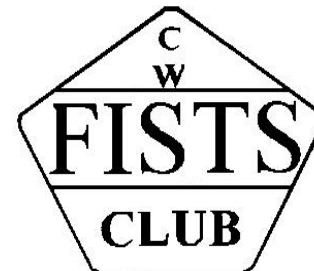


DX Basics

Alan Walters – K5NOF

abwltrs@aol.com

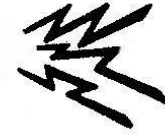
k5nof@arrl.net





The World of Ham Radio

(from the ARRL Operating Manual)



It is all about operating to be prepared for Emergency Communications (and having fun).

- VHF/UHF FM, Repeaters
- VHF/UHF Beyond Repeaters
- Amateur Satellites
- DXing
 - CW
 - SSB
 - RTTY
 - PSK 31
 - QRP
- Casual Comm. (rag chewing)
- Traffic Handling
- Image Communications
- HF Digital Communications
- Operating Awards
- Contesting
 - CW
 - SSB
 - RTTY
 - QRP
 - FT8

My focus is DX, working contests and casual communication, principally using CW.



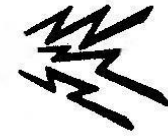
Disclaimer



- There is a universe of opinion about how to operate DX and “snag” the new one; a lot of this is mine.
- This applies to HF (160m to 10 meters) except 60m.
- What follows is drawn from:
 - The ARRL Operating Manual,
 - The ARRL Handbook,
 - ON1UN’s Low Band Dxing; and,
 - my 40 years experience as a Ham plus that time as a USCG CW radio operator and years as an USAF pilot using HF SSB for position reporting and operational communication around the world.
 - 315 confirmed Countries and how I did this.
- My objective is to interest new Hams in High Frequency radio communication in general and DX specifically.



Outline

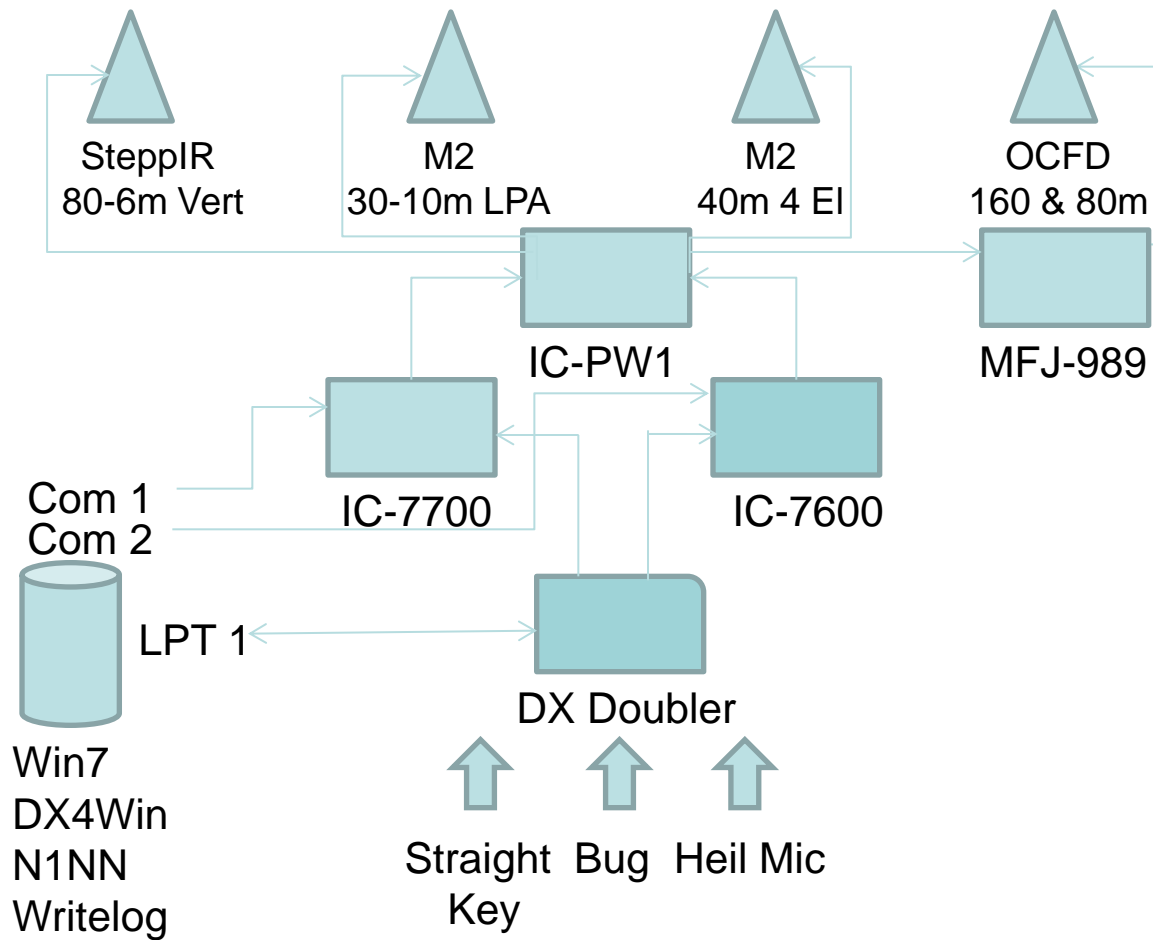


- Basic Equipment, software and antennas.
 - Have a plan and then acquire equipment which fits.
 - Commence using an electronic log.
 - Vertical, directional and wire antennas.
- Understand Propagation
 - K and A Indexes.
 - Time of Day.
 - Band characteristics.
 - Propagation prediction aids.
- Basic Operating Techniques
 - Who is on the air?
 - What to listen for, and then what?
 - Dx Expeditions.
 - Contests.



K5NOF Station Architecture

The Dream from CG days





Basic Equipment, Software and Antennas



- Think about your overall station architecture.
 - Where do you want to be in 10 or 20 years?
 - Try to buy things today that fit with your plan for tomorrow.
- Radio – many good choices on the new and used market.
 - Almost any modern 100W transceiver (less than 10 years old) will have what you need for now and the future.
 - Try for one with “dual watch” (Icom) or the Elecraft and Yaesu equivalent.
 - Allows you to listen to the DX while tuning through the pile-up to find the station the DX is working.
 - Use this as your calling frequency.
 - Otherwise you will use RIT to shift back and forth to track who the DX is working and where the DX is listening when using "split."
 - Radio should support computer control.
- Try to dedicate a PC to your station. You don't need high processing speed nor a lot of RAM. Ham radio software not a resource hog.



Basic Equipment, Software and Antennas



- Decide on logging software and commence to build an electronic log.
 - More about this later.
- You will want a package that will integrate with most radios, will connect to the DX spotting network, and will compare an entity with your log to see if you need this call for DXCC or other awards. More about this later.
 - DX4Win.
 - Win Log 32
 - Ham Radio Deluxe.
 - Others.
- A vertical antenna will get you many, many DX contacts into your log.
 - My primary antenna for a long time.
 - Ground mounted Hustler, Hy-Tower plus home built mono-band verticals for 30m & 17m all worked great; current SteppIR best, new 43' verticals work good on low bands; not so good on high.
 - All need radials (16 minimum, 32 better, 64 best.) See the Handbook and the Antenna book for more information. These will tell you:
 - Many short radials are better than a few long ones.



Basic Equipment, Software and Antennas



- A tower and beam are great if possible.
 - Most “tri-bander” beams will give around 6dB gain.
 - Six dB gain is four times power.
 - Your 100 Watt radio will now produce 400 Watts ERP (minus coax loss).
 - Gain is one consideration; bandwidth is almost as important.
 - Big is best.
- Shoot for a tower +/- 40 feet; higher if possible. Then,
 - Support an inverted V or inverted L for 7 and 3.5 MHz.
 - Invest in a good line tuner. New auto turners can be placed at the base of the antenna to avoid high SWR on the feedline and resultant loss.
- Invest in good headsets and microphone.
 - Headset with boom mic is a good choice.
- Invest in a hand key and paddles if interested in CW.
- Don't cheap-out on coax. Avoid RG-8X (Hi loss, poor power handling).
 - Use RG-8U, RG-213; Belden 9913, LMR 400 or better.
 - Don't leave even a tenth of a dB behind due to cheap coax or unnecessarily long lengths. Think ERP!
- Don't let perfect be the enemy of good. Ham Radio is a hobby of compromises.



