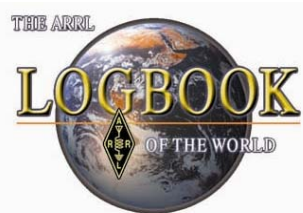THE ARRL

LOGBOOK

OF THE WORLD
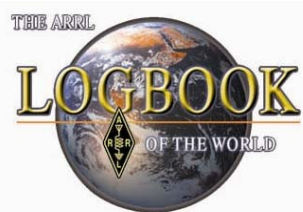
What is Logbook of The World?

ARRL's *Logbook of the World* (LoTW)
system is a repository of log records
submitted by users from around the
world.

What is Logbook of The World?

When both participants in a QSO submit matching QSO records to LoTW, the result is a QSL that can be used for ARRL award credit.

What is Logbook of The World?

The concept of Logbook of The World is not much different than keeping a paper log.

THE ARRL LOGBOOK OF THE WORLD
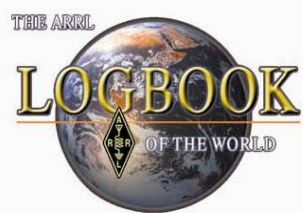
LoTW is double blind. This means you cannot see another user's log and they cannot see your log.

	Call sign	Worked	Date/Time	Band	Mode	Freq
Details	W1AW	NQ9P	2015-03-20 18:30:30	17M	SSB	18.11800
Details	W1AW	DG9MGU	2015-03-20 18:26:46	17M	SSB	18.11800
Details	W1AW	F4GGH	2015-03-20 18:25:54	17M	SSB	18.11800
Details	W1AW	IK5CYT	2015-03-20 18:22:13	17M	SSB	18.11800
Details	W1AW	W4YES	2015-03-20 18:18:06	17M	SSB	18.11800
Details	W1AW	N6VXM	2015-03-20 18:11:41	17M	SSB	18.11800
Details	W1AW	EI3GD	2015-03-20 18:09:28	17M	SSB	18.11800

A paper logbook in your shack can only be viewed by you.
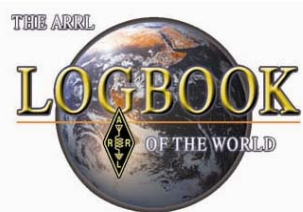
When two stations make a contact and exchange QSL cards…
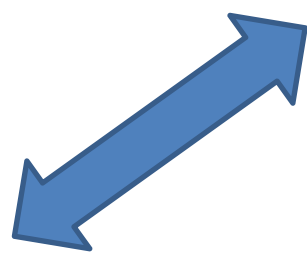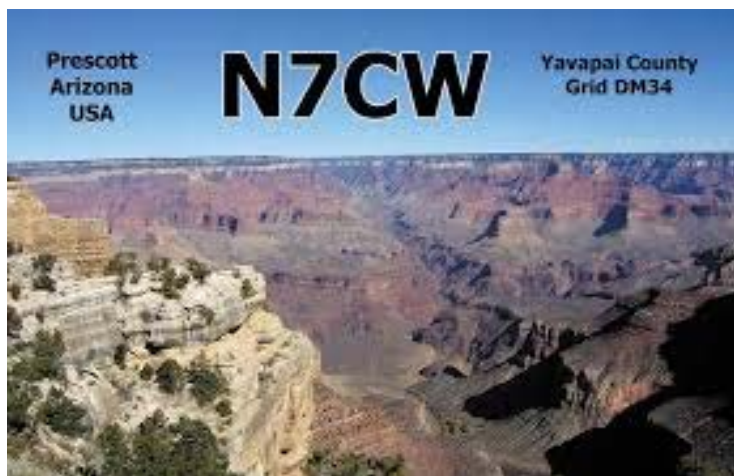
…They are sharing the information
from their logbooks that is common
to their contact.
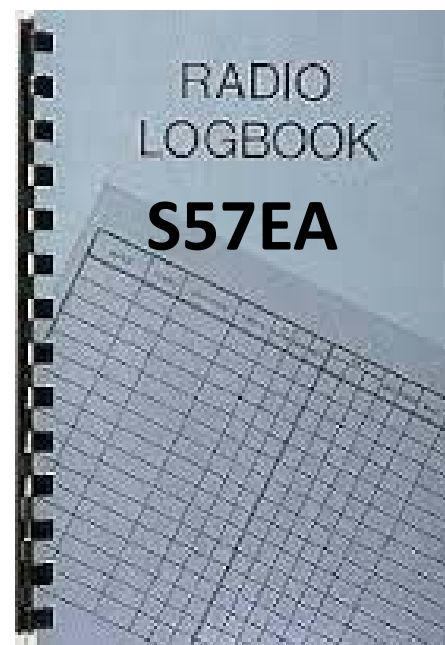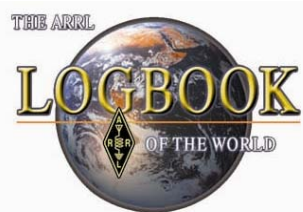
N7CW

