotCollector 7.6.6 @ 2017-04-16 19:29 Z [CC,DXK,DXV,PV,WW] 1 entries (log: AA6YQ.mdb)	. • 💌
WWV 04-16 1805 Z       Outgoing spot         SFI       73       History         Q:       0       A       6       1 K         Notes       X       Local	
Need Call Prefix Band Mode FirstTime LastTime Freq QSX Pri CQ IOTA DXGrid ODX EU AF SA NA-E NA-M NA-W AS OC SP SNB SP LP S	NR LP P Re
D 3YURY 3Y-B 2UM RITY 16 1920 16 1920 14,085.0 38 AN-002 JD14 1 Y 11 52	-50
	)
Sort       Filter: SQL [Need50]            First         Call         Call         DXCC         Freq         Tag         Band         Mode         Cont         Origin         Audio         Age         LotW         eQSL         Mrthn         CS         160         test1         W90L         Quixote         Need50         SQL         29         SQL         30         160was         Ford         unconfrmd         special tag         LotW         keqSL         AG         LotW         LotW         keqSL         AG         LotW         L	

### Entries for K1JT modes show last SNR, max SNR, min SNR

💏 Spot	Collector	r 8.2.3 (	@ 2019-02-0	2 01:34 Z (	CC,DXK,DXV,PV	/] 26367	entries (lo	og: AA6YQ.mo	ib)																			3
	-ww	V 02-0	2 0005 Z 1	- Outaoin	a spot				- Spot so	urce statu:																	\utescrell	
$\leftarrow$ ] $\rightarrow$	SFI	72	History	Call		2	7.074.0	Frea Cluster	0 0	0 0		ò														K		H
		17		Notes					Banaul	Curl De	- L Canfin	1 44	- 1															
Q: U	A	16	4 K	motes							p coring		P															
	Need	Cat	Callsign	Prefix	Freq	Band	Mode	FirstTime	LastTime	Network	QSX	Pri	CQ	IOTA	DXGrid	Gr	ODX	Source	EU	AF SA	NA-E	NA-M	NA-W	AS 0	SNE	SNRMax	SNRMin	
		2	E760	E7	14,074.3	2014	FT8	01 1258	01 1841	WSJTX			15		JN93	S	0	AA6YQ	Y		Y				-8	3 14	- 22	
		2	IZ3VBM	I	14,074.9	20M	FT8	01 1801	01 1841	WSJTX			15		JN65	S	0	AA6YQ			Y		-		-10	-1	-16	
		2	EA7JZL	EA	14,074.8	20M	FT8	01 1841	01 1841	WSJTX			14		IM86	S	0	AA6YQ			Y	1			6	6	6	
		2	HKBUA	HK	14,075.1	20M	FT8	01 1841	01 1841	WSJTX			9		FJ45	S	3187	CT7AIU	Y						-			
		2	EA3CFV	EA	14,075.4	20M	FT8	01 1842	01 1842	WSJTX	3		14		IN80	S	3033	GD3YUM	Y			12	8					
	_	2	DK2BK	DL	14,074.4	20M	FT8	01 1834	01 1842	WSJTX			14		JN49	S	1	AA6YQ		Y	Y				-	-7	-7	
		2	JF2KOZ	JA	7,077.0	40M	JT65	01 1842	01 1842	CQDX			25		PM85	S	4729	UA3QNA-@	Y						1			
	М	0	<b>GD3YUM</b>	GD	14,075.4	20M	FT8	01 1834	01 1842	WSJTX			14	EU-116	1074	S	0	AA6YQ	Y		Y				- 2	2 4	-7	
		2	KE8ERH	K	14,075.2	20M	FT8	01 1829	01 1842	WSJTX		MI	4		EN83	S	1018	KK4RDI			Y	1			-			
		2	IU2EBQ	2 I	14,075.2	20M	FT8	01 1703	01 1842	WSJTX			15		JN45	S	0	AA6YQ			Y				- (	10	- 20	
		2	DJ5EJ	DL	14,075.4	20M	FT8	01 1841	01 1842	WSJTX	1		14		JN57	S	0	AA6YQ			Y	1	11-11		-10	-1	-10	
		2	SP2IQM	SP	14,074.2	20M	FT8	01 1815	01 1842	WSJTX	1		15		K002	S	6634	Z81D		Y	-	10						
		2	EA7KDR	EA	7,179.8	40M	SSB	01 1810	01 1843	K1TTT			14		IN80	S	3105	SP9MKG	Y	Y	18	l:	8 8	2	2	12 6		
		2	EASAOC	EA8	14,218.3	20M	SSB	01 1842	01 1843	EI7MRE	-		33	AF-004	IL27	S	730	N4WMB	Y		Y		5 - S		a			
		2	EA5WC	EA	10,136.7	30M	FT8	01 1843	01 1843	JH1RFM			14		IN80	D	4084	9A3GNG	Y						-			
		2	R4CI	UA	3,575.3	80M	FT8	01 1843	01 1843	JH1RFM		SA	16		L031	S	4463	UY5AX	Y									
	0	2	KX4FZ	K	14,075.1	2014	FT8	01 1843	01 1843	WSJTX	1	FL	5		EL87	S	0	AA6YQ			Y	1			- 9	-9	-9	
	i i	2	SV1MC	SV	14,075.0	20M	FT8	01 1841	01 1843	WSJTX	i î		20		KM17	S	0	AA6YQ			Y		Ĩ.		-17	-14	-23	
		2	N8AW	I K	14,075.3	20M	FT8	01 1801	01 1843	WSJTX		MI	4		EN82	S	1124	KW4IG	Y		Y		2					
	100	2	4U1WE	K	14,074.5	20M	FT8	01 1801	01 1844	WSJTX			5				901	NYØV	-			Y		-				
		2	EABCO	EA	14,260.0	20M	SSB	01 1752	01 1844	EI7MRE	9	8	14		IN80	S	42	AB2KL	Y		Y	1	3 3					-
1	1											• • • •				•+											•	
		4		S. 1997	10.11											100												
Sort			itter: Band	and Mode	and urigin —				1	10.		1	1		Color	code	s											
C First	C Ca	dl		×	AutoHide N	Veed	Call	DXCC F	req Ta	g Ban	d Mode	C	ont	Origin	📕 verifi	ied	📕 u	wrkd Bor M	LotW									
• Las	C Fre	eq	, , Aud	io Aae Lo	TW eQSL Mrthn	•.C					401				unne-	eded	📕 u	wrkd counter 🛛 🗖	eQSL /	G								
C Rev	C Az	+		Γ Γ		C <sup>S</sup> C	DX 160	DX 80 D	×40 DX	80 DX 2	0 DX 17	' D>	(15	DX 6	unco	nfrmd		ecial tag	LotW 8	QSL AG								
<u></u>				- 100 E	the true the																							
-																	-								1			-
																	Ent	rice last un	date	d burn								
									Entrios I	act undat	od by						Ent	nes last up	uale	a by n	iy			la	ast, max	amum, a	nd minin	num
									roporte f	rom WS	ITY						WS	JI-X сору	ng th	e stat	ion			9	SNRs re	ported b	y WSJT	-X

#### in a web browser from anywhere

←⇒C	n 🗋 dxlab/	spots							
8 iGoogle  🌺	DXLab 📑 Trus	ted QSL 📋 DX Sta	atus 🦛 Fo	liage					
SFI = 137, A	= 4, K = 2					DX Spots @ 5/1	2/2013 0615Z		50096.55 USB
Callsign	DXCC	Freq	Mode	Source	NAE	LastTime	Notes	DXCC Entity	Network
VU7KV	VU7	28,494.0	SSB	VK3SX		05-May-13 0508Z	Tnx fb signals VK3	Lakshadweep Islands	EI7MRE
UTKV	VU7	28,518.0	SSB	VK2DAG-@		05-May-13 0531Z	VK/ZL only	Lakshadweep Islands	CQDX
JU7KV	VU7	24,960.0	SSB	RUGL		05-May-13 0641Z	simplex	Lakshadweep Islands	VEIDX
7U7KV	VU7	24,960.0	SSB	F4FEP		05-May-13 1200Z	but bad grg grm here 970 NA	Lakshadweep Islands	EI7MRE
U7KV	VU7	24,950.0	SSB	K50A		05-May-13 1529Z	no copy my qth esp only	Lakshadweep Islands	VEIDX
U7KV	VU7	24,961.6	SSB	IWOHBY	Y	05-May-13 1707Z	nw strong	Lakshadweep Islands	EI7MRE
U7KV	VU7	24,962.0	SSB	W4QN	Y	05-May-13 1928Z	not VU7 he is QRT and on a boa	Lakshadweep Islands	VEIDX
51X	P5	21,030.0	CW	OH6PP-0		09-May-13 0927Z	correction call	DPRK (North Korea)	CQDX
K9NT	VK9-N	1,821.7	CW	KSUR		09-May-13 1111Z		Norfolk Is	CQDX
M2AX	9M2	1,831.5	CW	YC1COZ		09-May-13 1154Z	cd cd	West Malaysia	VE1DX
D8VHF/B	ZDS	50,032.5	CW	KITOL	Y	09-May-13 2124Z	weak, in/out>ME	Ascension Island	EI7MRE
K9NT	VK9-N	1,807.9	CW	JK7LXU		09-May-13 2154Z	UP1 599 TNX	Norfolk Is	JHIRFM
CICOZ	YB	1,806.5	CW	9M2AX		09-May-13 2232Z	cqng	Indonesia	EI7MRE
M2AX	9M2	1,831.5	CW	YC1COZ		09-May-13 2255Z	cq cq	West Malaysia	EI7MRE
DSVHF/B	ZDS	50,032.7	CW	N3DB	Y	10-May-13 2101Z	419 II22	Ascension Island	VEIDX
POL	UN	1,834.7	CW	RX9CAZ		11-May-13 2031Z	MN83	Kazakhstan	VE7CC
X2TQ	CX	50,115.0	SSB	N3DB	Y	11-May-13 2041Z	59 GF15	Uruguay	VELDX
X9AU	CX	50,110.0	CW	N3DB	Y	11-May-13 2045Z	S9 cw	Uruguay	EI7MRE
X2TQ	CX	50,110.0	SSB	K7BV	Y	11-May-13 2048Z	55 SSB	Uruguay	EI7MRE
UA9XU	CX	50,098.0	CW	K4QI-@	Y	11-May-13 2118Z	em85<>gf15 cqing 559	Uruguay	CQDX

### in a web browser from anywhere

A 🛱 🕅	MOTO	- HOLA 	11:	32 PM	
🕝 http	o://aa6yq	.dyndns			
				DX S	
Callsign	DXCC	Freq	Mode	Time	
and the second s	-		~	00077	
XV2RZ	3W	10114.0	CW	10367	
WZFJP/KH2	VP	1815 5	CW	11207	
VBSAUB	VP	1817 0	w	11237	
DS1PEE	HI	1823 0	CW	11277	
DO TREE	RV	3799 0	SSB	1158Z	
DI / KADAR	RIE	3501 0	CW	1213Z	
WH27	KH2	3796 5	SSB	1240Z	
XV2R7	3W	10113.0	CW	1313Z	
HSOZEE	HS	1818.5	CW	1326Z	
W2E IP/KH	KH2	3501.0	CW	1336Z	
W2EP/KH2	KH2	3501.0	CW	1336Z	
XV4D	JW	10118.0	SSB	1426Z	
XV4D	3W	10118.0	CW	1426Z	
BA4T	BY	3509.0	CW	1441Z	
DS1REE	HL	1823.0	CW	1517Z	
9V1VV	9V	3506.8	CW	1521Z	
XV4D	3W	10118.0	CW	1604Z	
W2FJP/KH	2 KH2	3501.0	CW	1932Z	
APZAA	AP	10103.0	CW	1957Z	
AP2AA	AP	10113.1	CW	2009Z	Section 1
JD1BIE	JD1-0	1823.2	CW	2051Z	Constant of
EKGTA	EK	3780.0	SSB	2107Z	
9K2MU	9K	1812.0	CW	2122Z	Contraction of the local division of the loc
T30IW	T30	1871.0	SSB	2236Z	
	_				
					The second

# Audio and Email Views of Active DX



# Audio and Email Views of Active DX

Creation of a new Active DX Database Entry for a needed DX station can trigger

- an audio announcement (callsign, "counter", band, mode)
- an outgoing email message (which can initiate a text message)



World Map

#### "Active DX on Selected Bands"



### Controlling the Map View

进 DXView Configura	ation				
General	Plot Settings	Rotator Co	ontrol Wor	ld Map 🔰 Ov	errides Databases
Selection	_		_		
<ul> <li>Spots</li> <li>✓ QSOs</li> <li>3 Lifetime (</li> </ul>	(hrs)			Log: A O QSO: O DXCC Entities	AGYQ.mdb Unworked Unconfirmed Confirmed Verified
	(110)				
<b>Scan DX Bands</b> <b>V</b> 160m 80m 60m	<b>▼ ▼  </b> 40m 30m 2	<b>⊽ ⊽</b> Om 17m	<b>▽ ▽ №</b> 15m 12m 1	<b>⊽ ⊡</b> 0m 6m 4m	□ □ ☑ 2 2m 70cm ann dwell
Band Filter	<b>▼ ▼  </b> 40m 30m 3	✔ <b>∀</b> 20m 17m	<b>▽ ▽ №</b> 15m 12m 1	<b>⊽ ⊡</b> 0m 6m 4m	2m 70cm ?
Cvr band only	Тор	Low	Tri Wa	rc VHF	None All
Mode Filter	TTY AM	<b>▼ ▼</b> FM ?	7		None All
Amtor Ascii A	▼ ▼ ATV Chip64	Clover FA	AX FSK31	FSK441 GTOR	
Hell HFSK J	✔ ▼ JT44 JT65	JT9 M	r IFSK8 MFSK16	I▼ I▼ MT63 Olivia	<b>I</b> Packel
Pactor Pactor2 F	Pactor3 PSK31	PSK63 PS	✓ 🔽 SK125 Q15	SSTV Throb	
Continent Filter				-	Nova 1 At 1
NA SA E	EU AF	AS O	IC AN	?	None All
Origin Filter           Image: Image of the second	V V NAW SA		F AS	♥ □ 0C ?	None All

### Controlling the Map View

📕 DXView Configuration				
General Plot	Settings Rotator	Control Wor	ld Map 🔰 Ov	errides Databases
Selection				
<ul> <li>G Spots</li> <li>✓ QSOs</li> <li>✓ 3 Lifetime (hrs)</li> </ul>			Log: A	AGYQ.mdb ✓ Unworked ✓ Unconfirmed ✓ Confirmed ✓ Verified
Scan DX Bands           I▼         I▼         I▼           160m         80m         60m         40	r <b>⊽ r⊽ r⊽</b> m 30m 20m 17m	<b>▼</b> ▼ F n 15m 12m 1	▼	□ □ ▼ 2 2m 70cm ann dwell
Band Filter F F F 160m 80m 60m 40 Xevr band only	n 30m 20m 17m Top Low	n 15m 12m 1	Om 6m 4m arc VHF	2m 70cm ? None All
SSB CW RTT	AM FM	?		None
Amtor Ascii ATV	Chip64 Clover	FAX FSK31	☑ ☑ FSK441 GTOR	
Hell HFSK JT44	V V JT65 JT9	MFSK8 MFSK16	MT63 Olivia	<b>I</b> ✓ Packel
Pactor Pactor2 Pactor	or3 PSK31 PSK63	♥ ♥ PSK125 Q15	SSTV Throb	
Continent Filter           Image: Continent Filter	AF AS	DC AN	□ ?	None
Origin Filter           Image: state stat	SA EU	AF AS	♥ □ 0C ?	None All

"160m"



### ScanDX

😲 DXView Ir	nfo 4.3.3	@ 201	17-04-1	.8 16:4	3:07 Z	[CC,S	C,PV]						• 🗙
- <mark>Search</mark> callsign	Go	DX pre	CC — fix	entit	y					ode	Ge m	oMag ax K	Ant 0
3YORY	3Y0RY         3Y-B ▼ Bouvet Island         ▼ 24         67         2									45			
Location @ 2017-04-18 16:43:07 local DXCC database Heading								90					
latitude	latitude         longitude         SP DX         cont         grid         CQ         ITU         short         long           55 25' 0" S         3 22' 0" F         9043 "         AF         ID14no         39         67         142         322								135				
location	location IOTA time zone 142 SP								12 SP	180			
Bouvet Isla	Bouvet Island AN-002 UTC SP LP									P LP	225		
- Special Ca	Special Callsign Tags									270			
											315		
C 3Y-B Progr	- 3Y-B Progress (AA6YQ.mdb)												
	160M	80M	40M	30M	20M	17M	15M	12M	10M	6M	2M		Comtley
PHONE			V		V	V	V	V	V				Spratiey
CW								V					Macao
DIGI													
PSK													
- Map					1								
World	Plo	E I I	ManO	lest	XL	ate	Sun	0BZ		SCLO	ck	Config	
Country Clear Google Scan DX DXCC Help								Park					

ScanDX



### "6m" on DX Atlas



### "6m" on Google Earth

S Google Earth	
<u>File E</u> dit <u>V</u> iew <u>T</u> ools <u>A</u> dd <u>H</u> elp	
	Sign in
North Sea     SMECKUT     Guil of Higa     TLSFL       North Sea     Pkattegat     Rigat     Rigat       Commark OZ1AXG     OZ0TFW     Rigat     Latvia       Commark OZ1AXG     OZ0TFW     Latvia     L2I       Commark OZ1AXG     OZ0TFW     Latvia     L2I       Commark OZ1AXG     OZ0TFW     Latvia     LY1R       Lithuania     Copenhagen     Lithuania       COXXR     C4AFS     OL5XJ     SP20B0	
Ancilizadu Alabk, Sigura Minak, Sigura Minak, Belarus Golgs Gabyk, GolHC PA1EP - G4GFI MoYMJ AmsterdamDK2YCT Berlin DD3SP SR5FHX/B - G0TSM ON4CLO PA5JS DH6DAO - G0TSM ON4CLO PA5JS DH6DAO - G0TSM ON4CLO PA5JS DH6DAO - Brussel Brussel DL4MFF DJ7UD DL1DTD SQ3MVD SPBAWL UX2IB USBAR	
Guerrisey GUBFBO F5DRD ONSTS SR8FHLIB Kieve UX SP2IQW SP2IQW EM7( F5JJA E4FSY Luxembourg DL2IAU Czech Republic OK2OV UX2XB DL6IAT OE2UKL OM5CD OM7PY	
Bay of Biscay F4BkV HB9COZ HB9SIX/B <sup>OE3XAC/B</sup> OM5EA OM5MZ F1/CSF5LNU F8EG HB9HLM Switzerland F4ELR F1GHX I2PJA S55DX HA3HX F1SJX F8EZE I2PJA PASC F4ELR F1GHX I2PJA PASC F73LM Buchavery 02MEU	a al Azat
Andorra Monaco IK5YOJ T77C Sarajevo E74A Serbia L22WO US Dept of State Geographer V 12II Madrid EB3DYS Italy 0,2013 Google Prishtina L24TU Balearic Sea	ogle earth
EASGRI EAGSA BIRPL Addata 4302216.80° Nº 170555194" Eª elev 813 ft <sup>An</sup> é	ye alt 1880.43 mi 🔘

