













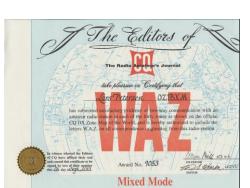






Tino Zottola, VE2GCE

Sept 19, 2022







Agenda

- Origin of QSL cards
- Electronic QSLs
 - ADIF and LoTW
 - OQRS and ClubLog
- Awards
 - ARRL
 - CQ Magazine
 - IARU
 - QRZ
 - eQSL
- What is a DXCC country?
- Award Hunting Tips
 - General operating tips and tools
 - CW/Phone and Digital mode specific tips
 - WAS, USAC, FFMA
 - DXCC, NA, SA, Europe
 - Asia
 - Africa
 - Oceania



Origin of QSL cards



Early Radio

- Receiving distant signals was the goal for many radio enthusiasts
- Listeners mailed "reception reports" to get written letter to verify distant station reception
- As volume of reception reports increased, stations sent post cards (proto-QSL) acknowledging reception
- Collecting cards became popular with AM listeners in 1920's and SW listeners in 1930's
- Reception reports used by early broadcasters to gauge transmitter effectiveness

<u>Amateur Radio</u>

- Earliest known QSL card: 1916 from 8VX in Buffalo, New York to 3TQ in Philadelphia, Pennsylvania
- Standardized card (callsign, frequency, date, etc.) developed in 1919 by C.D. Hoffman, 8UX, in Akron, Ohio

Many hams still collect physical QSL cards.

However, electronic QSLs are now dominant form of contact confirmation

Paper QSLs

Several ways of exchanging paper cards:

- Direct: Hams simply mail each other QSL cards, common in Canada and USA
 - Addresses were published in annual Callbooks from 1929-1997 and then discontinued with the advent of the internet
 - Addresses can now be found online. (e.g. qrz.com)
- Request QSL with payment: IRCs (International Reply Coupon), cash or Paypal
 - Sending QSLs can be a costly endeavour, especially for rare DX station
 - Do not put callsigns on envelopes with IRC or \$\$ inside. Thieves in some foreign PO target envelopes with callsigns
 - PayPal is safest way. Do not use 'Friends and Family' option. Use 'Goods and Services' option
- Via QSL Manager:
 - Card request (with payment) sent to designated manager (typically in USA or Europe)
 - Faster response than sending to DX contact directly
- Via QSL Bureaus:
 - Incoming Bureau (e.g. VE2/VA2)
 - Bureau manager accumulates cards from foreign bureaus and then sends you a bundle (See addendum for details)
 - Outgoing Bureau (e.g. Canada)
 - Send all your cards (sorted by country) in one bundle to outgoing bureau (See addendum for details)
 - Outgoing bureau will in turn send your cards to foreign bureaus
 - QSL exchange via bureaus can take up to 1 year, if not longer

Electronic QSLs

- 1) Digital modes (FT4/FT8) software (e.g. WSJT-X) automatically creates electronic QSL log
- 2) CW & Phone QSOs manually -> logger program (e.g. N1MM+, Ham Radio Deluxe) to create electronic QSL log
- → ADIF (Amateur Data Interchange Format)

Typical record (i.e. electronic QSL card) is shown below:

```
<call:6>KB2KOL
  <gridsquare:4>FN02
  <mode:3>FT8
  <rst_sent:3>-13
  <rst_rcvd:3>-10
  <qso_date:8>20211113 <time_on:6>010115
  <qso_date_off:8>20211113 <time_off:6>010200
  <band:4>160m
  <freq:8>1.841154
  <station_callsign:6>VE2GCE
  <my_gridsquare:4>FN35
  <eor>
```

Electronic log book contain ADIF records for each recorded QSO ADIF records can be manually easily edited if needed.

LoTW

In 2003, ARRL introduced electronic QSL system LoTW (Logbook to The World)

- Service is free. Hams outside USA need not be a member of ARRL.
- Must be registered with ARRL. They require a copy of your license.
- ARRL sends you a callsign certificate after verifying your credentials



- LoTW server compares the QSO submission of both parties. (i.e. double blind compare)
- If both records match, a validated electronic QSL record is created in LoTW
 - → QSO times and frequencies do not need to be an exact match

Can be used to apply for ARRL awards (DXCC, WAS, VUCC and FFMA) as well as other awards (QRZ, IARU, CQ Magazine)

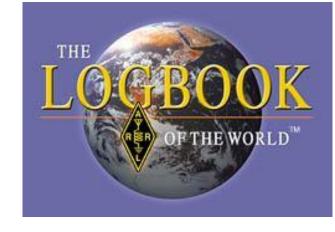
- Integrated with existing paper QSL records. Some DX stations still only confirm via paper QSL cards
- You can get paper QSLs checked locally and credited to ARRL awards (See addendum for details)
- LoTW is golden standard of electronic QSO verification systems

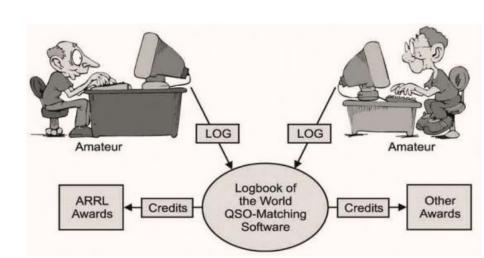
Advantages:

- Confirmation can be instantaneous
- Mailing costs eliminated + environmental friendly (No paper involved)

Disadvantages:

- Paper QSL credits cannot be used for non-ARRL awards (e.g. QRZ and eQSL)
- 60 meter contacts are confirmed, but not counted towards any ARRL awards





LoTW

Confirmed QSOs appear in the LoTW database as follows:

Missade Dinitale 12Ms Challanas
Mixed; Digital; 12M; Challenge
Mixed; Digital; 12M; Challenge
Mixed; Digital; 15M; Challenge
Mixed; Digital; 40M; Challenge
Mixed; Digital; 80M; Challenge
Mixed; Digital; 15M; Challenge
Mixed; Digital; 30M; Challenge
Mixed; Digital; 12M; Challenge
Mixed; Digital; 12M; Challenge
Mixed; Digital; 40M; Challenge
✓ 12M; Challenge
✓ 15M; Challenge
Mixed; Digital; 10M; Challenge
Mixed; Digital; 12M; Challenge
Mixed; Digital; 12M; Challenge

• Running totals for each award with your confirmed contacts:

WAS Award	New LoTW QSLs	LoTW QSLs in Process	WAS Credits Awarded	Total	
<u>Mixed</u>	50	0	0	50	
<u>160M</u>	46	0	0	46	
<u>80M</u>	50	0	0	50	
<u>40M</u>	50	0	0	50	
<u>30M</u>	50	0	0	50	
<u>20M</u>	50	0	0	50	
<u>17M</u>	50	0	0	50	
<u>15M</u>	50	0	0	50	
<u>12M</u>	50	0	0	50	
<u>10M</u>	50	0	0	50	
<u>6M</u>	35	0	0	35	
<u>Digital</u>	50	0	0	50	
<u>FT4</u>	<u>FT4</u> 48		0	48	
<u>FT8</u>	50	0	0	50	

DXCC Award	New LoTW QSLs	LoTW QSLs in Process	DXCC Credits Awarded	Total (All)	Total (Current)
<u>Mixed</u>	165	0	0	165	165
<u>Digital</u>	165	0	0	165	165
<u>160M</u>	5	0	0	5	5
<u>80M</u>	69	0	0	69	69
<u>40M</u>	103	0	0	103	103
<u>30M</u>	103	0	0	103	103
<u>20M</u>	124	0	0	124	124
<u>17M</u>	113	0	0	113	113
<u>15M</u>	108	0	0	108	108
<u>12M</u>	100	0	0	100	100
<u>10M</u>	49	0	0	49	49
<u>6M</u>	8	0	0	8	8
Challenge	782	0	0		782

ARRL Awards

ARRL was one of the first organizations to introduce awards based on accumulated QSL cards

Contacts initially confirmed by honor system, then mailed-in QSLs, then local checkers and finally by LoTW.

- DXCC (100 countries)
- WAS (50 states)
- VUCC (VHF UHF Century Club)

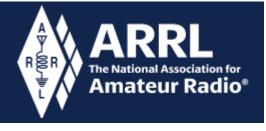
Maidenhead map divides world \rightarrow 324 x squares, each square \rightarrow 100 grids (e.g. My QTH = FN35)

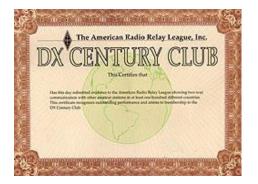
AR	BR	CR	DR	ER	FR	GR	HR	IR	JR	KR	LR	MR	NR	OR	PR	QR	RR
AQ	BQ	cq	00	EQ	FQ	60	HQ	10	JQ	KQ	LQ	MQ	NQ NQ	. 00	PQ	00	RQ
AP	BP	CP	DP	EP	FP	GP	HP	IP	JP	кР	LP	MP	NP	OP .	PP	QP	RP
AO .	B0	co	00	EO	FO	60	HO	10	J0	ко	LO	M0 -	. NO	00	PO =	00	RO
AN	BN	CN	DN	EN	FN	GN	HN	IN	JN	KN	LN	MN _	NN	ON	PN	QN	RN
AM	BM	СМ	DM	EM	FM	GM	нм	IM	JM	ки	LM	m	NM	on	PM	QM	RM
AL	BL	CL	DL	EL	FL	GL.	HL	IL	JL	КL	u	nL .	NL	OL	PL	QL	RL
як	BK	СК	DK	EK	FK	GK	НК	IK	JK	кк	LK	МК	NK	ОК	PK	QK	RK
AJ	BJ	CJ	DJ	EJ	FJ	3	нл	13	JJ	KJ	IJ	МЛ	NJ	0.1	PJ	đì	RJ
AI	BI	CI	OI	ΕI	FI	GI	HI	11	Л	кі	LI	MI	NI	01	PI	QI	RI
AH	BH	СН	DH	ЕН	FH	GH	НН	IH	JH	кн	LH	МН	NH	ОН	PH	QH	RH
AG	BG	CG	DG	EG	FG	06	HG	IG	JG	KG	LG LG	MG	NG	og (PG	QG	RG
AF	BF	CF	OF	EF	FF	GF GF	HF	IF	JF	KF	LF	MF	NF	0F	PF	QF	RF
AE	BE	CE	DE	EE	FE	GE	HE	IE	JE	KE	LE	ME	NE	0E	PE	QE	RE
AD .	BD	CD	00	ED	FD	60	HD	ID	JD	КО	ம	МО	ND	OD	PD	QO	RD
AC	BC	cc	DC	EC	FC	60	HC	IC	JC .	кс	LC	ис	NC	oc	PC	QC .	RC
AB	BB	СВ	OB	ЕВ	FB	G8	НВ	IB	JB	кв	LB	мв	NB	OB	PB	QB	RB RB
AA .	BA	CA	DA	EA	FA	GA	HA	IA	JA	KA	LA	MA	NA	0A	PA	QA	RA