Understand Propagation

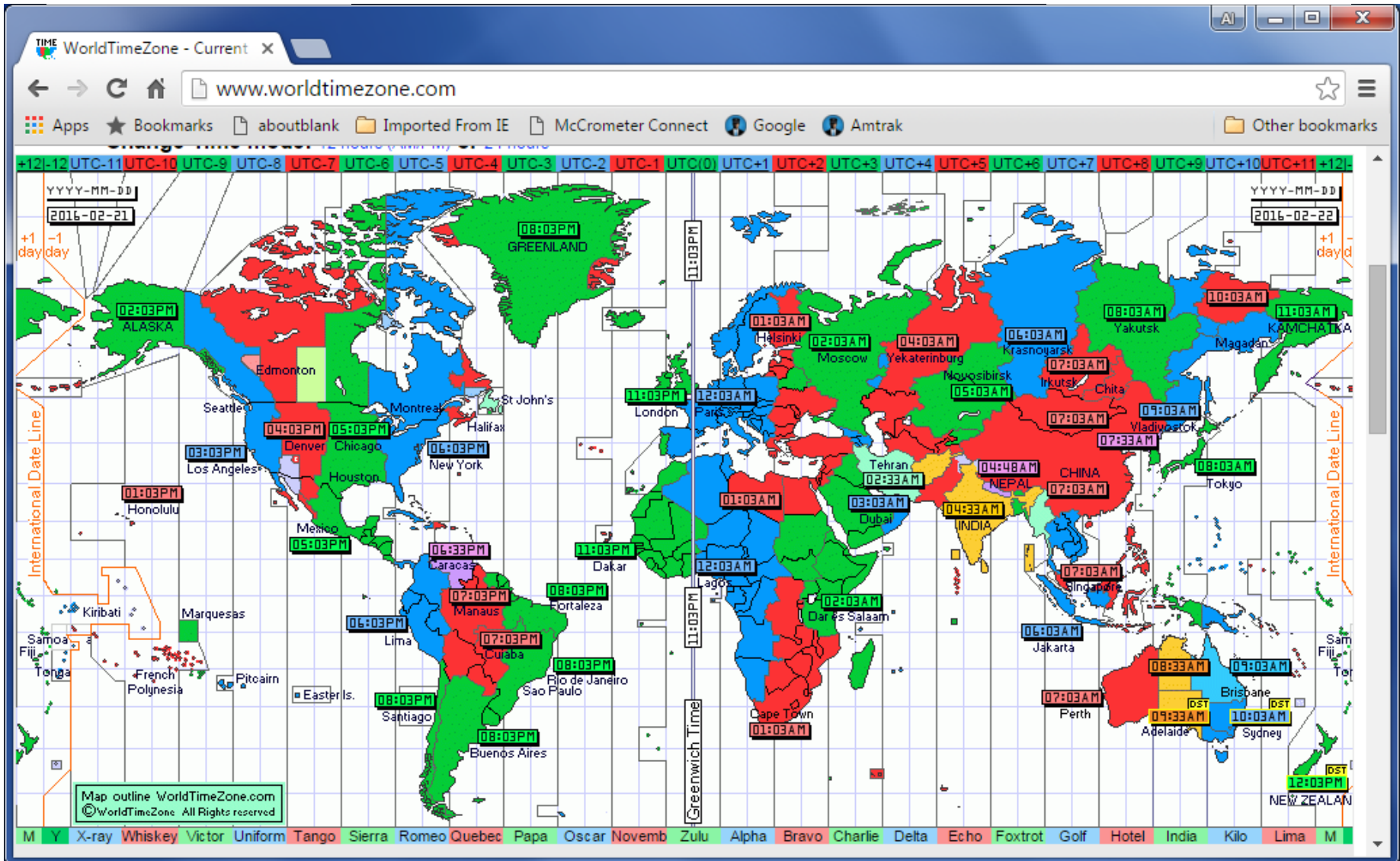


- K and A Indexes; quantify past geomagnetic activity.
- K and A Indexes announced every hour at :18 as part of the WWV time “tick.” (Listen to WWVH at :46 for these announcements and to get an idea of propagation into the Pacific.) Freqs: 2.5, 5, 10, 15, 20 mHz.
 - K Index: highest geomagnetic reading over a three hour period commencing at 0000Z; updated every three hours.
 - Each three hourly K Index corresponds to an A Index. An average of eight forms the A Index value; the lower the better.
 - But, unpredictable things happen on the high bands as the K Index commences to rise; particularly over or nearly over the pole.
- Gray Line Propagation works best from 160 to 40m; sometimes 30m. (Example -- Dawn east – sunlight illuminates F layer first increasing ionization; D layer still in darkness and yet to form).
 - Optimum: station pair in sunrise east and sunset west or vice versa.
 - Peak signal occurs between dawn and sunrise or sunset and dark. You will have 5 to 15 minutes depending on season.
- Other Times of Day? Noon at midpoint of the path for high frequencies; midnight at midpoint at night for low frequencies.



World Time Zones

Be conscious of time of day at the DX QTH



5/3/2019

KARS

10



Band Characteristics




- 10 meters: Listen for beacons on 28.200 to see if the band is open.
- 12 meters: Sometimes open at mid-day when 10 is closed. B 24.930.
- 15 meters: Often open at mid-day when 24 and 10 are closed. Beacons on 21.150.
- 17 meters: Usually open during the day to different parts of the world. Beacons on 18.110
- 20 meters: The “king” of day-time DX bands. Beacons on 14.100.
- 30 meters: Usually open 24 hours to different parts of the world.
- 40 meters: The “queen” of night-time DX bands.
- 80 meters: Opens to the east at evening, moving south/north toward local midnight, moving to the west approaching local dawn. (No D Layer to absorb signal at night.)
- 160 meters: Follows darkness from east to west; direction and conditions depend upon season of the year.
- Under current solar conditions:
 - Listen to 17, 20 and 30 meters during the day.
 - Listen to 30, 40 and 80 meters during the night.
 - Shift one band downwards as solar flux diminishes.



Propagation Prediction Aids



Look at www.qrz.com first.

Solar-Terrestrial Data/Predictions at www.qrz.com						
03 Oct 2016 1820 GMT			Current Solar		Band	Day Night
SFI	084	SN	013		80m-40m	Fair Good
A	018	K	2		30m-20m	Fair Fair
XRY	01.9	304A	116.6		17m-15m	Poor Poor
Aur	2	Lat	66.5°		12m-10m	Poor Poor
Bz	-0.4	SW	519.4		Geomag Field QUIET	
PF	0.2	EF	27500.0		Sig Noise Lvl S1-S2	
MUF Bdr	24.60 @ 1745			CME (UTC) None		
EME Deg	Fair			(C) P. Herrman N0NEH 2013		

A few definitions

XRY -- relative Intensity of solar radiation
 304A -- relative strength of solar radiation
 Aur Lat -- aurora latitude
 BZ -- cancels mag. field when negative
 SW -- speed of particles passing earth

PF -- proton flux primarily effects E
 EF -- elec flux density of chgd particle
 MUF -- Maximum usable frequency
 EME Deg -- eme path attenuation.
 CME -- coronal mass ejection est.



Current Activity (20m)

www.dxmaps.com



New Tab x MyWay x QSO/SWL real time map x

www.dxmaps.com/spots/map.php?Lan=E&Frec=14&ML=M&Map=W2LN&DXC=N&HF=S&GL=N

DXMAPS Site Personal Radio Software DX maps Travels Humor Translate K5NOF

DXMAPS 2.8 - QSO/SWL real time maps

Map List Graph Chat Europe Africa North America South America Asia Oceania World Grey line Only DX-Cluster

HF bands (<30 MHz) LF - HF VHF & up 2200 m 600 m 160 m 80 m 60 m 40 m 30 m 20 m 17 m 15 m 12 m 10 m All bands

OpenTable

Cappy's Restaurant Contemporary American | ... 5 stars \$ \$\$ Book Now

Stone Werks - The Rim American | San Antonio 5 stars \$ \$ Book Now

WJMN, DXMAPS.COM
QSO/SWL on 20m, 2016-10-03
From 19:16z to 19:31z
HWY info 2016-10-03 18:00z
SFI=82 A=18 K=2-Unsettled SWX=Minor st.

Watch smaller map

www.dxmaps.com/spots/map.php?Lan=E&Frec=28&ML=M&Map=W2LN&DXC=N&HF=S&GL=N



DX Toolbox



UTC: 0253 Play Alert Sound

Solar Flux: 88 SSN: 32
 A-Index: 14
 K-Index: 3 at 0000 UTC

	Past 24 Hours:	Next 24 Hours:
Space weather :	None	None
Geomagnetic storms:	None	None
Solar radiation storms:	None	None
Radio blackouts:	None	None

GOES 14

Current:	0251	B2.7
Begin:	-	-
Max:	-	-
End:	-	-

No Magnetic Data available

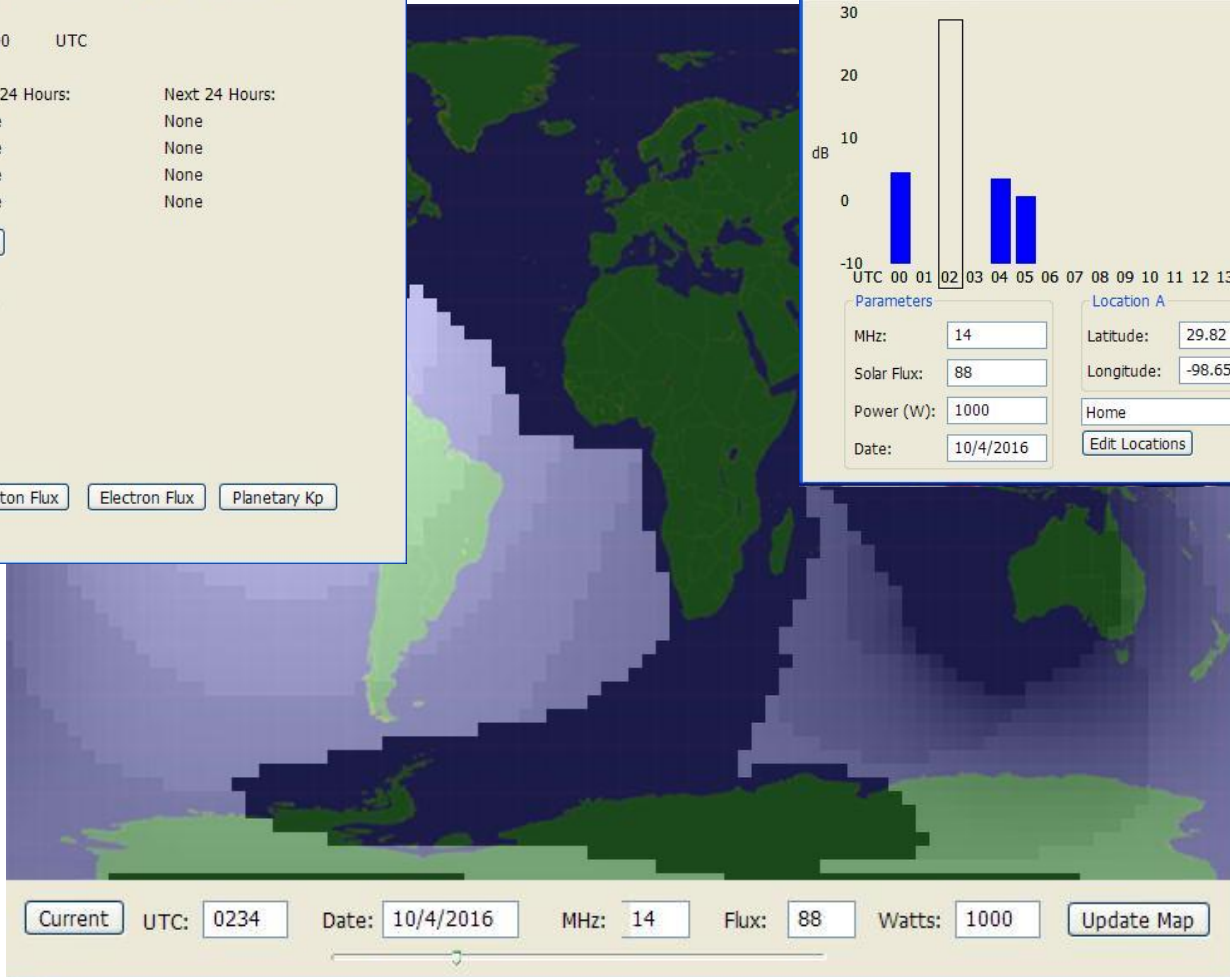
Propagation Path Estimation For Freq

UTC	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
dB	-5	-5	28	-5	5	2	-5	-5	-5	-5	-5	-5	-5	-5	-5	-5	-5	-5	-5	-5	-5	-5	-5	-5

Parameters: MHz: 14, Solar Flux: 88, Power (W): 1000, Date: 10/4/2016

Location A: Latitude: 29.82, Longitude: -98.65

Location B: Latitude: -11.8, Longitude: 43.7, Location: Comoros





Who is on the Air?

Example of ARRL DX Bulletin published once a Week.