### "12m" on Google Earth



# **Bandspread View of Active DX**



Bandspread

## Bandspread View of Active DX

Tox Commander		x
Range		
○1 ○5 ●10	C 25 C 50 C	100
14,000.0 Ŧ		_
14,084.0	W	
14,083.0	4 E76C	
14,082.0		
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14,080.0 HG7T -S58T IT9ST	тх ггэодх <mark>косни</mark>	
14,079.0 AB7R K4G	мн	
14,078.0 N4ZZ		
14,077.0 - VP9I		
14,076.0 Soga		
14 075 0 ± FG1PP		
Band		
160 80 60 40	) <u>30</u> <b>20</b>	17
15 12 10 6	4 2	.7
Spotcollector	Config	lelp



### **Flex Signature Radios**



### Icom 705, 7300, 7610, 7850, 7851, 9700



### Elecraft K4



### Interoperation with N2IC's Waterfall Bandmap



- Supports most SDRs
- RF or IF input
## **Propagation View of Active DX**



### **Propagation View of Active DX**



## WSJT-X View of Active DX



## WSJT-X View of Active DX

#### Log Database

Bite Configurations         Bite dubing         Bite dubing         Bite dubing         Display - 7 - 0.0 1979 TOD 077500 (000 000 000 000 000 000 000 000 000	ST-X	v2.0.0	by K1JT											
Little         Different         Researce           UTC         dB         DI         Freed         Message           UTC         dB         DI         Status         Transmitter           UTC         dB         DI         Freed         Message           UTC         DI         DI         Freed         Message           UTC         DI         DI         Freed         Message           UTS         DI         DI         Freed         Message           UTS         DI         DI         Freed         Message           U	File Confi	guration	is View Mod	de De	ecode Save Tools Help									
UTC     dB     UTC     dB     UTC     dB     UTC     dB       013300     -1     0.7     1577     -CO     VYSKY     FR60       013300     0     0.0     1380     -TO     1380     -TO     1380       013300     0     0.0     1380     -TO     1380     -TO     1380       013300     0     0.0     1380     -TO     1380     -TO       013300     0     0.0     2003     -TO     1380     -TO       013300     0     0.0     2003     -TO     1380     -TO       013300     -1     0.4     2557     -CO     1280     -TO       013930     -1     0.4     2557     -CO     1280     -TO       013935     -1     0.1     2507     -CO     1728     -TO       013935     -1     0.1     2507     -CO     1728     -TO       013935     -1     0.1     2507     -CO     1728     -TO       013945     -1     0.1     2507     -CO     1728     -TO       013945     -1     0.3     383     -CO     1201     -TO     -TO       013945     -1     0.				E	Band Activity						Rx Frequency			
013990       -0.7       0.7	UTC	dB	DT Freq	М	Message		UTC	dB	DT	Freq	Message			
013330       -10       0.0       <	012020		0.7 1077		NULTU FRO	*	013930	-22	-0.1	2072 ~	K470 LY3BG K02	4		
D13930 0 0.2 2003 - VUSHEN HEREE N-19 013930 - 20.01 2012 - CK20 LV386, K004 013930 - 20.01 2045 - CK20 LV386, K004 013930 - 10 0.1 2045 - CK20 LV386, K004 013930 - 10 0.1 2045 - CK10 HEREE NE19 013935 - 11 0.0 2045 - CV10850V L27F 8-22 013935 - 11 0.0 204 - CV10850V L27F 8-22 013935 - 11 0.2 139 - LASSJ WBSVCJ F038 013935 - 10 0.2 163 - CV10850V L27F 8-22 013935 - 10 0.2 163 - CV10850V L27F 8-23 013935 - 10 0.2 159 - LASSJ WBSVCJ F038 013935 - 10 0.2 159 - WERK WCGU F03 013935 - 10 0.2 159 - WBSFW WCGU F03 013935 - 10 0.2 159 - VEIG&WCGU F37 014000 - 10 0.1 139 - VWERK WASTJ F049 014000 - 10 0.1 139 - VWERK WASTJ F049 014000 - 10 0.0 139 - VWERK WASTJ F049 01400 - 10 0.0 139 - VWERK WAS	013930	-11	0.0 1930	~ 0	CO EA1CDV IN80		014018	Tx	0.1	715 ~	LY3BG AA6YQ -2	2		
D13930 - 22 - 0-1 2072 - EXC LISBG-R024 013930 - 20 0.1 2495 - RATIX YEAR FRIG 013930 - 20 0.1 2495 - RATIX YEAR FRIG 013935 - 20 0.1 2495 - RATIX YEAR FRIG 013935 - 20 0.1 2495 - CHERK FORD TO 3 013935 - 10 0.0 2595 - CO HERCE FORD TO 3 013935 - 11 0.8 22 - CO HERCE FORD TO 3 013935 - 10 0.1 249 - RATIX YEAR FRIG 013935 - 10 0.2 139 - RATIX YEAR FRIG 013935 - 10 0.2 129 - RATIK YEAR FRIG 013935 - 10 0.0 129 - RATIK YEAR FRIG 01395 - 10 0.0 12	013930	0	0.2 2003	~ V	VU3WEW HK3EU R-19									
Disso - 0 - 0 - 0 - 0 - 0 - 0 - 0 - 0 - 0 -	013930	-22	-0.1 2072	~ K	ANZO LYBE KO24									
D13930 12 0 0.4 2972 - CQ HSSDR YRL0 D13930 12 0 0.2 2955 - MADER KOGUT 13 D13930 -14 0.0 2266 - VUSEY L22FF R-22 D13945 -12 0.1 200 - CQ HKLT FH42 D13945 -14 0.0 2266 - VUSEY L22FF R-22 D13945 -15 0.2 501 - CQ HKLT FH42 D13945 -15 0.2 501 - CQ HKLT FH42 D13945 -15 0.2 501 - CQ HKLT FH42 D13945 -16 1.5 1395 - L22FU XVSK -15 D13945 -16 0.3 151 - KH20 FH42 D13945 -16 0.3 151 - KH20 FH42 D13945 -16 0.3 151 - KH20 FH42 D13945 -16 0.1 226 - VUSK -15 D13945 -17 0.3 165 - KG0V D1384 -20 D13945 -16 0.1 226 - VUSK -15 D13945 -16 0.1 226 - KH20 FH42 D13945 -10 0.1 256 - CQ T28JFR J085 D13945 -14 0.6 227 - KASUW XVSK -15 D13945 -10 0.1 256 - COOB FASIKK XVS D13945 -10 0.1 256 - KOOB FASIKK XVS D13945 -10 0.1 256 - KOOB FASIKK XVS D13945 -10 0.1 256 - KUSK XVSK -10 D13945 -10 0.1 256 - KUSK XVSK -10 D13945 -10 0.1 256 - KUSK XVSK -10 D13945 -10 0.1 256 - KUSK XVSK -10 D13000 -10 0.0 123 - KUSK XVSK XVS D13000 -10 0.0 123 - KUSK XVSK XVS VVSK XKASV XVSK XVS XVS D13000 -10 0.0 123 - KUSK XVS VVSK XKA	013930	-20	0.1 2496	~ K	KR7DX W3KX FM19									
D13930 12 0.2 265 - AD6FR K00D1*3 D13930 12 0.2 206 - C0 NUIT FY2 D1395 - 2 0.1 200 - C0 NUIT FY2 D1395 - 2 0.1 200 - C0 NUIT FY2 D1395 - 2 0.2 106 - W1JF RY42 D1395 - 10 0.2 1319 - AASJ M99YGJ D23 D1395 - 10 0.2 136 - BASK V006 H P00 D1395 - 10 0.1 236 - M65YG 04: 20 D1395 - 10 0.1 236 - M65YG 04: 20 D1395 - 10 0.1 236 - M05T KN2 D1395 - 10 0.1 236 - M05T KN2 D1395 - 10 0.1 236 - M05T KN2 D1395 - 10 0.1 236 - W12FK NOR D1395 - 10 0.1 236 - W12FK NOR D14000 - 10 0.1 230 - W12FK NOR D14000 - 0.1	013930	-10	0.4 2572	~ C	CO N5SDR EM10									
D13930 -14 0.0 2200 - WOREN 422F RX-42 D3385 -11 -1.0 552 - C0 WIX-0F 7025 D3385 -11 -1.0 552 - C0 WIX-0F 7025 D3385 -11 1.8 720 - C0 WIX-0F 9125 D3385 -16 1.5 1395 - L22U VISEO -15 D1395 -16 1.5 1395 - L22U VISEO -15 D1395 - 70 .3 1551 - WARDS VER34R, -20 D1395 - 70 .1 2752 - UT602 WINN R2-21 D1395 - 70 .1 2752 - UT602 WINN R2-20 D14000 - 60 .1 201 - NUIT IRIGEY JHSS D14000 - 60 .1 201 - NUIT IRIGEY JHSS D14000 - 60 .1 201 - NUIT IRIGEY JHSS D14000 - 10 .0 791 - KAICON IRSB - 06 D14000 - 10 .0 1354 - WINNE WARDS -06 D14000 - 0 .0 2005 - WINNE WARDS -10 UWARD - WARDS -00 D14000 - 7 -0 .0 2277 - C0 CHARDS -10 UWARD - WARDS -10 D14000 - 7 -0 .0 2777 - C0 CHARDS -10 WARD - WARDS -10 D14000 - 7 -0 .0 2777 - C0 CHARDS -10 WARD - WARDS -10 UWARD - WARDS -10 UWARD - WARDS -10 WARD - WARDS -10 WARDS - WARDS -10 WARD - WARDS -10 WARDS	013930	12	0.2 2695	~ A	AD6FR KOGDI 73									
D13945 -1 -1 -0 -52 - C Q UIT FN2 D13945 -1 -1 -0 -52 - C Q UITGE V125 D13945 -2 -0.8 1106 - W13PE WF4AZ R&R D13945 -2 -0.8 1106 - W13PE WF4AZ R&R D13945 -1 -0 -2 1315 - AA93J W99VG P234 D13945 -1 -0 -3 1545 - W 270 Y 189VG P23 D13945 -1 -0 -3 1545 - W 270 Y 189VG P23 D13945 -1 -0 -3 1545 - W 270 Y 189 Y 189 D13945 -1 -0 -3 1545 - W 270 Y 189 Y 20 D13945 -1 -0 -3 1545 - W 270 Y 189 Y 20 D13945 -1 -0 -3 1545 - W 270 Y 189 Y 20 D13945 -1 -0 -3 1545 - W 270 Y 189 Y 20 D13945 -1 -0 -3 1545 - W 270 Y 189 Y 20 D13945 -1 -0 -3 1546 - W 270 Y 189 Y 20 D13945 -1 -0 -3 1546 - W 270 Y 189 Y 20 D13945 -1 -0 -3 1546 - W 270 Y 189 Y 20 D13945 -1 -0 -3 1546 - W 270 Y 189 Y 20 D13945 -1 -0 -3 1546 - W 270 Y 189 Y 20 D13945 -1 -0 -3 1546 - W 270 Y 189 Y 20 D13945 -1 -0 -3 1546 - W 270 Y 189 Y 20 D13945 -1 -0 -3 1546 - W 270 Y 189 Y 20 D13945 -1 -0 -0 1236 - W 20 Y 189 Y 20 D13945 -1 -0 -0 1236 - W 20 Y 189 Y 20 D14000 -6 0 -1 20 - W 102 Y 1109 W 189 D14000 -6 0 -1 20 - Y 11 - W 20 Y 189 Y 189 Y 20 D14000 -6 0 -1 20 Y 1 - W 20 Y 189 Y 20 D14000 -1 0 -5 1718 - W 216 W 000 Y 78 0 D14000 - 0 -5 1718 - W 216 W 000 Y 78 0 D14000 - 0 -5 1718 - W 216 W 000 Y 78 0 D14000 - 0 -0 1235 - C Q CW2RY K189 D14000 - 0 -0 1235 - C Q CW2RY K189 D14000 - 0 -0 2207 - C Q CEATD 377 6 D14000 - 0 -0 2207 - C Q CEATD 377 6 D14000 - 0 -0 2207 - C Q CEATD 377 6 D14000 - 0 -0 2207 - C Q CEATD 377 6 D14000 - 0 -0 2207 - C Q CEATD 377 6 D14000 - 0 -0 2207 - C Q CEATD 377 6 D14000 - 0 -0 2207 - C Q CEATD 377 6 D140000 -0 2277 - C Q C CEATD 377 6 D140000 -0 2277 - C Q C CEATD 377 6 D140000 -0 2277 - C Q C CEATD 377 6 D140000 -0 2277 - C Q C CEATD 377 6 D140000 -0 2277 - C Q C CEATD 377 6 D140000 -0 2277 - C Q C CEATD 377 6 D140000 -0 2277 - C Q C CEATD 377 6 D140000 -0 2277 - C Q C CEATD 377 6 D140000 -0 2277 - C Q C CEATD 377 6 D140000 -0 2277 - C Q C C CEATD 377 6 D14000 -0 2277 - C Q C C C C C W W W W W W W W W W W W W	013930	-19	0.0 2806	~ V	VUSESV LZZEP R-ZZ									
D13945 -11 -1.0 522 - CQ UBGOUC 5725 D13945 -13 1.0 720 - CQ UBGOUC MAPS D13945 -2 0.2 3112 - CANNON VET 73 D13945 -2 0.3 1162 - CANNON VET 73 D13945 -1 0.2 1352 - L22TU VESKS - 30 D13945 -3 0.2 355 - C 0.3 163 - L22TU VESKS - 30 D13945 -6 -0.3 163 - U22TU VESKS - 30 D13945 -6 -0.3 163 - U22TE VESKS - 30 D13945 -6 -0.3 163 - U22TE VESKS - 30 D13945 -6 -0.3 163 - CKREY OKTOR - 24 D13945 -6 -0.3 163 - U22TE VESKS - 30 D13945 -7 -0.0 123 - U27TK - 20 D13945 -6 -0.3 163 - KCGREB KDLEFS RAR D13945 -7 -0.0 123 - UTFOR XKST X070 D13945 -7 0.1 2752 - VESKST X174 - 20 D14000 -10 0.0 123 - VUSSKY X22F R-32 D14000 -10 0.0 123 - VUSSKY X22F R-32 D14000 -10 0.0 1233 - VUSSKY X22F R-32 D14000 -10 0.0 1235 - VUSSKY X22F R-32	013945	-2	0.1 200	~ C	CQ NUIT FN42									
D13955 -11 1.5 720 - CQ NIFER NEAR D13955 -10 0.2 102 - CQ NIFER NEAR D13955 -20 0.2 102 - CANNON VET 73 834 D13955 -10 0.2 102 - CANNON VET 73 834 D13955 -10 0.2 103 - LIZET VISION -10 D13955 -10 0.3 1745 - VISION R22 D13955 -0 0.3 1745 - URGAN XVSVER P.22 D13955 -0 0.1 1853 - CQ LIZENER NEA D13955 -10 0.1 1853 - CQ LIZENER NEA D13955 -10 0.1 1853 - CQ LIZENER NEA D13955 -10 0.1 1255 - LIZET VISION R24 D13955 -10 0.1 1255 - CHARRA VISION R24 D14000 -10 0.0 721 - RAIGON VISION R24 D14000 -10 0.0 721 - RAIGON VISION R24 D14000 -10 0.0 721 - RAIGON VISION R24 D14000 -10 0.0 1233 - VISION LIZET R32 D14000 -10 0.0 1235 -	013945	-11	-1.0 542	~ 0	CQ HK6JCF FJ25									
013935 2 -0.5 1102 - WAURE NEARING NEA	013945	-11	1.8 720	~ 0	CQ IU8GUC JM89									
D13945 2 0.3 1192 - CANDON VET 73 D13945 -16 0.2 139 - AASSJ WBYG IN34 D13945 -16 0.3 1741 - AASSJ WBYG IN34 D13945 -6 0.3 1744 - 20 D13945 -6 0.1 1863 - VOTOBA WASVOE R-24 D13945 -6 0.6 2272 - KOBER SR RAKES D13945 -6 0.6 2272 - KESKR COBE 0 D13945 -7 0.1 2152 - VIECZ VINCE VIECZ D13945 -0.6 2272 - VIECZ VINCE VIECZ D13945 -0.6 2272 - VIECZ VINCE VIECZ D14000 -6 0.1 201 - NUTI IKICKY JN45 D14000 -6 0.1 201 - NUTI KICKY JN45 D14000 -6 0.1 201 - NUTI KICKY JN45 D14000 -1 0.0 2159 - VIECZ VINCE VIECZ D14000 -1 0.0 1259 - VIECZ VINCE VIECZ D14000 -0 0.0 1259 - VIECZ VINCE VIECZ D14000 -0 0.0 1259 - VIECZ VIECZ VIECZ D14000 -0 0.0 1259 - VIECZ VIECZ VIECZ D14000 -0 0.0 1259 - VIECZ VIECZ VIECZ D14000 -0 0.0 205 - VIECZ VIECZ VIECZ D14000 -0 0.0 205 - VIECZ VI	013945	2	-0.8 1106	~ W	W4JPG WP4AZT RRR									
D13945 -11 0.2 1319 ~ AA53 M89/G2 DX34 D13945 -15 -0.3 165 ~ C220 T X805 -15 D13945 -0.0 1513 ~ C2 T 20TA 7869 D13945 -0.0 1513 ~ C7 T 20TA 7869 D13945 -0.0 1513 ~ SER R R D13945 -0.0 1513 ~ SER R R D13945 -0.0 1513 ~ SER R R D13945 -0.0 1215 ~ KCeBB RBIEFS RR D13945 -0.0 1215 ~ CH2RY ORLER V070 D13945 -0.0 1196 ~ KCH2RY ORLER V070 D14000 -0.0 791 ~ KALCON KBR 702 D14000 -0.0 791 ~ KALCON KBR -0.6 D14000 -0.0 1196 ~ KTHNE 1227 R-22 D14000 -0.0 1295 ~ K400M KL227 R-22 D14000 -0.0 207 ~ LAFSYR RA46 -10 D14000 -0.0 1295 ~ K400M KL227 R-22 D1400 ~ C0 -0.0 207 ~ LAFSYR RA46 -10 D14000 -0.0 208 ~ K024 Rx 715 Hz ~ M04 TX Free MUSE AA600 RH22 ~ K21 V386 AA600 RH22 ~ K22 V386 AA600 RH22 ~ K	013945	2	0.3 1182	~ C	CANNON VET 73									
C13945 - 10.3       LCSD       MGOVO GELMERA - 20         0139450.3       1653 - CQ       CQ T280FR JNB9         0139450.3       1163 - DKTORA JNB9         0139450.3       11100A       WASSVGI R-24         0139450.3       11100A       WASSVGI R-24         0139450.6       272 - EASHRY CORED       FLAGA RAVER R-22         013945 - 10.6       212 - EASHRY CORED       FLAGA RAVER R-24         013945 - 21.0.1       12556 - CHARRY CORED       900         013945 - 21.0.1       2156 - CHARRY CORED       900         013945 - 21.0.1       2556 - CHARRY CORED       900         014000 - 10.0       12556 - CHARRY CORED       900         014000 - 10.0       151 - VEDSIK KINX DM22         014000 - 10.0       1233 - VUDESY KIX BM22         014000 - 10.0       1233 - VUDESY KIX BM22         014000 - 10.0       1233 - CQ         014000 - 7.0.0       1235 - CQ </td <td>013945</td> <td>-11</td> <td>0.2 1319</td> <td>~ A</td> <td>AA95J WB9VGJ DM34</td> <td></td> <td>M</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	013945	-11	0.2 1319	~ A	AA95J WB9VGJ DM34		M							
013945 0.3 1744 - EA4GA AFXIR 8-22 013945 - 8 - 0.0 1813 - DNTDBA WASYGE R-24 013945 - 0.6 2272 - EASHEV COROS +00 013945 - 0.6 2272 - EASHEV COROS +00 013945 - 0.6 2272 - UTECU RUNP EM90 014000 - 6 0.1 201 - NULT IKIGEY JN45 014000 - 10 0.0 791 - KAIJGO NSB -05 014000 - 10 0.0 1233 - VULSEY L22FB -22 014000 - 10 0.1 233 - VULSEY L22FB -22 014000 - 10 0.1 259 - VEIGG MOUT 73 014000 - 10 0.1 259 - VEIGG MOUT 73 014000 - 10 0.2 2007 - AB98P YV59V -14 014000 - 10 0.2 2007 - AB98P YV59V -14 014000 - 10 0.2 2007 - CQ 0EAICDY IN80 104000 - 7 - 0.0 2677 - CQ 0EAICDY IN80 104000 - 10 0.2 2007 - CQ 0	013945	-10	-0.3 1551	~ M	M6JVJ OE1MKA -20			"N	eede	d" callsio	ns			
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D13945 - 5 - 0.0 1883 - KGEMB VAAVGI K-24 D13945 - 0.1 1883 - KGEMB KRIEFS RRR D13945 - 0.6 2272 - EASBRY COOOB +00 D13945 - 0.6 2272 - UTGUZ KUDP EM90 014000 - 6 0.1 201 - NUIT KLGEV JN45 D14000 - 6 0.1 201 - NUTK JSSTV M7X - 20 D14000 - 10 0.0 1136 - NTHKS JSSTV JN22 D14000 - 10 0.0 1136 - VUSSTV JZ2P R-22 D14000 - 0.0 1136 - VUSSTV JZ2P R-22 D14000 - 0.0 1135 - NTHKS JSSTV - 14 D14000 - 5 0.0 1136 - C Q EASTHY / IN99 D14000 - 6 0.4 2572 - KSDN VSSDV - 14 D14000 - 7 0.4 2572 - KSDN VSSDV - 14 D14000 - 7 0.0 2677 - C Q OFGATD JN76 TX reven/lst TX reven/lst TX reven/lst D14000 - 7 0.0 2677 - C Q OFGATD JN76 TX reven/lst D14000 - 7 0.0 2677 - C Q OFGATD JN76 TX reven/lst D14000 - 7 0.0 2677 - C Q OFGATD JN76 TX reven/lst D14000 - 7 0.0 2677 - C Q OFGATD JN76 TX reven/lst D14000 - 7 0.0 2677 - C Q OFGATD JN76 TX reven/lst D14000 - 7 0.0 2677 - C Q OFGATD JN76 TX reven/lst D14000 - 7 0.0 2677 - C Q OFGATD JN76 TX reven/lst D14000 - 7 0.0 2677 - C Q OFGATD JN76 TX reven/lst D14000 - 7 0.0 2677 - C Q OFGATD JN76 TX reven/lst D14000 - 7 0.0 2677 - C Q OFGATD JN76 TX reven/lst D14000 - 7 0.0 2677 - C Q OFGATD JN76 TX reven/lst D14000 - 7 0.0 2677 - C Q OFGATD JN76 TX reven/lst D14000 - 7 0.0 2677 - C Q OFGATD JN76 TX reven/lst D14000 - 7 0.0 2677 - C Q OFGATD JN76 TX reven/lst D14000 - 7 0.0 2677 - C Q OFGATD JN76 TX reven/lst D14000 - 7 0.0 2677 - C Q OFGATD JN76 TX reven/lst D14000 - 7 0.0 2677 - C Q OFGATD JN76 TX reven/lst D14000 - 7 0.0 2677 - C Q OFGATD JN76 TX reven/lst D14000 - 7 0.0 2677 - C Q OFGATD JN76 TX reven/lst C Z Z O TX	013945	-6	-0.3 1744	~ E	EA4GA AF5VR R-22		1							