S57EA

LoTW confirmation. (no paper)

Station
- Call Sign: N7CW
- DXCC: UNITED STATES OF AMERICA
- CQ Zone: 3
- ITU Zone: 6
- Grid: DM34rn
- State: Arizona (AZ)
- County: YAVAPAI

Worked Station
- Worked: S57EA
- DXCC: SLOVENIA (499)
- CQ Zone: 15
- ITU Zone: 28
- Grid: JN76he
- Date/Time: 2015-02-22 15:19:19
- Mode: CW (CW)
- Band: 15M
- Frequency: 21.05643
- QSL: 2015-03-24 19:27:43

Record ID 653843446 Received: 2015-02-22 23:56:07

Station
- Call Sign: S57EA
- DXCC: SLOVENIA
- CQ Zone: 15
- ITU Zone: 28
- Grid: JN76he

Worked Station
- Worked: N7CW
- DXCC: UNITED STATES OF AMERICA (291)
- CQ Zone: 3
- ITU Zone: 6
- Grid: DM34rn
- State: Arizona (AZ)
- County: YAVAPAI
- Date/Time: 2015-02-22 15:23:00
- Mode: CW (CW)
- Band: 15M
- Frequency: 21.05640
- QSL: 2015-03-24 19:27:43

Record ID 663760780 Received: 2015-03-24 19:27:43
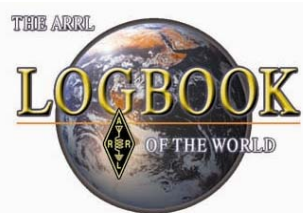
What about special situations?

Logbook of the World can accommodate every possible user scenario.

- Home
- Portable
- Mobile
- Maritime
- QSL Managers
- DXpedition or whatever,
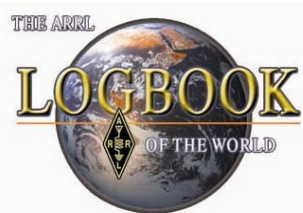
LoTW can be setup to properly process your logs and match QSOs for all of your operations.

Is LoTW Secure?

To minimize the chance of fraudulent submissions to LoTW, all QSO records must be digitally signed using a digital call sign certificate obtained from ARRL.

How much does it cost?
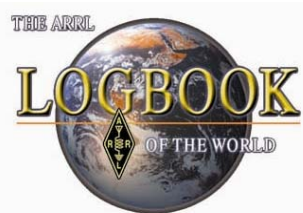
Logbook of The World is **FREE** to all radio amateurs around the world.

Membership in ARRL is <u>not</u> required to use LoTW. *

Users may upload logs and view data anytime with <u>no charges or fees</u>.

*US hams must be ARRL members to apply for ARRL awards.

What About Application Fees?

When applying for awards users pay the appropriate application fees and QSO fees.

This is no different than when making a paper application for an award.