- 100 grids for 6m and 2m
- 50 grids for 220 and 432 MHz and 25 grids for 902 and 1296 MHz, etc.

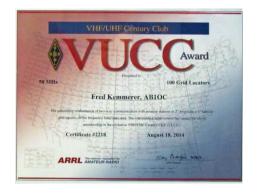
Apply with paper QSLs and/or electronically via LoTW

- DXCC endorsement stickers available for additional countries or grids
- Endorsements for multiple modes (e.g. WAS triple play: phone, CW, digital)
- Endorsements for multiband operation (e.g. 5 band DXCC)





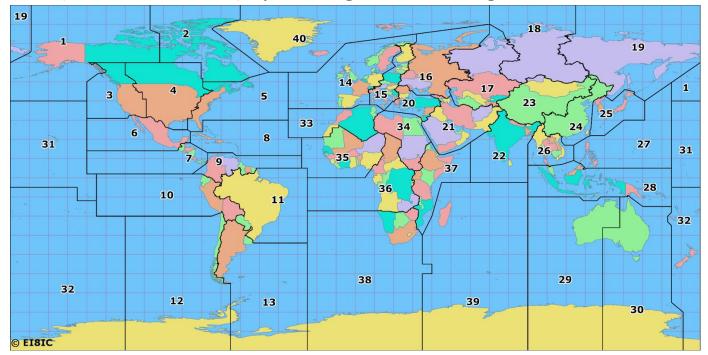




IARU and CQ Awards

Well known non-ARRL operating awards include:

- WAC (Worked All Continents) by IARU (International Amateur Radio Union)
- WAZ (Worked All Zones) by CQ Magazine. Entire globe is divided into 40 Zones

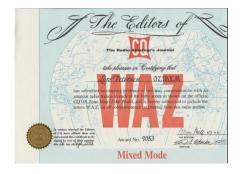


- WPX (Worked Prefixes) by CQ Magazine. Requires minimum 50 prefixes You can apply for WAC, WAZ and WPZ with LoTW.
- You can apply for WAZ and WPZ with eQSL.
- Endorsements for additional prefixes
- Endorsements for multiband operation (e.g. 5 band WAC or 5 band WAZ)











QRZ Awards



QRZ.com founded by Fred L. Lloyd (AA7BQ) in 1992

- Full service website: ham news, discussion forums, swap forum, logbook and awards
- Comprehensive database of global call signs
- Each call sign owner can setup a personal webpage

Currently 12 x awards. Free award badges for personal webpage. Paper awards cost \$24.95 each





- 1. All awards have endorsement levels
- 2. Contact confirmations via ADIF upload. Downloads from LoTW are accepted
- 3. Paper QSLs not accepted by QRZ and ARRL paper QSL credits cannot be downloaded

^{*}Example, confirmed contact with Italy on 80m, 40m and 20m counts as 3 x Band-Countries

QRZ Awards





Login is required for additional detail.

QSL: LoTW, QRZ, eQSL, Club Log, Direct, Bureau

Email: Login required to view
Ham Member Lookups: 30718





Biography Deta

Detail Logbook 31473

Awards 12

Log a NEW contact with VE2GCE...



My interest in radio began in the early 1970's, listening to shortwave broadcasts on my father's chrome-plated leather-clad RCA Strato-World radio. I remember repairing my first radio around the same time while I was in elementary school, a 1940's RCA wooden radio with several SW bands. I was really excited when I replaced the dead 80 rectifier tube with two solid-state rectifiers and the radio came to life. This was a variation of a trick I saw my father (a TV repairman) do many times when he bypassed selenium rectifiers with silicon diodes to bring TV sets back to life.

eQSL

eQSL was started in 2001, 2 years before LoTW

- LoTW confirms QSOs only, eQSL also allows sending / receiving eQSLs
- Popular with SWLs who request QSLs for their reception reports

QSOs uploaded to eQSL via ADIF records (like LoTW and QRZ.com)

- eQSLs are not recognized for ARRL or QRZ awards
- eQSLs are accepted for CQ awards: CQ DX, WAZ, WPX, USAC (US All Counties)

eQSL has 24 of its own awards

- Minimum bronze level member (\$12 US / yr) to participate in award program
- Webpage badges are free (like QRZ.com)
- Award plaques cost \$75 and \$130 each