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013945 -21 0.1 255 ~ CH2RSY CAUNE EM90 013945 -21 0.1 255 ~ CH2RSY CAUNE EM90 014000 -6 0.1 201 ~ NUIT IKIGEY JN45 014000 -1 0.0 791 ~ KAISOO N5RB -06 014000 -1 0.0 791 ~ KAISOO N5RB -06 014000 -1 0.0 791 ~ KAISOO N5RB -06 014000 -1 0.0 195 ~ NTIKS 395FR -02 014000 -15 -0.0 1196 ~ NTIKS 395FR -02 014000 -16 0.1 8165 ~ WIFDR YUSAUF ISS 014000 -5 0.7 1877 ~ ABSRP YY52V -14 014000 -5 0.7 1877 ~ ABSRP YY52V -14 014000 -5 0.4 2572 ~ K50M WRSDR -10 014000 -7 -0.0 2677 ~ CQ CEATD JN76 ~ " CQ only Log 250 Stop Monto Traveven/st 014000 -7 -0.0 2677 ~ CQ OEGATD JN76 ~ " CQ only Log 250 Stop Monto Traveven/st 014000 -7 -0.0 2677 ~ CQ OEGATD JN76 ~ " CQ only Log 250 Stop Monto Traveven/st 014000 -7 -0.0 2677 ~ CQ OEGATD JN76 ~ " 10500 -7 -0.0 2677 ~ CQ OEGAT	013945	-4	-0.6 2272	~ E	EASHRV COBOB +00	//								
01390       011       2010       NUTI       End         014000       -6       0.1       201       NUTI       IKIGEX       VISSY WYXA       20         014000       14       0.1       571       WD53K KR7DK ND22       014000       14       0.1       571       WD53K WYXA       20         014000       1.0       0.7       1.5       71       KD53K KR7DK ND32       VISSY WYXA       20         014000       1.0       0.7       1.5       71       KD53K KR7DK ND33       VISSY NT83         014000       -10       0.1233       VUSSEV L25FP R-22       21       21400       1.0       1.25       XAANNR L22FU       -22         014000       -16       1.65       NFST WS33       KK60       11400       1.6       1.55       VELGE WOQU 73         014000       -16       -18       1.55       WFST KK60       1.4 <td>013945</td> <td>-21</td> <td>0.1 2556</td> <td>~ 0</td> <td>CM2RSV OK4FX JO70</td> <td>///</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	013945	-21	0.1 2556	~ 0	CM2RSV OK4FX JO70	///								
014000 -6 0.1 201 ~ W11T KK1EEY JN45 014000 -14 0.1 571 ~ WD5JK KRTDK DK22 014000 -14 0.1 571 ~ WD5JK KRTDK DK22 014000 -2 -0.2 891 ~ COOGB EASHRY 1999 014000 -2 -0.2 891 ~ COOGB EASHRY 1999 014000 -2 -0.2 891 ~ COOGB EASHRY 1999 014000 -10 0.0 123 ~ VUJSEY L22F R-22 014000 -0 1.8 165 ~ WFICK SUBJEK 2.22 P R-22 014000 -10 0.0 1589 ~ VEIGE WOQU 73/ 014000 -16 -0.1 5175 ~ KR4TDK L22U -22 014000 -1 .8 1655 ~ WFICK WYSAJY FK60 014000 -5 0.0 1930 ~ CO EALCDY 1N80 014000 -5 0.0 1930 ~ CO EALCDY 1N80 014000 -6 0.4 2572 ~ K9DN NS5DR -10 014000 -7 -0.0 2677 ~ CO CEARD JN76 CQ only Log 050 Stop Barutor Erase Decode 10057 Balt Tx Turne V Menus 40m • S 7.074 000 TX 715 Hz & Hold Tx Freq Lods No Keal DX Grid Rx 715 Hz & Kalv Now 1 X vern/1st 0 Lodup Add V Auto Seq Call 1st 1 V386 AA6VQ 73 • Tx 5 2019 Feb 01 01:40:44					40m									
014000 8 0 4 501 ~ VE3SSV WYX -20 014000 -1 0.0 791 ~ KAIGCO NSB -06 014000 -2 0.2 891 ~ COORD EASHRY TM99 014000 -6 0.6 1030 ~ KR1NX ZZEV R-22 014000 -10 0.0 1233 ~ VV3SSV TZZEP R-22 014000 -10 0.0 1233 ~ VV3SSV TZZEP R-22 014000 -16 -0.5 1745 ~ AFSVR EA4GA -10 014000 -6 0.4 1595 ~ VK1GR ND2 73 014000 -6 0.4 1595 ~ KV1GR ND2 FK60 014000 -6 0.4 2572 ~ KSDN NSSDR -10 014000 -6 0.4 2572 ~ KSDN NSSDR -10 014000 -6 0.4 2572 ~ KSDN NSSDR -10 014000 -7 -0.0 2677 ~ CQ OEGATD JN76 CQ only Log QSO Stop Bontor Tx even/1st 00 CQ only Log QSO Stop Bontor Tx even/1st 01 COOL 2003 ~ VV3KEN KASU R-19 014000 -6 0.4 2572 ~ KSDN NSSDR -10 014000 -7 0.0 2677 ~ CQ OEGATD JN76 V SO 7.074 000 TX 715 Hz Hold Tx Freq 01 COOL 2003 ~ VV3KEN KASU R-19 01400 TX 715 Hz Hold Tx Freq 01 COOL 2003 ~ VV3KEN KASU R-19 01400 TX 715 Hz Hold Tx Freq 01 COOL 2003 ~ VV3KEN KASU R-19 01400 TX 715 Hz Hold Tx Freq 01 COOL 2003 ~ VV3KEN KASU R-19 01400 TX 715 Hz Hold Tx Freq 01 COOL 2003 ~ VV3KEN KASU R-19 01400 TX 715 Hz Mold Tx Freq 01 COOL 2003 ~ VV3KEN KASU R-19 01400 TX 715 Hz Mold Tx Freq 01 COOL 2003 ~ VV3KEN KASU R-19 01400 TX 715 Hz Mald TX Freq 01 COOL 2003 ~ VV3KEN KASU R-19 01400 TX 715 Hz Mald TX Freq 02019 Feb 01 01:40:44	014000	-6	0.1 201	~ N	NUIT IKIGEY JN45									
014000       -1       0.0       791       ×       KALGOO NSRB -06'         014000       2       0.2       891       ×       COROB EASHRY 1149         014000       -1       0.1       791       ×       KALGOO NSRB -06'         014000       -1       0.1       191       ×       KALGOO NSRB -06'         014000       -10       0.1       7       VU355V 122FP R-22         014000       -0       1.55       ~       VU355V 122FP R-22         014000       -6       1.8       1655       ~         014000       -6       1.8       1655       ~         014000       -6       1.8       1655       ~         014000       -6       1.8       1055       ~         014000       -6       1.8       1055       ~         014000       -6       1.8       1055       ~       10500         014000       -7       -0.0       2077       ~       CQ CHARSV ELB3         014000       -7       -0.0       2677       ~       CQ OEGAED JN76         014000       -7       -0.0       2677       ~       CQ OEGAED JN76         014000       -	014000	-14	0.4 501	~ V	VE3SSV W7YA -20									
014000 2 -0.2 891 ~ CO805 EASERV_TM99 014000 -15 -0.1 136 ~ WTINS 395F -02 014000 -15 -0.1 136 ~ WTINS 395F -02 014000 -10 0.1 233 ~ WTINS 22FP R-22 014000 -0 0.1 233 ~ WTINS 22FP R-22 014000 -10 0.1 589 ~ WEIG WOUT 7/ 014000 -16 -0.5 1745 ~ AFSVR EA4GA -10 014000 -16 -0.5 1745 ~ AFSVR EA4GA -10 014000 -5 0.0 1330 ~ CO EAICDV IN80 014000 -5 0.0 1330 ~ CO EAICDV IN80 014000 -5 0.0 1330 ~ CO EAICDV IN80 014000 -7 -0.0 2577 ~ CO CHARSY EL83 014000 -7 -0.0 2577 ~ CO CHARSY EL83 01400 -7 -0.0 2577 ~ CO CHARSY EL83 0140	014000	-1	0.0 791	~ K	KA1GOO N5RB -06									
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014000       -13       0.0       1233       ×       VU32SV 122P R-22         014000       -7       0.4       1395       ×       VU32SV 122P R-22         014000       -7       0.4       1395       ×       VU32SV 122P R-22         014000       -6       1.8       1655       ×       W1FDR VV52U -24         014000       -6       -0.5       1755       ×       XFSR 24454       10         014000       -8       0.7       1877       ×       AB9RP VV52V - 14       01         014000       -8       0.7       1877       ×       AB9RP VV52V - 14       01         014000       -8       0.7       1877       ×       AB9RP VV52V - 14       01         014000       -7       0.0       2033       ×       VU3BSW HX52R       1.0         014000       -7       -0.0       2677        CQ       CM CR8V E183       01         014000       -7       -0.0       2677        CQ       CEGAED JN76       IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	014000	-6	-0.6 1030	~ K	KB1HNZ IZ5MXA JN53									
014000 -7 0.4 1395 ~ KN4JNR L22TU -22 014000 10 0.0 1585 ~ KN4JNR L22TU -22 014000 -6 1.8 1655 ~ W1FDR YV5AJT FK60 014000 -6 0.7 1677 ~ AB9RP YV5ZU -14 014000 -5 0.0 1330 ~ CQ EALCDV IN80 014000 -7 -0.0 2677 ~ CQ CEALDV IN80 014000 -7 -0.0 2677 ~ CQ OEGATD JN76 CQ only Log QSO Stop Bontor Frase Decode Culor Halt Tx Tune Menus 40m • S 7.074 000 Tx rvter/ist 014000 Tx rvter/ist 01400 Tx 715 Hz + Hold Tx Freq 1036 AA67Q FH42 1138 AA6	014000	-10	0.0 1233	~ V	VUSESV LZ2FP R-22									
014000 10 0.0 159 ~ VEIGG WOQU 73/ 014000 -6 1.8 1655 ~ WIFDG VVSAJY FK60 014000 -5 0.0 1930 ~ CO EAICDV TK60 014000 -5 0.0 1930 ~ CO EAICDV TN80 014000 -7 -0.7 2315 ~ CO EAICDV TN80 014000 -7 -0.7 2315 ~ CO EAICDV TN80 014000 -7 -0.7 2315 ~ CO EAICDV TR80 014000 -7 -0.0 2677 ~ CO EAEAD JN76 C Q only Log QSO Stop Montor Ersee Decode Dubst Hast Tx Tune V Menus 40m • S 7.074 000 Tx 715 Hz Hold Tx Freq 0 X Call DX Crid X 715 Hz Hold Tx Freq 1 Balt Tx Tx 1 Hz Hold Tx Freq 0 X Call DX Crid X 715 Hz C Tx 1 Hz C Tx	014000	-7	0.4 1395	~ K	KM4JNR LZ2FU -22									
014000 -6 -0.5 1745 ~ AFSYR EA4GK -10 014000 -8 0.7 1877 ~ ABSYR EA4GK -10 014000 -8 0.7 1877 ~ ABSYR YY5ZY -14 014000 4 0.2 2003 ~ (VISWEM HK3EU R-19 014000 7 -0.7 2015 ~ (Q CKREV LL3S 014000 -6 0.4 2572 ~ KSDN NS5DR -10 014000 -7 -0.0 2677 ~ (Q OEGATD JN76 CQ only Log QSO Stop Monitor Free Q CQ only Log QSO Stop Monitor Tx even/ist 00 - 00 - 107 ~ (Q CKREV LL3S 014000 -6 0.4 2572 ~ (Q DEGATD JN76 CQ only Log QSO Stop Monitor Free Q CQ only Log QSO Stop Monitor Tx even/ist 00 - 00 - 107 ~ (Q CKREV LL3S 014000 -6 0.4 2572 ~ (X DON TX 715 Hz ) Hold Tx Free Q CQ only Log QSO Stop Monitor Tx even/ist 01 - 00 - 20 - 20 - 20 - 20 - 20 - 20 -	014000	10	0.0 1589	~ V	VE1GG WOQU 73									
014000       -8       0.7       1877       ~ AB9RP XY52V       -14         014000       -5       0.0       1930       ~ OC PAIGOV       1880         014000       -5       0.0       1930       ~ OC PAIGOV       1880         014000       -5       0.0       1930       ~ OC PAIGOV       1880         014000       -7       -0.1       257       ~ CO CM2RSV EL83         014000       -7       -0.0       2677       ~ CO OEGATD JN76       III       III       #         40m       S       7.074 000       Tx even/ist       Hold Tx Freq       Generate Stid Mogs       Next       Now         40m       S       7.074 000       Tx even/ist       Hold Tx Freq       VY386 AA6YQ FNH2       Tx 1         40m       S       7.074 000       Tx even/ist       Hold Tx Freq       VY386 AA6YQ -22       Tx 2         40m       Az: 42       6682 km       Report -22 the       Tx 2       VY386 AA6YQ RRR       Tx 4         400       400       Auto Seq       Call ist       VY386 AA6YQ RRR       Tx 4       1248         40       01:40:44       01:40:44       Tx 6       Tx 6       1248       1248       1248       1248	014000	-16	-0.5 1745	~ W	AF5VR EA4GA -10									
014000 -5 0.0 1930 ~ CQ EALCRY TN80 014000 4 0.2 2003 ~ VU38EM HK3EU R-19 014000 -7 -0.7 2315 ~ CQ CK2RSY EL83 014000 -7 -0.0 2677 ~ CQ OCEATD JN76 ~ III CQ only Log 2SO Stop Montor Erase Decode Typer Halt Tx IIune V Menus 00m ~ S 7.074 000 Tx even/1st 00m ~ S 7.074 000 Tx ev	014000	-8	0.7 1877	~ A	AB9RP YV5ZV -14									
014000 4 0.2 2003 ~ VOSNEW KSDR R-19 014000 7 0.7 2315 ~ CQ CM2RSV EL33 014000 -6 0.4 2572 ~ K9DN NS5DR -10 014000 7 -0.0 2677 ~ CQ OE6ATD JN76 CQ only Log QSO Stop Bantor Erese Decode Protect Mage Next Now 0 Tx r25 H 2 Hold Tx Freq 0 Dx Call DX Grid A 7 T5 H 2 Hold Tx Freq 0 Dx Call DX Grid A 7 T5 H 2 Hold Tx Freq 0 Lookup Add V Auto Seq Call 1st V1386 AA6YQ 72 V Tx 5 1 V386 AA6YQ 73 V Tx 5 1 V386 AA6YQ 7 1 V386 AA6Y	014000	-5	0.0 1930	~ C	CQ EA1CEV IN80									
014000       -6       0.4       2572       ×       K9DN INSSDR -10         014000       -7       -0.0       2677       ×       CQ OBEATD JN76         *       III       Lodg QSO       Stop       Bontor       Ersee       Decode       Double T         *       III       Cq only       Log QSO       Stop       Bontor       Ersee       Decode       Double T       Unit       Menus         *       Tx even/ist       Im       Generate Std Mage       Next       Now       Per         *       DX Call       DX Grid       Tx 715 Hz       Hold Tx Freq       VI2BG AA6YQ FH42       Tx11       Per         *       DX Call       DX Grid       X: 715 Hz       Hold Tx Freq       VI2BG AA6YQ -22       Tx2       *       Tx2         *       Az: 42       6682 km       Report -22       Tx2       Tx2       *       Tx4       *	014000	4	-0.7 2315	~ ~	CO CM2RSV FL83									
014000 -7 -0.0 2677 ~ CQ OEGATD JN76 CQ only Log QSO Stop Monitor Txeven/ist 40m • S 7.074 000 Tx even/ist 40m • S 7.074 000 Tx even/ist CX call DX call DX call DX call A	014000	-6	0.4 2572	~ K	K9DN N5SDR -10									-
C Q only Log QSO <u>Stop <u>Montor</u> <u>Erase</u> <u>Decode</u> <u>10.40.7</u> <u>Halt Tx</u> <u>Iune</u> ♥ Menus 40m • S 7.074 000 Tx even/1st Tx 715 Hz ● Hold Tx Freq 660 Az; 42 6682 km Report 2 2 • Lookup Add ♥ Auto Seq Call 1st 2019 Feb 01 01:40:44</u>	014000	-7	-0.0 2677	~ C	CQ OE6ATD JN76	-	•	_						۱.
40m     S     7.074 000     Tx even/ist       Tx 715 Hz     Hold Tx Freq     Generate Std Moge     Next     Now       Dx Call     Dx Grid     Tx 715 Hz     Hold Tx Freq     Numerical Std Moge     Next     Now       Lyase     Act 42     6682 km     Report -22     Tx 3       Lookup     Add     Add     Call 1st       Lyase AA6rQ 73     Tx 5       Cq AA6rQ FH42     Tx 6	CQ only	/	Log QSO		Stop Monitor	Erase	Deco	de		Enable Tx	Halt Tx	Tur	ne 🛛 🔽	Menus
Num     S     7x0/4 000       Tx 715 Hz     Hold Tx Freq       DX Call     DX Grid       LY3BG     K024       Az: 42     6682 km       Lookup     Add       Lookup     Add       Auto Seq     Call ist       UY3BG AA6rQ 73     Tx 4       CQ AA6rQ FH42     Tx 2       Lookup     Add       Auto Seq     Call ist       UY3BG AA6rQ 73     Tx 5       CQ AA6rQ FH42     Tx 5	40-11	-			074 000	Tx even/1st		(-	_			_		
DX Call         DX Grid         Image: Call of the call of th	HUM	1 6	·	/.	074 000	Tx 715 Hz 🔄 🗐	Hold Tx Free			Gene	erate Std Msgs	Next	Now	Pwr
800       LY38G       KO24       Rx 715 Hz ≤       (°)       LY38G AA6YQ -22       (©)       Tx2         60       Az: 42       6682 km       Report -22 ÷       (Call 3st)       LY38G AA6YQ -22       (Tx2)       (Tx2)         -40       Lookup       Add       Auto Seq       Call 3st       LY38G AA6YQ RR       (Tx2)         -20       2019       Feb 01       (Tx2)       (Tx2)       (Tx2)         66 dB       01:40:44       (Call 3st)       LY38G AA6YQ RR       (Tx2)       (Tx2)	F		DX (	Call	DX Grid			2	LY3B	G AA6YQ FN	42	0	Tx <u>1</u>	P-
60         Az: 42         6682 km         Report 22 €         IV3BG AA6YQ R-22         Tx 3           40         Lookup         Add         Auto Seq         Call 1st         IV3BG AA6YQ R-22         Tx 3           20         2019 Feb 01         O1:40:44         Call 4st         IV3BG AA6YQ R-22         Tx 5	-80		173	BG	K024	Rx 715 Hz		m	LY3B	G AA6YQ -22		۲	Tx 2	
40         Lookup         Add         ✓ Auto Seq         Cell 1st         Lysic AA6YQ RRR         Tx 4           20         2019 Feb 01         01:40:44         ○         ∞	-60			A7: 4	42 6682 km	Peport -22			1 1 7 20	G AAGYO P	2		Tx 3	
20         2019 Feb 01         1/356 AA6YQ RRR         ™ 4           66 db         01:40:44         □	-40		Look	200	Add	Auto Sec	Call 1ct			0.0000	10 20			
20         2019 Feb 01         UY38 AA6YQ 73         ● Tx 5           66 d8         01:40:44         CQ AA6YQ FH42         ● Tx 6	- "		F00	-up	Auu	Muto seq	Cdii 151		LY3B	G AA6YQ RR	R	0	Tx <u>4</u>	-
0         01:40:44           CQ AA6YQ FN42         Tx6	-20			201	9 Feb 01				LY3B	IG AA6YQ 73		• 0	Tx <u>5</u>	-
				201	1.40.44				CQ A	A6YQ FN42		0	Tx 6	
	66 dB			0.	1.10.11									-
Receiving IC-7800 FT8 Last Tx: LY3BG AA6YQ -22 14/15 WD:6m	Re	ceiving		C- <b>7</b> 800	0 FT8 Last	Tx: LY3BG AA6YQ -22					-		14/15	WD:6m