- ARLD040 DX news ZCZC AE40 QST de W1AW DX Bulletin 40 ARLD040 From ARRL Headquarters Newington CT September 29, 2016
- To all radio amateurs SB DX ARL ARLD040 ARLD040 DX news This week's bulletin was made possible with information provided by QRZ DX, the OPDX Bulletin, 425 DX News, The Daily DX, DXNL, Contest Corral from QST and the ARRL Contest Calendar and WA7BNM web sites. Thanks to all.
 - MONTENEGRO, 4O. Oskar, LB9N is QRV as 4O/LB9N from Igalo until October 22. Activity is on the HF bands using some SSB, and PSK and JT65. QSL to home call.
 - MALDIVES, 8Q. Andrea, IZ1MHY will be QRV as 8Q7MD on Felidhoo Atoll, IOTA AS-013, from October 2 to 10 while on vacation. Activity will be holiday style on the HF bands using SSB, RTTY, JT65 and SIM31. QSL direct to home call.
 - TONGA, A3. Masa, JA0RQV plans to be QRV as A35JP/p from Niuafou'ou Island, IOTA OC-123, beginning October 1. He may try to activate IOTAs OC-169, OC-064 or OC-191 instead. QSL to home call.



And then what?



- Go to QRZ.com and see what the DX has to say:
 - Often he/she will have a web site for the announced operation.
 - Will say how to QSL.
- Look at current propagation to determine the best bands to try.
- Look at DX maps to see most active band(s) to/from various locations.
- Put your headset on and commence to tune the bands commencing with the most likely. Listen, listen, listen.
- At some point you will hear a pile up of people trying to work DX.
 - Listen to see who and if working simplex or split. If split, then
 - Set the pileup on VFO B and go to VFO A and find the DX.
 - If SSB, look 5 to 10 kHz below the pileup; CW or RTTY, look 1 to 5 below.
 - Listen to the DX for instructions. Find where he is listening.
 - Announce your call one time; twice and listen.
 - Answered someone else? Look more to find where the DX is listening. Transmit there or slightly above.
 - You hear your call. Answer “Roger, Thank you, 59.” Nothing more.



DX Expeditions



- Announced well before hand.
 - Visit their web site for all the pertinent information.
 - Multi operator and expensive to stage. Most use Club Log OQRS. A donation will result in a quick QSL via LoTW. (More in Part 2.)
 - Some will have three and more stations on the air at same time.
- Lately, most seem to start off working CW, then switch to SSB a few days later, and then will commence to work RTTY along with CW and SSB. FT-8 becoming very popular.
 - Amazing the reach you will have with RTTY or FT8 with a modest station.
 - Almost without exception **all will work split.**
 - CW – up 1 to 5.
 - RTTY – up 5 to 10.
 - SSB up 5 to 10.
 - Listen, listen, listen for the direction he is working at the time (SA, NA, EU, OC, etc.) and for split information.
 - Many will transmit in Extra portion of band and listen in the General allocation.
 - On 20m phone, you might hear something like “listening 230.”
- Wait for the QRM to die down toward the end of the Dxpedition period if you are running low power. Then jump in.



DX and General Operating



- Plenty of entities to work even though we are moving toward (in) the sun-spot minima.
 - Europe, Africa, South America, Pacific and Asia should provide plenty of “count” toward DXCC.
 - Mid-East, India, and Indian Ocean a bit tougher since the signal path will pass over or near the North Pole. Best conditions occur when K is low. High K indicates a large aurora around the north (and south) pole(s).
- Get on the air and work the various DX contests.
 - Low Power, wait until the second day. At this point your QSO will be worth 100 or more points to the DX contestee due to the “multiplier effect.”
 - Start out with “search and pounce” and then toward the end of the period, go up the band a bit and try to run.
 - Find out for yourself what works for you and what doesn’t.
- Build your proficiency.
 - Get on the air, if only to rag chew.
 - Work the domestic contests.
 - No code? Learn and use RTTY.
 - But in the end, you will need to learn CW, or you will become totally frustrated listening to the DX hand out CW contacts to others until you learn how to join in.



Next Time

DX -- Beyond the Basics



- How to get the confirmation.
 - The paper QSL card, “green stamps” and the SASE
 - Outgoing and Incoming cards via the ARRL Bureau.
- Electronic logging
 - Buy a fully developed software program.
 - Convert your paper logs electronic using Basic Log.
 - Add subsequent QSO’s to this log.
- Then you can use:
 - The internet spotting network.
 - ARRL’s Logbook of the World (LoTW)
 - Club Log and OQRS (Online QSL Card Request System.)
- How to add paper cards to your LoTW record using the ARRL on-line system.
- Operating techniques.
- DX Code of Conduct.



The Paper QSL & “Green Stamps”



- Procedures to use the ARRL <http://www.arrl.org/outgoing-qsl-service>.
 - \$1.15 per once (minimum \$8.15 for <1 oz.) plus \$7.00 service fee.
 - See ARRL web page to download submission form.
 - But what if the County has no bureau. Many don’t and are listed in the Operating Manual.
- QSL direct with SASE and “green stamps.”
 - Hide the money.
 - Address with name only, no call.
 - Have experienced a 90% return over the years.
- ARRL’s Logbook of the World (LoTW) becoming more and more popular.
 - Have experienced a 40% return overall since 1975.
 - Relatively low in the early years, 75% return rate over the past five.
- Club Log and OCRS (Online QSL Card Request System.) return rate 99%.
- But to use LoTW and Club Log, **you must have an electronic log.**



Electronic Logging



- Look for a fully developed program with these features:
 - Packet terminal
 - Packet spots
 - Band map
 - Call sign information (country, heading, distance, QSL manager, etc.)
 - Use for general QSO's, working DX, casual participation in contests.
 - Program includes PSK31 utilities similar to DIGIPAN.
 - Program with other digital utilities to work new modes.
 - Program where MMTTY RTTY engine will integrate into program.
 - Uses onboard and/or off board sound card(s).
 - Print labels and manage QSL cards.
 - Upload/download to/from LoTW.
 - Upload/download to/from eQSL.
 - Award tracking
 - Output in .adi format to submit to LoTW and/or Club Log.
- Just to name a few.



DX4Win



User selects, sizes and arranges windows as desired. K5NOF setup for general operation.

BandMap (14,015.70 20m)

P	Freq	CallSign	Memb	Time	QSL	Remarks	Spotter
3	14,104.6	SM3EUR	L	20:48	SM		K3AN
2	14,270.0	9H3VH		20:51	9H		W0ELN
2	21,265.0	FM1AG		20:51	FM		W5G2
3	18,071.0	JA7BXS		20:53	JA		K0BT
3	21,021.3	5Z4EE		20:54	SIMPLEX 5Z		K8QKV
4	14,226.0	OK1GTH		20:54	59 IOVA OK		KD0ACO
3	10,109.0	TM2NN	E	20:55	F		W4DL
3	14,195.0	CN8VAN		20:58	CN		WE1X
3	21,270.0	FV8DK		20:58	brono is 57 in sc FKJ42H		
3	18,110.1	EA3BOX	E	20:59	59 in Dallas EA		KE5VX0
4	14,260.0	C06LC		21:00	CM		W4TND
3	18,082.9	JA1KOH		21:02	JA		WB2HIC
1	14,015.2	JV5HX		21:03	JV		KD3DK

MASTER_LOG sorted by Date

QSO Sort Filter QSLs LoTW eQSL Window Reports Rotator
 Jordan JV: 39° 7,293Mi

CallSign Prefix Date Time Mode Band
 JV5HX JV 09/23/2010 21:03 CW 14MHz

rstS rstR Recvd Zone State County Grid
 599 599 20

Name QTH QSL Mgr

IOTA IOTA Island Freq (kHz) Group
 -- -- 14,015.70 7

Notes for this QSO Sat Name Sat Mode

Notes for this Call GRP YLop
 N N

Label QSL Date Cnfm Method
 Y / / N Buro

LoTW Upload Date Cnfm Custom award
 Y / / N ---

eQSL Upload Date Cnfm
 N / / N

Packet Window

DX de AC4M: 18101.3 UE3N00 BPSK31
 UE 21022 TH
 DX de KD3DK: 14015.2 JV5HX
 JV 21032 PA

SHDX | WWW | Msg | SHDX | SETFI | HELP F | SETFI | Bye

Report: LogBook sorted by Date

Number	Date	Time	Band	Mode	CallSign	QSL Mgr	Prefix	Zone	State	Country	Conf	LCnf	IOTA	IOTA Island	QSL Mthd	LUp1	LoTW Date	Label	QSL Date
9035	08/08/2010	01:48	7MHz	CW	N05W		K	4	TX	United States					Other		08/08/2010		
9036	08/08/2010	01:50	7MHz	CW	N8BJQ		K	4	OH	United States		Y			Other		08/08/2010		
9037	08/08/2010	01:52	7MHz	CW	N4HAF		K	5	NC	United States		Y			Other		08/08/2010		
9038	08/08/2010	01:54	7MHz	CW	W0U0		K	4	TX	United States		Y			Other		08/08/2010		
9039	08/08/2010	01:55	7MHz	CW	N21C		K	4	NM	United States					Other		08/08/2010		
9040	08/08/2010	01:59	7MHz	CW	W47NB		K	3	AZ	United States					Other		08/08/2010		
9041	08/08/2010	02:01	7MHz	CW	N4RW		K	5	NC	United States					Other		08/08/2010		
9042	08/08/2010	02:03	7MHz	CW	K9DX		K	4	IL	United States					Other		08/08/2010		
9043	08/08/2010	02:05	7MHz	CW	W040		K	4	TN	United States		Y			Other		08/08/2010		
9044	08/08/2010	02:06	7MHz	CW	W7CT		K	3	UT	United States		Y			Other		08/08/2010		
9045	08/08/2010	02:08	7MHz	CW	W0GT		K	4	SD	United States					Other		08/08/2010		
9046	08/08/2010	02:08	7MHz	CW	K0AV		K	4	CO	United States					Other		08/08/2010		
9047	08/08/2010	02:11	7MHz	CW	K0EU		K	4	CO	United States		Y			Other		08/08/2010		
9048	08/08/2010	02:15	3.7MHz	CW	K5G0		K	4	AR	United States					Other		08/08/2010		
9049	08/08/2010	02:25	3.7MHz	CW	NN4NH		K	4	AL	United States					Other		08/08/2010		
9050	09/06/2010	01:22	10MHz	CW	K8FN		K	4	OH	United States					Buro	Y		Y	
9051	09/07/2010	22:59	10MHz	CW	9X0TL	DL2RUH	9X	36		Rwanda					Buro	Y		Y	

World Map

116.03E 81.58N, Dist= 4620 MI, 356 degrees Grid: 0R81ax



Basic Log Import

Ask me for a copy. k5nof@arrl.net

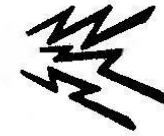


- The bare minimums – date, frequency, mode, time and call.
- **Save a copy of the worksheet and use the copy to enter the contacts.**
- DATE -- Type date as mm-dd-yyyy or m-d-yy and program will convert. There must be a dash (-) or slash (/) between M, D and Y.
- Frequency in MHZ. Just the whole number such as 3, 7, 14, etc.
- Mode. Use “1” for CW, “3” for SSB. For other modes, overtype.
 - Be sure to use a designation accepted by ARRL. **PSK is RTTY.**
- Time. Use tttt. If you use ttt or tt or t, program will add leading zeros.
- Call. If the call has a slash, make sure you use forward “/” and not backwards.
- Save the Excel File. And then --
- Click the ADIF tab at the bottom of the sheet and do File/Save As:
 - “KB5TX-0001.adi” inside double quotes as shown.
 - File Type (below the filename) must be Text (OS/2 or MS-DOS) (*.txt).
- Click save and acknowledge first warning by clicking on “OK”.
- Ignore second warning by clicking on “NO”
- Less than full page of calls – clear unused entry slots using text editor.