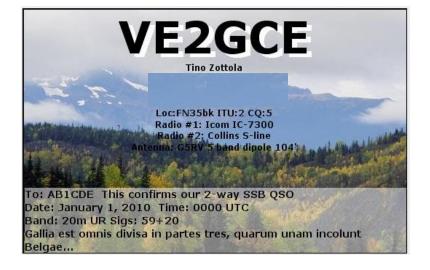
Advantages:

 Offers unique awards (eAntarctica, eAustralia, eCanada, eFrOM, eUK, eJapan) not offered by other organizations

Disadvantages:

Users can cheat approving false or erroneous entries to gain rare contact eQSL
 Not possible with LoTW and QRZ.com which use double blind confirmation

















ClubLog



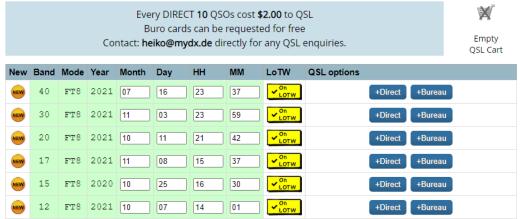
ClubLog is commonly used by DX-pedition operators. Submissions are made via ADIF records

ClubLog is the most well known OQSR (Online QSL Request) system. OQSRs offer three key benefits:

- You can see reasonably fast (24-48 hrs) if your QSO has been confirmed by DX-pedition operators
- You request direct cards and bureau cards online
 - Typically \$2 to \$5 for 1st QSL (and all subsequent cards for free)
 - LoTW confirmation often done after you pay for QSL and sometimes for free
- Put ahead of the line for LoTW confirmation when you pay for a QSL
 - 24-48 hr turnaround typically for paid QSLs
 - Up to 1 year for non-paid QSLs from the same DX-expedition operator (if at all)



9G5FI Club Log QSL Request for **VE2GCE**



What is a country?

ARRL DXCC entity based on October 1935 QST article

- "How to Count Countries Worked: A New DX Scoring System" By Clinton B. DeSoto
- → Each discrete geographical or political entity is considered to be a country

 Currently, there are 340 ARRL defined "countries" vs 195 countries recognized by United Nations
- England, Scotland, Wales, Northern Ireland are DXCC countries → distinct political entities
- Continental USA, Alaska and Hawaii are DXCC countries → distinct geographical entities
- Isle of Man, Jersey and Guernsey are DXCC countries
- Australia is a DXCC country, <u>Tasmania is not</u>
- France and Corsica are DXCC countries
- Italy and Sardinia are DXCC countries, <u>Sicily is not</u>
- Some countries straddling two continents, count as two countries → European Russia and Asiatic Russia
- Does not apply to all straddled countries: Panama, Turkey or Egypt

DXCC entities change over time

Geopolitical events result in continuous DXCC changes.

- Split of Czechoslovakia created two entities (Czech Republic and Slovakia)
- Reunification of East and West Germany removed one entity
- Swaziland was renamed as Kingdom of Eswatini

Do you need a multi-element beam up 50 feet and 1000 watt linear to hunt DX? -> No

Antenna System:

- Antenna system can be a simple dipole or vertical. But must be efficient (i.e. properly matched)
- Antenna height, the higher the better

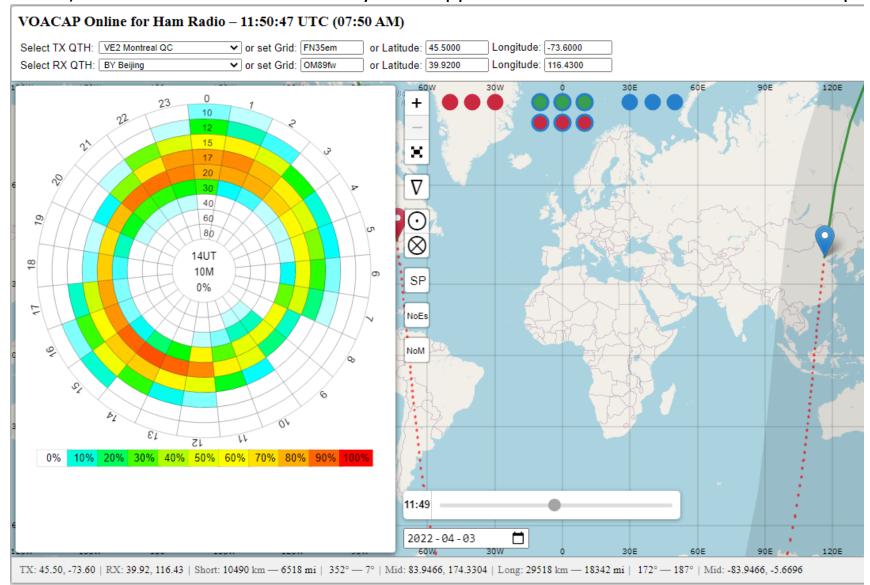
Radio:

- CW and FT8 DX is easily achievable with 30-50 watts
- SSB DX is more challenging (but do-able) with 100 watts
- Familiarize yourself with filters and selectivity features of your radio
- Ensure you have a clean signal, do not overdrive (i.e. ALC in the red)

General Operating Tips:

- Spend more time listening more than transmitting
- Do not call DX station continuously. Try 3 times maximum and wait a few minutes.
- Split frequency operation is recommended
- Use www.voacap.com/hf to determine best band and time between two points (see next slide)
- → Grand Prix analogy: Most skilled driver wins the race, not driver with most powerful car

- Certain regions such as South-East Asia and western Oceania very difficult to reach from eastern Canada-USA
- VOA (Voice of America) CAP website useful to identify most opportune bands and times between two points



CW / Phone Tips:

- Don't call stations you cannot hear → Old timer's adage: "If you can't hear them, you can't work them"
- Listen to DX station's instructions (e.g. Japan stations only, "7" stations only, UP1 = Rx 1 KHz above Tx freq)
- Don't be the first to send your call, be the last. This puts you on the tail end of the pileup
- Transmit slightly off-frequency WRT the pileup. DX stations will often finetune to pick stations out of pileup.
- Shotgun 'CQ DX' is not recommended, directional CQ is a more effective approach (e.g. 'CQ VKZL')
- When you make contact with your coveted DX station in a either contest or DX-pedition.
 - Keep your exchanges brief, not the time to start rag chewing or try to make a sked for another band or mode.
 - The DX station's primary goal is to rack up as many station as possible, not to hear your life story.

FT4/FT8 Operating Tips:

Typical FT4/FT8 QSO involves 6 exchanges on split frequency

```
141707 Tx 1213 + CQ VE2GCE FN35

141715 19 0.4 1404 + VE2GCE W3FOX FM19

141722 Tx 1213 + W3FOX VE2GCE +19

141730 22 0.4 1405 + VE2GCE W3FOX R+37

141737 Tx 1213 + W3FOX VE2GCE RR73

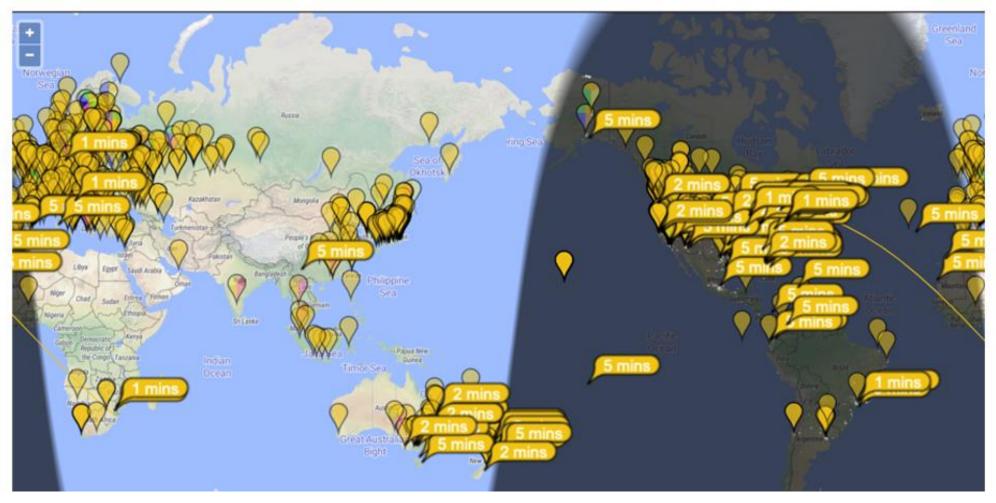
141745 18 0.4 1404 + VE2GCE W3FOX 73
```

- Problems completing a QSO → temporarily move to station's Tx frequency and then return to split frequency
- PSK Reporter (next slide) can help you see where your signal is received. Try cold calling DX stations that sees your signal
- Don't trust PSK Reporter 100%. (i.e. DX stations without internet and many F/H stations are not reported by PSK)
- DX stations often use reduced exchange (5 vs 6) to save 15 secs (7.5 secs for FT4)
 - Some DX stations will not reply if you send grid square.
- WSJT-Z (hacked by SQ9FVE vs official WSJT-X) has many interesting features
 - State, country and continent filtering
 - Pounce mode, calls selected station when they send CQ or 73. Also ignore button for selected stations.
 - "Click on call" to get QRZ lookup

On 20m v, show signals v sent by v the callsign v ve2gce using all modes v over the last 15 minutes v Go!

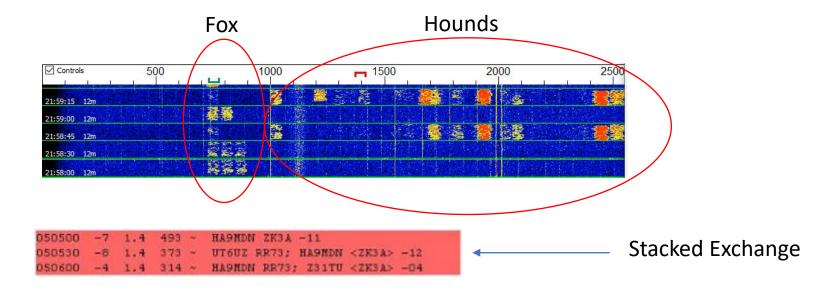
Monitoring VE2GCE (last heard 1 mins ago). Automatic refresh in 4 minutes. 150 reception reports for VE2GCE are shown as times (show logbook).