In many cases the application fees for awards applied through LoTW have been discounted.
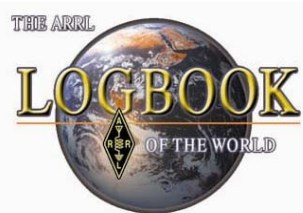
What About QSL Cards?

LoTW does not replace QSL collecting.

ARRL QSL Bureau is still a member benefit.
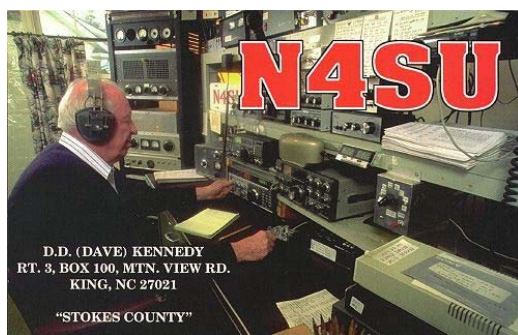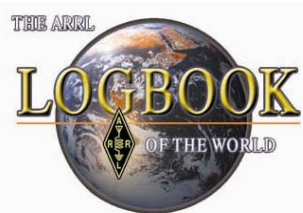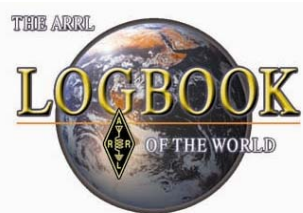
LoTW saves money and time.
- –No postage or IRCs.
- –No QSL card printing expense.
- –No waiting for QSL cards

How is LoTW different than e-QSL or other online QSL services?

Because LoTW uses private key and public key technology, users are verified and data uploaded to the system is secure.

LoTW is constantly comparing uploaded data for matches.

There are no paper cards printed that have the potential to be altered.
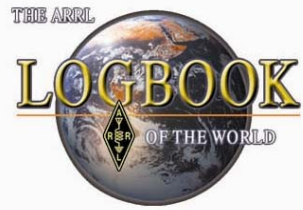
What can I do with LoTW?
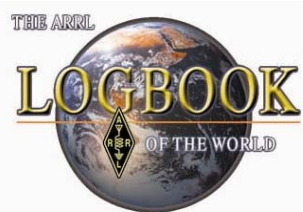
What can I do with LoTW?

Account Status					
DXCC Award	**New LoTW QSLs**	**LoTW QSLs in Process**	**DXCC Credits Awarded**	**Total (All)**	**Total (Current)**
Mixed *	2	0	300	302	297
CW *	5	0	253	258	255
Phone *	0	0	257	257	253
Digital *	2	0	111	113	113
160M	0	0	52	52	51
80M *	1	0	124	125	123
40M *	1	0	188	189	187
30M	2	0	67	69	69
20M *	3	0	244	247	245
17M	4	0	86	90	90
15M *	2	0	206	208	206
12M	4	0	34	38	38
10M *	2	0	167	169	166
6M	0	0	1	1	1
Challenge *	19	0	1157	---	1176
5-Band *	---	---	---	---	---

* = Award has been issued

View Award Credit Matrix

- Apply for awards
- Track DXCC credits
- View DXCC Matrix
- Track WAS Credits
- Search QSOs and QSLs
- View QSL Details

What can I do with LoTW?

Log on to Logbook of the World

Note: You must have been issued a certificate before you can log on to the LoTW site.

Username: _____

Password: _____ Note: This is **not** the password sent to US amateurs via postcard!

[Log On]

Your browser must support cookies in order to log in.

Not a member of Logbook of the World? Get started today!

ARRL website

Let's explore Logbook of The World

(Connect to LoTW and show your account.)

What about software?

LoTW uses software called TQSL.
TQSL is free to download and use.

TQSL works with:
- MS Windows
- Mac OS X
- Linux

TQSL 2.0 (or newer releases)

TQSL is the software that **Logbook of The World** users install at their location to securely upload logs to Logbook of The World.

TQSL is free to download and use.

TQSL 2.0 (or newer releases)

The **TQSL** software is downloadable from the web at:

www.arrl.org/TQSL-Download

TQSL 2.0 (or newer releases) Works with all supported versions of MS Window OS.