### **Multiple Views of Active DX**



# **DXing With DXLab**

- Introduction to the DXLab Suite
  - Architecture
  - Development Drivers
  - Multiple Views of Active DX
- Finding the DX You Need
- Working the DX You Need

#### My DXing Objectives: DXCC, VUCC, WAS, WAZ

P DXKeeper Configuration			- • •
General Log	Awards Reports	Callbook Contest	User Items Defaults
Automatically recompute realtime aw Deduce CQ and ITU zones from US DXCC Bands & Modes	ard tracking Include LotW QS callsigns Include eQSL.cc Marathon Bands & Modes	Ls in CQ (DX, Fields), JARL, & Maidenhead QSLs in DXCC, VUCC, WAS, WAC, & Maidenhead WPX Bands & Modes	Grid progress denhead Grid progress
V 160M V Prone HF V 80M V CW V 40M V Digital VHF	ROM CW     GOM Digital VHF	160M     1 556     HF     80M     CW     G0M     Digital     CM	Realtime Award Progress
▼     20M       ▼     20M       ▼     17M       ▼     17M       User-specified       ↓     15M       ↓     12M       ↓     10M       ↓     10M	↓ 40m         Mixed           □ 30M         Include QSOs           □ 17M         Include QSOs           □ 17M         Include QSOs           □ 17M         Include QSOs           □ 12M         Include QSOs           □ 12M         Max TX power	☐ 40M ☐ 30M ☐ Mixed ☐ 20M ☐ 17M ☐ 15M ☐ 12M ☐ 10M	Other Awards CQ, WAE, Holyland region select DARC DOK region selection WAE 2 point low-band QSOs Subdivision validity checking
2M QRP	☐     6M     Year, Category,       ☐     2M     Score Sheet Info	☐ 6M	WAZ Bands & Modes
Hide unworked in progress rprt	Realtime Award Progress	Realtime Award Progress	× S T S I e S C T A T g
Submit deleted entities		VAS Bands & Modes	
75 Record Sheet lines/page	□ 2M □ 1.25M □ 70 CM	80M     CW       40M     RTTY       30M     Digital	
Confirmed QSDs are low risk	23 CM     13 CM     13 CM and up	□ 17M □ 15M □ Sat	
VUCC & WAS Submission C QSL Card C LotW DXCC Credits	☐ Satellite	☐ 12M ☐ 10M ☐ QRP ☑ 6M ☐ 2M ☐ Mixed (Basic) ☐ 1.25M	
QSL Config Help	✓ Realtime Award Progress	70CM     Realtime Award Progress	<ul> <li>✓ 5-band WAZ</li> <li>✓ Realtime Award Progress</li> </ul>

#### I'm also pursuing all DXCC Entities in FT8

P DXKeeper Configuration			- • •
General Log	Awards Reports	Callbook Contest	User Items Defaults
✓       Automatically recompute realtime aw         ✓       Deduce CQ and ITU zones from US         DXCC Bands & Modes         ✓       160M         ✓       160M         ✓       Phone         ✓       80M         ✓       CW         ✓       40M         ✓       Jigital         VHF	ard tracking Include LotW QSL callsigns Include eQSL.cc Marathon Bands & Modes 160M Phone HF 80M CW 60M Digital VHF	Ls in CQ (DX, Fields), JARL, & Maidenhead QSLs in DXCC, VUCC, WAS, WAC, & Maid VPX Bands & Modes 160M SSB HF 80M CW 60M Digital	Grid progress enhead Grid progress IOTA I IOTAmem4win update Realtime Award Progress
▼ 30M       ▼ 20M       ▼ 17M       ▼ 17M       ♥ 15M       ↓ 15M       ↓ 12M       ▼ 12M       ▼ 10M       ♥ 6M       ▶ 2M       ♥ QRP	↓ 40M       Mixed         ↓ 30M       ↓ Mixed         ↓ 20M       ↓ Include QS0s         ↓ 17M       ↓ Include QS0s         ↓ 15M       ↓ 1500         ↓ 12M       Max TX power         ↓ 10M       ↓ Year, Category,         ↓ 2M       Score Sheet Info	☐ 40M ☐ 30M ☐ Mixed ☐ 20M ☐ 17M ☐ 15M ☐ 12M ☐ 10M ☐ 6M	Other Awards CQ, WAE, Holyland region select DARC DOK region selection WAE 2 point low-band QSOs Subdivision validity checking WAZ Bands & Modes
F Hide unworked in progress rprt	Realtime Award Progress	Realtime Award Progress	M R S D × S T S I
	VUCC Bands & Modes	WAS Bands & Modes	ë SCTATO d BWYMVi
<ul> <li>✓ Submit deleted entities</li> <li>75 Record Sheet lines/page</li> <li>Marathon Submission</li> <li>✓ Confirmed QSOs are low risk</li> </ul>	<ul> <li>✓ 6M</li> <li>2M</li> <li>1.25M</li> <li>70 CM</li> <li>33 CM</li> <li>23 CM</li> <li>13 CM and up</li> <li>Satellite</li> </ul>	▼ 160M       Phone       HF         80M       CW         40M       RTTY       VHF         30M       Digital         20M       SSTV         17M         15M       Sat         12M         10M       QRP         ✓ 6M         2M       Mixed (Basic)         1.25M         70CM	Mixed □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □
QSL Config Help	Realtime Award Progress	I Realtime Award Progress	Realtime Award Progress

#### What is QRV that I Need?

M Spot	Collector 8.8.7 @ 2021-05-	08 20:45 Z (CC,DXK,PF,D)	(V,PV] 180 entries (Io	ig: AA6YQ	(.mdb)																			•
+1-	SFI 75 History	Outgoing spot	7,074.0 F	reg Dus	torl O		tatus: pre-filtered																<b>H</b> .	
Q:	A 3 0 K	Notes	2	< Loc	al Repor	t Stats	Prop Config	Help																
	Need Call	Prefix RegCode	First	Last	Mode	Band	Freq	osx co	Pri	EU	AFSA	NA-E	NA-M	NA-W	AS	oc	ODX	S Min	S Max	S Last	SP S	SP P	LP S	LP P A
	D UK8FAV	υσ	05 05 0311	0311	FT8	2011	14,074.0	17					Y		_		0		-		6	78	-26	19
	D UKSIF		05 05 0342	0343	FT8	201	14,074.0	17		-	-		~	Y		_	9				8	81	-25	20
	D EZ1WS	EZ	05 05 0423	0423	CW	80M	3,508.0	17		Y							3913				-63		-417	_
	D 3A2DS	3A	05 05 0650	0651	FT8	15M	21,074.0	14							Y		5064				- 290		-169	_
	D S21VU	S2	05 05 0655 05 05 0917	0734	FT8	10M	28,074.0	22		-	-		-		Y	-	6113				-143		-135	-
	D VR2CH	VR	05 05 1014	1020	FT8	40M	7,074.0	24			Y	Y					0		_		-27	4	-60	
	D EX8ABG	EX	05 05 1044	1044	FT8	10M	28,074.0	17							Y		5007				-148		-151	
	D 3W3B	3W 9N	05 05 1033 05 05 1042	1044	FT8 FT8	40M	7,074.0	26		-	-	Y	Y	Y	Y	Y	0 6931				- 39		-64	_
	D BA4II	BY	05 05 1059	1059	CW	80M	3,523.0	24	SD						Y		7324				-154		-318	
	D EP2LMA	EP	05 05 1100	1102	FT8	15M	21,076.0	21		Y							3744				-19	33	-71	
	D DT8A	VP8-H 9M6	05 05 0850	1120	FT8 FT8	40M	7,074.0	13		-	Y	Y	Y	Y	Y	-	0	-18	-10	-16	-29	88	-46	1
	Z VK100AF	VK	05 05 102/	1125	SSB	80M	3,678.0	29			- 1	<u> </u>				Y 1	.0074				-	- 1		
	D VR2CH	VR	05 05 1206	1207	FT8	2011	14,076.5	24				Y					299				11	85	-15	37
	D VR2VAZ	VR	05 05 1228 05 05 1224	1229	FT8	201	14,074.2	24		~	-	Y				_	299				11	85	-15	37
	D XV1X	3W	05 05 1254	1306	FT8	30M	10,136.3	26		-			Y				1772				-31	1	-46	
	D VR2WKL	VR	05 05 1323	1323	FT8	40M	7,074.0	24						Y			θ				-69		-168	
	D EP2LMA	EP	05 05 1238	1350	FT8	15M	21,075.9	21		Y		v	v		Y	-	3539				-14	42	-34	11
	D XV2A	3W	05 05 1293	1503	FT8	201	14,074.0	26						Y			2613				12	85	-33	13
	Z RA9UDD	UAO	05 05 1508	1508	SSB	80M	3,630.0	18	KE						Y		5178				-201		-500	
	Z UBØAZL	UAO	05 05 1514	1514	SSB	80M	3,670.0	18	КК						Y	_	5178				-191		-524	_
	D EP2LMA	SW FP	05 05 1641	1641	FT8	17M	18,074.0	26		Y	-					-	4105				-48	78	-131	60
	D UK7AL	UJ	05 05 1750	1750	FT8	17M	18,100.0	17		Y	-	-				-	3357				2	72	-46	4
	D EP2HAM	EP	05 05 1750	1810	FT8	15M	21,074.0	21		Y							3376				-90		-20	30
	D EP2HAM	EP	05 05 1818 05 05 1858	1819	FT8	2011	14,074.0	21		<b>v</b>	Y					-	0 4141				- 24	95	-49	3
	D KH30	КНЗ	05 05 2009	2010	FT8	10M	28,074.0	31		Y							3983				-138	- 1	-55	1
	D VR2VGM	VR	05 05 2218	2218	FT8	30M	10,136.0	24		Y							3206				-28	1	-42	6
	D XV1X	3W	05 05 2206	2206	FT8	30M	10,136.0	26		Y						_	3206				-19	13	-43	5
	D EXSABA	EX	05 06 0026	0106	FT8	201	14,074.0	17			- '	Y	Y			-	0				14	88	-15	41
	D 9F5NVT	ET	05 06 0236	0236	FT8	2011	14,074.0	37						Y			0				9	82	-41	6
	D EX8ABG	EX	05 06 0319	0329	FT8	10M	28,074.0	17		Y					Y		4462				-143		-104	
	D DTBA	VPS-H VR	05 06 0359	0423 0748	FT8 FT8	40M	7,076.6	13		¥	-	Y .		Y	Y	-	9 5555	-24	-10	-11	-1	67	-124	_
	D 5W1SA	SW	05 06 1042	1042	CW	160M	1,821.0	32							-	Y 1	0105							
	D YB9KA	YB	05 06 1139	1139	CM	160M	1,818.5	28								Y 1	0040							
	D BOTVR	3A 80	05 06 1138	1140	FT8	12M	24,916.6	14		v	-						3444				-130		-151	
	D YB9KA	YB	05 06 1211	1211	CW	160M	1,834.5	28		-	-					Y 1	.0040							
	D 3A2MW	3A	05 06 1224	1224	FT8	30M	10,136.0	14		Y							3849				-2	67	-189	
	D DTSA	VP8-H	05 06 1207	1208	FT8	40M	7,074.0	13		_	-		Ŷ	~		_	1269				-38		-125	
	D XV2A	3W	05 06 1410	1411	FT8	201	14,074.0	26						Y			2613				13	86	-17	36
	D DT8A	VP8-H	05 06 1502	1503	FT8	17M	18,100.0	13					Y				355				21	93	-154	
	D EP2LMA	EP	05 06 1535	1535	FT8	10M	28,074.8	21		Y	-		~			_	5009				-270		-92	
	D EP2LMA	EP	05 06 1/52	1808	FT8	15M	21,074.0	21		Y	+	-				-	4329				-21	29	-134	
	D VR2CO	VR	05 06 1912	1945	FT8	30M	10,136.0	24		Y							3849				-26	1	-119	
	D DT8A	VP8-H	05 06 2115	2115	FT8	40M	7,074.0	13								Y	9				-74		-111	
	D ZC4GR	ZC4	05 06 2200	2201	FT8	404	7.074.0	20		v	-				Y	-	3700				13	86	-84	
	D VR2XMT	VR	05 06 2212	2213	FT8	30M	10,136.0	24		Y							4071				-28	1	-42	6
	D XWOLP	XW	05 06 2316	2316	FT8	40M	7,074.0	26								Y	0				-35		-62	
	Z VK100AF	9M6 VK	05 06 2305 05 07 0018	2321	FT8 SSR	40M	7,074.0	28		Y	-					V 1	0 0419				-68		-53	
	D DT8A	VP8-H	05 07 0155	0226	FT8	40M	7,076.7	13				Y	Y				0	-22	-11	-17				
	D 3W3B	3W	05 07 0437	0437	FT8	10M	28,074.0	26							Y		6723							
	D XV1X	3W	05 07 0642 05 07 0753	0642	FT8	201	14,074.0	26			-	-		Y			2569				-142		-137	
	D ZC4GR	ZC4	05 07 0757	0757	FT8	12M	24,915.0	20		*	+	-			Y	-	6803				-119		-157	
	D ZC4GR	ZC4	05 08 1917	1939	FT8	15M	21,074.0	20		Y							3206				-2	64	-31	15
	D XV1X	3W	05 08 2009	2009	FT8	30M	10,136.0	26		Y							4694				-21	5	-76	
-	DEP2LSH	EP	05 08 2016	2016	F 18	201	14,074.0	21			_		-		Y	_	6723				28	97	- 32	13
Ser	Filter: Par	and Mode and Cont or	d Origin and Place	onfirmed I	DXCC VIII	r was	W671		- Color	code														-
C Fin	t C Call	× AutoHide	Need Cal	DMCC	Freq	Tag	Band Mode	Cont Origin	· vuit	ind .	-	of D or M	Letw											
@ Ro	v C Az ← → Au	dio Age LoTW eQSL Mith	SG mZC4	P+S+W	W90L 0	Juixote	SQL 28   SQL 29	SQL 30 POTA		eded barbs	and a second	of counter of tag	C 1499.8	0 1015 AQ										