There are 1246 active monitors on 20m. Show all on all bands. Legend



FT4/FT8 Operating Tips:

- Dx-Peditions often use Fox and Hound mode (option on WSJT-X)
 - Non-standard FT8 freq used to avoid clogging up regular FT8 band
 - Only 4 exchanges used with CQ and 73 omitted
 - Fox uses 300-900 Hz part & Hounds use 1000 -3000 Hz part of audio band
 - Fox can transmit on up to 5 simul freq + stack 2 exchanges per freq
 - Throughput with F/H up to 500 QSOs/hr vs 50 with conventional FT8



DX Spotting

Useful Tools:

DX stations can be spotted the old-fashion way by scanning the bands for activity

More...

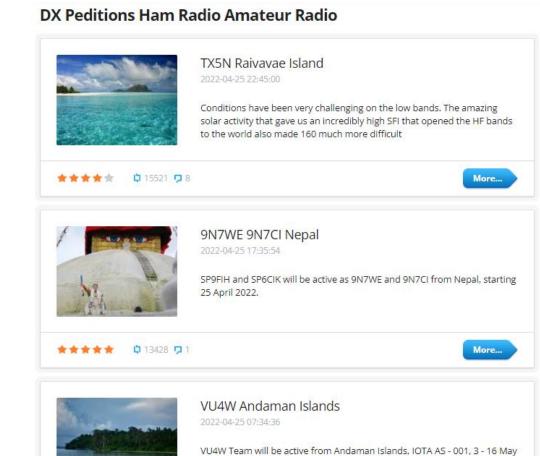
• Or find active DX-Peditions via numerous websites (e.g. dxnews.com). Feature operational details and daily news reports.

TX5N, Raivavae Island, Austral Islands

14.023 14.185 14.080 14.090 F/H 18.069 18.130 18.105 18.095 F/H

21.023 21.285 21.080 21.091 F/H 24.891 24.955 24.910 24.911 F/H 28.023 28.485 28.080 28.091 F/H

Team TX5N



2022.

☆ 1320 **♀** 2

TX5N Raivavae Island TX5N Team will be active from Raivavae Island, IOTA OC - 114, Austral Islands, 15 - 29 April 2022. Team - N7QT, K5GS, N6XG, DJ9RR, W1SRD, N7BX, K0BEE. Recent DX Spots TX5N TX5N Log search Enter Callsign Search They will operate on 160 - 10m, CW, SSB, Digital modes. OSL via MOURX. DXCC Country - Austral Islands, FO/A. Planned operating freqs: CW SSB RTTY FT8 1.826.5--- --- 1.836 F/H 3.523 3.790 --- 3.567 F/H --- --- 5.357 Not F/H 7.010 7.090 7.045 7.056 F/H 10.105 —— 10.142 10.131 F/H

TX5N Raivavae Island News 25 April 2022

Conditions have been very challenging on the low bands. The amazing solar activity that gave us an incredibly high SFI that opened the HF bands to the world also made 160 much more difficult, with increased absorption on the low bands. Despite long nights and many hours with very low QSO counts, even with maximum legal power, we have decided to forego any further 160 operation and convert that antenna to 80m. While we know this will disappoint many of you we also anticipate more success on 80m.

DX Spotting

<u>Useful Tools:</u>

- DXWatch.com allows search for specific stations by call or by country, WAS zone, ITU zone, band, mode, etc.
- Below is a search for WAZ 34 (e.g. Libya, Egypt and Sudan)

dx cq zone:	34 - northeastern zo	rows to show: 15 V		
cancel filter	selection / send a s			
de	dx	freq	obs	time
SV1JGM	SU0ERA	14208	[LoTW]	1102z 01 Apr
IZ7QEN	SU0ERA	14208	[LoTW] 59 CIAO	1101z 01 Apr
F5JRC	SU0ERA	14208	[LoTW] SSB	1053z 01 Apr
CT2HXM	SU0ERA	14208	[LoTW]	1036z 01 Apr
YU1TTN	SU0ERA	14208	[LoTW] Egyptian Amateur Radio Society	1030z 01 Apr
LY3TG	SU0ERA	14074	[LoTW] FT8	1011z 01 Apr
F5 S PJ	SU0ERA	14074	[LoTW]	1008z 01 Apr
EA1DHB	SU0ERA	14305	[LoTW] TNX QSO 73	0952z 01 Apr
YU1TTN	SU0ERA	14305	[LoTW] Egyptian Amateur Radio Society	0941z 01 Apr
DK3SJ	SU0ERA	14167	[LoTW] tnx fb sig	0923z 01 Apr
ON6NL	SU0ERA	14170	[LoTW] CQ	0909z 01 Apr
YU1TTN	SU0ERA	14170	[LoTW] Egyptian Amateur Radio Society	0853z 01 Apr
N7ZV	ST0HQ	14190	55 in Arizona	0058z 31 Mar
PY2XU	ST0HQ	14190	tks mike new qso 73 val	0038z 31 Mar
WB1DXD	ST0HQ	14190.1	Simplex	0014z 31 Mar

Award Hunting Tips (USA)

1) WAS (Worked All States)