TQSL 2.0 (or newer releases)

TQSL 2.0 (or newer releases) is also available for Mac OSX.

TQSL 2.0 (or newer releases) for Linux is supported by the Linux community.

TQSL 2.0 (or newer releases)

TQSL automatically checks for updates in the software or configuration files.

TQSL 2.0 (or newer releases)

TQSL uses a standard Windows installer

Excuse me.

I have a question.

TQSL 2.0 (or newer releases)

Why do I need TQSL software?

What is a Call Sign Certificate?

Why do I need this to send my logs to LoTW?

Log Operations	Station Locations	Callsign Certificates

☐ 📁 tQSL Certificates

    🏆 N1ZQ - UNITED STATES OF AMERICA

TQSL 2.0 (or newer releases)

Logbook of The World only accepts *Trusted files*.

Trusted files are created by *TQSL*.

TQSL uses the Call Sign Certificate to electronically sign the Trusted file.

TQSL 2.0 (or newer releases)

Types of Trusted files:

TQ 5 - Request for a Call Sign Certificate.

TQ 6 – Response to a **TQ5** request.

TQ 8 – Signed log file.

TQSL 2.0 (or newer releases)

Sending a secure log file is like sending your log in a locked box.
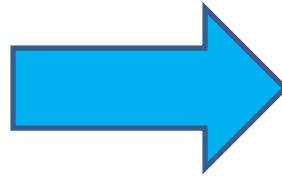
TQSL 2.0 (or newer releases)

TQSL is the software that locks the box and sends it to LoTW.

TQSL 2.0 (or newer releases)

This is why the TQSL icon is a key.

TQSL 2.0 (or newer releases)

The Call Sign Certificate encrypts the log file and acts as the lock.

TQSL 2.0 (or newer releases)

When your locked file is received at LoTW…
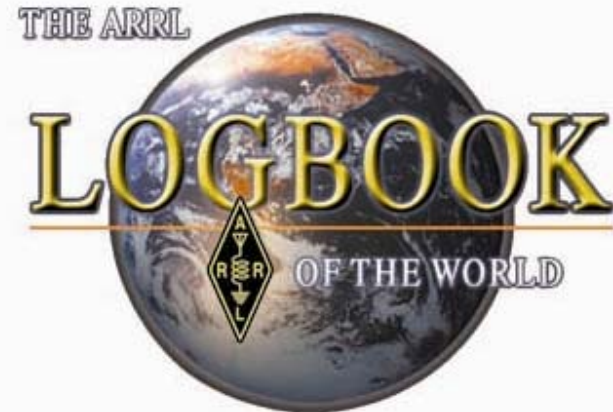
TQSL 2.0 (or newer releases)

… we use the same key to unlock the "box" that was used to lock it at your location.

TQSL 2.0 (or newer releases)