#### Interesting Targets

- 3W
- 5W
- 9M8
- 9N
- BA
- EP2LMA
- KH3O
- VP8-H
- VR
- XV
- YB
- ZC4

#### Almost All FT8 !

#### What is QRV in other than FT8 that I Need?

T SpotCo	llector Mo	de Filter						×
<b>▼</b> SSB	Г АМ	FM		<b>₽</b> CW	CCW	₩ RTTY	<b>?</b>	
C Amtor	AmtorFEC	Г Ascii		☐ Hell	☐ FMHell	□ PSKHell	☐ Hell80	
□ ATV	∏ FAX	□ SSTV		П HFSK	□ PAX	□ PAX2		
☐ Packet	Clover	□ GTOR		☐ Pactor	Pactor2	□ Pactor3	□ WINMOR	
I▼ PSK31	I▼ PSK63	₽ PSK125	D PSK250	□ PSK63F	□ PSK220F		П МТ63	
D QPSK31	D QPSK63	D QPSK125	C QPSK250	D PSK10	D PSKFEC3	1	□ Q15	□ Q65
D PSKAM10	E PSKAM31	D PSKAM50		□ MFSK8	□ MFSK16	FSK31	FSK441	
□ Chip64	□ Chip128	□ ROS	☐ Thor	□ DominoEX	□ DominoF		□ ALE	
∏ Olivia	∏ Contestia	∏ RTTYM	∏ Voi	∏ Throb	∏ ThrobX	∏ JS8	∏ JT9	
□ JT44	□ JT4A	□ JT4B	□ JT4C	□ JT4D	□ JT4E	□ JT4F	□ JT4G	
FT4	□ FST4	FT8	□ WSPR	□ ЈТ6М	□ JT65	□ JT65A	□ JT65B	□ JT65C
ISCAT	□ MSK144	QRA64	D QRA64A	C QRA64B	C QRA64C	QRA64D	QRA64E	
			None	All				

🙀 Spo	otCollecto	r 8.8.7 @ 2021-05	-08 20:54 Z [	CC,DXK,PF,DX	KV, PV]	10 entrie	SpotCollector 8.8.7 @ 2021-05-08 20:54 Z [CC,DXK,PF,DXI,PV] 10 entries (log: AA6YQ.mdb)																
-	al ww	V 05-08 1800 Z	Outgoin	g spot		7.07			Spot	source	status: pre-filtered	<b>1</b>											
	<u> </u>	75 HIStory	Lairj			7,074	I.U Fre	q <u>uus</u>		•••		•											
Q:	2 A	3 0 K	Notes				×	Loc	al Report	Stats	Prop Config	Help											
	Need	Call	Prefix	RegCode		Fir	st	Last	Mode	Band	Freq	QSX	cQ	Pri	EU	AF	SA I	NA-E	NA-M	NA-W	AS	ос	ODX
	D	EZ1WS	EZ		05	05 04	23	0423	CW	80M	3,508.0		17		Y								3913
	D	BA4II	BY		05	05 10	59	1059	CW	80M	3,523.0		24	SD							Y		7324
	Z	VK100AF	VK		05	05 11	24	1125	SSB	80M	3,678.0		29									Y	10074
	z	RA9UDD	UAØ		05	05 15	608	1508	SSB	80M	3,630.0		18	KE							Y		5178
	z	UBØAZL	UAØ		05	05 15	14	1514	SSB	80M	3,670.0		18	КК							Y		5178
	D	5W1SA	5W		05	06 10	42	1042	CW	160M	1,821.0		32									Y	10105
	D	<b>ҮВ</b> 9КА	YB		05	<b>0</b> 6 11	.39	1139	CW	160M	1,818.5		28									Y	10040
	D	8Q7VR	8Q		05	06 12	10	1210	CW	160M	1,825.0		22		Y								4071
	D	YB9KA	YB		05	06 12	11	1211	CW	160M	1,834.5		28									Y	10040
•	Z	VK100AF	VK		05	07 00	18	0019	SSB	80M	3,610.0		29									Y	10419
1																							
Sort		— Filter: Ban	d and Mode	and Cont an	nd Oria	in and [	Uncon	firmed	DXCC. VUC	C. WAS	WAZI			Colo	r cod	es —							
C Fi	rst C Ca	a    [	×	AutoHide	Need	Ca		DXCC	Freq	Tag	Band   Mode	Cont Ori	jin		rified		unwikd B	or M	LotV				
O La	ast C Fr	99	dio Age Lo	TW eQSL Mith	n 🔍										nocdod		unwrkd c	ounter	GRSL A	a			
(* B	cv C Az		7 Ť I		ീ	DX1	60 0	DX 80	DX 40 0	0X 30	DX 20 DX 17	DX 15DX	6	📕 us	confrind		special to	9	Lot V &	¢QSL AG			

- Stations on 160m and 80m
  - EZ1WS not valid for DXCC
  - VK1000AF is in SSB, and is only needed for WAZ
  - The rest were spotted after my 1030Z sunrise

#### What is QRV that I Need?

M Spot	Collector 8.8.7 @ 2021-05-	08 20:45 Z [CC,DXK,PF,D)	V,PV] 180 entries (Io	ig: AA6YQ	(.mdb)																			•
+L-	WWV 05-08 1800 Z SFI 75 History	Outgoing spot	7.074.0 F	reg Our	ord Spot		tatus: pre-filtere																H.	
Q: 1	A 3 0 K	Notes		< Loc	al Report	t State	Prop Config	Help																
	Need Call	Prefix RegCode	First	Last	Mode	Band	Freq	osx co	Pri	EU	AFSA	NA-E	NA-M	NA-W	AS	oc	ODX	S Min	S Max	S Last	SP S	SP P	LP S	LP P
	D UK8FAV	υσ	05 05 0311	0311	FT8	2011	14,074.0	17					Y				0				6	78	-26	19
	D UKSIF	UJ VPR-H	05 05 0342 05 05 0238	0343 0344	FT8	20M	14,074.0	17		-	-	×	v	Y		-	9 393				8	81	-25	20
	D EZ1WS	EZ	05 05 0423	0423	CW	80M	3,508.0	17		Y							3913				-63		-417	
	D 3A2DS	3A	05 05 0650	0651	FT8	15M	21,074.0	14							Y		5064				- 290		-169	
	D S21VU	S2	05 05 0655	0734	FT8	10M	28,074.0	22		-	-		-		Y	-	6113				-143		-135	
	D VR2CH	VR	05 05 1014	1020	FT8	40M	7,074.0	24			Y	Y			-		0				-27	4	-60	
	D EX8ABG	EX	05 05 1044	1044	FT8	10M	28,074.0	17							Y		5007				-148		-151	
	D 3W3B	3W ON	05 05 1033	1044	FTS	40M	7,074.0	26		-	-	Y	Y	Y	Ŷ	Y	0 6921				- 39		-64	
	D BA4II	BY	05 05 1059	1059	CW	80M	3,523.0	24	SD						Y		7324				-154		-318	
	D EP2LMA	EP	05 05 1100	1102	FT8	15M	21,076.0	21		Y							3744				-19	33	-71	
	D DTSA	VP8-H	05 05 0850	1120	FT8	40M	7,074.0	13		_	Y	v	Y	Y	Y	-	0	-18	-10	-16	10	88	-46	1
	Z VK100AF	VK	05 05 102/	1125	SSB	80M	3,678.0	29			- '	<u> </u>				Y 3	8874				- 2.5	-	- 34	
	D VR2CH	VR	05 05 1206	1207	FT8	2011	14,076.5	24				Y					299				11	85	-15	37
	D VR2VAZ	VR	05 05 1228	1229	FT8	20M	14,074.2	24		×	v	Y		_		-	299				11	85	-15	37
	D XV1X	3W	05 05 1254	1306	FTS	30M	10,136.3	24			-		Y				1772				-31	1	-46	
	D VR2WKL	VR	05 05 1323	1323	FT8	40M	7,074.0	24						Y			θ				-69		-168	
	D EP2LMA	EP	05 05 1238	1350	FT8	15M	21,075.9	21		Y		~	×		Y		3539				-14	42	-34	11
	D XV2A	3W	05 05 1253	1503	FT8	201	14,074.0	26						Y			2613				12	85	-33	13
	Z RA9UDD	UAO	05 05 1508	1508	SSB	80M	3,630.0	18	KE						Y		5178				-201		-500	
	Z UBØAZL	UAO	05 05 1514	1514	SSB	80M	3,670.0	18	КК						Y		5178				-191		-524	_
	D EP2LMA	EP	05 05 1641	1641	FT8	17M	18,074.0	26		Y	-					-	4105				-48	78	-131	60
	D UK7AL	UJ	05 05 1750	1750	FT8	17M	18,100.0	17		Y	-	-				-	3357				2	72	-46	4
	D EP2HAM	EP	05 05 1750	1810	FT8	15M	21,074.0	21		Y	_						3376				-90		-20	30
	D EP2HAM	EP 2W	05 05 1818	1819	FT8	2011	14,074.0	21		v	Y					-	0 4141				- 26	95	-49	3
	D KH30	КНЗ	05 05 2009	2010	FT8	10M	28,074.0	31		Y							3983				-138	- 1	-55	1
	D VR2VGM	VR	05 05 2218	2218	FT8	30M	10,136.0	24		Y							3206				-28	1	-42	6
	D XV1X	3W	05 05 2206	2206	FT8	30M	10,136.0	26		Y	-					_	3206				-19	13	-43	5
	D EXSABA	EX	05 06 0026	0106	FT8	201	14,074.0	17			- '	Y	Y				0				14	88	-15	41
	D 9F5NVT	ET	05 06 0236	0236	FT8	2011	14,074.0	37						Y			0				9	82	-41	6
	D EXSABG	EX	05 06 0319	0329	FT8	10M	28,074.0	17		Y	_	~		v	Y	_	4462	- 24	-10		-143	67	-104	_
	D VR2CO	VR	05 06 0748	0748	FT8	12M	24,915.0	24		•	-	-			Y	-	5555	-24	-10		-143		-114	
	D SW1SA	SW	05 06 1042	1042	CW	160M	1,821.0	32								Y 1	0105							
	D YB9KA	YB	05 06 1139	1139	CW	160M	1,818.5	28		~	-					Y 1	0040				170			_
	D SQ7VR	8Q	05 06 1138	1210	CW	160M	1,825.0	22		Y							4071				-130		-191	
	D YB9KA	YB	05 06 1211	1211	CW	160M	1,834.5	28								Y 3	0040							
	D 3A2MW	3A	05 06 1224	1224	FT8	30M	10,136.0	14		Y	_		N N			_	3849				-2	67	-189	
	D XV1X	3W	05 06 1207	1208	FTS	40M	7,074.0	26		-	-	-	Y	Y		-	1269				- 38		-125	
	D XV2A	ЗW	05 06 1410	1411	FT8	2011	14,074.0	26						Y			2613				13	86	-17	36
	D DTBA	VPS-H	05 06 1502	1503	FT8	17M	18,100.0	13		~			Y				355				21	93	-154	
	D DT8A	VP8-H	05 06 1535	1535	FT8	101	28,074.8	21		Y			Y				1269				-2/0	88	-92	
	D EP2LMA	EP	05 06 1807	1808	FT8	15M	21,074.0	21		Y							4329				-21	29	-86	
	D VR2CO	VR	05 06 1912	1945	FT8	30M	10,136.0	24		Y							3849				-26	1	-119	
	D DT8A	VP8-H 7C4	05 06 2115	2115	FT8 FT8	304	7,074.0	13		-	-	-			v	Y	9 6839				-74	88	-111	
	D ZC4GR	ZC4	05 06 2143	2227	FT8	401	7,074.0	20		Y					Y		3700				5	86	-176	
	D VR2XMT	VR	05 06 2212	2213	FT8	30M	10,136.0	24		Y							4071				-28	1	-42	6
	D XWOLP	XW	05 06 2316	2316	FT8 FT8	401	7,074.0	26		×	-	-				Y	0				-35		-62	
	Z VK100AF	VK	05 07 0018	0019	SSB	801	3,610.0	28								Y 1	8419				- 08		- 55	
	D DT8A	VP8-H	05 07 0155	0226	FT8	40M	7,076.7	13				Y	Y				0	-22	-11	-17				
	D 3W3B	3W	05 07 0437	0437	FT8	10M	28,074.0	26						×	Y	-	6723							
	D ZC4GR	ZC4	05 07 0642	0753	FT8	15M	21,075.7	26		Y	-					-	4462				-143		-137	
	D ZC4GR	ZC4	05 07 0757	0757	FT8	12M	24,915.0	20							Y		6803				-119		-167	
	D ZC4GR	ZC4	05 08 1917	1939	FT8	15M	21,074.0	20		Y						-	3206				-2	64	-31	15
	D XV1X D EP2LSH	SW EP	05 08 2009 05 08 2016	2009	FT8	30M 20M	10,136.0	26		Ŷ	-				Y	-	4694 6723				-21	5 97	-76	13
							14,074.0			_	-		-			_							- 52	
Sort	Filter: Band	I and Mode and Cont an	d Origin and [Unco	onfirmed	DXCC, VUC	C, WAS,	WAZ]		Color	r code														
C Fit	t C Call	X AutoHide	Need Cal	DMCC	Freq	Tag	Band Mode	Cont Origin		fied		kd D or M	Law											
@ Ro	v ⊂ Az ← → Au	an mae Loiw eust Mith	Se mZC4	P+S+W	W90L 0	Juixote	SQL 28   SQL 29	SQL 30 POTA		ceded sedemd	- 19+1	isl tag	Letwin	-011.40										

#### Interesting Targets

- 3W
- 5W
- 9M8
- 9N
- BA
- EP2LMA
- KH3O
- VP8-H
- VR
- XV
- YB
- ZC4

#### Almost All FT8 !

## Award Tracking for ZC4GR on 15m FT8

🗸 Realtime Award	Tracking for ZC4GR on 15M FT8		
	DXCC: U K Bases on Cyprus		WAZ zone: 20
Mixed status	verified, sought	Mixed status	verified, not sought
15M status	verified, sought	15M status	confirmed, sought
Digital status	not worked, sought	Digital status	confirmed, not sought
		15M-Digital status	confirmed, not sought
	Marathon		Marathon Zone
	IOTA	15M status	
	WAS state		WPX
Mixed status 15M status Digital status			
	Leaderboard		
log pathname:	C:\DXLab\DXKeeper\Logs\AA6YQ.mdb		