Relatively easy for North American hams to achieve Issued by ARRL, QRZ, eQSL

- 8 nearby states (i.e. NY/NJ and New England) easy via 160-80-60-40 mtrs
- DX states (e.g. Alaska, Hawaii) relatively easy via 20 or 15 mtrs
- If you contact Alaska, conditions should be good for Hawaii (and vice versa)
 - →They are roughly in the same longitude

Remaining 40 states are reachable on active bands most of the time

• States with low populations are the most challenging (Wyoming, North and South Dakota)

American call signs used to be strictly assigned based on region

- e.g. W1/K1/N1/AA-AL1 were assigned to Vermont, NH, Maine, Rhode Island, Mass and CT
- This is longer the case and makes state identification confusing. (e.g. K6XXX in Alabama, W1AAA in Iowa)
- → Use QRZ to determine state, faster with WSJT-Z + QRZ lookup
- → ARRL Field days good way to accumulate many states in short order

Positives: High density of ham operators in USA, so most states are easily reachable



PSK Reporter map of USA

Award Hunting Tips (USA)

2) USAC (United States All Counties)

Issued by QRZ and CQ. Awards start at 100 counties & endorsable to 3143 counties Very challenging for full award, there are 3143 counties in the USA



- First 1000 counties relatively easy, next 2143 counties become progressively more challenging
- QSO parties good way to accumulate counties (i.e. North Carolina QSO party)
- Note that in Alaska "county" → borough and in Louisiana "county" → parish
- → Use QRZ (and then detail tab) to determine station's county.

3) Fred Fish Memorial Award

Requires contact with all 488 grid zones of continental USA on 6m. Alaska & Hawaii not part of this award Most challenging award by ARRL, only a handful of hams achieved this award. Fred Fish was #1

- 6 meters is open late spring and summer months
- Sometimes opportunity window only last a few minutes. You need to act quickly
- Contacts made to Canada and Mexico in overlapping USA grid zones count for FFMA
- → Use PSK Reporter to see grid square, if station is visible in the PSK map
- → Use QRZ (and then detail tab) to determine station's grid number.

Award Hunting Tips (DXCC)

DXCC (100 countries) awards issued by ARRL, QRZ, eQSL and CQ Magazine

- 1) The following continents are the easiest to reach:
- North America, South America, Europe
- 2) Operating conditions are always good in at least one band to permit contacts (e.g. 160-80-60-40 meters night, 30-20-17 meters morning, 15-12-10 meters afternoon)
- 3) Ten of the easiest countries to start with are the following:
- Canada, USA, Mexico, Brazil, Argentina, Germany, Spain, Italy, France, England, Japan
- ARRL and CQ Magazine contests are way to rack many countries in short order
- 4) Fastest strategy to get a DXCC award go for the "low hanging" fruit first:
- 40 50 countries can be had via Europe
- 30 40 countries can be had via North America
- 10 20 countries can be had via South America and Asia

Positives:

- High density of ham operators in these continents
- Continents are relatively nearby and are fairly easy to reach

Award Hunting Tips (Asia)

- 1) China, India and South-East Asia hard to reach, despite large populations
- 2) Not many DX-Peditions operate out of Asian countries
- 3) Low hanging fruit
- Japan, Asiatic Russia
- Middle East: Turkey, Cyprus, Israel, Lebanon, Saudi Arabia, Kuwait, UAE, Oman
- 4) Use spotter sites to find specific countries or zones: www.dxwatch.com
- 5) Reach into Asia highly dependant on time of day. Often only short windows of opportunity exist
- Use <u>www.voacap.com/hf</u> to determine best band and time between two points
- 6) FT4/FT8 operation, use WSJT-Z with continent filtering = 'Asia'

The following only applies to QRZ awards:

- 7) Band-countries (e.g. Japan QSOs on 80/40/20 meters counts as 3 x QSLs)
- 8) Wild Cards: Special stations can be used towards Asian award
- ITU Geneva, United Nations, Cyprus SBA

<u>Positives</u>: High numbers of ham operators

Negatives: Great distances to span and propagation conditions are key

Award Hunting Tips (Africa)

- 1) Low number of hams, despite large population (> 1.3 billion for continent)
- 2) Low hanging fruit
- South Africa
- Spanish and Portuguese territories: Canary Islands, Ceuta & Melilla, Madeira Island
- 3) Long term European resident operators are very active: (e.g. Mauritania, Ghana and Kenya)
- 4) University stations (e.g. Algeria, Morocco, Tunisia, Egypt)
- 5) Use spotter sites to find DX-Peditions: www.dxwatch.com, www.dxwatch.com,
- *** Many contacts will be DX-Peditions, prepare a small budget to expedite confirmations via Club Log
- 6) FT4/FT8 operation, use WSJT-Z with continent filtering = 'Africa'

The following only applies to QRZ awards.