The keys and the locks must match or the file cannot be opened.
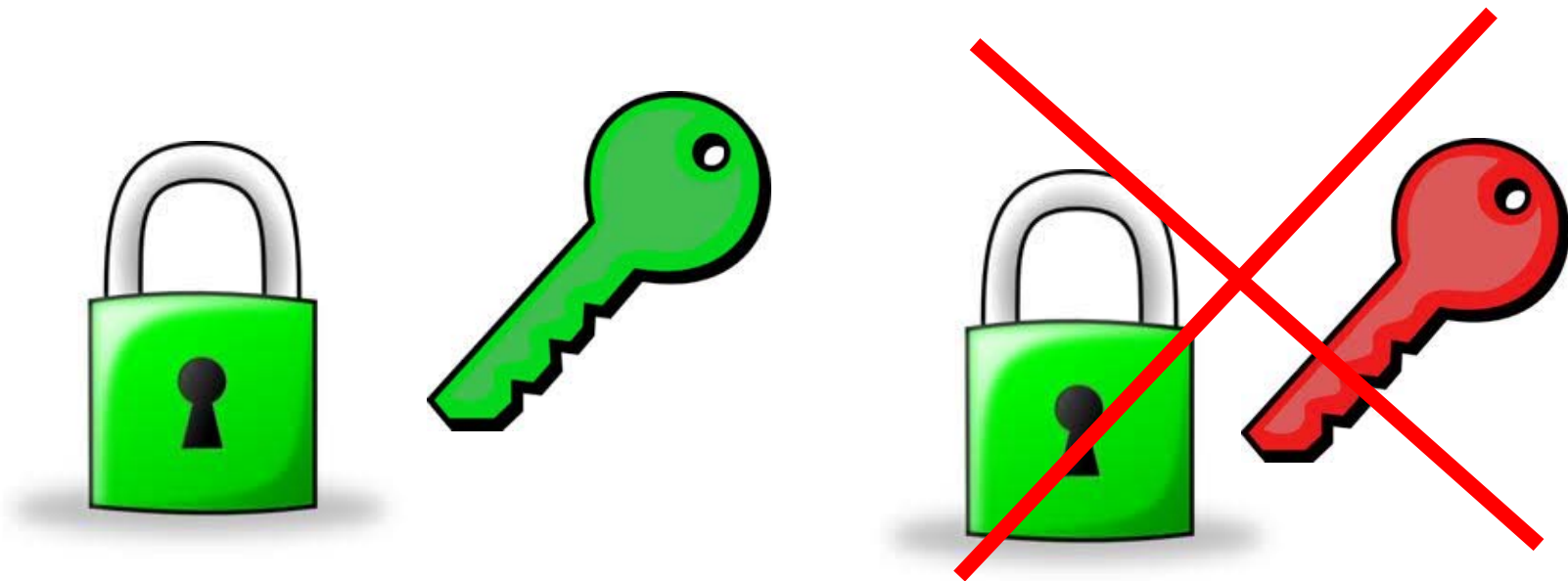
TQSL 2.0 (or newer releases)

This is a *very simplified* illustration of public key - private key technology.

TQSL 2.0 (or newer releases)

Let's continue…

TQSL 2.0 (or newer releases)

The next step is to request a

Call Sign Certificate?
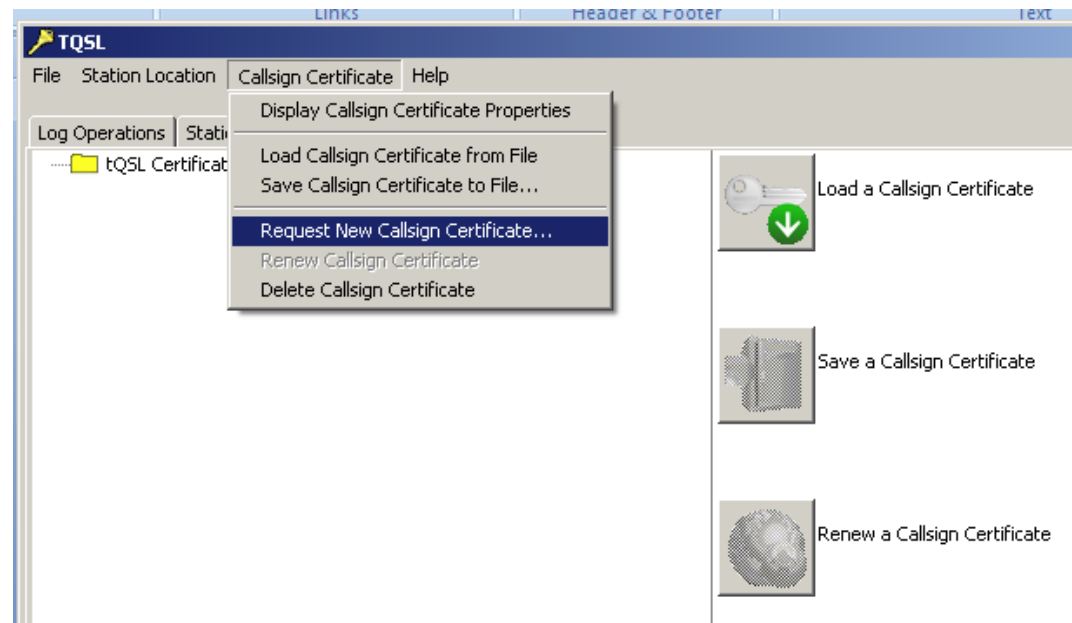
TQSL 2.0 (or newer releases)

This is nothing more than filling out a form.
Name, address, call sign, e-mail...