## DXCC Award Tracking for ZC4GR

DXC	cľ	IC	ITA	Υ_	Mara	hon	T	VU	CC	$\gamma$	W	AS	$\gamma$	V	/AZ	T		WPX	
	- L			-			_			_									1
vard I	Progres	s: 340	current	DXCO	C enti	ies [F	Filter: I	by pro	gress	<u> </u>									
F	Prefix	Entity	Phone	CW	DIGI	FT8	160M	80M	40M	30M	20M	17M	15M	12M	10M	-6M	2M	<b>A</b>	Key
×	YN	V	V	V	V	W	V	V .	V	V	V	V	V	V	V				W · worke
Ň	YO	V	V	V	V	С	V	V	V	V	V	V	V	V	V				R - reques
\ \	YS	V	V	V	V	С	V	V	V	V	V	V	V	V	V	V			Q · queue
\ \	YU	V	V	V	V	С	V	V	V	V	V	V	V	V	V	V			C - confirm
\ \	ΥV	V	V	V	V	С	V	V	V	V	V	V	V	V	V	V			V - verifie
\ \	YV0	V	V	V	V		V	V	V	V	V	V	V	V	V				
Z	Z2	V	V	V	V .	С	V	V	V	V	V	V	V	V	V				
Z	Z3	V	V	V	V	С	V	V	V	V	V	V	V	V	V				
Z	Z6	V	V	V	V	С	V	V	V	V	V	V	V						
Z	Z8	V	V	V	V	С	V	V	V	V	V	V	V	V	V				
2	ZA	V	V	V	V	С	V	V	V	V	V	V	V	V	V				
2	ZB2	V	V	V	V	С	V	V	V	V	V	V	V	V	V	V			
	ZC4																		
Z	ZD7	V	V	V	V	W	V	V	V	V	V	V	V	V	V				
Z	ZD8	V	V	V	V	С	V	V	V	V	V	V	V	V	V				
Z	ZD9	V	V	V	V		V	V	V	V	V	V	V	V	V				
Z	ZF	V	V	V	V	С	V	V	V	V	V	V	V		V	V			
Z	ZK3	V	V	V	V	С		V .	V	V	V	V	V	V	V				
Z	ZL	V	V	V	V	С	V	V	V	V	V	V	V	V	V				
Z	ZL7	V	V	V	V		V	V	V	V	V	V	V	V	V				
Z	ZL8	V	V	V	V		V	V	V	V	V	V	V	V	V				
Z	ZL9	V	V	V	V			V	V	V	V	V	V	V	V				
Z	ZP	V	V	V	V	С	V	V	V	V	V	V	V		V				
2	ZS	V	V	V	V	С	V	V	V	V	V	V	V		V				
Z	ZS8	V	V	V	V				V		V		V		V			<b>_</b>	
_																			
ward	l Progre	ss Filte	r —																
and	A KINZ		La Lle	worke	a Da	Mad	kođ		00000	tod L	7 Con	firmed		7 Morif	inđ			All	
	ANT	_	<b>I</b> ♥ 01	WOINC	;u j♥	W 01	Neu -	<b>₩</b>	ieques	icu ja	Con	mmeu	1.	(ven	icų		_		
ode	MIXED	-	🗌 🔲 Ine	clude d	deleted	DXCC	C entitie	s										Report	
																	_		
C4 (I	U K Bas	es on l	Cyprus)	Prog	ress D	etail	s ———									1			
	1	e mua	NM   408	<u>u   3</u>	лм I 2	ом Г	17M	15M	12M	10M	L 6M	1 2	м				9	Summaru	
рили		00111 0						V	1201		0.0								
non Nu		11	1 1		-	v l	11	Č I	17										Help
		V			v	v	V	U 1	V										
лы								V		V									

## ZC4GR on FT8 Looks Challenging



## ZC4GR on FT8 Looks Challenging

#### Check for Recent Activity

🚧 Spot	Collecto	r 8.8.7 @ 2021-05-	08 21:27 Z	[CC,DXK,PF,DX	(V, PV] 43	entries (le	og: AA6YC	.mdb)																			• •
	ww	V 05-08 2105 Z	_ Outgoin	ig spot				Spo	t source s	tatus: pre-filtered	7																
+ -	SFI	76 History	Call TA	2EE		7,074.0	Freq Clu	ster 🖸	0 0	0 0 0 0	)																
Q:	A	4 0 K	Notes				X Lo	cal Repo	rt Stats	Prop Config	Help																
	Need	Ca11	Prefix	RegCode		First	Last	Mode	Band	Frea	05)	CO Pri	EU		NA-E	NA-M	NA-W	As	00	ODX	S Min	S Max	S Last	SP S	SP P	LP S	P P +
	D	ZC4GR	ZC4		04 1	6 1519	1538	FT8	15M	21,076.0	<b>,</b> ,,,	20	Y							3602				-32	13	-35	11
	D	ZC4GR	ZC4		04 1	6 1943	1943	FT8	30M	10,137.5		20	Y					-		3444				5	81	-148	
	D	ZC4GR	ZC4		04 1	8 1628	1628	FT8	15M	21,075.0		20	Y							4067				10	84	-51	2
	D	ZC4GR	ZC4		04 1	8 1741	1825	FT8	10M	28,075.1		20	Y	Y						4246				-46	4	-148	
	D	ZC4GR	ZC4		04 1	8 1914	1915	FT8	30M	10,136.0		20						Y		6931				12	91	-121	
	D	ZC4GR	ZC4		04 1	8 2031	2031	FT8	30M	10,138.5		20						Y		6905				12	91	-121	
	D	ZC4GR	ZC4		04 1	9 1426	1421	FT8	10M	28,076.3		20	Y							4462				-135		-71	
	D	ZC4GR	ZC4		04 1	9 1622	1638	FT8	30M	10,136.7		20	Y							4266				-6	61	-161	
	D	ZC4GR	ZC4		04 1	9 1826	1834	FT8	30M	10,136.0		20	Y						Y	3615				0	77	-159	
	D	ZC4GR	ZC4		04 1	1936	2023	FT8	40M	7,074.0		20	Y							4694				-18	11	-252	
	D	ZC4GR	ZC4		04 2	0 1424	1425	FT8	15M	21,074.0		20	Y							4985				-25	23	-30	16
	D	ZC4GR	ZC4		04 2	1806	1806	FT8	40M	7,076.3		20	Y							3766				-31		-270	
	D	ZC4GR	ZC4		04 2	0 1803	1911	FT8	30M	10,136.0		20	Y					Y		3127				5	81	-148	
	D	ZC4GR	ZC4		04 2	2 1409	1409	FT8	20M	14,074.0		20	Y							3444				23	94	-60	
	D	ZC4GR	ZC4		04 2	2 1646	1646	FT8	20M	14,074.0		20	Y							3930				25	96	-64	
	D	ZC4GR	ZC4		<b>0</b> 4 2	2 1821	. 1924	FT8	20M	14,074.0		20	Y							4087				28	97	-49	1
	D	ZC4GR	ZC4		04 2	23 1830	1836	FT8	15M	21,074.0		20	Y							3881				-26	21	-27	19
	D	ZC4GR	ZC4		04 2	23 1229	2136	FT8	20M	14,074.0		20	Y		Y			Y		0	-24	-11	-13	26	96	-68	
	D	ZC4GR	ZC4		04 2	23 2326	2331	FT8	20M	14,074.0		20	Y							4332				7	79	-41	6
	D	ZC4GR	ZC4		04 2	25 1239	1246	FT8	20M	14,074.0		20						Y		6770				19	92	-47	3
	D	ZC4GR	ZC4		04 2	25 1446	1446	FT8	20M	14,076.0		20						Y		5250				23	95	-59	
	D	ZC4GR	ZC4		04 2	25 1533	1558	FT8	30M	10,136.0		20	Y					Y		4728				-20	5	-147	
	D	ZC4GR	ZC4		04 2	25 1741	1818	FT8	30M	10,136.0		20	Y					Y		4266				-7	60	-179	
	D	ZC4GR	ZC4		04 2	25 2045	2104	FT8	40M	7,074.0		20	Y							4462				-1	77	-231	
	D	ZC4GR	ZC4		04 2	26 1531	1536	FT8	30M	10,136.0		20	Y					Y		4694				- 20	5	-147	
	D	ZC4GR	ZC4		04 2	1649	1708	FT8	30M	10,136.0		20	Y					Y		3459				-6	61	-161	
	D	ZC4GR	ZC4		04 2	7 0742	0742	FT8	40M	7,075.4		20	Y							3615				-8	55	-240	
	D	ZC4GR	ZC4		04 2	27 1654	1654	FT8	40M	7,074.0		20	Y							3569				-70		-293	
	D	ZC4GR	ZC4		04 2	1803	1809	FT8	40M	7,074.0		20	Y					Y		4462				-31		-271	
	D	ZC4GR	ZC4		04 2	27 2004	2004	FT8	40M	7,074.0		20	Y							4649				-1	76	-231	
	D	ZC4GR	ZC4		<b>0</b> 4 3	80 2027	2342	FT8	20M	14,074.0		20	Y	Y	Y					86				29	97	-49	3
	D	ZC4GR	ZC4		05 e	3 1148	1225	FT8	15M	21,074.0		20	Y					Y		3104				-25	23	-121	
	D	ZC4GR	ZC4		05 e	3 1352	1419	FT8	15M	21,075.7		20	Y				Y			1043				-41	6	-37	9
	D	ZC4GR	ZC4		05 e	3 1609	1643	FT8	15M	21,075.7		20	Y							3311				-61	1	-37	9
	D	ZC4GR	ZC4		05 e	3 1757	1838	FT8	15M	21,074.0		20	Y							3693				- 59	1	-21	29
	D	ZC4GR	ZC4		05 e	4 1553	1553	FT8	20M	14,085.0		20						Y		5250				26	96	-62	
	D	ZC4GR	ZC4		05 e	4 1559	1559	FT8	20M	14,075.0		20						Y		5250				26	96	-62	
	D	ZC4GR	ZC4		05 e	6 2200	2201	FT8	30M	10,136.0		20						Y		6839				13	88	-84	
	D	ZC4GR	ZC4		05 e	6 2143	2227	FT8	40M	7,074.0		20	Y					Y		3700				5	86	-176	
	D	ZC4GR	ZC4		05 e	0753	0753	FT8	15M	21,075.7		20	Y							4462				-143		-137	
	D	ZC4GR	ZC4		05 e	0757	0757	FT8	12M	24,915.0		20						Y		6803				-119		-167	
►	D	ZC4GR	ZC4		05 e	8 1917	1939	FT8	15M	21,074.0		20	Y							3206				-2	64	-31	15 -
1																											
- Sort -		Filter: Band	l and Mode	e and Cont an	d Origir	and [DX	CC=ZC4]					Col	or code	s — — 2													
C Fir	at O Ca	ZC4	×	AutoHide	Need	Call	DXCC	Freq	Tag	Band Mode	Cont 0	igin 🛛 🔳 🗸	arified	unwi	kd B or M	□ LotW											
C La	st C Fr	Au Au	dio Age Lo	TW eQSL Mrthr	n e C	01/100	DV 00	nu e l	nu en l	nues l'eure l'	nun l n		needed	unwi	kd counter	🗖 eQSL A	.G										

## Working ZC4GR on FT8

#### Band vs. Time-of-Day Analysis of Recent Activity



#### When QRV?

- 15m: 11Z to 18Z
- 20m: 12Z to 23Z
- 30m: 15Z to 20Z
- 40m: 16Z to 21Z

# Working ZC4GR on FT8

- No "Fox/Hound" frequencies
- Spotted from NA-E on 4/23 and 4/30
- Copied on 4/23

🏟 Spo	Collector	r 8.8.7 @ 2021-05	-08 21:27 Z J	(CC,DXK,PF,D)	(V,PV] 43	entries (lo	g: AA6YQ	.mdb)																					• 💌	
	ww	¥ 05-08 2105 Z	Outgoin	ig spot				Spot	t source :	status: pre-filter	ed –									CI		Sno	tter							
+ -	SFI	76 History	Call TA	A2EE		7,074.0 F	req Clur	ater O	0 0	0 0 0	0									Ci	JSes	. spo	tter						▋┣┣	4
Q:	) A	4 0 K	Notes			}		cal Report	t Stats	Prop Config	Help					Spot	tted f	rom R	egions				Actu	al SNR						
	Need	Call	Prefix	RegCode		First	Last	Mode	Band	Free		OSX	CO Pr	i EU	AF	SAL	NA-Е	NA-M	NA-W	ASO		אסנ	5 Min	S Max	S Last	SP S	SP P	IP SI	P P /	-1
	D	ZC4GR	ZC4	Regeore	04 1	6 1519	1538	FT8	15M	21,076.6	3	¥	20	Y	<u> </u>			1.	No		3(	602		S Franc	3 2422	-32	13	-35	11	1
	D	ZC4GR	ZC4		04 1	6 1943	1943	FT8	30M	10,137.5	5	-	20	Y			_				34	44				5	81	-148		47
	D	ZC4GR	ZC4		04 1	8 1628	1628	FT8	15M	21,075.6	3	_	20	Y							44	967				10	84	-51	2	47
	D	ZC4GR	ZC4		04 1/	8 1741	1825	FT8	10M	28,075.1	1		20	Y		Y					4:	246				-46	4	-148		47
	D	ZC4GR	ZC4		04 1/	8 1914	1915	FT8	30M	10,136.0	3		20							Y	65	31				12	91	-121		47
	D	ZC4GR	ZC4	-	04 1/	8 2031	2031	FT8	30M	10,138.5	5 E		20							Y	65	105				12	91	-121		47
	D	ZC4GR	ZC4		04 1	9 1420	1421	FT8	10M	28,076.3	3		20	Y							44	162				-135		-71		47
	D	ZC4GR	ZC4		04 1	9 1622	1638	FT8	30M	10,136.7	1		20	Y							4:	166				-6	61	-161		
	D	ZC4GR	ZC4		04 1	9 1826	1834	FT8	30M	10,136.0	٤		20	Y							Y 30	i15				0	77	-159		47
	D	ZC4GR	ZC4		04 1	9 1936	2023	FT8	40M	7,074.0	٥		20	Y							46	<del>,</del> 94				-18	11	-252		
	D	ZC4GR	ZC4		04 2/	0 1424	1425	FT8	15M	21,074.0	٤		20	Y							49	185				-25	23	-30	16	
	D	ZC4GR	ZC4		04 2/	<b>ð 1806</b>	1806	FT8	40M	7,076.3	3		20	Y							37	/66				-31		-270		47
	D	ZC4GR	ZC4		04 2/	0 1803	1911	FT8	30M	10,136.0	٤		20	Y						Y	31	.27				5	81	-148		47
	D	ZC4GR	ZC4		04 2	2 1409	1409	FT8	20M	14,074.0	٥		20	Y							34	44				23	94	-60		47
	D	ZC4GR	ZC4		04 2	2 1640	1646	FT8	20M	14,074.0	3		20	Y							39	30				25	96	-64		47
	D	ZC4GR	ZC4		04 2	2 1821	1924	FT8	20M	14,074.0	٥		20	Y							46	987				28	97	-49	1	47
	D	ZC4GR	ZC4		04 2	3 1830	1830	FT8	15M	21,074.0	٥		20	Y							38	381				-26	21	-27	19	47
	D	ZC4GR	ZC4		04 2	3 1229	2136	FT8	20M	14,074.0	٥		20	Y			Y	1		Y		0	-24	-11	-13	26	96	-68	_	47
	D	ZC4GR	ZC4		04 2	3 2326	2331	FT8	20M	14,074.0	٥		20	Y							43	32				7	79	-41	6	
	D	ZC4GR	ZC4		04 2	5 1239	1240	FT8	20M	14,074.0	٥		20							Y	67	70				19	92	-47	3	47
	D	ZC4GR	ZC4		04 2/	5 1446	1446	FT8	20M	14,076.0	3		20							Y	52	150				23	95	-59		47
	D	ZC4GR	ZC4		04 2/	5 1533	1558	FT8	30M	10,136.0	3		20	Y						Y	47	28				-20	5	-147		47
	D	ZC4GR	ZC4		04 2	5 1741	1818	FT8	30M	10,136.6	3		20	Y						Y	4:	166				-7	60	-179		47
	D	ZC4GR	ZC4		04 2/	5 2045	2104	FT8	40M	7,074.6	3		20	Y							44	162				-1	77	-231		47
	D	ZC4GR	ZC4		04 2/	6 1531	1536	FT8	30M	10,136.6	3		20	Y						Y	46	i94				-20	5	-147		47
	D	ZC4GR	ZC4	-	04 2/	6 1649	1708	FT8	30M	10,136.0	3		20	Y						Y	34	159				-6	61	-161		47
	D	ZC4GR	ZC4	1	04 2	7 0742	0742	FT8	40M	7,075.4	4		20	Y							36	i15				-8	55	-240		47
	D	ZC4GR	ZC4		04 2°	7 1654	1654	FT8	40M	7,074.0	3		20	Y							35	69				-70		-293		47
	D	ZC4GR	ZC4	-	04 2°	7 1803	1809	FT8	40M	7,074.0	8		20	Y						Y	44	162				-31		-271		47
	D	ZC4GR	ZC4		<b>04</b> 2'	7 2004	2004	FT8	40M	7,074.6	3		20	Y							4	349				-1	76	-231		47
	D	ZC4GR	ZC4	1	04 3/	0 2027	2342	FT8	20M	14,074.0	3		20	Y		Y	Y					86				29	97	-49	3	47
	D	ZC4GR	ZC4		05 0	3 1148	1225	FT8	15M	21,074.6	8		20	Y						Y	37	04				-25	23	-121		4
	D	ZC4GR	ZC4		05 0	3 1352	1419	FT8	15M	21,075.7	1		20	Y					Y		16	943				-41	6	-37	9	4
	D	ZC4GR	ZC4		05 0	3 1609	1643	FT8	15M	21,075.7	1		20	Y							37	311				-61	1	-37	9	4
	D	ZC4GR	ZC4		05 0	3 1757	1838	FT8	15M	21,074.6	3		20	Y							36	593				- 59	1	-21	29	4
	D	ZC4GR	ZC4		05 0	4 1553	1553	FT8	20M	14,085.6	3		20							Y	57	250				26	96	-62		4
	D	ZC4GR	ZC4		05 0	4 1559	1559	FT8	20M	14,075.6	3		20				_			Y	57	250				26	96	-62		
	D	ZC4GR	ZC4		05 0	6 2200	2201	FT8	30M	10,136.0	8		20							Y	68	339				13	88	-84		
	D	ZC4GR	ZC4		05 0	6 2143	2227	FT8	40M	7,074.6	3		20	Y						Y	37	100				5	86	-176		4
	D	ZC4GR	ZC4		05 0	7 0753	0753	FT8	15M	21,075.7	1		20	Y							44	162				-143		-137		
	D	ZC4GR	ZC4		05 0	7 0757	0757	FT8	12M	24,915.6	3		20							Y	61	303				-119		-167		
+	D	ZC4GR	ZC4		05 0	8 1917	1939	FT8	15M	21,074.6	3		20	Y							32	206				-2	64	-31	15 -	4
					_	_	<u> </u>		_		_			_			_				_	-						_		4
Sort	1	- Filter: Pav		nd Cont at		-nd IDYC	C-7041						Cr																	4
C Fir	st C Ca	ZC4		AutoHide	Need	Call	DXCC	Freq	Tag	Band Mode	1 Cont	Ori	ain	verified	es 📕	wyrkd B	er M	- Lathr												
C La	st C Fre	4 P5	udio Age Lo	TW eQSL Mith	n									unneeded	- <b>F</b> -	inwrkd co	ounter	COCW	G											
🕘 🍽 Re	AV C Az	$ (   \leftarrow   \rightarrow   ) $			~~~	DX 160 I	DX 80 /	, DX 40 I 7	DX 30 I	DX 20   DX 17	I DX 15	≺D از	.6     🔳		I = 4	one cial tar	a 1	E 1.004.0	-021.40											/ F