Basic Log Import

Ask me for a copy k5nof@arrl.net



File Edit View Insert Format Tools Data Window Help Type a question for help

F103 fx =IF(C103=1,"599",IF(C103=3,"59",IF(C103="C","599",IF(C103="S","59",""))))

WB6FHK_0_01

	A	B	C	D	E	F	G	H	I
1	Do a "Save AS" Before Any Entries!				BasicLog	Input Log Data Starting on Line 4			
2	Date	Freq. MHz	Mode	Time	Call	Optional Report		Calculated Data	
3	(mm-dd-yyyy)	(Whole No. ONLY)	(1,3,C or S)	(hhmm)	(Enter Callsign Worked)	Sent	Rcvd	Band	Mode
4	12/24/1975	14	1	2142	W2SRZ	599	599	20M	CW
5	12/24/1975	14	1	2203	WA4SDZ	599	599	20M	CW
6	12/24/1975	14	1	2225	K2JUV	599	599	20M	CW
7	12/24/1975	14	1	2310	K6VRA	599	599	20M	CW
8	12/25/1975	7	1	0305	WB9PSH/9	599	599	40M	CW
9	12/25/1975	14	1	1645	W7JSH/6	599	599	20M	CW
10	12/25/1975	21	1	1837	VE3HDO	599	599	15M	CW
11	12/25/1975	21	1	1855	WB2RNJ	599	599	15M	CW
12	12/25/1975	21	1	2030	WA7YJX	599	599	15M	CW
13	12/25/1975	21	1	2055	WN6IWC	599	599	15M	CW
14	12/26/1975	7	1	0030	W4HQU	Created by BasicLog A simple log entry program by w8tn Email: w8tn@w8tn.com <eoh>			
15	12/26/1975	7	1	0345	WB6JIK	<call>:5>W2SRZ<qso_date>:8>19751224<time_on>:4>2142<band>:3>20M<mode>:2>CW<rst_sent>:3>599<rst_rcvd>:3>599<eor>			
16	12/26/1975	7	1	0500	W2HHU	<call>:6>WA4SDZ<qso_date>:8>19751224<time_on>:4>2203<band>:3>20M<mode>:2>CW<rst_sent>:3>599<rst_rcvd>:3>599<eor>			
17	12/26/1975	7	1	0524	WB8OWM	<call>:5>K2JUV<qso_date>:8>19751224<time_on>:4>2225<band>:3>20M<mode>:2>CW<rst_sent>:3>599<rst_rcvd>:3>599<eor>			
18	12/26/1975	7	1	0557	WA7ZSD	<call>:5>K6VRA<qso_date>:8>19751224<time_on>:4>2310<band>:3>20M<mode>:2>CW<rst_sent>:3>599<rst_rcvd>:3>599<eor>			
19	12/27/1975	7	1	0450	WB6KHK	<call>:8>WB9PSH/9<qso_date>:8>19751225<time_on>:4>0305<band>:3>40M<mode>:2>CW<rst_sent>:3>599<rst_rcvd>:3>599<eor>			
20	12/27/1975	21	3	1713	WB0NGD	<call>:7>W7JSH/6<qso_date>:8>19751225<time_on>:4>1645<band>:3>20M<mode>:2>CW<rst_sent>:3>599<rst_rcvd>:3>599<eor>			
21	12/27/1975	21	3	1725	WB0IAH	<call>:6>VE3HDO<qso_date>:8>19751225<time_on>:4>1837<band>:3>15M<mode>:2>CW<rst_sent>:3>599<rst_rcvd>:3>599<eor>			
22	12/29/1975	7	1	0115	WA0VJM	<call>:6>WB2RNJ<qso_date>:8>19751225<time_on>:4>1855<band>:3>15M<mode>:2>CW<rst_sent>:3>599<rst_rcvd>:3>599<eor>			
23	12/29/1975	7	1	0140	WB6OMT	<call>:6>WA7YJX<qso_date>:8>19751225<time_on>:4>2030<band>:3>15M<mode>:2>CW<rst_sent>:3>599<rst_rcvd>:3>599<eor>			
24	12/29/1975	7	1	0306	WB5JUK	<call>:6>WN6IWC<qso_date>:8>19751225<time_on>:4>2055<band>:3>15M<mode>:2>CW<rst_sent>:3>599<rst_rcvd>:3>599<eor>			
25	12/29/1975	7	1	0340	WB0ARZ	<call>:5>W4HQU<qso_date>:8>19751226<time_on>:4>0030<band>:3>40M<mode>:2>CW<rst_sent>:3>599<rst_rcvd>:3>599<eor>			
26	12/29/1975	14	1	0343	WB0ARZ	<call>:6>WB6JIK<qso_date>:8>19751226<time_on>:4>0345<band>:3>40M<mode>:2>CW<rst_sent>:3>599<rst_rcvd>:3>599<eor>			
						<call>:5>W2HHU<qso_date>:8>19751226<time_on>:4>0500<band>:3>40M<mode>:2>CW<rst_sent>:3>599<rst_rcvd>:3>599<eor>			
						<call>:6>WB8OWM<qso_date>:8>19751226<time_on>:4>0524<band>:3>40M<mode>:2>CW<rst_sent>:3>599<rst_rcvd>:3>599<eor>			
						<call>:6>WA7ZSD<qso_date>:8>19751226<time_on>:4>0557<band>:3>40M<mode>:2>CW<rst_sent>:3>599<rst_rcvd>:3>599<eor>			
						<call>:6>WB6KHK<qso_date>:8>19751227<time_on>:4>0450<band>:3>40M<mode>:2>CW<rst_sent>:3>599<rst_rcvd>:3>599<eor>			
						<call>:6>WB0IAH<qso_date>:8>19751227<time_on>:4>1725<band>:3>15M<mode>:3>SSB<rst_sent>:2>59<rst_rcvd>:2>59<eor>			
						<call>:6>WB0NGD<qso_date>:8>19751227<time_on>:4>1713<band>:3>15M<mode>:3>SSB<rst_sent>:2>59<rst_rcvd>:2>59<eor>			
						<call>:6>WA0VJM<qso_date>:8>19751229<time_on>:4>0115<band>:3>40M<mode>:2>CW<rst_sent>:3>599<rst_rcvd>:3>599<eor>			
						<call>:6>WB6OMT<qso_date>:8>19751229<time_on>:4>0140<band>:3>40M<mode>:2>CW<rst_sent>:3>599<rst_rcvd>:3>599<eor>			
						<call>:6>WB5JUK<qso_date>:8>19751229<time_on>:4>0306<band>:3>40M<mode>:2>CW<rst_sent>:3>599<rst_rcvd>:3>599<eor>			
						<call>:6>WB0ARZ<qso_date>:8>19751229<time_on>:4>0340<band>:3>40M<mode>:2>CW<rst_sent>:3>599<rst_rcvd>:3>599<eor>			
						<call>:6>WB0ARZ<qso_date>:8>19751229<time_on>:4>0343<band>:3>20M<mode>:2>CW<rst_sent>:3>599<rst_rcvd>:3>599<eor>			

Ready

Generally – Transcribe QSO’s from paper log into Excel and then save work sheet to ADIF and upload to your logging software and/or to LoTW.

Be sure to read instructions first.



LoTW



General Steps

(See www.arrl.org for instructions).

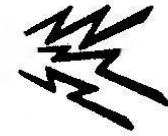
- Download and print the instructions
- Download and install the software.
- Request a certificate for your callsign.
- Authenticate your location.
- Load your certificate (TQ6 file).
- Create a station location.
- Sign and upload your log files.
- I have another presentation to show how to do this. Otherwise --

Follow the instructions step by step.



Example of LoTW Award Credits

Partial report from the K5NOF
DX Challenge Account



LoTW Shows all DX credits whether electronic or paper cards.

Your Logbook Award Acco x

The American Radio Relay League, Incorporated [US] https://lotw.arrl.org/lotwuser/accountcredits?awg_id=DXCC&ac_acct=1&ac_view=all&aw_id=DXCC-CHAL&ac

Apps ★ Bookmarks about:blank Imported From IE McCrometer Connect Google Amtrak Other bookmarks

Award Credits: Selected: 47 Applied for: 0 Awarded: 1184 Total: 1231
Key: Selected · Applied · Awarded

DXCC Entity	160M	80M	40M	30M	20M	17M	15M	12M	10M
AFGHANISTAN					I6T				
AGALEGA & SAINT BRANDON ISLANDS					3B6CD				
ALAND ISLANDS			OG0A		OH0NSJ		OH0X		OH0X
ALASKA	KL7RA	KL7RA	KL7FH	KL7J	KL7IRN	KL7J	KL7Y	KL7SB	KL7Y
ALBANIA			ZA1Z						
ALGERIA							7Y50I		
AMERICAN SAMOA							AH3FF	KH8/DL6JGN	KH8/W8GEX
AMSTERDAM & SAINT PAUL ISLANDS		FT5ZM	FT5ZM	FT5ZM	FT5ZM				
ANDAMAN & NICOBAR ISLANDS					VU4KV				
ANDORRA					C37N				
ANGOLA				D3AA	D2SG		D2EB		D2SG
ANGUILLA		VP2EZZ	VP2EZZ	VP2EMR	VP2EZZ		VP2EKK		VP2E
ANTARCTICA				VP8CTR	R1ANC	KC4AAA	R1ANC	VP8CTR	
ANTIGUA & BARBUDA		V25A	W6QL/VP2A		V26M	V25N	V25AA		V25AA
ARGENTINA			LU5FF	LU2FE	LU3FLV	LU8MFE	LQ0F		LU5FF
ARMENIA					EK4JJ				

Your credits from paper QSL's you submitted over the years, are combined with your digital log.