TQSL 2.0 (or newer releases)

The TQSL program will offer to send your call sign certificate request for you.

Upload

? Do you want to upload this certificate request to LoTW now?
You do not need an account on LoTW to do this.

[Yes]   [No]
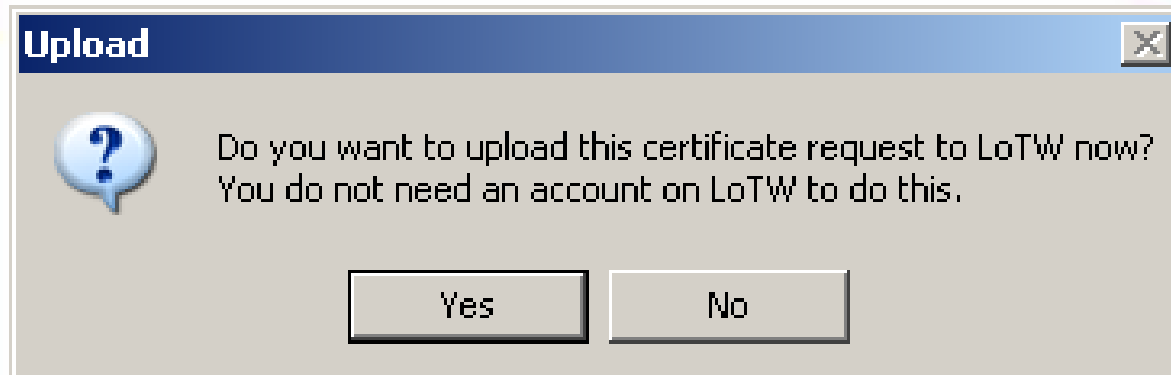
TQSL 2.0 (or newer releases)

After your request is processed at ARRL you will receive your **TQ6** response.

Accepting your **TQ6** file is as simple as clicking you mouse.

TQSL 2.0 (or newer releases)

The TQ 6 response is specific to the TQ 5 request.

Only the key that made the **TQ5** request can unlock the **TQ6** response

TQSL 2.0 (or newer releases)

Because the **TQ5** and **TQ6** are a matched set the request and acceptance must be performed from the same computer.

TQSL 2.0 (or newer releases)

So, I can only use this on one computer?

No. TQSL can be used on multiple computers and operating systems.

TQSL 2.0 (or newer releases)

We will use the backup and restore utilities in TQSL to save the configuration then transfer it to other computers.

See https://lotw.arrl.org/lotw-help/backuprestore/ for Backup, Restore (or Recovery) features.

TQSL 2.0 (or newer releases)

Backup and Restore (or Recovery)

After you have configured TQSL with a certificate and station locations you can ***backup your configuration*** and move it to another computer.

This is a simple process involving a few clicks of your mouse.
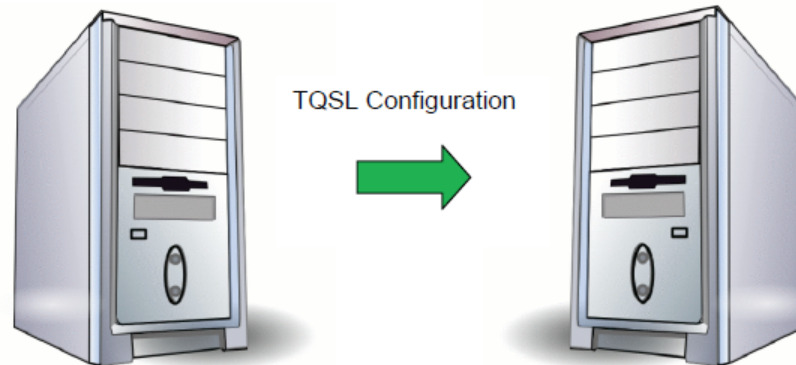
TQSL Configuration

TQSL 2.0 (or newer releases)

Backup and Restore (or Recovery)

TQSL

File Station Location Callsign Certificate Help

Sign and upload ADIF or Cabrillo File...
Sign and save ADIF or Cabrillo file...