### 20m ZC4GR Spots on 4/23 @ 1229Z

 $\bullet$ 

Spots of ZC4GR near 14074.0 in FT8		
2021-04-23 12:29 de S53E0	(EU) on	14074.0 : SNR = -03
· ·		
1		
2021-04-23 16:37 de SV2CSR	(EU) on	14074.0 : SNR = -10
2021-04-23 17:30 de AA6YQ	(NA-E) on	14076.6 : CQ from KM65
2021-04-23 17:35 de AA6YQ	(NA-E) on	14076.6 : calling EA3HYN with SNR = -05
2021-04-23 17:45 de UR5QBB	(EU) on	14074.0 : SNR = -12
2021-04-23 17:48 de AA6YQ	(NA-E) on	14076.6 : calling URSQBB with RR73
2021-04-23 17:49 de MIOJZZ	(EU) on	14074.0 : SNR = -24
2021-04-23 17:49 de MI0JZZ	(EU) on	14074.0 : SNR = -20
2021-04-23 17:50 de AA6YQ	(NA-E) on	14076.6 : calling LB2EG with SNR = -11
2021-04-23 17:51 de AA6YQ	(NA-E) on	14076.6 : calling DLSRMM with RR73
2021-04-23 17:56 de MIOJZZ	(EU) on	14074.0 : SNR = -20
2021-04-23 18:01 de MI0022	(EU) ON	14074.0 : SNR = -12
2021-04-23 18:04 de F6BHK	(EU) on	14074.0 : SNR = -19
2021-04-23 18:09 de DCOKK	(EU) on	14074.0 : SNR = -11
2021-04-23 18:09 de MI0JZZ	(EU) on	14074.0 : SNR = -12
2021-04-23 18:13 de KX4WQ	(NA-E) on	14074.0 : SNR = $-24$
2021-04-23 18:16 de AA610 2021-04-23 18:23 de bb6Y0	(NA-E) ON (NA-E) ON	14076.6 : calling EASTZJ with SNP = -06
2021-04-23 18:27 de AA6YQ	(NA-E) on	14076.6 : calling LAGNNA with SNR = -10
2021-04-23 18:29 de G8KVM	(EU) on	14074.0 : SNR = -12
2021-04-23 18:30 de AA6YQ	(NA-E) on	14076.6 : calling S56KFG with SNR = $-14$
2021-04-23 18:35 de AA6YQ	(NA-E) on	14076.6 : calling DJ2VA with SNR = -01
2021-04-23 18:35 de AA6YQ	(NA-E) on	14076.6 : calling LZ3CB with SNR = +11
2021-04-23 18:35 de 12305	(NA-E) on	14074.0 : SNR - +05 14076.6 : calling LZ3CB with BB73
2021-04-23 18:36 de DL3UB	(EU) on	14074.0 : SNR = -11
2021-04-23 18:42 de G8KVM	(EU) on	14074.0 : SNR = -15
2021-04-23 18:46 de 9A8DX	(EU) on	14074.0 : SNR = $-02$
2021-04-23 19:03 de AA6YQ	(NA-E) on	14076.6 : CQ from KM65
2021-04-23 19:04 de UR/UV	(EU) on	14074.0 : SNR = -11 14076.6 : calling S57FSG with SNR = +07
2021-04-23 19:09 de AA6YO	(NA-E) on	14076.6 ; calling IU5KZL with RR73
2021-04-23 19:10 de AA6YQ	(NA-E) on	14076.6 : calling LA3PU with SNR = +01
2021-04-23 19:10 de LA3PU	(EU) on	14074.0 : SNR = -13
2021-04-23 19:11 de AA6YQ	(NA-E) on	14076.6 : calling LA3PU with RR73
2021-04-23 19:16 de HA2ETP	(EU) on	14,074.0 : thanks and 73 gl!
2021-04-23 19:23 de RG4D	(EU) on	14074.0 : SNR = -15
2021-04-23 19:24 de G3UHU	(EU) on	14074.0 : SNR = -23
2021-04-23 19:31 de EA3AEY	(EU) on	14074.0 : SNR = -17
2021-04-23 19:33 de AA6YQ	(NA-E) on	14076.6 : calling EASAEY with SNR = -07
2021-04-23 19:36 de SQ6ELV	(EU) on	14074.0 : SNR = $-07$
2021-04-23 19:40 de IWSELR	(EU) on	14074.0 : SNR = $-17$
2021-04-23 19:49 de SV1PMQ	(EU) on	14074.0 : SNR = -14
2021-04-23 19:52 de SV1DZB	(EU) on	14074.0 : SNR = -12
2021-04-23 20:12 de I2AOX	(EU) on	14074.0 : SNR = $-24$
2021-04-23 20:26 de WB2SNN	(NA-E) on	14074.0 : SNR = -22
2021-04-23 20:27 de AA610 2021-04-23 20:31 de WB25NN	(NA-E) on (NA-E) on	14074 0 · SNR = -22
2021-04-23 20:31 de CO2WP	(NA-E) on	14074.0 : SNR = -24
2021-04-23 20:45 de DL1AE	(EU) on	14074.0 : SNR = -12
2021-04-23 20:49 de DG5YCG	(EU) on	14074.0 : SNR = -13
2021-04-23 20:56 de DF3WI	(EU) on	14074.0 : SNR = -12
2021-04-23 20:57 de AA6YQ	(NA-E) on (NA-E) on	14076.6 : Co from KM65
2021-04-23 21:02 de IZ2KTF	(EU) on	14074.0 : SNR = -19
2021-04-23 21:04 de AA6YQ	(NA-E) on	14076.6 : calling VA3QB with SNR = -15
2021-04-23 21:08 de PA1H	(EU) on	14074.0 : SNR = -14
2021-04-23 21:10 de EA3RT	(EU) on	14074.0 : SNR = -18
2021-04-23 21:15 de G4FFY	(EU) on	14074.0 : SNR = -19
2021-04-23 21:28 de AA610 2021-04-23 21:29 de TA2L	(AA-E) OD	14074.0 : SNR = -19
2021-04-23 21:29 de AA6YQ	(NA-E) on	14076.6 : calling TA2L with RR73
2021-04-23 21:36 de G/VNC	(EU) on	14074.0 : SNR = -17
		*

• QRV from 1229Z to 2136Z

WSJT-X copied from 1730Z to 2129Z

## 20m ZC4GR Spots on 4/30 @ 2027Z

Spots of ZC4GR near 1407	4.0 in FT8								3
2021-04-30 20:27 de	DL4ZBY	(EU)	on	14074.0	:	SNR :	= -16		~
2021-04-30 20:43 de	PY4WL	(SA)	on	14074.0	:	SNR :	= -20		
2021-04-30 21:27 de	DD5ZZ	(EU)	on	14074.0	:	SNR :	= -10		
2021-04-30 21:40 de	ON4CJU	(EU)	on	14,074.0	:	FT8	- TNX	QSO	
2021-04-30 22:27 de	SV9CVY	(EU)	on	14074.0	:	SNR :	= -18		
2021-04-30 22:39 de	K1JX	(NA-E	on	14074.0	:	SNR :	= -21		
2021-04-30 22:44 de	K1JX	(NA-E)	on	14074.0	:	SNR :	= -21		
2021-04-30 22:48 de	EA5HRW	(EU)	on	14074.0	:	SNR :	= -17		
2021-04-30 23:10 de	W4IL	(NA-E)	on	14074.0	:	SNR :	= -15		
2021-04-30 23:14 de	W4IL	(NA-E)	on	14074.0	:	SNR :	= -10		
2021-04-30 23:32 de	W4IL	(NA-E)	on	14074.0	:	SNR :	= -18		
2021-04-30 23:40 de	W4IL	(NA-E)	on	14074.0	:	SNR :	= -13		
									Ŧ
								Þ	

## **Propagation Conditions**



Geogmagnetic A Index

E



## **Check for Gray-Line Enhancement**

🛱 DXView Su	nrise/Su	nset @ 19:24:12	Z		
		– DX: Cyprus (	UK Military Bases	🗌 Auto update	•
Calculate	:	34 35' 59" N	32 58' 58" E	2021-04-01	Date Sunset GL Sti X
O Sun rise	& set	Latitude	Longitude	Starting Date	Selected Time
<ul> <li>Gray-Line</li> </ul>	;	Q	TH-DX Gray-line (	GL) Paths	
Date	Sunris	se GL Start	Sunrise GL End S	unset GL Start	Sunset GL End
1					

None!

### 20m Propagation Forecast to ZC4

#### Solar Flux Index = 75, DX running 100 watts



#### 17m, 20m, 30m, and 40m look feasible

### Check "Actual" Propagation

#### NCDXF 4X6TU Beacon is ~230 miles from ZC4

🔅 Prop	🗜 PropView Beacon Monitor @ 03:37:41 06-May-2021 [CC,DXV,SC]									
Monit	tor									
	nable		🗆 QSY	🔲 Ma	P	Predict		Config		Help
Ban	d	Beacons -				- Octant -		Transce	iver-	
0 2 0 1 0 1 0 1 0 1	20m 7m 5m 2m 0m	<ul> <li>✓ 4S7B</li> <li>✓ 4U1UN</li> <li>✓ 4×6TU</li> <li>✓ 5×4B</li> <li>✓ CS3B</li> <li>✓ JA2IGY</li> </ul>	<ul> <li>☐ KH6RS</li> <li>☐ LU4AA</li> <li>☐ 0A4B</li> <li>☐ 0H2B</li> <li>☐ RR90</li> <li>☐ VE8AT</li> </ul>		6RBP 28 3WX 58 68 6DN	<ul> <li>C 315</li> <li>C 270</li> <li>C 225</li> <li>C 180</li> <li>□ Rotate</li> </ul>	C 0 C 45 C 90 C 135		Offs	et (Hz)
Beac	on Sched	ule (1 cycle)	)							
Time	Call	City			DXCCI	Country		Freq (khz)	SP	Dist (mi)
10	<u> </u>							<u>  </u>		
20	AVCTU	T al Acric			lareal			14100	FF	E40C
30	4/10 14/26111				Israel			19110	55	5486
40	4×610	Tel Aviv			Israel			21150	55	5486
50	4×6TU				Israel			24930	55	5486
60	4×6TU	Tel Aviv			Israel			28200	55	5486
70										
80										
90										
100										
110										
120										
140	<u> </u>									
140	<u> </u>									
160	<u> </u>									
170	<u> </u>							-	—ł	

### **Check "Actual" Propagation**

Who Near Me has been Spotting Stations Near ZC4?

Define a "near ZC4" filter to show stations

- In ZC4, 5B4, TA, OD, 4X, SU
- spotted by stations less than 500 miles from my QTH

nr ZC4 (DXCCPrefix in (ZC4'/584'/TA'/0D'/4X'/SU')) and (0DX<500)

#### Propagation from "Near Me" to "Near ZC4" Stations in ZC4, 5B4, TA, OD, 4X, SU spotted by stations within 500 miles of my QTH

WW VD 50/000052       Closest Spotter       Closest Spotter       Closest Spotter         Sh       Ti       Image       Colspan="2">Closest Spotter       Spotter       Closest Spotter	
Image: Set 7       A matrix       Cool (a) TAZE       Z Dool (b) State       Prop. Config       Help       Spotted from Regions       Actual SNR         0: 0       A       4       1       K       Mode       First       Last       Mode       Band       Freq       QSX       Q       Pri       EU       AF       SA       NA-E       NA-M       NA-W       AS       OC       OD       S       Min       S       Last       SP       P       P         V	1.1.1.1
Local report       Local report <thlocal report<="" th="">       Local report       <thl< td=""><td></td></thl<></thlocal>	
Need         Call         Prefix         RegCode         First         Last         Mode         Band         Freq         QSX         CQ         Pri         EU         AF         NA-M         NA-M         AS         OC         ODX         S         Max         S         Last         SP         P         P           D         ZC4GR         ZC4         04         23         1229         2136         FT8         20M         14,074.0         20         Y         V         V         V         0         6         -24         -11         -13         26         96         -4           D         ZC4GR         ZC4         04         20207         224         FT8         20M         14,074.0         20         V         V         V         0         8         88         0         20         V         V         V         0         8         88         0         20         V         V         V         V         0         8         88         20         14,076.4         20         V         V         V         V         V         V         V         V         V         V         V         V         V	
D       D       C 4 GR       Z C 4 GR       Q 4 23 122 2 136       FT8       20M       14,074.0       20       Y       Y       V       P       0      24      11      13       26       96	LP P
D       ZC4GR       ZC4       04 30 2027       2342       FT8       20M       14,074.0       20       Y       Y       Y       K       K       86       C       29       97       -4         D       YMBDAG       TA       05 04 226       226       FT4       6M       50,318.0       20       K       Y       Y       K       K       K       I       I       C       I       I       C       I       I       C       I       C       I       I       C       I       I       C       I       C       I       I       C       I       C       I       I       C       I       I       C       I       <	
D YM8DAG         TA         05 04 2226         2226         FTA         6M         59,318.0         20         V         V         V         IB8         0         0         V         V           M         TA6B         TA         05 04 2230         2230         FTB         200         14,975.3         20         V         V         V         V         0         319         V         V         20         97         C         53         10         0         20         97         V	3
TAGB       TA       05 04 2230       2230       FTB       20M       14,075.3       20       V       V       V       319       0       24       95       -:         4X5VA       4X       05 04 2230       2230       FTB       20M       14,076.4       20       0       V       V       0       319       0       0       29       97       -:         TC568FA       TA       05 04 1329       2241       SB       20M       14,257.0       20       V       V       V       V       40       0       233       0       233       74       -:         TA71       TA       05 04 1215       2317       SB       20M       14,257.0       20       V       V       V       V       40       0       233       74       -:         TA2LG       TA       05 04 2115       2317       SSB       20M       14,232.0       20       V       V       V       V       V       40       13       34       -:       13       34       :       13       34       :       13       34       :       13       34       :       13       34       :       13       36	
4X5VA       4X       05 04 2238       2238       FT8       200       14,976.4       20       V       V       V       319       0       29       97       -:         TC568FA       TA       05 04 1329       2241       SSB       200       14,257.0       20       Y       Y       Y       Y       40       0       27       63       -:         TA71       TA       05 04 1215       2317       SSB       200       14,267.0       20       Y       Y       Y       Y       40       0       23       74       -:         TA2LG       TA       05 04 2115       2317       SSB       200       14,232.0       20       Y       V       V       V       149       0       13       34       -:         SU1AS       SU       05 04 2339       2341       FT8       400       7,074.0       34       V       V       V       V       29       0       13       36       -:12       -:3         424XX       4X       05 05 0241       0242       CW       80M       3,564.0       20       V       Y       V       0       66       28       65       -:2	15
Interstant       IA       05 064 1329 2241 558       200       14,257.0       20       Y <td>16</td>	16
IA/1       IA       05 04 2125 2235 CW       200       14,0004.0       20       1	
IACG       IA       05 04 2115 2317 358       201       14,322 0       1       1       1       1       143       1       143       1       143       1	
4Z4KX       4X       05 05 024       0242       0W       30       350       20       1       1       10 <td></td>	
TAOS       TA       OS 05 0212       OS 0101       SSB       OM       14,256.0       20       Y       Y       Y       G6       28       65	
TA3DJ       TA       05 05 2015       2019       CW       30M       10,116.0       20       V       V       V       355       V       0       8       36       -11         TA2ANK       TA       05 05 2039       2039       FT8       20M       14,074.2       20       V       V       V       0       0       -20       -20       -20       20       27       96       -4         OD5ZZ       OD       05 05 2039       2039       FT8       20M       14,074.0       20       V       V       V       0       0       -20       -20       -20       28       97       -4         OD5ZZ       OD       05 05 2005       2041       FT8       20M       14,074.0       20       Y       Y       Y       U       193       U       28       97       -4         4X6HU       4X       05 05 2025       2047       SSB       20M       14,307.0       20       Y       Y       Y       U       193       U       28       97       -4         TA2/05       TA       05 05 2222       2222       FT8       20M       14,307.0       20       Y       Y       Y	
TA2ANK       TA       05 05 2039       2039       FT8       20M       14,074.2       20       V       V       V       0	
0D5ZZ       0D       05 05 1935       2041       FT8       20M       14,074.0       20       Y       Y       Y       Y       193       28       97       -4         4X6HU       4X       05 05 2005       2047       SSB       20M       14,307.0       20       Y       Y       Y       Y       64       31       70       -2         TA70YG       TA       05 05 2222       2222       FT8       20M       14,4074.0       20       Y       Y       Y       64       31       70       -2         TA210       TA       05 05 2222       2222       FT8       20M       14,4074.0       20       Y       Y       Y       64       24       95       -2         TA210       TA       05 05 2222       2222       FT8       20M       14,4074.0       20       Y       Y       Y       46       24       95       -2       -2       10       14,202.0       20       Y       Y       Y       Y       146       24       95       -2       23       57       23       23       23       23       23       23       23       23       23       23       23       23	4
4X6HU         4X         05 05 2005         2047         SSB         20M         14,307.0         20         Y         Y         64         31         70            TA70YG         TA         05 05 2222         2222         FT8         20M         14,074.0         20         Y         Y         64         24         95            TA20YG         TA         05 05 2222         2222         FT8         20M         14,074.0         20         Y         Y         46         24         95            TA216         TA         05 05 2222         2223         FSB         20M         14,074.0         20         Y         Y         46         24         95	6
TA70YG         TA         05 05 2222         2222         FTB         20M         14,074.0         20         Y         46         24         95         -:           T0216         T0         05 05 2222         2222         FTB         20M         14,074.0         20         Y         46         24         95         -:	
	14
	1
4Z5ML 4X 05 06 0214 0237 CW 40M 7,024.0 20 Y S 10 58 10 10 48 -5	
TA2ABX TA 05 06 1459 1503 SSB 20M 14,217.0 20 Y Y 1 186 26 61 -6	
4Z5KU 4X 05 06 1906 1906 FT8 17M 18,102.4 20 Y 319 18 319 18 91 -3	13
TA70YG TA 05 06 2020 2021 FT8 40M 7,076.5 20 Y 474 -16 18 -22	
TA1PB TA TA1 05 06 2103 2103 CW 30M 10,103.0 20 Y 355 13 58 -12	
4X6HU         4X         05 06 2003         2057         SSB         20M         14,282.0         20         Y         Y         Y         423         31         70         -33	$\left  \right $
TA3DJ TA 05 06 2057 2105 CW 30M 10,117.0 20 Y Y 3355 8 36 -13	
TAOS TA 05 06 2128 2128 FT8 20M 14,076.6 20 Y 483 30 97 -3	10
IA6B         IA         05 05 2130 2130 1130 200         14,0/4,0         20         Y         400         25 95	9
4AAS         4A         05 00 2440 2335 [r]0         4011 7 (76/5)1         20         T         T         0         0         -15         -15         -15         -5         05         -12           TATOLY         TA         A G 6 0 111 2155 [F10         4011         7 (76/5) 1         20         T         T         0         -15         -15         -15         -5         05         -12	
TATT TA 9 66 6196 1220 558 200 14.30,0 20 Y Y Y Y Z 267 25 66 -	
TA2LG TA 05 06 1210 ISB 200 14.564.0 20 Y Y Y Z 267 25 60 -	$\vdash$
TAIPE TA TAI 05 06 2234 2235 CW 40M 7,003.0 20 Y 355 9 44 -17	
4Z1KN 4X 05 07 0025 0026 FT8 40M 7.074.0 20 Y 143 10 92 -1	
TA2SE TA 05 07 0011 0012 CW 40M 7,030.0 20 Y 355 16 63 -12	
TA2HC TA 05 06 2343 0134 FT8 40M 7,074.0 20 Y Y Y O 0 -19 -11 -13 10 88 -16	
TA2LG TA 05 07 0152 0154 SSB 40M 7,128.0 20 Y 15 7 15 7 4 -17	
4Z5ML         4X         05 07 0405         0407         FT8         40M         7,076.9         20         Y         0         0         -10         -12         -12         4         86         -17	
	▶
Sort Color codes	