LoTW

Add QSLs to your account -- 1

THE ARRL
LOGBOOK OF THE WORLD™
YAESU
The radio
PRINCIPAL SPONSOR
of the LoTW Website

Today is Sun, 21 Feb 2016 UTC
You are **K5NOF**
[Log Off](#)
You have **11,792** QSO records
You have **3,649** QSL records

Search Help: Search

Home Your QSOs Awards Find Call Upload File Your Account Help

Your Logbook DXCC Account (K5NOF - UNITED STATES OF AMERICA)

Account Status

DXCC Award	New LoTW QSLs	LoTW QSLs in Process	DXCC Credits Awarded	Total (All)	Total (Current)
Mixed *	1	0	300	301	296
CW	1	0	283	284	280
Phone	6	0	180	186	184
Digital	0	0	2	2	2
160M	2	0	13	15	15
80M	3	0	112	115	113
40M	3	0	176	179	177
30M	5	0	120	125	125
20M	3	0	206	209	208
17M	9	0	118	127	127
15M	6	0	204	210	205
12M	14	0	86	100	100
10M	2	0	160	162	161
Challenge *	47	0	1184	---	1231
5-Band*	---	---	---	---	---

* = Award has been issued
[View Award Credit Matrix](#)

This account includes credits for the following:
K5NOF - UNITED STATES OF AMERICA
K6NOF - UNITED STATES OF AMERICA
WB6FHK - UNITED STATES OF AMERICA
WB6FHK/0 - UNITED STATES OF AMERICA
WB6FHK/5 - UNITED STATES OF AMERICA
This account is linked with DXCC record:
Alan Walters, K5NOF

Notes

- Click on the **Awards** item in the menu at the top of the page to select a different LoTW award account.
- You can click on the links in the Account Status table to view the credit list for an individual award.
- If you want to merge other DXCC award accounts (different call signs that are licensed to you, inside the same DXCC entity) with this one, use [Modify Account](#).
- When you are ready to apply your LoTW credits to your DXCC record, use [Application](#).
- To view the present and past applications you have submitted, use

BCH
\$8500
BEST PERFORMANCE
BEST RELIABILITY
BEST CUSTOMER SERVICE
[www.Bridge](#)

Go to:
[www.pr](#)
for more
informati
[www.pr](#)



LoTW

Add QSLs to your account -- 2



Your Logbook Award Account X

https://lotw.arrl.org/lotwuser/logbook/application.php?awg_id=DXCC&ac_acct=1

Home Your QSOs Awards Find Call Upload File Your Account Help

Your Logbook DXCC Account (K5NOF - UNITED STATES OF AMERICA)

DXCC Award Application -- Part 1

Use this form to apply for a new DXCC award or an endorsement.

Entity	QSO	Check all	Clear all	Mixed*	CW*	Phone	Awards										
							160M	80M	40M	30M	20M	17M	15M	12M*	10M	Challenge*	
ANDORRA	C37NL	<input checked="" type="checkbox"/>	<input type="checkbox"/>										X				X
BRITISH VIRGIN ISLANDS	VP2VI	<input checked="" type="checkbox"/>	<input type="checkbox"/>					X									X
BRITISH VIRGIN ISLANDS	VP2VI	<input checked="" type="checkbox"/>	<input type="checkbox"/>												X		X
CAPE VERDE	D4C	<input checked="" type="checkbox"/>	<input type="checkbox"/>												X		X
CENTRAL KIRIBATI	T31T	<input checked="" type="checkbox"/>	<input type="checkbox"/>									X					X
CENTRAL KIRIBATI	T31T	<input checked="" type="checkbox"/>	<input type="checkbox"/>									X					X
CENTRAL KIRIBATI	T31T	<input checked="" type="checkbox"/>	<input type="checkbox"/>								X						X
CHATHAM ISLAND	ZL7G	<input checked="" type="checkbox"/>	<input type="checkbox"/>					X									X
CHATHAM ISLAND	ZL7G	<input checked="" type="checkbox"/>	<input type="checkbox"/>							X							X
CHATHAM ISLAND	ZL7G	<input checked="" type="checkbox"/>	<input type="checkbox"/>								X						X
CORSICA	IK0C	<input checked="" type="checkbox"/>	<input type="checkbox"/>					X									X
INDONESIA	YE1ZAT	<input checked="" type="checkbox"/>	<input type="checkbox"/>							X							X
LITHUANIA	LY2XW	<input checked="" type="checkbox"/>	<input type="checkbox"/>												X		X
LITHUANIA	LY4A	<input checked="" type="checkbox"/>	<input type="checkbox"/>					X									X
MALI	T24AM	<input checked="" type="checkbox"/>	<input type="checkbox"/>								X						X
MALI	T24AM	<input checked="" type="checkbox"/>	<input type="checkbox"/>							X							X
MARTINIQUE	TO7A	<input checked="" type="checkbox"/>	<input type="checkbox"/>				X										X
MAURITANIA	5T5T	<input checked="" type="checkbox"/>	<input type="checkbox"/>						X								X
MAURITANIA	5T5T	<input checked="" type="checkbox"/>	<input type="checkbox"/>			X											X
MICRONESIA	V6A	<input checked="" type="checkbox"/>	<input type="checkbox"/>									X					X
NEW ZEALAND SUBANTARCTIC ISLANDS	ZL9A	<input checked="" type="checkbox"/>	<input type="checkbox"/>						X								X
NEW ZEALAND SUBANTARCTIC ISLANDS	ZL9A	<input checked="" type="checkbox"/>	<input type="checkbox"/>	X	X							X					X
PERU	OA4TT	<input checked="" type="checkbox"/>	<input type="checkbox"/>									X					X
PHILIPPINES	N7ET/OU7	<input checked="" type="checkbox"/>	<input type="checkbox"/>									X					X
PITCAIRN ISLAND	VP6J	<input checked="" type="checkbox"/>	<input type="checkbox"/>										X				X
PITCAIRN ISLAND	VP6J	<input checked="" type="checkbox"/>	<input type="checkbox"/>									X					X
RODRIGUEZ ISLAND	3B9FR	<input checked="" type="checkbox"/>	<input type="checkbox"/>									X					X
SAINT LUCIA	J68HZ	<input checked="" type="checkbox"/>	<input type="checkbox"/>				X						X				X
VIET NAM	XV1X	<input checked="" type="checkbox"/>	<input type="checkbox"/>						X								X
ZAMBIA	9J2HN	<input checked="" type="checkbox"/>	<input type="checkbox"/>									X					X

* Award has been issued -- credits will be used for endorsement

Update and save selections

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LoTW

Add QSLs to your account -- 3



Browser: Your Logbook Award Account | URL: https://lotw.arrl.org/lotwuser/logbook/application.php

Navigation: Home | Your QSOs | Awards | Find Call | Upload File | Your Account | Help

Your Logbook DXCC Account (K5NOF - UNITED STATES OF AMERICA)

DXCC Award Application -- Part 3

This table shows how the QSOs you have selected will be applied to your DXCC record.

Award	New Credits	Awarded Credits	Total Credits	Award Action
Mixed	1	307	308	Endorsement
CW	1	290	291	Endorsement
Phone	1	194	195	<input type="checkbox"/> Apply for award (\$12 certificate fee plus shipping will be charged)
160M	1	25	26	New credits for this award will be applied to your DXCC record.
80M	1	116	117	<input type="checkbox"/> Apply for award (\$12 certificate fee plus shipping will be charged)
40M	5	191	196	<input type="checkbox"/> Apply for award (\$12 certificate fee plus shipping will be charged)
30M	2	135	137	<input type="checkbox"/> Apply for award (\$12 certificate fee plus shipping will be charged)
20M	4	217	221	<input type="checkbox"/> Apply for award (\$12 certificate fee plus shipping will be charged)
17M	7	140	147	<input type="checkbox"/> Apply for award (\$12 certificate fee plus shipping will be charged)
15M	4	214	218	<input type="checkbox"/> Apply for award (\$12 certificate fee plus shipping will be charged)
12M	2	108	110	Endorsement
10M	3	166	169	<input type="checkbox"/> Apply for award (\$12 certificate fee plus shipping will be charged)

Enter the call sign for this DXCC record:

Enter your name *exactly* as you want it to appear on certificates:

Enter your address. Your certificate(s) will be sent to this address:
 Address

City State ZIP/Postal Code



LoTW

Add QSLs to your account -- 3

Your Logbook Award Account

https://lotw.arrl.org/lotwuser/logbook/application.php

Boerne TX 78006-8200
USA

E-mail: k5nof@arrl.net

LoTW QSO Credits Sent: 30

Payment by Mail: No

Fees:

Application Fee	\$5.50
Credit Slip Fee	\$1.00
LoTW Payment Credit Fee (30 credits @ \$0.12)	\$3.60
Total	\$10.10

QSL [OA4TT - PERU - 17M SSB \(PHONE\)](#) [DXCC-17,DXCC-CHAL]

QSL [ZL7G - CHATHAM ISLAND - 17M CW \(CW\)](#) [DXCC-17,DXCC-CHAL]

QSL [ZL7G - CHATHAM ISLAND - 30M CW \(CW\)](#) [DXCC-30,DXCC-CHAL]

QSL [VP6J - PITCAIRN ISLAND - 17M CW \(CW\)](#) [DXCC-17,DXCC-CHAL]

QSL [VP6J - PITCAIRN ISLAND - 12M CW \(CW\)](#) [DXCC-12,DXCC-CHAL]

QSL [ZL7G - CHATHAM ISLAND - 20M CW \(CW\)](#) [DXCC-20,DXCC-CHAL]

QSL [N7ET/DU7 - PHILIPPINES - 17M CW \(CW\)](#) [DXCC-17,DXCC-CHAL]

QSL [T24AM - MALI - 20M CW \(CW\)](#) [DXCC-20,DXCC-CHAL]

QSL [TK0C - CORSICA - 40M CW \(CW\)](#) [DXCC-40,DXCC-CHAL]

QSL [D4C - CAPE VERDE - 10M CW \(CW\)](#) [DXCC-10,DXCC-CHAL]

QSL [TO7A - MARTINIQUE - 160M CW \(CW\)](#) [DXCC-160,DXCC-CHAL]

QSL [V6A - MICRONESIA - 15M CW \(CW\)](#) [DXCC-15,DXCC-CHAL]

QSL [T24AM - MALI - 17M CW \(CW\)](#) [DXCC-17,DXCC-CHAL]

QSL [T31T - CENTRAL KIRIBATI - 12M SSB \(PHONE\)](#) [DXCC-12,DXCC-CHAL]

QSL [T31T - CENTRAL KIRIBATI - 15M SSB \(PHONE\)](#) [DXCC-15,DXCC-CHAL]

QSL [T31T - CENTRAL KIRIBATI - 17M CW \(CW\)](#) [DXCC-17,DXCC-CHAL]

QSL [VP2VI - BRITISH VIRGIN ISLANDS - 40M CW \(CW\)](#) [DXCC-40,DXCC-CHAL]

QSL [VP2VI - BRITISH VIRGIN ISLANDS - 10M CW \(CW\)](#) [DXCC-10,DXCC-CHAL]

QSL [YE1ZAT - INDONESIA - 20M CW \(CW\)](#) [DXCC-20,DXCC-CHAL]

QSL [J68HZ - SAINT LUCIA - 80M CW \(CW\)](#) [DXCC-80,DXCC-CHAL]

QSL [5T5TI - MAURITANIA - 40M CW \(CW\)](#) [DXCC-40,DXCC-CHAL]

QSL [5T5TI - MAURITANIA - 17M SSB \(PHONE\)](#) [DXCC-PH]

QSL [ZL9A - NEW ZEALAND SUBANTARCTIC ISLANDS - 15M CW \(CW\)](#) [DXCC-15,DXCC-CHAL,DXCC-CW,DXCC-M]

QSL [ZL9A - NEW ZEALAND SUBANTARCTIC ISLANDS - 30M CW \(CW\)](#) [DXCC-30,DXCC-CHAL]

QSL [9J2HN - ZAMBIA - 20M CW \(CW\)](#) [DXCC-20,DXCC-CHAL]

QSL [C37NL - ANDORRA - 15M SSB \(PHONE\)](#) [DXCC-15,DXCC-CHAL]

QSL [LY4A - LITHUANIA - 40M CW \(CW\)](#) [DXCC-40,DXCC-CHAL]

QSL [3B9FR - RODRIGUEZ ISLAND - 17M CW \(CW\)](#) [DXCC-17,DXCC-CHAL]

QSL [XV1X - VIET NAM - 40M CW \(CW\)](#) [DXCC-40,DXCC-CHAL]

QSL [LY2XW - LITHUANIA - 10M CW \(CW\)](#) [DXCC-10,DXCC-CHAL]

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Club Log – 1



Note: 5U5R has a similar utility on their web site.