Backup Station Locations, Certificates, and Preferences...
Restore Station Locations, Certificates, and Preferences...

Create New ADIF file...
Edit existing ADIF file...

Display or Modify Preferences...

Diagnostic Mode

Exit TQSL   Alt-X

Log in to the Logbook of the World Site
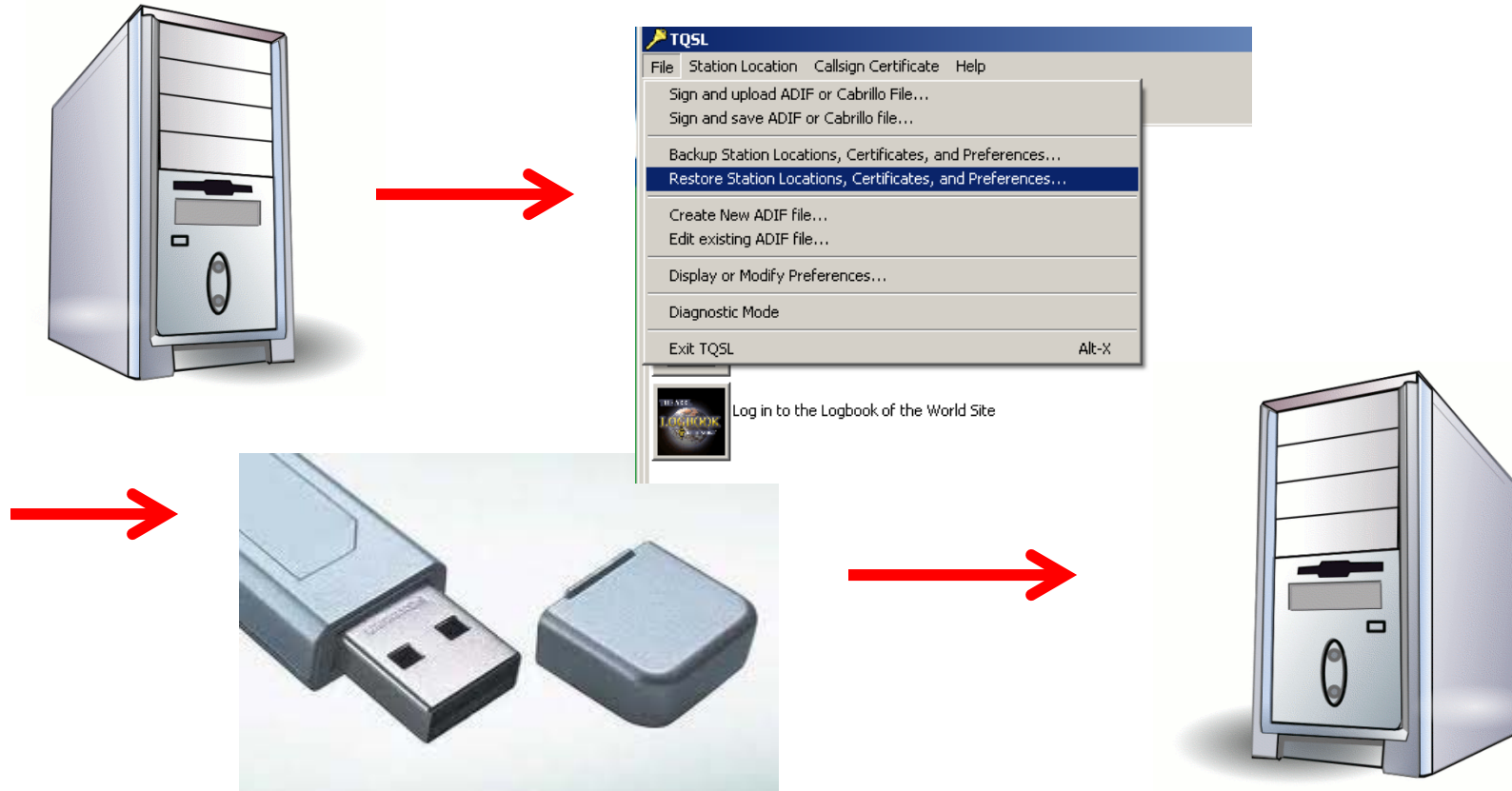
TQSL 2.0 (or newer releases)