- 7) Band-countries (e.g. South Africa QSOs on 80/40/20 meters counts as three QSLs)
- 8) Wild Cards: Special station QSLs can be used towards African award
- ITU Geneva, United Nations

Positives: Continent is relatively close. Similar propagation conditions to Europe and South America

Negatives: Low numbers of ham operators

Award Hunting Tips (Oceania)

- 1) Low population density, many islands are not (or sparsely) inhabited (e.g. Pitcairn, Ducie, Howland Island)
- 2) Low hanging fruit
- Hawaii, Australia and New Zealand
- 3) Use spotter sites to find DX-Peditions: www.dxwatch.com, www.dxwatch.com,
- 4) Research stations in Antarctica from several nations (e.g. Japan, Russia, USA, Norway, etc.)
- 5) Reach into Oceania highly dependant on time of day. Often only short windows of opportunity
- Use <u>www.voacap.com/hf</u> to determine best band and time between two points
- 6) FT4/FT8 operation, use WSJT-Z with continent filtering = 'Oceania'

The following only applies to QRZ award.

- 7) Band-countries (e.g. Hawaii QSOs on 80/40/20 meters counts as three QSLs)
- 8) Wild Cards: Special station QSLs can be used towards Oceania award
- ITU Geneva, United Nations

Negatives:

- Low numbers of ham operators
- Great distances to span and propagation conditions are key

Conclusion- Awards

- Electronic QSLs dominate
 - Speed (instant confirmation possible)
 - Eliminate high postal costs of paper QSL cards
 - Environmental awareness (no paper needed)
- LoTW is the golden standard for QSL verification
- LoTW does not recognize anyone else confirmations. LoTW accepted for CQ magazine and QRZ awards
- eQSL also permits sending and receiving electronic QSL. Accepted for CQ magazine awards
- eQSL offers a variety of awards (e.g. eCanada, eAustralia, eFrOM, eAntarctica) not offered by anyone else.
- QRZ.com has comprehensive callsign database as well as extensive ham services on its website
- QRZ.com offers a variety of award levels for different operator skill levels:
 - Entry levels: World Friendship, Grids and US Counties
 - Intermediate levels: WAC, WAS and DXCC
 - Advanced levels: Master of Asia, Oceania and Africa
- Clublog permits you to see confirmed QSLs in DX station's log and expedite QSL (via LoTW) with payment
- Awards in both paper and electronic form from ARRL, CQ, QRZ and eQSL
- Sunspot cycle peak predicated for 2023-2026 → My excellent DX opportunities ahead
- Important to have efficient antenna and know your equipment features

Conclusion – Hunting Tips

- Operating techniques make the difference between DX and no DX contact
 - Listen more than you transmit
 - Use "Low hanging fruit" approach to start accumulation of DX contacts
- 3 x tips for racking up rare DX QSLs, based on continent
 - 1) Find rare stations with DX-Pedition and spotter websites (e.g. www.dxwatch.com)
 - 2) Check propagation conditions with coverage analysis program (e.g. www.voacap.com/hf)
 - 3) Expediate contact confirmations for rare stations via QSL purchase via OQRS (e.g. Club Log)

Continent	Population	Distance	Difficulty	Aids
Europe	High	Near	Easy	
North America	High	Near	Easy	
South America	High	Medium	Easy	
Asia	High	Distant	Medium	1, 2
Africa	Low	Medium	Difficult	1, 3
Oceania	Low	Distant	Difficult	1, 2, 3

Addendum: Useful contacts

1) Electronic QSL and Award sites

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

https://www.qrz.com/

https://www.iaru.org/on-the-air/operating-awards/

https://cq-amateur-radio.com/cq awards/index cq awards.html

https://eqsl.cc/qslcard/Index.cfm

https://clublog.org/loginform.php

https://www.arrl.org/files/file/DXCC/2020%20DXCC%20Current%20.pdf (DXCC entity official list)

http://leehite.org/callbooks/ (PDF versions of pre-1998 callbooks)

2) Coverage Analysis Programs and Dx-peditions

https://www.voacap.com/hf (good for 80 to 10 meters predictions)

http://spacew.com/www/160pred.html (good for 160 meter predictions)

https://www.dxwatch.com

https://dxnews.com/dxpeditions/

https://clublog.org/expeditions.php

http://www.dxpeditions.org/

http://www.dxing.info/dxpeditions/

3) QSL printer in Canada

1000 color double-sided QSL cards (shipping included) for under \$100 Cdn

www.qslconcept.com

Addendum: Useful contacts

4) Incoming Bureau for VE2 / VA2 region

- Send \$5.00 for postage to VE2QK
- He will send your QSL cards, after they accumulate

Jacques Dubé, VE2QK, Gérant 897 rue St-Pierre, apt. 104 Trois-Rivières, QC, G9A 4W5 Email: jacques.dube@cgocable.ca

5) Outgoing Bureau for Canada

- 2 Kg limit per year
- All submissions to bureau must be sorted be prefix
- Must be RAC member (\$48 minimum/ year)

RAC Outgoing QSL Bureau P.O. BOX 11156, Station "H" Ottawa, ON, K2H 7T9, Canada https://www.rac.ca/rac-qsl-outgoing-bureau/

6) ARRL DXCC card checker for Western Montreal region

Gilles Renucci, VE2TZT
550 Chemin Monk,
Ile-Bizard, QC, H9E 1B2 (514) 696-7004
ve2tzt@arrl.net
http://www.arrl.org/dxcc-card-checker-master-list



Questions?