The screenshot shows the Club Log website interface. At the top, the navigation menu includes 'Home', 'Settings', 'Upload', 'OQRS', 'Donate', 'Expeditions', and 'Help'. The 'Upload' link is circled in red. Below the navigation is a 'Login To Club Log' section with a welcome message and a login form. The login form has two input fields: 'Email or callsign' with the value 'k5nof' and 'Password' with masked characters. Below these fields are 'Login Now' and 'Register new account' buttons. The 'Register new account' link is highlighted with a red box, and an arrow points to it from the text 'First time user.' located to the right of the form. A sidebar on the left lists various features like 'Your Log', 'DXCC Charts', 'Timelines', 'QSL Charts', 'Zone Charts', 'Log Inspector', 'Log Matching', 'League Tables', 'DXCC Leagues', 'Zone Leagues', 'Club Leagues', 'CDXC Challenges', 'Super League', 'Uniques League', 'Club Log tools', 'DX Cluster', 'Log Search', 'Call Tester', 'Most Wanted', 'DXCC Analysis', 'Propagation', and 'Great Circle Maps'. The footer contains copyright information and links for 'About', 'Privacy', 'Contact', 'Reflector', 'Blog', and 'Twitter'.



Club Log -- 2



Club Log: Upload ADIF files

https://secure.clublog.org/upload_html5.php

CLUBLOG

Home | Settings | Upload | OQRS | Donate | Expeditions | Help

Your Log

Upload Logs HTML5

Please use the following form to upload ADIF or LGS files (including within a ZIP) to Club Log. Your uploads will be processed and added to your account and you may receive an email if there are any problems detected during processing.

Last upload	2016-10-14 15:24:16Z
Last QSO	2016-09-26 20:22:05Z
Past uploads	View records

The upload queue contains 1 file.

Callsign and upload mode: Reset form

K5NOF Merge into existing log (recommended)

Upload your log:

Choose File lotwup_102116.ADI

Begin Upload

HTML5 requires a recent, fully-updated web browser. If you experience any problems, you can either update your browser or use the [old uploader](#). There is no need to report this to the Helpdesk.

Club Log © Michael Wells G7VJR | [About](#) | [Privacy](#) | [Contact](#) | [Reflector](#) | [Blog](#) | [Twitter](#)

I use the same .adi file for Club Log that I upload to LoTW.



Club Log – 3



Club Log: Log Search - 9G5A

<https://secure.clublog.org/logsearch.php>

Home | Settings | Upload | **OQRS** | Donate | Expeditions | Help

CLUBLOG

Your Log

DXCC Charts

Timelines

QSL Charts

Zone Charts

Log Inspector

Log Matching

League Tables

DXCC Leagues

Zone Leagues

Club Leagues

CDXC Challenges

Super League

Uniques League

Club Log tools

DX Cluster

Log Search

Call Tester

Most Wanted

DXCC Analysis

Propagation

Great Circle Maps

Log Search

This form allows you to check if you are "in the log". It only works for registered Club Log users and expeditions that have uploaded their logs. This service has been heavily optimised for large and/or popular logs.

Log to search: 9G5AM

2,190 QSOs logged between 2016-10-20 08:45Z and 2016-10-21 03:34Z

Callsign to check: K5NOF

Show contacts

Band	CW	Phone	Data
17	1		

You can link to this page (no login required): <https://secure.clublog.org/logsearch/9G5AM>

Embed this tool in your own web site

DX will open their log for QSL's after operation when they are ready to issue their QSL cards.

Club Log © Michael Wells G7VJR | About | Privacy | Contact | Reflector | Blog | Twitter

Check frequently to see if you made it into their log.

Or – check their web page.



Club Log -- 4



Club Log: Log Search - D66D

<https://secure.clublog.org/logsearch.php>

Home | Settings | Upload | **OQRS** | Donate | Expeditions | Help

Log Search

This form allows you to check if you are "in the log". It only works for registered Club Log users and expeditions that have uploaded their logs. This service has been heavily optimised for large and/or popular logs.

Log to search:

42,868 QSOs logged between 2016-07-23 13:39Z and 2016-09-29 23:04Z

Callsign to check:

Show contacts

Band	CW	Phone	Data
40	1		
30	1		
20	1		
17	1		
15	1		
12	1		

Note: D66D is also using the Club Log expedition charts

Request QSL card

You can link to this page (no login required): <https://secure.clublog.org/logsearch/D66D>

Embed this tool in your own web site

The DX is now ready to respond to QSL requests.

Club Log © Michael Wells G7VJR | About | Privacy | Contact | Reflector | Blog | Twitter



Club Log -- 5



Club Log: Expedition Charts

https://secure.clublog.org/charts/index.php?c=D66D&a=requestQSL&sa=K5NOF

Home | About | Most Wanted | Expeditions | Donate

D66D Club Log QSL Request for K5NOF

Please use Clublog's excellent OQRS to request your Direct or Bureau QSLs for D66D via OK6DJ. Please do NOT send cards through the Bureau or through the mail. Use OQRS instead! It's so much easier, faster and cheaper. Cq WW RTTY QSO upload monday

Every DIRECT 6 QSOs cost **\$3.96** to QSL
Buro cards can be requested for free
Contact: antsat@atlas.cz directly for any QSL enquiries.

Buro: 0
Direct: 6
Total: \$3.96
[Check Out](#)

New	Band	Mode	Year	Month	Day	HH	MM	QSL options
	40	CW	2016	09	20	00	20	
	30	CW	2016	09	23	23	51	
	20	CW	2016	09	22	22	50	
	17	CW	2016	09	19	18	45	
	15	CW	2016	09	19	17	35	
	12	CW	2016	09	19	16	03	

Your QSL request is not finalised until you proceed to the Check Out

[Cancel](#) [Check Out](#)



Club Log -- 6



Club Log: Expedition Charts

https://secure.clublog.org/charts/index.php?c=D66D&a=checkout&sa=K5NOF

CLUBLOG

Home | About | Most Wanted | Expeditions | Donate

D66D Club Log QSL Request for K5NOF :: Checkout

You are about to order the following QSL cards direct: Cost: \$3.96

2016-09-20	00:20:56	on	40m	CW
2016-09-23	23:51:43	on	30m	CW
2016-09-22	22:50:57	on	20m	CW
2016-09-19	18:45:14	on	17m	CW
2016-09-19	17:35:59	on	15m	CW
2016-09-19	16:03:29	on	12m	CW

The total cost for this order (excluding donations) is \$3.96
The fee will be transferred by PayPal to info@cdxp.cz

Send buro card VIA manager [optional]

QRA locator [optional]

Optional donation for D66D \$

Shipping address

Use Paypal address as shipping address
 Define a different address for QSL shipping

Club Log will not receive any money from this transaction.
Club Log is not responsible for any part of the production or delivery of your QSL cards after this point.
You should contact the D66D expedition (antsat@atlas.cz) if you have questions.



ARRL On-Line Card Application

www.arrl.org/online-dxcc-application



Online DXCC Application

www.arrl.org/online-dxcc-application

Home On The Air Licensing, Education & Training Membership Regulatory & Advocacy Public Service Technology Get Involved ARRL Store About ARRL News & Features

Online DXCC Application

DXCC FAQ
DXCC Card Checker Search
DXCC Card Checker Master List
DXCC Applications Received
DXCC Standings
e-QSL Policy
Operating Ethics
Country Lists & Prefixes
DXCC Challenge
Colvin Award Grants
DXCC Contacts
Diamond Challenge
Badge Vendors
5 Band DXCC Application
DX Advisory Committee
DX Log Archive
DXCC Rules
DXCC Awards Fees
DXCC Forms
Online DXCC Application
Join ARRL

Online DXCC Application

Welcome to the ARRL DXCC online application system*.

*Be sure to review important DXCC application information before accessing Online DXCC.

Check your browser. For optimal user experience, please upgrade your browser to its latest version or use an alternative browser such as Firefox, Chrome, or Safari.

Be sure to pay **CLOSE** attention to your data entry. Check each entry to be sure you have entered the correct callsign, accurate date, band and mode and that you have selected the correct entity. Data mismatches will almost always cause a problem and may result in a QSO being rejected.

After completing your online DXCC application, you may bring your cards and forms to a local DXCC card checker or send in the paperwork and cards to the ARRL DXCC Desk. Use the **DXCC Card Checker Search** to find a DXCC card checker.

If mailing cards to ARRL, package the cards securely, protect the cards from moisture, and use a trackable shipping method.

Ship to:

DXCC Desk
225 Main St.
Newington, CT 06111-1494
USA

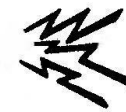
For more information, visit the [ARRL Online DXCC Application Debut page](#).

DXCC FAQ

Most frequently asked questions about DXCC—the award, the process and other



ARRL On-Line App – 2



ARRL's Online DXCC

https://p1k.arrl.org/onlinedxcc/

Welcome to ARRL's Online DXCC

- Find out more about the [DXCC Award Program](#).
- Find out more about [Online DXCC](#).