Backup and Restore (or Recovery)

You can move your TQSL configuration to other computers regardless of the operating system or platform.

TQSL 2.0 (or newer releases)

Wait a minute.

Why do I hear about receiving a postcard in the mail or e-mailing (or mailing) documents?

TQSL 2.0 (or newer releases)

When you request a Call Sign Certificate you are requesting a key.

TQSL 2.0 (or newer releases)

The request is authenticated before sending the key.

TQSL 2.0 **(or newer releases)**

Authentication is only required when you are creating a new Logbook of The World user account.

 TQSL 2.0 (or newer releases)

Authentication

US Operators

Will receive a postcard mailed to their address listed in the FCC database.

Non-US Operators

Must e-mail (or mail) a copy of their operator permit and identification (numbers blacked out) to ARRL

TQSL 2.0 (or newer releases)

Let's continue...

TQSL 2.0 (or newer releases)

Station Locations

In addition to placing an electronic signature on your log file TQSL also adds your geographic information to the Trusted file.

Station locations are associated with your call sign certificate.

TQSL 2.0 (or newer releases)

Station Locations

Geographic information can include US
States counties, provinces, grid squares, CQ
and ITU zones, IOTA, etc.

TQSL 2.0 (or newer releases)

Station Locations

You can make as many station locations as needed to accommodate your operations.

This is great for grid or county activations.

TQSL 2.0 (or newer releases)

Recap

LoTW only accepts *Trusted files*.

TQSL is the software that creates Trusted files.

TQSL 2.0 (or newer releases)

Recap

The Call Sign Certificate request and acceptance must be performed from the same computer.

Geographic information is managed through *Station Locations*.

TQSL 2.0 (or newer releases)

Recap

TQSL configuration can be moved to a second computer using the *backup and restore* functions.

TQSL 2.0 (or newer releases)

The TQ 8 File

A TQ 8 file is a signed (encrypted) log file that gets uploaded to LoTW.

TQSL creates the TQ8 and uploads it to LoTW.

TQSL 2.0 (or newer releases)

The TQ 8 File

A TQ 8 file is similar to a QSL card.

TQSL 2.0 (or newer releases)

Let's look at a TQ8 file.

Your call sign and DXCC entity are embedded in your certificate.

TQSL 2.0 (or newer releases)

Let's look at a TQ8 file.

The QSO information is in your ADIF or Cabrillo log file.

- call sign of station worked
- date
- time
- band
- mode

GRANITE FALLS, MINNESOTA USA

N0IP

Todd Mitchell
1620 10ᵗʰ Avenue
Granite Falls, MN 56241

Yellow Medicine County
Grid Square: EN24ft

Confirming QSO with	Day	Month	Year	UTC	MHz	RST	Mode
AC2FA	3	SEP	2011	1421	14,042	559	CW

PSE QSL TNX QSL   TNK 90B! RIG HW-8, PWR 2 W INPUT, ANT
INVT V UP! HPE CUAGN. 73, Todd

TQSL 2.0 (or newer releases)

Let's look at a TQ8 file.

The geographic information is managed in your ***Station Locations.***

- •US State
- •County
- •Grid square
- •ITU and CQ Zones

TQSL 2.0 (or newer releases)

Let's Get Started