### Propagation from "Near Me" to "Near ZC4"



#### Propagation Openings?

- 20m: 12Z to 23Z
- 30m: 20Z to 21Z
- 40m: 20Z to 23Z

# **Compare Actual & Forecast Propagation**



## **ZC4GR: The Plan**

#### 1. Monitor the 20m FT8 sub-band from 12Z to 23Z, especially

- when the Solar Flux Index is 75 or above
- when the NCDXF 4X Beacon can be copied

When QRV?

- 15m: 11Z to 18Z
- 20m: 12Z to 23Z
- 30m: 15Z to 20Z
- 40m: 16Z to 21Z

- Propagation Openings?
- 20m: 12Z to 23Z
- 30m: 20Z to 21Z
- 40m: 20Z to 23Z
- 2. Employ a European DX Cluster as a Spot Source
- 3. Rapidly QSY if ZC4GR is spotted on another band
  - Enable audio announcements
  - Exploit Frequency-dependent Amplifier and Tuner settings

## **ZC4GR: The Plan**

- 1. Monitor the 20m FT8 sub-band from 12Z to 23Z, especially
  - when the Solar Flux Index is 75 or above
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### **Multiple Views of Active DX**



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#### Rapidly Setup Amplifier After QSY

🛞 Commander 15.1.3 [FlexRadio SDR-65	00 (no connection)] @ 03:17:16 Z 7,074.0	• •
VF0 \$9 + 20db	At VFO	•
	TX         RX         High-cut         100           IX         RX         Low-cut         138	•
IC-7800 C           Split         F6500 €           Dual receive         IC-7300 C           Ham bands only         TS-2000 C	AL1200 Plate 4 Load 2 Band	40
Mode: USB C LSB (Wide) FM (Normal) C G USB (Normal) AM (Normal) C C SV (Normal) DISI (Normal) C	- <b>ATR-30</b> Xmit 6.5 Ant 4.5 L	75
C RTTY (Wide) DIGU (Normal) C		
Banaspread Misgs Conrig	LTF8 ALT ALTF9 ALTF10 ALTF11	ALT F12
	SHIFT	
Slider 13 Slider 14	Slider 11     Slider 11       Slider 15     Slider 15	er 12

🗎 Commander Configurati	on				_		×
Filter Groups Memorie	s MultiRadio		Bandspread	Transv	verters		
General Ports	AL1200		ATR-30	Alpha		Test	$\neg$
		Device	Table				
Enabled	Plate		Freq	Plate	Load	Band	
	Control 1	•	1800	2	0	160	
	Control 1		1825	2	0	160	
AL1200	Load		1850	2	0	160	
Device Name	Control 2		1900	0	5	160	
Device Name	Control 2		3500	1.5	0	80	
3 2 %	Band		3525	1.5	0	80	
# Controls Tolerance	Control 2		3550	2	2	80	
# controls Trolerance	Control 5		3600	2	2	80	
	ŀ		2700	2.0	2.0	00	
Setting Readout Colors	7 F		3750	2.5	2.5	80	
Fout 1			3800	3	3	80	
Font			3825	4	3	80	
Bestween d			3950	4	3	80	
Backgound			7000	4	2	40	
Defeat			7025	4	2	40	
Derault			7050	4	2	40	
	- [		7100	4.25	2	40	
			7150	4.5	0	40	
			7200	4.75	0	40	
			10100	9.25	5.75	40	
	-		10150	9.25	5.75	40	
	-		14000	9.25	5.75	40	
	-		14000	7.75	3.5	20	
	ŀ		14100	7.75	4	20	
	ŀ		1/150	7.75	4	20	-
Data File C:\Program Files (x86)\DXL Filename Select Reload	ab Suite\CI-V Comm	nander\	Tune1200.txl	1		Help	

## **ZC4GR: The Plan**

#### 1. Monitor the 20m FT8 sub-band from 12Z to 23Z

#### When QRV?

- 15m: 11Z to 18Z
- 20m: 12Z to 23Z
- 30m: 15Z to 20Z
- 40m: 16Z to 21Z

#### Propagation Openings?

- 20m: 12Z to 23Z
- 30m: 20Z to 21Z
- 40m: 20Z to 23Z

#### 2. Employ a European DX Cluster as a Spot Source

- 3. Rapidly QSY if ZC4GR is spotted on another band
  - Enable audio announcements
  - Exploit Frequency-dependent Amplifier and Tuner settings

## ZC4GR: Success!

#### 20m FT8 @20:12Z

Spots of ZC4	GR near 1	14076	5.2 in FT8					
2021-08-14	20:12	de	AA6YQ	(NA-E)	on	14076.2 :	:	CQ from KM65
2021-08-14	20:15	de	IZ4UFQ	(EU)	on	14074.0 :	:	ZC4GR called by IZ4UFQ reported SNR = -10
2021-08-14	20:18	de	AA6YQ	(NA-E)	on	14076.2 :	:	calling YL2SW with SNR = +04
2021-08-14	20:18	de	AA6YQ	(NA-E)	on	14076.2 :	:	calling YL2SW with RR73
2021-08-14	20:19	de	AA6YQ	(NA-E)	on	14076.2 :	:	calling JK10ZS with RR73
2021-08-14	20:20	de	DL4DW	(EU)	on	14074.0 :	:	ZC4GR called by DL4DW reported SNR = -20
2021-08-14	20:26	de	DL8AKI	(EU)	on	14074.0 :	:	ZC4GR called by DL8AKI reported SNR = -05
2021-08-14	20:27	de	AA6YQ	(NA-E)	on	14076.2 :	:	calling DL8AKI with RR73
2021-08-14	20:29	de	F4CQR	(EU)	on	14074.0 :	:	ZC4GR called by F4CQR reported SNR = -14
2021-08-14	20:29	de	AA6YQ	(NA-E)	on	14076.2 :	:	calling KZ9DX with SNR = -12
2021-08-14	20:31	de	AA6YQ	(NA-E)	on	14076.2 :	:	calling WA9WUD with SNR = -14
2021-08-14	20:34	de	AA6YQ	(NA-E)	on	14076.2 :	:	calling AA6YQ with SNR = -02
2021-08-14	20:34	de	AA6YQ	(NA-E)	on	14076.2 :	:	calling AA6YQ with RR73
2021-08-14	20:35	de	AA6YQ	(NA-E)	on	14076.2 :	:	calling KZ9DX with SNR = -09
2021-08-14	20:39	de	AA6YQ	(NA-E)	on	14076.2 :	:	calling UA9AAE with SNR = -06
2021-08-14	20:48	de	AA6YQ	(NA-E)	on	14076.2 :	:	calling OK1EK with SNR = +24
2021-08-14	20:48	de	OK1EK	(EU)	on	14074.0 :	:	ZC4GR called by OK1EK reported SNR = +00
2021-08-14	20:50	de	AA6YQ	(NA-E)	on	14076.2 :	:	calling CT1BWU with SNR = +05
2021-08-14	20:51	de	CT1BWU	(EU)	on	14074.0 :	:	ZC4GR called by CT1BWU reported SNR = -22
2021-08-14	20:51	de	AA6YQ	(NA-E)	on	14076.2 :	:	calling CT1BWU with RR73
2021-08-14	20:52	de	AA6YQ	(NA-E)	on	14076.2 :	:	calling PY3DXM with SNR = -08
2021-08-14	20:53	de	AA6YQ	(NA-E)	on	14076.2 :	:	CQ from KM65
2021-08-14	20:54	de	CT1BWU	(EU)	on	14,074.0 :	:	All ok in Log 73.
2021-08-14	20:54	de	AA6YQ	(NA-E)	on	14076.2 :	:	calling DL9QB with SNR = +11
2021-08-14	20:55	de	DL9QB	(EU)	on	14074.0 :	:	ZC4GR called by DL9QB reported SNR = -09
2021-08-14	20:56	de	AA6YQ	(NA-E)	on	14076.2 :	:	calling DL9QB with RR73
2021-08-14	20:57	de	EA3HKA	(EU)	on	14074.0 :	:	ZC4GR called by EA3HKA reported SNR = -19

#### ZC4GR: Success!

					20m
203415	-17	0.3	2193	~	AA6YQ ZC4GR -02
203415	-6	0.3	500	~	CQ HB9LBC JN47
203415	-4	0.4	2922	~	<mark>PJ4EVA</mark> 5X3R 73
203415	15	0.3	2565	~	CQ HA7TM JN97
203415	-10	0.3	659	~	SM5FQQ PF1B R-01
203415	-16	0.3	203	~	PY2BMX 2E0ELA -20
203415	12	0.3	2414	~	LU6XQB <mark>OG2A</mark> KP11
203415	2	0.5	1275	~	5B4AHL F5RRS -06
203415	3	0.6	1491	~	<mark>K4FW</mark> PA3EPP -14
203415	-2	0.3	398	~	5B4AHL EB3JT JN01
203415	4	0.6	976	~	<mark>KS3F</mark> IT9SSI 73
203415	-9	0.4	606	~	MW7FRN <mark>LA3BUA</mark> JP77
203415	-7	0.3	1639	~	PC2K EA3EDU R-21
203415	-15	0.7	810	~	6Y5DW NODOW EN26
203415	-2	0.4	745	~	GJOKYZ <mark>KA2NFG</mark> R-03
203415	4	0.7	1998	~	AA6YQ UA3LSX KO65
203415	-7	0.7	1145	~	HA1RB IK8BDA JM78
203415	-10	0.3	2279	~	G3VMW KN4CNU EM75
203415	-5	0.4	1426	~	CQ SV2STE KN00
203415	-3	-1.7	1834	~	KP4JFR <mark>RC1C</mark> 73
203415	-1	0.3	1761	~	K4MM <mark>W4HKJ</mark> R-11
203415	-15	0.2	333	~	CQ 9A7PBV JN85
203415	-7	1.3	2084	~	CQ UW5KW KO30
					20m
203445	-13	0.3	2193	~	AA6YQ ZC4GR RR73
203445	-8	0.4	500	~	CQ HB9LBC JN47
203445	4	0.5	1491	~	K4FW PA3EPP RR73
203445	-8	0.4	606	~	MW7FRN LA3BUA R-15
203445	-5	0.5	2922	~	K6VVK 5X3R -12
203445	-7	0.3	659	~	SM5FQQ PF1B 73
203445	17	0.3	2565	~	CQ HA7TM JN97
203445	-8	0.3	2084	~	PP5TI UW5KW KO30
203445	-6	0.7	1144	~	HA1RB IK8BDA JM78
203445	13	0.3	2415	~	LU6XQB <mark>OG2A</mark> KP11
203445	-8	0.3	1639	~	PC2K EA3EDU 73
203445	-1	0.3	398	~	5B4AHL EB3JT JN01
203445	5	0.6	976	~	CQ IT9SSI JM78
203445	-16	0.3	202	~	PY2BMX 2E0ELA -20
203445	0	0.3	1703	~	SV9RGI N50B -15
203445	-18	0.5	871	~	<kp4jfr> TK/F4HVZ/P</kp4jfr>
203445	-8	0.3	748	~	5B4AHL PA1EL JO22
203445	1	0.5	1275	$\sim$	5B4AHL F5RRS RR73

WSJT-X v2.4.0 by K1JT, G4WJS, K9AN, and IV3NWV - Log QSO 83 Click OK to confirm the following QSO: Call Start End ZC4GR 2021-08-14 20:34:00 🗧 2021-08-14 20:35:00 🗧 Mode Band Rpt Sent Rpt Rcvd Grid Name FT8 20m -17 -02 Retain Tx power 800 Retain Comments Operator AA6YQ Exch sent Rcvd Retain Prop Mode • OK Cancel

#### ZC4GR: Success!



#### **Propagation Openings?**

- 20m: 12Z to 23Z
- 30m: 20Z to 21Z
- 40m: 20Z to 23Z
## ZC4GR: Success!

ZC4GR confirmation	n.txt - Notepad							• •
<u>F</u> ile <u>E</u> dit F <u>o</u> rmat	<u>V</u> iew <u>H</u> elp							
ARRL Logbook Generated at for aa6yq Query: OWNCALL: QSL ONLY: QSL RX SINCE: <programid:4></programid:4>	of the World 2021-08-25 02 AA6YQ YES 2021-08-22 1 LoTW	Status Report :03:19 9:14:20 (user	supplie	d value)				
<app las<="" lotw="" td=""><td>TQSL:19&gt;2021-</td><td>08-24 20:25:24</td><td>4</td><td></td><td></td><td></td><td></td><td>_</td></app>	TQSL:19>2021-	08-24 20:25:24	4					_
<app_lotw_num< td=""><td>REC:1&gt;7</td><td></td><td></td><td></td><td></td><td></td><td></td><td>F</td></app_lotw_num<>	REC:1>7							F
Date	Time	Call	Band	Mode	Submode	Station Call	Result	
2021-08-14	20:34:00	ZC4GR	20M	FT8		AA6YQ	new confirmation for U K Bases on Cyprus: FT8	
LotW operatio	ns: 7 QSLs pr	ocessed, 7 log	g entrie	s updated, 0 erro	rs			
•								▼ ⊞ 4

# Working ZC4GR in CW, RTTY, or SSB

- 1. "Blueprint" the band with local spots
- 2. If ZC4GR is spotted, double-click to QSY and set split
- 3. Use dual receivers and a panadaptor to rapidly locate ZC4GR's listening frequency

#### **Multiple Views of Active DX**



## **Blueprinting the Band**

"Locally Spot" Every Station You Identify

🔤 Commander
18,152.5 I
18,150.0
18,147.5
18,145.0
18,142.5
18,140.0
18,137.5
18,135.0
18,132.5
18,130.0
Band
160 80 60 40 30 20 <b>17</b>
15 12 10 6 4 2 .7
Spotcollector Config Help

# Working ZC4GR in CW, RTTY, or SSB

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#### **Commander: Multiple Radio Support**



Select one of four primary radios

- By button click
- Automatically as a function of frequency

#### **Commander: Multiple Radio Support**



The Secondary radio can

- Follow the active primary radio Main or Sub VFO
- Lead the active primary radio

#### **Commander: Multiple Radio Support**



Lead the active primary radio •



## **DXing With DXLab**

#### Introduction to the DXLab Suite

- Architecture
- Development Drivers
- Multiple Views of Active DX
- Finding the DX You Need
- Working the DX You Need

## **DXLab Documentation**

- Reference documentation
  - HTML: Online and local
  - PDF: Online
  - Updated with each version
- Task-oriented documentation
  - Step-by-step instructions for common actions
  - HTML: Online

#### www.dxlabsuite.com



Questions and suggestions are welcome in the DXLab Group, an open forum that you are encouraged to join.



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## **Better DXing Through Software**



## DXing with DXLab



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