Submitting Your DXCC Application Online – Step by Step

- Now that you have logged in, you may go to the **Enter QSLs** tab and begin entering information from your QSL cards. All your entries are saved and you may leave the **Enter QSLs** tab at any time while entering QSLs, and return to it later.
 - You must enter all of the required data for each card. If you want to submit more than one QSO from a single card, then enter the information about those QSOs together — one right after another — on the [Enter QSLs](#) tab.
 - If — once *both* the **Call Sign** and **QSO Date** are entered — the DXCC entity you want to select does not appear among the choices in the pulldown list, select the **Show All** choice from the pulldown list to select from the [complete DXCC List](#).
 - You may enter your QSL cards in any order; when you submit your cards for checking, they must be placed in the **same order** that you entered them. During the submission process Online DXCC will produce a *DXCC Record Sheet* for you that shows this order.
- If you use a logging program, you will find it faster and more accurate to prepare an ADIF file containing the QSO information for the QSLs that you want to submit with your application rather than manually entering the information from each card. Use the [Import ADIF](#) tab to import your ADIF file.
- When you have finished entering data for the QSLs you want to submit, you may begin the application process by clicking on the [Submit Application](#) tab and proceed sequentially through the **Application**, **Select QSLs**, **Payment**, **Preview Application** and **Preview QSL List** steps.
- The **Preview QSL List** step of the [Submit Application](#) tab provides a **Submit Application** button. Clicking this button completes the application process and saves your application. You may leave and return to the [Application History](#) tab at any time to view and print your completed application.
- Verify that your QSL cards are in the **same order** as shown on your *DXCC Record Sheet*. Then:
 - Take a printed copy of your completed *DXCC Award Application* and all pages of your *DXCC Record Sheet* along with your QSL cards to a [DXCC Card Checker](#). You will need to provide the [DXCC Card Checker](#) with an SASE or sufficient postage to cover mailing your paperwork to [ARRL HQ](#).
 - If there is not a [DXCC Card Checker](#) in your area, you may send your QSL cards directly to [ARRL HQ](#); include a copy of your *DXCC Award Application*.
- Once you have submitted an application by clicking the **Submit Application** button, you cannot make further changes or add QSLs to this submission. You cannot start a new application in the Online DXCC system until your pending application has been processed by [ARRL HQ](#). You may continue to use the [Enter QSLs](#) tab to enter new QSLs and to edit or delete QSLs that are not contained in a pending submission.

Note: Online DXCC applications that are on hold pending receipt of QSL cards or paperwork verified by a DXCC card checker that have not been received within 60 days may be rejected.

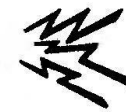
ARRL The national association for **AMATEUR RADIO**[®]

ARRL, Inc.
225 Main Street
Newington, CT 06111

Email: dccadmin@arrl.org
Phone: 860.594.0234
Fax: 860.594.0346



ARRL On-Line App – 3



ARRL's Online DXCC

https://p1k.arrl.org/onlinedxccc/records.php

Review Instructions Enter QSLs Import ADIF Submit Application Application History Learn More Help

Enter QSLs

- Enter the information from your QSL cards in the data entry area below. Enter the information from one QSL at a time. Remember to press the **Save** button for each QSL.
 - Drop-down lists are used to ensure the accurate entry of information. Keep in mind that accuracy always trumps speed.
 - If — once **both** the **Call Sign** and **QSO Date** are entered — the DXCC entity you want to select does not appear among the choices in the pull-down list, select the **Show All** choice from the pull-down list to choose from the [complete DXCC List](#).
 - Only one QSL per combination of band + mode + DXCC entity may be saved. The system will alert you if you attempt to save a QSL that has the same band, mode and DXCC entity as a QSL that you have already saved. QSLs are not checked against your DXCC records for duplicate credits; QSLs entered using this system are checked only against each other.
 - When you click the **Save** button, the QSL information will appear at the top of the [table](#) located below the entry area.
- You may edit or delete a QSL using the **Edit** or **Delete** buttons on the right-hand side of the lower table. If you **Edit** the information for a QSL that is other than the most recently entered one, its position in the list will change and you will need to move the corresponding QSL card accordingly.
- You may use the arrows located to the right of the column labels in the table below to **temporarily** change the sort order of your records. Do **not** change the order of your QSL cards to match this temporary sort order. This option is available to make searching your records easier. Click the **Restore Default Sort Order** button located below the table to view your records in the default sort order.
- Note:** QSLs entered into this system are not automatically submitted to DXCC. You must complete and submit a [DXCC Application](#), the cards must either be brought to a [DXCC Card Checker](#) or sent to [ARRL HQ](#) and finally your application must be processed at HQ before the QSLs are credited to your DXCC record!

Complete all of the fields below to add or edit QSL card information in your account. All fields must be completed.

Call Sign	QSO Date (dd-mm-yyyy)	Band	Mode	DXCC Entity	
<input type="text"/>	Select ▼ Select ▼ Select ▼	Select ▼	Select ▼	Select ▼	Save

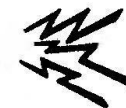
ARRL, Inc.
225 Main Street
Newington, CT 06111
USA

Email: dxcadmin@arrl.org
Phone: 860.594.0234
Fax: 860.594.0346
Web site: arrl.org/diamond-dxcc

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ARRL On-Line App – 4



ARRL's Online DXCC

https://p1k.arrl.org/onlinedxcc/records.php

Complete all of the fields below to add or edit QSL card information in your account. All fields must be completed.

Call Sign	QSO Date (dd-mm-yyyy)	Band	Mode	DXCC Entity	
<input type="text"/>	Select Select Select	Select	Select	Select	Save

The 14 QSLs in your Online DXCC account are shown below. More recently entered QSLs are listed towards the top.

[View All My QSLs](#) (as a PDF document)

Click the *View All My QSLs* button above for a PDF listing of your QSLs in the order they must be placed for submittal.

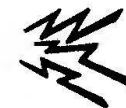
Call Sign	QSO Date (yyyy-mm-dd)	Band	Mode	DXCC Entity	
S9YY	2016-10-23	40	CW	SAO TOME & PRINCIPE	Edit Delete
S9YY	2016-10-22	17	CW	SAO TOME & PRINCIPE	Edit Delete
S9YY	2016-10-22	20	CW	SAO TOME & PRINCIPE	Edit Delete
S9YY	2016-10-14	30	CW	SAO TOME & PRINCIPE	Edit Delete
S9YY	2016-10-14	12	CW	SAO TOME & PRINCIPE	Edit Delete
OM5XX	2015-11-01	12	PHONE	SLOVAK REPUBLIC	Edit Delete
OK5JH	2015-10-01	12	CW	CZECH REPUBLIC	Edit Delete
OK1NG/TI7	2015-03-20	30	CW	COSTA RICA	Edit Delete
OK1DOL	2014-02-15	10	CW	CZECH REPUBLIC	Edit Delete
LZ5R	2011-10-30	20	PHONE	BULGARIA	Edit Delete
JG8NQJ/JD1	2015-10-18	15	CW	MINAMI TORISHIMA	Edit Delete
HC1HW	2013-09-13	12	CW	ECUADOR	Edit Delete
F5NBX	2014-07-30	17	CW	FRANCE	Edit Delete
D4D	2015-10-18	12	PHONE	CAPE VERDE	Edit Delete

1 of 1

Show 35 QSLs at a time.




ARRL On-Line App – 5



view-records-pdf.php - Google Chrome

<https://p1k.arrl.org/onlinedxcc/resources/api/view-records-pdf.php?>



Online DXCC QSLs

Page 1 of 1

The following QSLs have been entered into Online DXCC and have not been applied toward an award or endorsement.

Number	Call Sign	QSO Date	Band	Mode	Entity
1	D4D	2015-10-18	12	PHONE	CAPE VERDE
2	F5NBX	2014-07-30	17	CW	FRANCE
3	HC1HW	2013-09-13	12	CW	ECUADOR
4	JG8NQJ/JD1	2015-10-18	15	CW	MINAMI TORISHIMA
5	LZ5R	2011-10-30	20	PHONE	BULGARIA
6	OK1DOL	2014-02-15	10	CW	CZECH REPUBLIC
7	OK1NG/TI7	2015-03-20	30	CW	COSTA RICA
8	OM5XX	2015-11-01	12	PHONE	SLOVAK REPUBLIC
9	S9YY	2016-10-14	12	CW	SAO TOME & PRINCIPE
10	S9YY	2016-10-14	30	CW	SAO TOME & PRINCIPE
11	S9YY	2016-10-22	20	CW	SAO TOME & PRINCIPE
12	S9YY	2016-10-22	17	CW	SAO TOME & PRINCIPE
13	S9YY	2016-10-23	40	CW	SAO TOME & PRINCIPE
14	SV2ASP/A	2015-10-24	40	CW	MOUNT ATHOS
15	SU9VB	2014-12-04	10	CW	EGYPT
16	SU9VB	2015-05-16	12	CW	EGYPT
17	T46X	2015-10-04	12	CW	CUBA
18	V73DL	2014-02-09	12	CW	MARSHALL ISLANDS
19	VP5/W5CW	2015-11-27	12	CW	TURKS & CAICOS ISLANDS
20	VR2XMT	2015-03-01	12	PHONE	HONG KONG
21	XX9TGM	2016-06-20	30	CW	MACAO
22	ZD7FT	2015-02-21	12	PHONE	SAINT HELENA
23	4J6RO	2015-02-21	15	CW	AZERBAIJAN
24	9A204MF	2012-10-03	30	CW	CROATIA
25	9A4W	2014-12-18	12	PHONE	CROATIA
26	9G5AM	2016-10-20	17	CW	GHANA
27	9G5AM	2016-10-21	30	CW	GHANA
28	9G5AM	2016-10-22	20	PHONE	GHANA
29	9G5AM	2016-10-24	40	CW	GHANA
30	9N7WE	2015-03-27	15	PHONE	NEPAL
31	OK5JM	2015-11-01	12	CW	CZECH REPUBLIC



ARRL On-Line App – 6



ARRL's Online DXCC

https://p1k.arrl.org/onlinedxcc/award.php

Submit Application

- When using this system to submit a DXCC application:
 - Do not** fill out a paper [DXCC Application Form and Record Sheet](#) by hand. Online DXCC will generate and allow you to print out a [DXCC Award Application Form](#) and [DXCC Record Sheet](#).
 - You **must** print out and bring **both** the [DXCC Award Application](#) and all pages of the [DXCC Record Sheet](#) produced by this system when taking your cards to a [DXCC Card Checker](#).
 - You **must** print out and include the [DXCC Award Application](#) produced by this system if you are sending your cards to [ARRL HQ](#) for checking.
- QSL card information entered via this system **does not** automatically become part of your DXCC record. You will be awarded credit for the QSLs that you have entered after you complete and submit a [DXCC Award Application](#) and accompanying [DXCC Record Sheet](#) and then either:
 - a [DXCC Card Checker](#) verifies your cards, forwards your paperwork to [ARRL HQ](#) and HQ staff completes the processing of your application; or
 - the [ARRL HQ](#) staff receives and verifies your cards and then completes the processing of your application.

Click the button at the bottom when you are ready move on to the next step of submitting your application. You may return to steps that you have already completed using the tabs located below. A new tab appears after each step is successfully completed.

Application Select QSLs Payment Preview Award Application

Preview Application

Please carefully review your application for accuracy. This is the information that will appear on your DXCC application form. If you want to make any modifications, click the tab that contains the data you want to alter. Once you submit this application, you will not be able to make any changes or add additional records.

I am applying for an endorsement. This application will be checked by a field checker.
 Diamond Club Member (Level 4 or Higher) Mail me a copy of my application and credit card receipt.
 The address below is a new mailing address. Mail me a certificate.

Name: Alan Walters Call Sign: K5NOF
Address: 48 Rust Ln Previous Call Sign(s): K6NOF, WB6FHK
Boerne TX USA 78006-8200
Phone: (830) 336-3925 Name on Certificate: Alan Walters
Email: abwltrs@aol.com Return My QSL Cards Via: US Priority
Secure Mail Option:

Continue



ARRL On-Line App – 7



ARRL's Online DXCC

https://p1k.arrl.org/onlinedxcc/award.php

Review Instructions Enter QSLs Import ADIF Submit Application Application History Learn More Help

Submit Application

- When using this system to submit a DXCC application —
 - Do not** fill out a paper [DXCC Application Form and Record Sheet](#) by hand. Online DXCC will generate and allow you to print out a *DXCC Award Application Form* and *DXCC Record Sheet*.
 - You **must** print out and bring **both** the *DXCC Award Application* and all pages of the *DXCC Record Sheet* produced by this system when taking your cards to a [DXCC Card Checker](#).
 - You **must** print out and include the *DXCC Award Application* produced by this system if you are sending your cards to [ARRL HQ](#) for checking.
- QSL card information entered via this system **does not** automatically become part of your DXCC record. You will be awarded credit for the QSLs that you have entered after you complete and submit a *DXCC Award Application* and accompanying *DXCC Record Sheet* and then either:
 - a [DXCC Card Checker](#) verifies your cards, forwards your paperwork to [ARRL HQ](#) and HQ staff completes the processing of your application; or
 - the [ARRL HQ](#) staff receives and verifies your cards and then completes the processing of your application.

Click the button at the bottom when you are ready move on to the next step of submitting your application. You may return to steps that you have already completed using the tabs located below. A new tab appears after each step is successfully completed.

Application Select QSLs Payment Preview Award Application Preview QSL List Application Submitted

Application Submitted

Congratulations, your Online DXCC application has been submitted. A copy of your application has been created in PDF format. You can also view all of your Online DXCC applications any time you are logged in on the [My DXCC tab](#).

You still need to show your cards to a [Card Checker](#) or send them to ARRL HQ for final confirmation.

If you do not have Adobe Acrobat Reader installed on your computer, [click here](#) to download it.

[View Application](#)

ARRL The national association for AMATEUR RADIO®

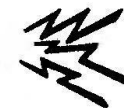
ARRL, Inc.
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USA

Email: dxccadmin@arrl.org
Phone: 860.594.0234
Fax: 860.594.0346
Web site: arrl.org/diamond-dxcc

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ARRL On-Line App – Mailer



Mail this with your cards

create-application-pdf.php - Google Chrome
https://p1k.arrl.org/onlinedxcc/resources/api/create-application-pdf.php?application_id=15138



I am applying for the following DXCC award(s):

Endorsement: Yes

Number of QSOs: 31

You must mark those qsos on your cards for which you wish credit. Cards must be placed in the order shown on the DXCC Records Sheet(s) which follow.

Complete DXCC fees are shown at www.arrl.org/dxcc.

- The use of a current DXCC application form is required.
- Do not use this form for plaque or pin orders.
- You must clear previous balances (per your last credit slip) with this submission in order to avoid delays.

I affirm that I have observed all DXCC rules as well as all governmental regulations established for Amateur Radio in my country. I understand that ARRL is not responsible for cards handled by DXCC Card Checkers and will not honor any claims. I agree to be bound by the decisions of the ARRL Awards Committee and that all decisions of the ARRL Awards Committee are final.

DXCC Award Application

Call Sign: K5NOF

Ex Call Sign(s): K6NOF, WB6FHK

Name: Alan Walters

Mailing Address:

Alan Walters
 48 Rust Ln
 Boerne, TX 78006-8200

Your cards, paperwork, and certificates will be shipped to the address above.

New Address: No

Name as to Appear on Certificate:
 Alan Walters

Telephone: (830) 336-3925

Email: abwltrs@aol.com

Diamond Club Level 4 or Higher: No

Send Paperwork: Yes

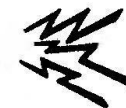
Send Certificate: No

Return My QSL Cards Via: US Priority

Applicant Signature (REQUIRED)	Call Sign	Date
<p>Send application forms, QSL cards to : DXCC Desk, ARRI HQ, 225 Main Street, Newington, CT 06111, U.S.A. For questions or clarifications, please write to the DXCC Desk at the above address, or via email to dccadmin@arrl.org.</p> <p>To confirm the receipt of your application, go to this link: www.arrl.org/dxcc-applications-received.</p> <p>The DXCC Desk can also be contacted as follows: Telephone: 860 594-0234, Fax: 860 594-0346 (24 hours direct line to ARRL HQ). For complete program information, please visit the DXCC web site at www.arrl.org/dxcc.</p>		




ARRL On-Line App – Mailer



Mail this with your cards

create-application-pdf.php - Google Chrome
https://p1k.arrl.org/onlinedxcc/resources/api/create-application-pdf.php?application_id=15138



DXCC Record Sheet

Call Sign: K5NOF Page 1 of 1

Note: Cards may be submitted directly to ARRL or checked by a DXCC Card Checker. Cards must be placed in the order shown below.

Number	Call Sign	QSO Date	Band	Mode	Entity
1	D4D	2015-10-18	12	PHONE	CAPE VERDE
2	F5NBX	2014-07-30	17	CW	FRANCE
3	HC1HW	2013-09-13	12	CW	ECUADOR
4	JG8NQJ/JD1	2015-10-18	15	CW	MINAMI TORISHIMA
5	LZ5R	2011-10-30	20	PHONE	BULGARIA
6	OK1DOL	2014-02-15	10	CW	CZECH REPUBLIC
7	OK1NG/TI7	2015-03-20	30	CW	COSTA RICA
8	OM5XX	2015-11-01	12	PHONE	SLOVAK REPUBLIC
9	S9YY	2016-10-14	12	CW	SAO TOME & PRINCIPE
10	S9YY	2016-10-14	30	CW	SAO TOME & PRINCIPE
11	S9YY	2016-10-22	20	CW	SAO TOME & PRINCIPE
12	S9YY	2016-10-22	17	CW	SAO TOME & PRINCIPE
13	S9YY	2016-10-23	40	CW	SAO TOME & PRINCIPE
14	SV2ASP/A	2015-10-24	40	CW	MOUNT ATHOS
15	SU9VB	2014-12-04	10	CW	EGYPT
16	SU9VB	2015-05-16	12	CW	EGYPT
17	T46X	2015-10-04	12	CW	CUBA
18	V73DL	2014-02-09	12	CW	MARSHALL ISLANDS
19	VP5/W5CW	2015-11-27	12	CW	TURKS & CAICOS ISLANDS
20	VR2XMT	2015-03-01	12	PHONE	HONG KONG
21	XX9TGM	2016-06-20	30	CW	MACAO
22	ZD7FT	2015-02-21	12	PHONE	SAINT HELENA
23	4J6RO	2015-02-21	15	CW	AZERBAIJAN
24	9A2Ø4MF	2012-10-03	30	CW	CROATIA
25	9A4W	2014-12-18	12	PHONE	CROATIA
26	9G5AM	2016-10-20	17	CW	GHANA
27	9G5AM	2016-10-21	30	CW	GHANA
28	9G5AM	2016-10-22	20	PHONE	GHANA
29	9G5AM	2016-10-24	40	CW	GHANA
30	9N7WE	2015-03-27	15	PHONE	NEPAL
31	OK5JM	2015-11-01	12	CW	CZECH REPUBLIC



If Just Getting Started with SSB



- Use the standard phonetic alphabet.
- Developed by the military and civil aviation to provide a common understanding across many languages.
- Avoid the home brew alphabet.
 - Z is Zulu and not Zanzibar
 - UTC (GMT) is also “Zulu Time”, the 24th of 24 time zones around the World.
- Sometimes it is best to avoid using Q signals and use plain language.
 - Simply say the meaning. Examples:
 - (QSL) “ roger, copy all.”
 - (QRX) “ I will call you back in xx minutes.”
 - (QRN) “ we have static here”
 - (QRM) “ we have interference here”
 - (QRU) “ I have nothing more for you”
- Examples of procedure signal use:
 - (AS) wait.
 - (BT) break.
 - (DE) this is.
 - (K) over.
 - (R) roger, copy all.
 - (SK) clear.
- See the ARRL Operating Manual for these and other examples.
- Watch the mic. gain.



If Just Getting Started with CW



- Procedures and protocols date from railroad telegraphy of the late 1800s and Morse of the early 1900's.
 - Commercial traffic handling between ship and shore until 12 July, 1999.
 - Listen to exchanges at www.radiomarine.org to hear how it was done.
 - Listen to Denise Stoops send the closing message from KPH at the end of CW commercial ops.
 - <https://www.youtube.com/watch?v=2a4scmlC7tl>
 - US Navy & USCG communication procedure adopted by other military services.
 - These and Commercial procedures form the basis of amateur CW procedures.
- “Q” Signals.
 - First used around 1906 in commercial traffic to speed communication.
 - Adopted by Amateurs, then Navy, USCG and other military before WWII.
 - Examples: QTH – position, QSA -- signal strength, QRM – interference, QRN – static, QRO – increase power, QRP – reduce power, QRU – nothing for you, QRX – call back, QRL – busy, QRZ – who is calling, QSB – fading, QSL – receipt, QSY – change frequency. (See ARRL operating manual).
- Procedure Signals.
 - Commenced with early commercial ,amateur, and military communications.
 - Examples: AR – end of message, AS – wait, BT – break, CQ – any station, DE – this is, GL – good luck, IMI -- ?, K – invitation to transmit, NIL – not in log, R – receipt, TU – thanks, 73 – best wishes (male), 88 – best wishes (female), VA (SK) – end of my work (clear). (See ARRL operating manual).



DX Code of Conduct



- Listen, listen, listen, listen, listen, listen, and then listen some more –
 - **Never** tune up on the DX's frequency.
 - Don't trust the call on the DX packet cluster, listen to what the DX says.
 - Don't call unless the DX's signal is strong enough to copy.
 - Don't call on the DX's frequency unless you are sure he is not working split.
 - Don't call until you are sure DX has completed the current QSO.
 - Don't call when the DX responds to another call sign.
 - Don't call when the DX queries another call not like yours.
 - Don't call when the DX queries other geographic areas.
- When you call –
 - Send your complete call, once, listen -- twice, listen – three, four times max.
 - When DX answers –
 - Send your exchange or signal report once and only once.
 - DX will ask for fills if needed.
- If DX answers with your correct call sign –
 - (Generally) don't send your call again unless part of the exchange.
 - **He already told you he knows who you are!**

Extras are the biggest violators; particularly those nearing the Honor Roll.